ACADEMY OF FINANCE

UNIVERSITY OF FINANCE - MARKETING

UNIVERSITY OF FINANCE AND ACCOUNTANCY

INSTITUTE OF FINANCIAL TRAINING

PROCEEDINGS OF THE 4TH INTERNATIONAL CONFERENCE ON FINANCE AND ACCOUNTING FOR THE PROMOTION OF SUSTAINABLE DEVELOPMENT IN PRIVATE SECTOR (FASPS-4)

FINANCE PUBLISHING HOUSE

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1	Academy of Finance	Host	Lead-organizer
2	University of Finance – Marketing	Co-host	Co-organizer
3	University of Finance and Accountancy	Co-host	Co-organizer
4	Institute of Financial Training	Co-host	Co-organizer

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7	MSc. Do Van Truong	President, Institute of Financial Training	Deputy Chairman
8	Assoc. Prof. Dr. Ngo Thanh Hoang	Director of Science Research Management Department, Academy of Finance	Commissioner

2. Organization Board

No.	Name	Title, Department	Responsibility
1	Assoc. Prof. Dr. Truong Thi Thuy	Vice President, Academy of Finance	Chairman
2	Assoc. Prof. Dr. Pham Tien Dat	President, University of Finance – Marketing	Deputy Chairman
3	MSc. Do Van Truong	President, Institute of Financial Training	Deputy Chairman
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41	Dr. Nguyen Van Thuan	Dean, Faculty of Taxation – Customs, University of Finance - Marketing	Commissioner
42	Dr. Nguyen Thanh Nha	Dean, Faculty of Appraisal – Real Estate Business, University of Finance - Marketing	Commissioner

ACADEMY OF FINANCE (AOF)

The Academy of Finance (AOF) is a public and research-oriented university, affiliated to the Ministry of Finance, Vietnam. The AOF was officially established under the Decision No 120/2001/ QD-TTg dated August 17th, 2001 of the Prime Minister by integrating the Hanoi University of Finance and Accounting (founded in 1963), the Finance Research Institution (founded in 1961) and the Financial Training Center (founded in 1995). The main campus of the Academy of Finance is located in Hanoi.

The mission of Academy of Finance is to provide expertise in research and training of professional finance and accounting to the society, the mission has been defined for our 55-year history with outstanding achievements and contributions branded by our lecturers, researchers and students. The AOF established self-evaluation council since 2006 according to regulations of MOET Vietnam. This council significantly helped improve the academic performance, and in April 2016, AOF was accredited by Center for Education Accreditation (CEA) – Association of Vietnam Universities and Colleges (AVUC). The accreditation result was published according to the Decision 10/QD-KDCLGD dated February 20th, 2017 of AVUC ranking AOF in top 5 best universities in Vietnam. The Academy of Finance offer a high quality of training and research through14 faculties: Fundamental Sciences, Political theories, Public Finance, Tax and Customs, Corporate Finance, Banking and Insurance, International Finance, Accounting, Business administration, economic Information. Languages, Economics, Master and Doctoral training, Part-time training, two centers: Center for Languages and Informatics Training, Information Technology Center, 2 research institutes: Institute for International Finance Education (IIFE) and Institute of Economics and Finance and 13 support divisions.

AOF offers a rich training programs included ordinary undergraduate/graduate programs spread in 06 academic majors: Finance and Banking, Accounting and Auditing, Business Administration, Management Information, Economic and Financial English, Economics. The AOF also offer to international and Vietnamese students with different choices partially/totally taught in English such as High Advanced Program or Dual Degree Programme (DDP - a Joint Training Progamme between the Academy of Finance (Institute of International Finance Education) and the University of Greenwich (UK). Throughout its history, AOF's qualified scientists and lecturers have been supporting more than 85,000 students including 5,000 masters and 300 doctors and additionally 500 international students for Laos and Cambodia in the last 55 years. Significantly, a large number of AOF's graduates are leaders of the Government, ministries, local authorities and businesses. The academy has also been recognized for conducting thousands of valuable research projects for the policy makers in economic development of the State. The rich tradition and custom makes AOF unique among the other universities and colleges in Vietnam and attracts thousands of learners to study at the academy annually.

The valuable contributions of AOF to the development of the State in training and doing research has been respected publicly, the academy has been recognized with national unique awards. Many AOF alumni are key people in the Government and Local Administrations. In the process of globalization and the advent of the Industry 4.0, the AOF Management Board sets out following major development directions:

- Intensively develop training and research performance, maximize the core values to adapt to the emerging demands of the intellectual economy and the Industry 4.0.
- Diversify training courses, renovate academic management measures, improve the professional capacity, and improve self-study spirit with creativity and experience.
- Improve the research capacity in the manner that harmonizes fundamental studies with applied studies. Actively and comprehensively integrate into regionalization and globalization process regarding training, capacity building and research activities.
- Conduct academic management reform in close relation with financial autonomy and social accountability, create a new academic environment with high openness, creativity and internationalism, continuously attract excellent staffs and scholars to work and do research at AOF.

Assoc. Prof. Dr. NGUYEN TRONG CO

NATIONAL TEACHER, PRESIDENT OF THE ACADEMY OF FINANCE

Assoc. Prof. Dr. Nguyen Trong Co is the President of the Academy of Finance. He has been working for the Academy of Finance since he was young and held different positions such as lecturer, Head of Financial Analysis Department, Deputy Head of Human Resources Department, and Vice President before being nominated the President of Academy of Finance in 2014.

He is the Editor of the Journal of Finance and Accounting Research and serves the Scientific Board of Finance Research Sector as Vice President and a member of Scientific Board of Banking Research Sector.

He was also nominated as honour member of FCPA Australia.

Assoc. Prof. Nguyen Trong Co is the author/ coauthor of more than 21 valuable text books and supplementary materials such as "Financial Analysis", Finance Publishing House, 2017, "Auditing management and usage of mineral resources for sustainable development in Viet Nam", Finance Publishing House, 2016 and etc.

He has researched actively with more than 20 research projects spread on different fields: corporate finance and public finance, and technological markets. In the Academy of Finance, he has published more than 70 articles in both local and international journals.

UNIVERSITY OF FINANCE – MARKETING (UFM)

University of Finance - Marketing (UFM) is a public higher education institution governed by the Ministry of Finance, having the right to autonomy and self-responsibility of a non-business unit. The forerunner of the University of Finance - Marketing is the Central School of Pricing Officers in the South, established under the Decision No. 210/VGNN-TCDT dated September 1, 1976 by the State Pricing Commission. It then became a Vocational School before turning into a college and then a university as it is today. UFM has undergone 45 years of establishment and development as a highly-ranked institution in the higher education system of Vietnam with a scale of nearly 20,000 students and 5 campuses in Ho Chi Minh City. UFM is traning students to become human resources that meet national and regional standards; it has also transferred scientific achievements in the field of business and management, and has participated in strategic and policy planning for the Finance sector, for businesses and for social organizations.

Through the development process, the faculty and staff of UFM have grown exponentially in quantity and quality. Currently, UFM is offering both undergraduate and postgraduate programs via various training modes full-time and part-time in 14 majors: Business Administration, Marketing, Real Estate, International Business, Finance – Banking, Restaurant and Catering Management, Hotel Management, Tourism and Travel Service Management, Management Information System, Accounting, Economics, Economic Law, Mathematics Economics and English Language. In addition to conducting mass regular programs, UFM has also implemented high-quality, special, international, and international cooperation programs. Over 45 years of establishment and development, UFM has been training and provide high-quality human resources for the society to meet the needs of national construction and development.

During the 2015-2021 period, UFM's staff has carried out 01 state-level research project, 24 ministerial/provincial level projects and 172 university-level projects. The number of projects at all levels implemented over the years has been gradually increasing in both quality and quantity. The number of articles written by the faculty is 1479. Among them, there are 1083 articles published in domestic journals, 221 articles in international journals on the Scopus/ISI list and 175 articles in international journals with ISSN indices. Furthermore, from 2017 until now, the University has organized annual international conferences, creating a forum for lecturers and researchers to exchange ideas, approach scientific issues, and new research methods domestically and internationally.

UFM's international cooperation has made great progress. The University has conducted cooperation programs for undergraduate and Master's students with Help University, UCSI University in Malaysia, Thompson Rivers University in Canada and also has implemented PhD programs in association with UCSI University, Malaysia. In addition to training cooperation, UFM has signed several cooperation agreements on student exchange and scientific research with various universities around the world.

University of Finance - Marketing has set development goals to become an application-oriented university by the end of 2026 while maintaining national standards at educational institution level and training program level with at least 4 programs that will meet the quality standards of the ASEAN University Network (AUN-QA). By the end of 2030, the University will reach the level of a state-of-the-art university in the ASEAN region., UFM is expected to be ranked among the top 500 prestigious universities in Asia (according to prestigious ranking standards) by the end of 2045 and will become the leading application-oriented educational institution in Vietnam and in the region of ASEAN.

Assoc. Prof. Dr. PHAM TIEN DAT

PRESIDENT OF UNIVERSITY OF FINANCE – MARKETING

Assoc. Prof. Dr. Pham Tien Dat is currently the President of University of Finance - Marketing. He used to hold the position of Deputy Director, in charge of the Institute of Financial Strategy and Policy, Ministry of Finance. In March 2021, he was transferred and appointed as Chairman of the Board of Directors. In November 2021, he was appointed as the President of University of Finance - Marketing and has occupied this position until the present time. Having extensive research and teaching experience in the field of finance and banking, Associate Professor Dr. Pham Tien Dat has published more than 40 domestic and international research papers, managed 5 ministerial- and provincial-level projects in Vietnam. He was also the chief Editor and participated in compiling 10 coursebooks.

UNIVERSITY OF FINANCE AND ACCOUNTANCY (UFA)

Belonging to the Ministry of Finance, University of Finance and Accountancy (UFA) is an undergraduate and postgraduate training institution. Its mission is training, fostering, providing learners with quality training programs with application orientation in the fields of business, administration and law; it also carries out scientific researches and transfers these scientific research results into practice; contributing to human resource and community development, serving the socio-economic development of the Central and Highlands provinces, the whole country and the Central provinces of Lao People's Democratic Republic in the context of global economy integration.

With the main campus in Quang Ngai province and a branch in Thua Thien Hue province, the training scale of the University is increasing day by day. In the field of undergraduate training, the University is specialized in Accounting, Auditing, Economic Law, Finance - Banking, Business Administration, International Business. In the field of postgraduate training, the University is specialized in Finance and Banking at Master level. Along with improving the quality of professional skills, the University devotes a great deal of effort in connecting with businesses to create jobs for graduate students; creating an environment for students to practice essential skills through yearly activities of the Youth Union, the Student's Association, professional academic competitions, clubs, etc. Many remarkable achievements have been obtained by UFA students in recent years: 02 "January Star" Awards, 01 Consolation Prize in the national final round of the contest "Students with Financial Management Skills 2019", 01 Third Prize and 01 Consolation Prize at the contest "Start-up Ideas" in Quang Ngai province, Top 20 "National Student Leader Contest", etc.

With a long history of over 46 years of construction and development (1976-2022), the University has trained and fostered nearly 61 thousand students with practical knowledge and skills sought by employers. Many students of the University have been affirming their contribution to the financial system in the Central and Central Highlands region as well as in Vietnam. The University has received a large number of noble awards from the Vietnamese State. This is the recognition of the social community for the quality and the University's brand with its identity: "Quality - Friendliness - Creativity - Integration".

Dr. PHAM SY HUNG

RECTOR OF THE UNIVERSITY OF FINANCE AND ACCOUNTANCY

Dr. Pham Sy Hung, the Rector of the University of Finance and Accountancy, has worked at the University of Finance and Accountancy since graduating in 1987. In the period 1987-1998, Dr. Pham Sy Hung played various roles as Teacher, Deputy Head of Training Management Department of the Junior College of Finance and Accountancy No.3.

During the period 1998-2008, Dr. Pham Sy Hung was the Deputy Head of the Training Management and Science Department of the College of Finance and Accountancy before being appointed as the Vice Rector of the College of Finance and Accountancy in 2008. When the College was upgraded to become the University of Finance and Accountancy in 2011, Dr. Pham Sy Hung was appointed as the Vice Rector. In 2018, he was appointed as the Rector of the University of Finance and Accountancy and has held that position until now. Currently, he is also the Deputy Editor of the Journal of Science of Finance and Accounting. He has participated in many research projects at all levels. He is the coauthor of some valuable textbooks and supplementary materials, he has published many articles of high scientific value.

INSTITUTE OF FINANCIAL TRAINING (IFT)

The Institute of Financial Training (IFT) under the Ministry of Finance was established by the Prime Minister in 2006. The Institute is not only responsible for training civil servants in accordance to professional standard, but also contributes to socio-economic solution. Hence, the school helps to develop and plan strategies and policies for the financial sector. The IFT has built a reputation for its intensive training programs, which are tied to the country's current economic and financial management practices, the application of information technology, and the trend of globalization. Training at IFT improve ones' knowledge, qualifications and skills in order to become managers and higher professional - level officials. They are equipped to serve up to high professional standards, to become experts in economics and finance, and lastly, to be professional, diligent, intelligent and flexible civil servants, who meet the requirements of the country's economic development in this period of industrialization, modernization and international economic integration.

On average, IFT has trained over 17,000 students in the financial sector with over 250 different classes annually. IFT is known as the largest and most prestigious institute in the country in terms of providing training, retraining, financial and accounting consulting services to the society.

Mr. DO VAN TRUONG, MSc

DIRECTOR OF INSTITUTE OF FINANCIAL TRAINING (IFT) – MINISTRY OF FINANCE

Mr. Do Van Truong is known as an enthusiastic leader in the field of training civil servants. Graduated with an Accounting degree from Hanoi University of Finance and Accounting (now Academy of Finance), he has years of managing experience in finance - accounting, banking, etc and has been promoted through many positions such as Financial Inspector, Secretary of Deputy Minister - Ministry of Finance, Deputy Chief of Office - Ministry of Finance. His colleagues praise him for his breakthroughs in digital transformation and application of information technology in training programs. He has launched many training programs in response to professional management needs in the finance sector. Director Do Van Truong has the motto, which is “training must always be tied to the current needs and practice of financial management.”

Professor ROBERT DURAND

PROFESSOR OF FINANCE, SCHOOL OF ACCOUNTING, ECONOMICS AND FINANCE, FACULTY OF BUSINESS AND LAW, CURTIN UNIVERSITY, AUSTRALIA

Robert Durand was appointed as Professor of Finance at Curtin University in 2011. Robert's work focuses on empirical work investigating asset pricing models and behavioural finance.

Asset pricing models are central to understanding firms' cost of capital. Robert's work in this work on Australian data features amongst the most heavily cited work in this area.

Robert's work on Behavioural Finance, which utilizes psychology to model the behaviour of financial markets, has attracted international attention. For example, his work features amongst the most read and most cited articles published in the Journal of Behavioral Finance. He has published over fifty articles in scholarly journals.

Robert holds a BA (Hons.) from the University of Sydney, an MBA from the University of Edinburgh and a PhD from Murdoch University.

Dr. HAFIZ MUHAMMAD ALI

ASSISTANT PROFESSOR OF FINANCE, UCSI UNIVERSITY, MALAYSIA

Dr. Hafiz Muhammad Ali is currently associated with UCSI University Kuala Lumpur in Graduate Business School. Before coming to UCSI University, he was working with Ziauddin University as Associate Professor of Finance, the Institute of Business Management (IoBM) as Assistant Professor of Finance in the Department of Accounting & Finance. He also worked with Iqra University as Assistant Professor/ Deputy Director Academics. Dr. Ali also worked for the banking sector which includes, MCB bank Ltd. and BankIslamic Pakistan Ltd. Dr. Ali received his BSc. Degree from the University of Karachi (UoK). He earned his MBA from IQRA University in finance. He completed his Ph.D. degree from Universiti Malaysia Sarawak (UNIMAS). His doctoral thesis was based on banking sector stability and performance.

Muhammad Ali's teaching interests include business mathematics, business statistic, quantitative analysis, business finance, behavioral finance, finance for managers, corporate finance, Islamic banking and writing research projects. Dr. Ali has supervised many undergraduate and graduate-level students. His primary research interest is in the field of financial econometrics, Corporate finance, Financial Inclusion, Fintech, behavioral finance, and Islamic banking. He has a good command of primary and secondary datasets along with the handling of various statistical tools such as E-views, STATA, Smart PLS and SPSS.

Dr. Ali has published several research articles in Islamic banking, customer adoption, mobile banking, banking stability, banking performance, Islamic financial products, human capital and financial development in quality peered review and impact factor journals. He has presented several research articles at international conferences and organized many international conferences and workshop programs. Dr. Ali is a guest editor of Energy Efficiency Journal (Impact factor 1.81) published by Springer Publisher on a theme of A Sustainable Financial Inclusion for Transition to Low Carbon Energy Sources: Global Perspective; Guest editor International Journal of Social Economics (Emerald, ABDC, ESCI and Scopus) for Financial Inclusion and Social Development; Guest editor International Journal of Educational Management for Micro-credential as a digital enabler for higher education ecosystems. He is also editor of two Emerald books

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INTRODUCTION REMARKS

THE 4TH INTERNATIONAL CONFERENCE FINANCE AND ACCOUNTING FOR THE PROMOTION OF SUSTAINABLE DEVELOPMENT IN THE PRIVATE SECTOR (FASPS-4)

After more than 4 years of implementing Resolution No. 10-NQ/TW of the 5th Plenum of 12th Party Central Committee on developing the private economic sector toward an important driving force of the socialist-oriented market economy (since 2017), Vietnam's private economic sector has experienced strong growth in terms of quality, quantity and scale, continuing to be the main driving force in Vietnam's economic growth. In particular, the role and position of the private sector is increasingly affirmed and clearly demonstrated through its contribution to socio-economic development…Particularly, the private economic sector has contributed to the realization of the industrialization and modernization goal, changing the face of the country, making an impression, and enhancing Vietnam's prestige and position in international arena; forming many regional and international competitive brands. The 13th National Party Congress affirmed that strongly developing the private economic sector in terms of quantity, quality and efficiency "really becomes an important driving force in economic growth", while continue to set requirements to improve mechanisms and policies to encourage and facilitate the development of the private economy in most economic sectors and fields, encourage the establishment of multi-owned private economic groups; perfect legal system, mechanisms and policies so that private enterprises can have equal access to all opportunities and resources, especially capital, land and natural resources, etc. contributing to building an independent and self-reliant economy with high resilience. In addition, the 10-year socio-economic development strategy 2021-2030 clearly states as follows: rapidly and harmoniously develop economic sectors as well as types of enterprises; developing the private sector is indeed an important driving force of the economy. Accordingly, strongly developing Vietnam's private economic sector in terms of quantity, quality, efficiency and sustainability, really becomes an important driving force in economic growth. Remove all barriers and prejudices and create favorable conditions for the development of the private sector. Support the private sector to innovate, modernize technology and develop human resources, improve labor productivity. Encourage the establishment and development of large private groups with great potential and regional and global competitiveness. Striving to 2030, there will be at least 2 million private enterprises contributing to 60-65% GDP. Important strides will be made in awareness on the position and role of the private economy, becoming more and more positive.

Despite many achievements, in general, the private sector still has some shortcomings and limitations. There are many shortcomings and lacks of synchronization in mechanisms and policies to encourage the development of the private sector. The private sector which are of small scale, mainly household, has not met its role as an important driving force of the economy. Technology, management ability, financial capacity, product quality and competitiveness are still limited. The industry structure is still unreasonable and lacks linkages with each other and with other economic sectors.

Capacity for international economic integration is still limited, not meeting the requirements of participating in regional and global production value chains. Violations of law and unfair competition are still quite common. Private sector's right of business freedom and property rights, access to business opportunities and social resources are not really equal compared to those of other economic sectors, etc. Be fully aware of the viewpoint of the 13th Party Congress on developing the private sector, and at the same time create practical conditions for the private sector to develop toward the socialist-oriented market economy, making greater contributions to socio-economic development, strengthening national security and defense in Vietnam, it is necessary to well implement some basic and appropriate solutions in the coming period.

In order to promote the private sector to develop rapidly and sustainably in the new context, Academy of Finance cooperates with University of Finance - Marketing, University of Finance and Accountancy, Institute of Financial Training to organize the 4th International Conference with the theme: *"Finance and Accounting for the Promotion of Sustainable Development in the Private Sector"*. The conference has attracted the participation of many scientists from Universities, Academies and Institutes inside and outside the country. The Organizing Committee received more than 150 papers and selected, edited 122 high-quality papers to publish in the Proceedings of the International Conference. The papers submitted to the conference focused on analyzing, evaluating, and assessing economics, finance, administration, human resources, accounting and auditing, etc. in relation with the development of the private sector. The research papers are of high scientific content, demonstrating the diversity in approaches to rapid and sustainable development of the private sector. With the desire that the Conference would be really the bridge so that domestic and international scientists, managers, business administrators and professional organizations could exchange, share information, and orientate the economics and finance - accounting for the promotion of rapid and sustainable development in the private sector.

Wish you all delegates and scientists health, happiness and success!

Thank you very much!

CONFERENCE ORGANIZING COMMITTEE

CAN WE MAKE GOOD FINANCIAL DECISIONS? THE ANSWER IS PROBABLY "NO"

Robert B. Durand[1]

Abstract: *The prices and returns we see in financial markets are noisy (inaccurate) inputs into our decision making. Bad inputs can only lead to good outputs, such as the financial decisions we make, through good luck. Behavioral Finance helps us explain why this might be so. The behavior documented by Behavioral Finance is a function of our biology. This paper illustrates the role of biology in Behavioral Finance using examples of the way personality traits affect financial decisions and prices. As personality traits are a function of our underlying biology, there appears little we can do to change our personalities and the decision making that our personality traits seem to drive us towards.*

Keywords: *Market Efficiency, Behavioral Finance, Biology of Finance, Personality Traits.*

JEL Classifications: G41, G11, G14

This paper was presented in the keynote address at the 4th International Conference on "Finance and Accounting for the Promotion of Sustainable Development in Private Sector" (FASPS-4) held in Ho Chi Minh City on November 11th, 2022. I would like to express my thanks to the Organizing Committee for their kind invitation to present the ideas in this paper and their generous hospitality during my stay in Vietnam. In addition, I am especially grateful to Mr. Ha Tuan Vinh; he has been a patient guide and supporter who provided invaluable help, advice on the price of rice and lobster, and support in getting me to the conference and to Vietnam. The views in this paper, and any errors, are my own.

Price is a key input into the financial decisions we make. Our resources are not infinite and we must make choices. One reason we eat more rice than lobster is simply because rice is cheaper (Figure 1). If lobster were cheaper, we might eat more of it than we do now.

5,000 VND

100,000 – 150,000 VND

Figure 1. Rice and Lobster Prices, October 2022

[1] Robert Durand is the Professor of Finance at Curtin University, Perth, Western Australia.

This paper is about prices in financial markets and changes in those prices, that is, returns.[2] I consider if prices are a good signal of the underlying value of a security. I also consider if returns are a good signal of changes in the true value of a security's worth.[3] It can be argued that this question is meaningless, if not foolish (Fama, 1971, 1990). People, and there are many, argue that the price is always right because prices discount (incorporate) all that the market knows and expects. Prices change due to *unexpected* information becoming known and incorporated into prices through trading. Indeed, this view is the standard, and remarkably successful, framework of modern finance.

After considering prices and returns, and arguing that there is evidence that they are *not* good inputs into financial decision making,[4] I then turn to why prices and returns might be wrong and look to Behavioral Finance for answers. I argue that the behaviors analyzed using Behavioral Finance have a biological basis and that this, perhaps, makes good inputs to our decisions, and good decisions, difficult, if not impossible. Yes, we do well. However, doing better may be beyond our capabilities.

Let us begin by considering prices. One example of how quickly and accurately information is incorporated in prices is provided in Maloney and Mulherin (2003); this analysis supports the standard framework of Finance. They consider how the market responded to the Challenger disaster on January 28th, 1986, where the space shuttle (Challenger) exploded soon after take-off. It was 11.39am and the markets were open. Within minutes, four companies that were potentially associated with the disaster – Lockheed, Martin Marietta, Rockwell and Morton-Thiockol – fell. Morton-Thiockol, the company that made the part that was found to be faulty,[5] fell the most. In the language of modern finance, information, and beliefs, about the cause of the disaster were efficiently discounted into the prices of companies which might have had some association with the event. The well-funded and distinguished Rogers Commission took, by comparison, five months to present its conclusions.[6]

If prices are always right, we have correct inputs into our financial decisions.

There is an alternative view of prices in financial markets. Figure 2 is a copy of Figure 2 from the Economic Sciences Prize Committee's scientific background paper on the 2013 Sveriges Riksbank prize in economic sciences in memory of Alfred Nobel.[7] Robert Shiller, 2013 Nobel Laureate, compared two detrended price series: p^*, the prices that should have been observed if, albeit with perfect hindsight, investors used a very simple valuation model,[8] and p, the prices that were

[2] Strictly speaking, when we calculate the return of a security over a period, we also must account for dividends and other changes such as rights issues.

[3] Thus far I have spoken about the prices and returns we can observe; current prices and returns and past prices and returns. Matters become a little more complex in financial decision making as we need to consider expected prices and returns.

[4] Keen readers may notice that I am clearly uncomfortable with the standard framework of modern Finance.

[5] See https://en.wikipedia.org/wiki/Thiokol .

[6] See https://en.wikipedia.org/wiki/Rogers_Commission_Report . The report, however, presented a wide range of findings and recommendations.

[7] https://www.nobelprize.org/uploads/2013/10/advanced-economicsciences2013.pdf

[8] Even a simple model such as this will have to deal with Fama's (1971, 1990) joint hypothesis critique. Nonetheless, I choose this as a very simple example in what is now a long line of literature showing persistent mispricing. See, for example, Froot and Deborah (1999), a paper where the arbitrage opportunities due to mispricing are large and persistent.

observed. The price series are seldom close. Observed prices are seemingly far too volatile. In this analysis, the price is almost always *wrong*.[9] Another Nobel Prize winner, Joseph Stiglitz, gives us a very useful way of thinking about bubbles (an often used, but little understood, word in financial markets and the press). For him, bubbles are episodes where the observed price, p, does not equal the theoretical price, p^*. If we apply Stiglitz' view to Shiller's analysis, it would appear that bubbles may be the rule rather than the exception.

If prices are *wrong*, we have *incorrect* inputs into our financial decisions.

Figure 2.

This is Figure 2 from the Scientific Background on the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel 2013, Understanding Asset Prices, compiled by the Economic Sciences Prize Committee of the Royal Swedish Academy of Sciences.

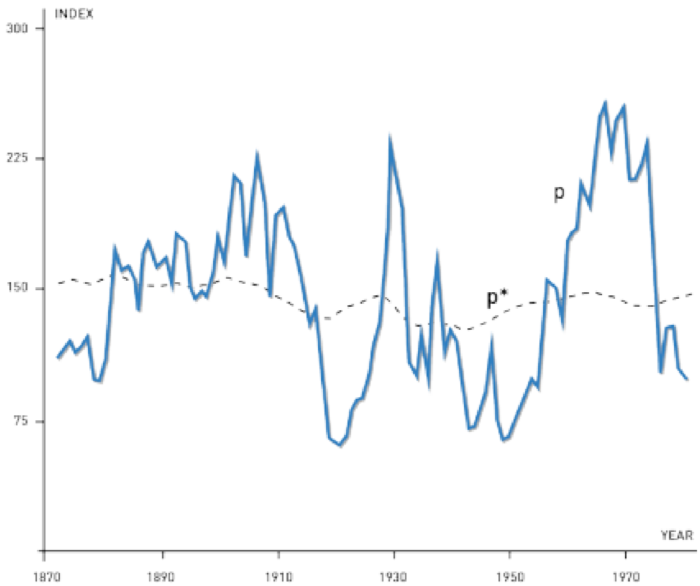

Figure 2: Real Standard and Poor's Composite Stock Price Index (solid line p) and *ex post* rational price (dotted line p^*), 1871–1979, both detrended by dividing a long-run exponential growth factor. The variable p^* is the present value of actual subsequent real detrended dividends, subject to an assumption about the present value in 1979 of dividends thereafter.

Shiller's analysis poses a considerable challenge to academics and practitioners. If prices are wrong, why? And, perhaps more importantly, is there anything we can do to recognize these errors to make better decisions. These questions have been a central concern to those of us who work in Behavioral Finance, where we use theories and findings from Psychology to help us understand what we observe in financial markets.

[9] Shiller (1989) presents a body of work which I recommend for those exploring these ideas.

What we learnt and probably teach

1. Investors are rational.
2. Individuals can make mistakes.
   These mistakes are not systematic.
3. Arbitragers exploit mistakes.
4. Markets are efficient.
   Prices reflect all information
   (Fama, 1970)
   except, perhaps, private information
   (Grossman and Stiglitz, 1980)

Behavioral Finance

1. Investors are quasi-rational.
   Heuristics
   Frame dependence
   Misperceptions (e.g., overconfidence)
2. Investors make mistakes.
3. These mistakes are systematic.
4. Arbitrage fails
   (Shleifer and Vishny, 1997).
5. Markets are inefficient!
   $p^* \neq p$

Figure 3. Comparing Traditional and Behavioral Finance

Figure 3 tries to characterize traditional (standard) Finance and Behavioral Finance. Perhaps the summary is unkind to both views of the world, but it does serve a purpose. Traditional Finance, in the left column, is comfortable with the notion that people make mistakes in financial markets. However, other people take advantage of these mistakes (arbitragers) and exploit them until prices reach their correct level. In contrast, Behavioral Finance takes a very different view of investors' mistakes. Behavioral Finance recognizes that we are all people and often behave in similar ways in similar circumstances.[10] This behavior might not be for the best, but it is still rational in that it is based on consistent rules.[11] If most, if not all, investors act in this way, arbitragers have little hope of trading against this tide to correct prices and, consequently, prices are not what they should be: thus, arbitrage fails (Shleifer & Vishny, 1997).

Behavioral Finance can now document many instances of *prima facie* mispricing and quasi-rational investor behavior leading to sub-optimal outcomes (Nofsinger, 2018).[12] However, one serious issue with Behavioral Finance as it is currently presented is that it lacks an overarching model. We are presented with a range of behaviors, which are used to model a range of financial phenomena and investor behaviors but there is no overarching theory for these analyses. Behavioral Finance texts are not unlike a shopping list. The order of ideas often seems arbitrary; there is no narrative developing ideas from first principles to more advanced concepts. Indeed, it sometimes seems that researchers choose explanations arbitrarily, often ignoring competing behavioral explanations (Gorman, Akhtar, Durand and Gould, 2022, illustrate this problem). Recently, the field has looked to the biological basis of behavior and, in doing so, has begun to present a coherent story based on genetics, neuroscience and biochemistry. Nofsinger and Shank (2022) recognize this in what, I believe, will become the standard reference in this area for some time to come.

[10] My explanation and discussion in this paragraph owes much to Shefrin (1999).

[11] Behavioral Finance has also been referred to Quasi-Rational Finance although, unfortunately, this alternative name has fallen out of fashion.

[12] Nofsinger (2018) remains the standard text and, for me, is the introduction to Behavioral Finance that I always recommend. Readers interested in details of how behavior influences prices would do well to consult this book. Sadly, I do not have the time to expound on this further within the constraints of this article and take this matter as given. However, I do recognize that there are many in Finance who would argue against this.

Behavioral Finance, however, also argues that investors can learn to overcome their biases to make better decisions. "Many biases have been discussed in this book. This section discusses strategies for overcoming psychological biases…Successful investing is more than just knowing all about stocks. Indeed, understanding yourself is equally important. Knowledgeable investors frequently fail because they allow their psychological biases to control their decisions." (Nofsinger, 2018,171-175). This view treats investors as something like a computer that can, with sufficient effort, be reprogrammed to do something differently and better.

The biology of Finance, however, suggests that it is the hardware, not the software, that is problematic. Our cultural and economic development has outpaced our evolutionary development. Evolution has not caught up with the financial revolution. We can talk about hormones, genes and the impact of disorders such as psychopathy (Shank, Durand, Dupoyet and Patterson, 2021).[13] However, I will use investor personality traits to illustrate the role of biology in Finance (Nofsinger and Shank, 2020, present an overview in Chapter 11).

Fung and Durand (2014) present a summary of personality traits and finance as it stood at the beginning of this line of inquiry. Fung and Durand focus on the Five-Factor Model of personality traits (McRae, 2009), the dominant paradigm in personality research. The five factors are Extraversion, Neuroticism (Negative Emotion), Conscientiousness, Agreeableness and Openness to Experience (Intellect). "Extraversion is related to the dopamine pathways in the brain, the meso-limbic pathways, which govern "approach" behavior such as attention, motivation, pursuit, positive emotions, and sensitivity to rewards... Evidence shows that dopamine plays a role in "approach" behaviors towards achieving goals, positive incentives, and… Extraversion could be associated with risk-taking behavior due to the influence of dopamine on sensation seeking and attaining rewards/gains by taking risks… Neuroticism is associated with brain activities related to withdrawal behavior, risk aversion, and negative affect. It is also associated with higher activation of the right frontal lobe relative to the left. The right hemisphere is related to emotions connected to withdrawal whereas the left hemisphere is related to approach behavior… Evidence shows insula activation to be positively related to Neuroticism and risk-averse decision-making…Neuroticism is associated with bloodstream hormone and neurotransmitter release. Lower functioning of the neurotransmitter serotonin is related to the vulnerability to negative emotion… Agreeableness, such as altruism and empathy, are related to brain systems involved in social information processing… Conscientiousness appears to reflect an individual's motivational stability, ability to make and carry out plans in an organized and industrious manner, and capability to delay immediate gratification in favor of long-term goals… Evidence shows that Conscientiousness is associated with serotonin, which is involved in control and restraint…Conscientiousness could also be associated with glucose metabolism. Individuals whose metabolism provides their brains with an ample supply of glucose (an energy source) are likely to be higher in Conscientiousness because acts of self-control are energy consuming, particularly in the prefrontal cortex… Openness [to Experience] is positively correlated with performance in working memory and cognitive control…" (Fung and Durand, 2014, 102-103). Personality traits are remarkably stable throughout our lifetimes. Given

[13] Shank et al. (2021) describe psychopathy as an abnormal personality trait rather than a disorder. I am comfortable with both descriptions.

its biological basis, our personality traits seem difficult to change (although they may change with age as our biology changes). To the extent that our personalities influence our decisions, those decisions also seem difficult, if not impossible, to change.

Durand, Newby, Tant, and Treepongkaruna (2013) present a meta-analysis of Durand, Newby and Sanghani (2008), Durand, Newby, Peggs and Siekierka (2013) and Durand, Newby, Tant, and Treepongkaruna (2013) and find that thirty-four behavioral biases are associated with personality traits. Extraversion and Neuroticism (Negative Emotion) are found to be the most important traits in financial decision making.[14]

Durand, Fung and Limkriangkrai (2019) examine personality traits and myopic loss aversion. Myopic loss aversion argues that our propensity to exhibit asymmetric responses to gains and losses (Kahneman & Tversky, 1979) becomes greater when we make decisions more frequently. They show that two personality traits – Extraversion and Neuroticism – explain the variation in people's susceptibility to myopic loss aversion. Neuroticism has a positive association with myopic loss aversion; Extraversion has a negative association. Interestingly, while it is commonly believed that women have a different association to expected risk than men, this difference disappears when we control for personality traits. In this paper, we see confirmatory evidence that personality traits are associated with an important feature of decision making in financial markets.

Durand, Newby, Tant, and Treepongkaruna (2013) study overconfidence (Glaser & Weber, 2010)[15] and overreaction (a concept discussed in Gorman et al, 2022), two very important concepts in Behavioral Finance, in an experimental foreign exchange market. Again, Extraversion and Neuroticism feature in the models they present for overconfidence. They also find a role for Conscientiousness. In addition to capturing important aspects of investor behavior, they also present evidence that this behavior is associated with price changes: overreaction drives prices away from their fundamental values.

Oehler, Wedlich, Wendt and Horn (2021) examine bubbles (which I have discussed above) using a very well-known experimental framework.[16] They find that bubbles, that is, instances where observed prices differ from the theoretical price, are driven by participants with higher observed Extraversion. This is an important finding as it provides an insight into how a class of investors, that is, those with greater Extraversion, may move the market.

Durand et al (2019), Durand, Newby, Tant, and Treepongkaruna (2013) and Oehler et al (2021) present an interesting sequence of evidence about the role of personality traits in financial markets. Remember that personality traits are a function of human biology. Durand et al (2019) show that

[14] That is, they are found to have the most statistically significant associations with the thirty-four behavioral phenomena studied in these three papers.

[15] Overconfidence involves individual misunderstanding themselves and their world (which, for the purposes of this paper, consists of financial markets). Durand, Limkriangkrai and Fung (2014, pp. 180-181) provide a useful background to the psychology of overconfidence.

[16] Porter and Smith (2003) provide an excellent summary of this methodology as applied to aspects of financial markets. An important aspect of this methodology is that expected prices are known; bubbles represent deviations from this expected path. As the prices are known, it would appear that this approach avoids the joint hypothesis critique (Fama, 1970, 1991).

personality traits are associated with individual investor behavior (myopic loss aversion, an aspect of Prospect Theory). In addition to providing further evidence that investor behavior is associated with financial decisions, Durand, Newby, Tant, and Treepongkaruna (2013) show that personality traits are associated with behavior, overreaction, that is a regularly observed feature of financial markets (Glaser & Weber, 2010; Gorman et al, 2022). Oehler et al (2021) associate personality traits with bubbles which, as we have seen above (Figure 2 and the associated discussion), are a pervasive feature of financial markets. As personality traits are a function of our underlying biology, there appears little we can do to change our personalities and the decision making that our personality traits seem to drive us towards.

Therefore, the prices and returns we see are potentially noisy (inaccurate) inputs into our decision making. Bad inputs can only lead to good outputs through good luck. Prices and returns are noisy because of the influences that continue to be documented by Behavioral Finance. Our behavior is driven by our biology and there is little we can do to change that. This paper has focussed on personality traits to illustrate this point. There are, however, a range of biological factors that have been used to model investor behavior and prices in financial markets (Nofsinger & Shank, 2020).

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Section 1

FINANCE

ANALYZING FINANCIAL STATEMENTS OF RETAIL ENTERPRISES LISTED ON VIETNAM'S STOCK MARKET

Assoc. Prof. PhD Nguyen Trong Co[1]

Abstract: *Today, retail is an industry that attracts both domestic and foreign investors on a large scale. With advantages in population structure, progressing development, high GDP growth, and a stable inflation rate, Vietnam is considered a favorable market for investors entering the retail industry. Through the financial statement analyses of listed retail companies, investors can get a better grasp of the overall picture of these companies' financial status. As a result, proper advice for enterprises' business processes and activities is made.*

Keyword: *Financial statement analysis, enterprise, business.*

1. RATIONALE OF THE STUDY

The retail industry provides appealing investment opportunities for domestic and foreign investors, both in terms of business investment and finance. Businesses in the Vietnamese retail industry benefit from many factors, including: (1) population structure; (2) progressing development; (3) GDP growth at a high pace; and (4) stable inflation rate. These elements have contributed to the rapid rise of Vietnam's retail industry.

Investing in the retail market is an investment in the country's economic future. When the growth rate of the industry is always substantially higher than the GDP growth rate of the entire country, ranging from double to one and a half times, it accounts for a large proportion of the total GDP. Vietnam is a potential consumer market for goods from all around the world. Today's Vietnamese retail enterprises tend to integrate internationally, as reflected in the maximum value of foreign ownership.

The retail market currently has both domestic and foreign capital sources. These two types of business work together to create a perfect combination for collective development. Each business has its own strengths. Local companies have advantages in terms of local consumer tastes, licensing, and legality. Meanwhile, capital, technique and technology are strong points of foreign enterprises.

However, there are still some risks to consider, including the risk that macroeconomic factors (interest rates, currency rates, inflation) can change and effect production costs and the market's consumption capacity; and the risks associated with online shopping trends. With our country's existing population structure, there are numerous factors that can push the retail industry to grow by more than 20% annually over the next 5-10 years. Nonetheless, the consumer concern about both quality and price, which is the most significant hurdle today, is still making it difficult for e-commerce to penetrate the Vietnamese market. In addition, there is also the threat of a Covid-19 pandemic: the widespread disease' has forced customers to tighten their belts and made several retail chains closed for an extended period of time. This has a direct impact on the revenue, profit, and business performance of retail enterprises.

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2. THE CURRENT SITUATION OF LISTED RETAIL COMPANIES' FINANCIAL STATEMENT ANALYSIS IN VIETNAM

Asset structure

To learn about the asset structure of retail companies listed on the Vietnamese stock market, the author studies the asset structure of typical companies in 3 groups of companies categorized based on the size of their market capitalization.

- For the large-cap group, the author chooses to analyze the asset mix of Viglacera Corporation – JSC (VGC).

From the consolidated balance sheet of Viglacera Corporation – JSC (VGC), the author has summarized the analysis results according to the table below:

Table 1. Asset structure analysis of Viglacera Corporation – JSC (VGC)

Targets	VGC						
	End of the years				End of 2020 vs. end of 2019		
	2019		2020				
	Amount (million VND)	Propo-rtion (%)	Amount (million VND)	Propo-rtion (%)	Amount (million VND)	Ratio (%)	Propo-rtion (%)
A – CURRENT ASSETS	**7.580.602,3**	38,28	**6.816.049,2**	31,97	**-764.553,1**	-10,09	-6,31
I. Cash and cash equivalents	2.710.172,1	13,69	1.950.330,3	9,15	-759.841,8	-28,04	-4,54
II. Short-term investments	90.396,0	0,46	80.875,5	0,38	-9.520,5	-10,53	-0,08
III. Current receivables	1.147.539,6	5,79	1.011.612,9	4,74	-135.926,7	-11,85	-1,05
IV. Inventories	3.359.514,3	16,96	3.415.167,5	16,02	55.653,2	1,66	-0,95
V. Other current assets	272.980,3	1,38	358.063,0	1,68	85.082,7	31,17	0,30
B- LONG-TERM ASSETS	**12.222.321,5**	61,72	**14.507.190,7**	68,03	**2.284.869,2**	18,69	6,31
I. Long-term receivables	245.391,0	1,24	228.705,2	1,07	-16.685,8	-6,80	-0,17
II. Fixed assets	3.992.672,8	20,16	3.799.021,7	17,82	-193.651,1	-4,85	-2,35
III. Investment properties	4.800.454,9	24,24	5.479.474,9	25,70	679.020,0	14,14	1,46
III. Long-term assets in progress	2.067.138,0	10,44	3.916.084,7	18,37	1.848.946,7	89,44	7,93
IV. Long-term investments	791.985,8	4,00	820.201,2	3,85	28.215,4	3,56	-0,15
V. Other long-term assets	324.679,0	1,64	263.703,0	1,24	60.976,0	-18,78	-0,40
TOTAL ASSETS	**19.802.923,8**	100,00	**21.323.239,9**	100,00	**1.520.316,1**	7,68	0,00

Source: Author synthesizes and calculates on the basis of financial statements of Viglacera Corporation – JSC, 2020)

According to Table 1, the scale of total assets of Viglacera Corporation – JSC has gradually increased over the years. Total assets in 2019 reached over 19,802 trillion VND, and in 2020, they increased sharply by more than 1,520 trillion VND compared to 2019 to reach 21,323 trillion VND. The total assets went up due to a stronger increase in long-term assets as opposed to a decrease in short-term assets. Long-term assets increased from more than 12,222 trillion VND in 2019 to more than 14,507 trillion VND, which is equivalent to an increase of 2,284 trillion VND and an increased rate of 18.69%. The short-term assets decreased because the Company was affected by the Covid-19 pandemic in 2020, and the production and business activities of the Corporation also faced many difficulties and challenges. But the Corporation has taken the initiative, grasped the situation, and identified specific operating solutions in 2 core areas of operation: the field of materials and the field of real estate investment business.

Of the total assets, the proportion of long-term assets is more than twice as large as that of short-term assets. Because the Company focuses on real estate, along with the total area of the infrastructure of industrial zones for rent, social housing projects, and worker housing,... In 2019, short-term assets accounted for 38.28% of total assets, long-term assets accounted for 61.72%. In which, investment properties accounted for more than 24.24% in 2019 and 25.70% in 2020, respectively. For long-term assets in progress, it was 10.44% in 2019 and increased to 18.37% in 2020.

The proportions of different types of assets in the total assets did not have large fluctuations over time. The item which had the most significant change in weight was Long-term assets in progress. The reason was that the company continued to invest in synchronous infrastructure, power supply, water supply and increase the efficiency of exploiting the existing land fund. Moreover, key social housing projects, worker housing, etc. were still invested and traded.

In short-term assets, Inventories item accounted for a large proportion. In 2019, it took up for 16,96% and 16,02% but in 2020, due to the impact of the Covid-19 epidemic, this item witnessed a significant decrease in consumption.

- For the middle market capitalization group, the asset structure of Vexilla Vienam Group Joint Stock Company (SVN) was chosen to analyze.

From the Consolidated Balance Sheet of Vexilla Vietnam Group Joint Stock Company (SVN), the analysis results were summarized according to the table below.

Table 2. Asset structure analysis of Vexilla Vietnam Group Joint Stock Company (SVN)

Items	SVN						
	End of the years				End of 2020 compared to the end of 2019		
	2019		2020				
	Amount of money (million VND)	Propor-tion (%)	Amount of money (million VND)	Propor-tion (%)	Amount of money (million)	Ratio (%)	Propor-tion (%)
A - SHORT-TERM ASSETS	**90.985,6**	40,76	**30.077,1**	12,85	-60.908,5	-66,94	-27,92
I. Cash and cash equivalents	866,1	0,39	2.077,6	0,89	1.211,5	139,88	0,50
III. Short-term trade receivables	79.208,6	35,49	27.253,2	11,64	-51.955,4	-65,59	-23,85
IV. Inventories	10.661,5	4,78	642,9	0,27	-10.018,6	-93,97	-4,50
V. Other short-term assets	249,4	0,11	103,4	0,04	-146,0	-58,54	-0,07
B- LONG-TERM ASSETS	**132.228,9**	59,24	**204.071,9**	87,15	71.843,0	54,33	27,92
I. Long-term trade receivables	308,8	0,14	237,3	0,10	-71,5	-23,15	-0,04
V. Long-term financial investment	130.288,5	58,37	203.150,0	86,76	72.861,5	55,92	28,39
VI. Other long-term assets	1.631,6	0,73	684,6	0,29	-947,0	-58,04	-0,44
TOTAL ASSETS	**223.214,5**	100,00	**234.149,0**	100,00	**10.934,5**	4,90	0,00

Source: Author synthesizes and calculates on the basis of financial statements of Vexilla Vietnam Group Joint Stock Company, 2020)

As can be seen in Table 2, the scale of total assets of Vexilla Vietnam Group Joint Stock Company has increased gradually over the years. Total assets in 2019 reached more than 223 billion VND and rose slightly by 10,934 billion VND, reaching 234 billion VND in 2020. The increase of total assets was due to a higher increase in long-term assets than the decrease in short-term assets. Short-term assets witnessed a decrease from 90,985 billion VND in 2019 to 30,077 billion VND in 2020, equivalent to a decline of 60,908 billion VND, making up for 66,94% in 2019. In contrast, there was a climb of the company's long-term assets from 132,228 billion VND in 2019 to 204,071 billion VND in 2020, equivalent to an increase of 71,843 billion VND with a growth rate of 54,33%.

Of the total assets, long-term assets in the last two years always had a large proportion and increased progressively over the years. In 2019, long-term assets accounted for 59,24% of total assets; whereas, this figure went up sharply by 27,92%, climbing to 87,15% due to an increase in financial investment of more than 72,861 billion VND.

The proportions of different types of assets in the total number of assets do not have much fluctuations over time. Only 2 types having the largest fluctuations in 2020 compared to 2019 were Short-term trad receivables (which was down by 23.85% and Long-term financial investments (which was increasing by 28.39%). This increase is due to the investment in the project "combination of hotels and tourism services". The Company shows its belief in profitability from project investment, so in 2020, the Company has recovered the investment capital from previous contracts.

In short-term assets, short-term trade receivables account for the largest proportion. In 2020, a large proportion of short-term trade receivables accounted for 11.64% of total assets. Compared to the year 2019, the short-term trade receivables of SVN Company has reduced 23.85% correspondent with 51,955 billion VND. In the short-term trade receivables, accounts receivable from customers are the major parts. The reduction of the value and the proportion of short-term trade receivables has a positive effect the Company's financial performance.

The cash and cash equivalents of SVN company only accounts for a very small percentage of the total assets. In 2020, cash and cash equivalent the company accounted for only 0.89% of total assets, which is a negligible 0.5% increase compared to that of 2019.

- For the low-market capitalization group, the author chose to analyze the assets structure VICEM Cement Trade Joint Stock Company (TMX).

From the Balance sheet of VICEM Cement Trade Joint Stock Company (TMX), author has summed up analysis results according to Table as follow:

Table 3. Asset structure analysis of VICEM Cement Trade Joint Stock Company (TMX)

Expenditure	TMX						
	End of the year				End of 2020 compared to the end of 2019		
	2019		2020				
	Value (million VND)	Per-centage (%)	Value (million VND)	Per-centage (%)	Value (million VND)	Ratio (%)	Per-centage (%)
A–SHORT-TERM ASSETS	**164.160,6**	98,17	**149.343,2**	98,30	-14.817,4	-9,03	0,13
I. cash and cash equivalents	67.583,3	40,41	30.088,4	19,80	-37.494,9	-55,48	-20,61
II. Short-term financial investment	60.000,0	35,88	90.000	59,24	30.000,0	50,00	23,36
III. short-term trade receivables	28.242,3	16,89	22.811,9	15,01	-5.430,4	-19,23	-1,87
IV. Inventory	3.776,8	2,26	4.566,1	3,01	789,3	20,90	0,75
V. Other short-term assets	4.558,2	2,73	1.876,8	1,24	-2.681,4	-58,83	-1,49
B-LONG-TERM ASSETS	**3.063,4**	1,83	**2.586,7**	1,70	-476,7	-15,56	-0,13
II. Fixed assets	1.981,5	1,18	1.504,8	0,99	-476,7	-24,06	-0,19
III. Long-term assets in progress	1.081,9	0,65	1.081,9	0,71	0,0	0,00	0,07
TOTAL ASSETS	**167.224,0**	100,00	**151.929,9**	100,00	**-15.294,1**	-9,15	0,00

Source: Author synthesizes and calculates on the basis of financial statements of VICEM Cement Trading Joint Stock Company, 2020

Through Table 3, it is shown that the total assets of VICEM Company have gradually decreased over the years. Total assets in 2019 reached 167,224 billion VND, decreasing by 15,294 billion VND in 2020. Total short-term assets fell sharply. Although Financial investment in 2020 increased by 30 billion compared to that of 2019, equivalent to an increase of 50%, the sharp decrease of other items especially Cash and cash equivalents which decreased by 37,494 billion VND in 2020. Besides, Long-term assets also decreased slightly from more than 3,063 billion VND to 2,586 billion VND in 2020. Although long-term assets in progress remained unchanged, the decrease of fixed assets caused long-term assets to decrease.

In total assets, the structure between short-term assets and long-term assets in 2 years has not changed. In 2 years (2019 and 2020), the structure of assets is mainly short-term assets accounting for the majority with more than 98%.

However, there was a big fluctuation in 2 items Cash and cash equivalents compared to short-term financial investments. The proportions of these two items will change in 2020 respectively by a decrease of 20.61% for the Cash item and an increase of 23.36% for the financial investment item.

3. SOME RECOMMENDATIONS THROUGH THE PROCESS OF ANALYZING FINANCIAL STATEMENTS OF LISTED RETAIL ENTERPRISES LISTED ON VIETNAM'S STOCK MARKET

a. Increase equity

As mentioned in the content of the weakness of most retail businesses, in the current period, the capital scale of enterprises has increased, but their financial independence has decreased. Although most of the manufacturing and retail enterprises have grown in capital scale over the years, it is still mainly growth in liabilities. Most of them are loans from credit institutions. Thus to reduce the burden of financial costs, as well as to minimize the risk caused by foreign currency loans related to exchange rate fluctuations. Retail businesses can raise capital for their business by issuing additional shares to the public. However, the issue of additional shares to the public should also be considered reasonably.

Firstly, the business must choose the right time to issue more shares because if the company chooses the right time when the market is going down, investors are withdrawing capital from the market, they are not interested in buying more new shares. the release will fail. *Second*, when the enterprise issues more shares to the public, it will disperse the ownership and the company may lose operating control. In addition, the ownership structure of the business is always fluctuating due to the influence of daily stock transactions. The cost of issuing to the public is high, usually accounting for about 8-10% of the mobilized capital.

In order to increase long-term investment capital, enterprises should increase the issuance of convertible bonds, usually bond interest rates are lower than loan interest rates and convertible bonds in the future will become shares of the enterprise, creating a stable source of capital for business activities, improving self-financing ability. In addition, businesses can borrow long-term capital or issue bonds. However, this is not a long-term measure.

Appropriating funds from suppliers: With a brand that has built trust for suppliers, it is not difficult to buy on credit from businesses. However, when choosing appropriation, enterprises must also calculate the price, as well as other commercial terms between immediate completion and late payment. Because many times, in order to be paid late, the supplier's copy price has been added.

In addition to the equity capital that the enterprise currently has, the enterprise can also mobilize idle capital from its own employees. This capital mobilization channel will strengthen the close connection relationship between employees and businesses, which is also a driving force to promote the spirit and responsibility of employees at work. On the other hand, this capital mobilization channel has a lower cost than just non-interest loans of banks and does not have to face problems related to loan procedures, disbursement time from important banks.

b. Recommendations to state agencies

According to Decision No. 1621/QD-TTg dated September 18, 2013 approving the "Development planning of Vietnam's chemical industry to 2020, orientation to 2030", addressing the demand for input materials for the retail industry is one of the key tasks. These projects will partly solve the thirst for raw materials of the domestic retail industry, thereby reducing the dependence on imported materials, increasing the competitiveness of Vietnam's retail industry.

In addition, facing the need to import most of the raw materials for production, Vietnam's retail industry is exposed to risks of fluctuations in world raw materials as well as exchange rate risks. Therefore, in order for Vietnam's retail industry in general and research companies in particular to develop, it is recommended that the State have a strategic planning for the development of raw materials for the retail industry in Vietnam. At the same time, operating a stable exchange rate policy, contributing to limiting risks for Vietnam's retail industry.

c. Recommendations for businesses

The trend of increasing competition for Vietnam's retail industry in both domestic and export markets. Enterprises need to evaluate the main market risk factors in their business areas, such as: price, quality, design, utilities, market trends; especially for new products and services, there will be risks and difficulties in the market from factors such as familiarity and competition from imported goods. To overcome retail businesses, it is necessary to implement solutions to promptly catch market trends - new products and designs - better quality and more conveniences - competitive prices - service quality. At the same time, businesses also need to closely grasp opportunities to increase market demand for business products as well as opportunities of growth in attracting foreign investment in Vietnam.

Combination of investing in technology research, technical development and staying ahead of the investment trend such as international cooperation with experienced and reputable partners to innovate technology, technical and to implement medium and long-term plans.

Improving investment in "green", "environmental friendly" and high-tech products in major products areas of the enterprise.

Investment in technological - technical solutions, renewal of manufacturing lines and equipment are key solutions to use raw material with maximum efficiency, reduce costs, and use energy economically and efficiently and minimize the use of imported raw materials.

In the current period, the exchange rate is under strong pressure from the trade war, so in order to limit the risks of exchange rate fluctuation, companies should use derivatives proactively to hedge risk and to maintain and improve their return on equity.

In order to increase the return on equity and reduce the input costs for businesses, companies need to find research solutions and have more sources of raw materials, and take advantage of trade agreements.

The enterprise managers need to regularly evaluate the financial performance of their Companies in order to make quick adjustments and changes for production and business activities.

d. Investment Recommendation

Based on the above analysis, it can be seen that there is strong competition in the retail industry because the profitability of the group of retail enterprises tends to decline, their revenue in general tends to increase but their profit tends to decrease. The retail industry relies heavily on imported raw materials, and exchange rate fluctuations caused by the trade war. Retail investment carries many risks. Investors should find companies with high market-share, good revenue growth and profit in the industry.

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EFFECTS OF BANK CREDIT ON THE PRIVATE SECTOR – EXPERIMENTAL EVIDENCE IN VIETNAM

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Abstract: *This study examines the short-term and long-term effects of banking policy variables, namely bank credit, on the private sector in Vietnam, with quarterly frequency data over the period 2000-2021. The Vector Error Correction Mechanism (VECM) model applied with annual time series data was used, the study includes bank credit to the private sector, loan interest rates, exchange rates, and growth of banks. An expanding money supply affects the capital demand of the private sector. The results show that lending is positively related to economic growth. Furthermore, banks and financial intermediaries, as well as financial liberalization, will stimulate higher demand for loans. In addition, lower lending costs, and better bank credit will create an incentive to lend further. At the same time, the exchange rate is believed to have some effect on pricing demand and reduce consumption stress.*

Keywords: *Economy of the private sector, Bank credit, VECM, Vietnam.*

1. INTRODUCTION

Bank credit is very important to a country's economy. Especially for developing countries that have gone through many stages of development after economic changing and political regimes. Credit to the private sector will be a very good engine for economic development in these countries. The performance of financial markets is very important for economic growth (Dushku, 2010).

Lending activity in developing countries is much lower than in developed countries in the world. The policy of tightening credit, through the imposition of credit ceilings on banks and the increasing level of bad debts, has limited the ability of economic factors to meet the increasing credit demand of the private sector. Central banks used direct monetary controls through the imposition of credit ceilings, which prevented commercial banks from providing loans beyond predetermined limits. On the other hand, a significant portion of loans are granted in advance to borrowers. In this condition, banks do not feel secure with respect to their potential borrowers' ability to repay. Therefore, banks are always cautious in providing credit to the private sector, even narrowing the lending limit when the private sector has bad changes. This in turn has negative effects on the private sector (Duenwald et al, 2005).

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Rapid credit growth is a common feature of emerging countries, especially after the 2000s, but bank credit rapidly slowed after the outbreak of the 2008 financial crisis. In Vietnam, bank credit goods for the private sector have developed relatively high compared to other countries in the region, mainly because the economic growth rate requires a large amount of capital to meet the production and business activities of the economy. However, the ratio of bank credit to the private sector to Gross Domestic Product (GDP) remains low.

Look at the different dynamics of bank credit to the private sector. It is this reason that prompted this study, to determine the impact of bank credit factors on the private sector in the case of Vietnam. This study applied the basic model of Égert et al (2006). The study identifies a strong relationship between bank credit and the private sector economy and other explanatory variables by using the Vector Error Correction Mechanism Model (VECM). The research direction is approached in the direction of bank credit, which is determined by both supply and demand indicators. In the next section, the study presents background information to promote the research. Section 3 outlines the empirical approach of the research model. Specifically, the study uses the VECM model. The estimated results are then presented and discussed in Section 4. Finally, Section 5 provides some conclusions and recommendations.

2. STUDIES ON THE RELATIONSHIP BETWEEN BANK CREDIT AND THE PRIVATE ECONOMY

Some previous studies used credit to the private sector as a proxy for bank credit and suggested that it has a significant impact on the output of the manufacturing sector (Obafemi & Udah, 2012; Udoh & Ogbuagu, 2012; Odior, 2013). In addition, Obafemi and Udah (2012), Odior (2013), Edeme and Karimo (2014), Oleka and Maduagwu (2015) suggested that credit to the private sector has a significant positive effect on the output of the manufacturing sector. However, Udoh and Ogbuagu (2012), Ogunsakin (2014), Okonkwo, Godslove and Mmaduabuchhi (2015), Raphael and Gabriel (2015), Orji et al (2015) showed that credit to the private sector has a significant negative impact on the output of the manufacturing sector; while Imoughele and Ismaila (2014), CBN Real Sector Division (2014) found a negligible impact on the output of the manufacturing sector.

Domestic credit to the private sector (DCPS) has been in the spotlight in recent times, with most studies establishing a relationship between DCPS and economic growth. (Osman, 2014) applied self-regressive distributed lag (ARDL) as a cointegration approach to show that there is a positive long-run and short-run relationship between regional credit private sector and economic growth. (Lane & McQuade, 2014) argued that domestic credit growth in European countries is closely related to net debt inflows, but not net equity inflows. (Perez, 2017) studied the long-term determinants and short-term drivers affecting the efficiency of credit growth and found that there is a long-run relationship between credit growth and equity and ownership of domestic banks and bad debts. (Shijaku & Kalluci, 2013) evaluated the long-term determinants of bank credit to the private sector and suggested that there exists a regulatory mechanism that brings bank credit back to equilibrium. Their research also found that lending activity is positively related to economic growth. In addition, they demonstrated that banks and financial intermediaries, together with financial liberalization, stimulate higher demand for loans.

Other studies have been performed on the adjustment of appropriate models to predict the relationship between domestic credit and other variables in the African context. In Nigeria, Emecheta & Ibe (2014) applied vector autoregression (VAR) and established a significant positive relationship between bank credit and economic growth. In a similar work, still in Nigeria, Emenike (2016) used the cointegration approach to establish a long-term relationship between monetary policy and private sector credit. However, Olowofeso, Adeleke & Udoji (2015) used cointegration to show the existence of a significant positive relationship between credit and private sector output.

Obayumi, Edun and Kayode (2012) showed that bank lending rates significantly affect the output of the manufacturing industry; Ogar, Nkamare and Effiong (2014) argued that commercial bank loans have a significant impact on the output of the manufacturing industry; Adegboye, Ojo and Ogunrinola (2016) found that credit to the private sector has a significant impact on the output of the manufacturing sector; Okoye et al (2016) reported that lending rates have a significant negative effect, while credit to the private sector has a significant positive effect on output of the manufacturing sector, this finding is consistent with results of Omolara and John (2016), Ahad, Dar and Imran (2017), Onakoya et al (2017) and Bada (2017). Furthermore, Omini et al (2017) examined the impact of bank credit on the manufacturing sector and found that bank credit has a significant positive effect on the output of the manufacturing sector. In contrast, Topcu and Coban (2017) showed that the growth of the banking sector does not increase the growth of the manufacturing sector.

Most studies on the impact of the inflation rate on the output of the manufacturing sector show that the inflation rate has a significant impact on the output of the manufacturing sector, while some studies show that found it to have a negligible effect on the output of the manufacturing sector. These results may be largely related to differences in the sample periods and/or methodology these studies used. Ariwa et al (2017) and Sokunle and Harper (2018) reported a negligible effect of the inflation rate on the output of the manufacturing sector. Ailemen, Akhanolu and Chibuzor (2016), John and Terhemba (2016), Modebe and Ezeaku (2016) and Onakoya et al (2017) shows that the inflation rate has a significant negative effect on the output of the manufacturing sector.

3. RESEARCH METHODS AND DATA

VECM regression model

The VECM model has the form:

$$y_t - y_{t-1} = (A_1 + A_2 + \ldots + A_p - I)\, y_{t-1} - (A_2 + \ldots + A_p)(y_{t-1} - y_{t-2}) - (A_3 + \ldots + A_p)(y_{t-2} - y_{t-3}) - \ldots - A_p (y_{t-p+1} - y_{t-p}) + u_t$$

$$\Delta y_t = \Pi\, y_{t-1} + C_1\, \Delta y_{t-1} + C_2\, \Delta y_{t-2} + \ldots + C_{p-1}\, \Delta y_{t-p+1} + u_t$$

Regression model will be considered and selected after conducting tests, especially testing the stationarity of time series. Non-stationary time series when conducting the test should be stationary transformed by taking the difference at a higher order. The results showed that the data series are stationary with the same degree of association: I(1). Therefore, it is possible to use the Engle –

Granger test or the Johansen test to test the data series with cointegration. The results show that there is cointegration between the data series. The VECM model is selected for regression.

Describe the model's variables

The study has 5 variables: bank credit to the private sector, lending interest rates, exchange rates, growth of the expanded money supply affecting the capital demand of the private sector. The data is taken quarterly for the period from Q1 2000 to Q1 2021 with the number of 85 observations. Bank credit to the private sector, lending rates, exchange rates, growth of the expanded money supply impact the capital demand of the private sector are obtained from IMF financial statistics (IFS). Growth of the expanded money supply (BMG) and the lending rate (IRO) are taken as a percentage. Bank credit to the private sector (DCB), exchange rate (USDVND00), capital demand of the private sector (CLP) are propensity variables that do not have a normal distribution, the deviation must be very high, thus this variable need to convert to logarithmic base natural form so that the variable has a distribution close to the normal distribution, meeting the input data conditions of the model, and the exchange rate is calculated according to the ratio between the annual exchange rate to calculate and the exchange rate of the base year rate (1st quarter – 2000).

4. RESEARCH RESULTS AND DISCUSSION

4.1. Tests of the model

Stationality of data series

Applying Dickey - Fuller unit root test method to test the stationarity for the data series BMG, IRO, DCB, USDVND00, CLP, respectively.

Table 1. Unit root test of data series (d=1)

Augmented Dickey-Fuller test statitic	t-Statistic	Prob.*
Null Hypothesis: BMG has a unit root	5.936217	0.0000
Null Hypothesis: IRO has a unit root	-13.47032	0.0001
Null Hypothesis: USDVND00 has a unit root	-1.671821	0.0001
Null Hypothesis: DCB has a unit root	-7.689277	0.0000
Null Hypothesis: CLP has a unit root	-4.740337	0.0002

Source: Compiled from regression results

Unit root test results show that with significance level α = 0.05%, all accept the hypothesis Ho about the existence of unit roots, so the series BMG, IRO, DCB, USDVND00, CLP stop at difference d = 1.

Cointegration test

Use Johansen test to check whether BMG, IRO, DCB, USDVND00, CLP have cointegration.

Table 2. Cointegration test

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.827079	300.4628	69.81889	0.0001
At most 1 *	0.649104	160.0692	47.85613	0.0514
At most 2 *	0.401309	76.28790	29.79707	0.6973
At most 3 *	0.277831	35.24716	15.49471	0.9146
Trace test indicates 1 cointegrating eqn(s) at the 0.05 level				
10 denotes rejection of the hypothesis at the 0.05 level **MacKinnon-Haug-Michelis (1999) p-values				
Unrestricted Cointegration Rank Test (Maximum Eigenvalue)				

Source: Compiled from regression results

The results obtained from the Trace test show that BMG, IRO, DCB, USDVND00, CLP have cointegration, at the significance level $\alpha = 0.05$, when k = 0 (None), p -value = 0.0001 < α, so reject drop the null hypothesis Ho: r=0 (no cointegration between variables), when k = 1 (At most 1), p-value = 0.0514 > α should accept the hypothesis Ho: r < = 1. The series There is a way to combine an affiliate contract.

Test for choosing the optimal delay for the model

Normally, it is possible to use the PACF chart of the BOX - JENKIN method or use the LogL, AIC, SC... criteria to determine the optimal delay for the model. In this case, the criteria LR, AIC, HQ will be used to determine the optimal delay for the model. Although there are many information criteria that can be used to determine the lag of the model. The latency of VECM is one order of magnitude lower than that of VAR. Correspondingly, in the present analysis, the authors define their proposed lag: p=4.

Table 3. Test for choosing the optimal delay for the model

VAR Lag Order Selection Criteria						
Exogenous variables: C						
Sample: 2000Q1 2020Q1						
Included observations: 76						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	254.4807	NA	9.69e-10	-6.565283	-6.411945	-6.504001
1	315.9535	113.2392	3.72e-10	-7.525091	-6.605065*	-7.157404
2	347.9416	54.71654	3.12e-10	-7.708989	-6.022274	-7.034896
3	409.0861	96.54392	1.23e-10	-8.660160	-6.206756	-7.679661
4	443.9489	50.45942	9.91e-11	-8.919709	-5.699617	-7.632804
5	486.8305	56.42314*	6.64e-11	-9.390277*	-5.403496.	-7.796967*
6	507.0375	23.92935	8.39e-11.	-9.264145	-4.510676	-7.364429
7	557.1504	52.75040*	5.08e-11*	-9.925011*	-4.404853	-7.718889
* indicates lag order selected by the criterion						
LR: sequential modified LR test statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

Source: Compiled from regression result

Check the stability of the model

To test the stability of the VECM model, use the AR Root Test to consider that the solutions or the eigenvalues are all less than 1 or all within the unit circle, then the VECM model achieves stability.

The results show that the solutions are all less than 1 or all within the unit circle, so the VAR model is stable.

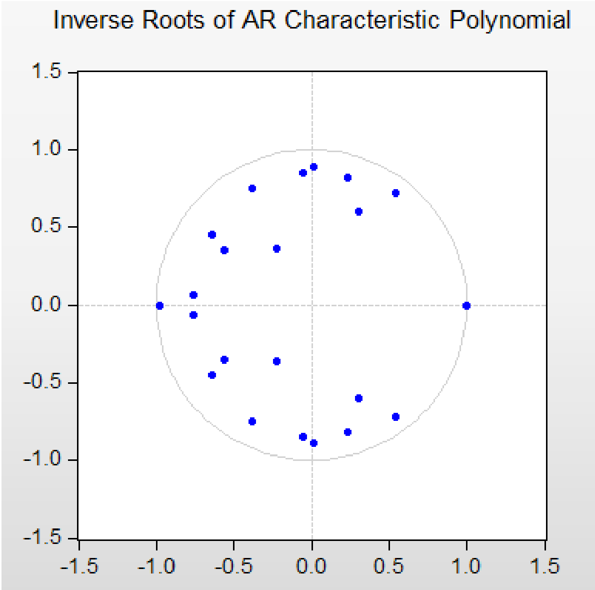

Figure 1. Model stability test

Source: Compiled from regression results

Thus, the tests show that the stationary series are at the same order of difference, the cointegration test has 1 cointegration, which ensures that the choice of VECM model is reasonable. With an appropriate delay of 4 selected, the VECM model is guaranteed to be stable, suitable for regression. From there, the author conducts analysis of variance decomposition and impulse response functions as the basis for the conclusions.

4.2. Model results and discussion

After conducting the VECM model tests, the results of the VECM regression model are as follows:

The cointegration equation showing the relationship between variables in the long run has the form:

$$u = DCLP - 0.000554BMG - 2.012578DDCB + 0.002369DIRO - 0.382662LNUSDVND00 + 0.002480$$

$$DCLP = 0.000554BMG + 2.012578DDCB - 0.002369DIRO + 0.382662LNUSDVND00 - 0.002480 + u$$

n the long run, CLP has a positive relationship with variables BMG, DCB, USDVND00 and a negative relationship with IRO.

ECt-1 = 1.422, showing that if the imbalance in the previous period is 1 unit, in the first period, the dependent variable will adjust in the same direction with the equilibrium state of 1.422%. Thus, it takes a total of more than 7 periods to restore equilibrium.

Table 4. VECM model regression results

Vector Error Correction Estimates Sample (adjusted): 2001Q2 2021Q1 Included observations: 78 after adjustments Standard errors in ( ) & t-statistics in [ ]					
Cointegrating Eq:	CointEq1				
DCLP(-1)	1.000000				
DBMG(-1)	-0.000554 (0.00044) [-1.25875]				
DDCB(-1)	-2.012578 (0.16522) [-12.1811]				
DIRO(-1)	0.002369 (0.00213) [1.11406]				
DUSDVND00(-1)	-0.382662 (0.12814) [-2.98628]				
C	0.002480				
EC	D(DCLP)	D(DBMG)	D(DDCB)	D(DIRO)	D(DUSDVND
CointEq1	1.422707 (0.41646) [3.41617]	187.2215 (63.7954) [2.93472]	2.492617 (0.32938) [7.56764]	16.16731 (26.7991) [0.60328]	-0.092276 (0.15340) [-0.60154]

Source: Compiled from regression results

Repulsion function

The BMG expansionary money supply growth volatility shocks lead to an initial positive response to the private sector, having a positive impact and especially strongly affecting GDP in the first 5 periods. This is explained by the fact that Vietnam is a developing country, when the economy is increased with a certain amount of capital, it will boost production, positively support economic growth. However, in the long-term, the response of CLP fluctuates insignificantly and when the amount of capital increases beyond the need of production from the 6th period.

CLP's reaction is constantly reversed when there are IRO shocks from the 5th period. Financial liberalization process, will make interest rates increase volatility. The state gradually restricted its right to intervene in the money market through interest rates. Therefore, when interest rates fluctuate, there will be large amplitude impacts on the private sector.

Similarly, the exchange rate is also one of the factors that measure the openness of financial markets. The exchange rate is also under pressure from external factors of the international market. Looking at the impulse reaction when shocks of the USD/VND exchange rate from the 5th period have reversed effects on the private sector.

In particular, credit always plays a big role for the private sector, the necessary CLP capital for the private sector is always provided mainly from bank credit. This is completely consistent with the actual situation of developing countries like Vietnam. Credit capital has always played an important role in economic activities.

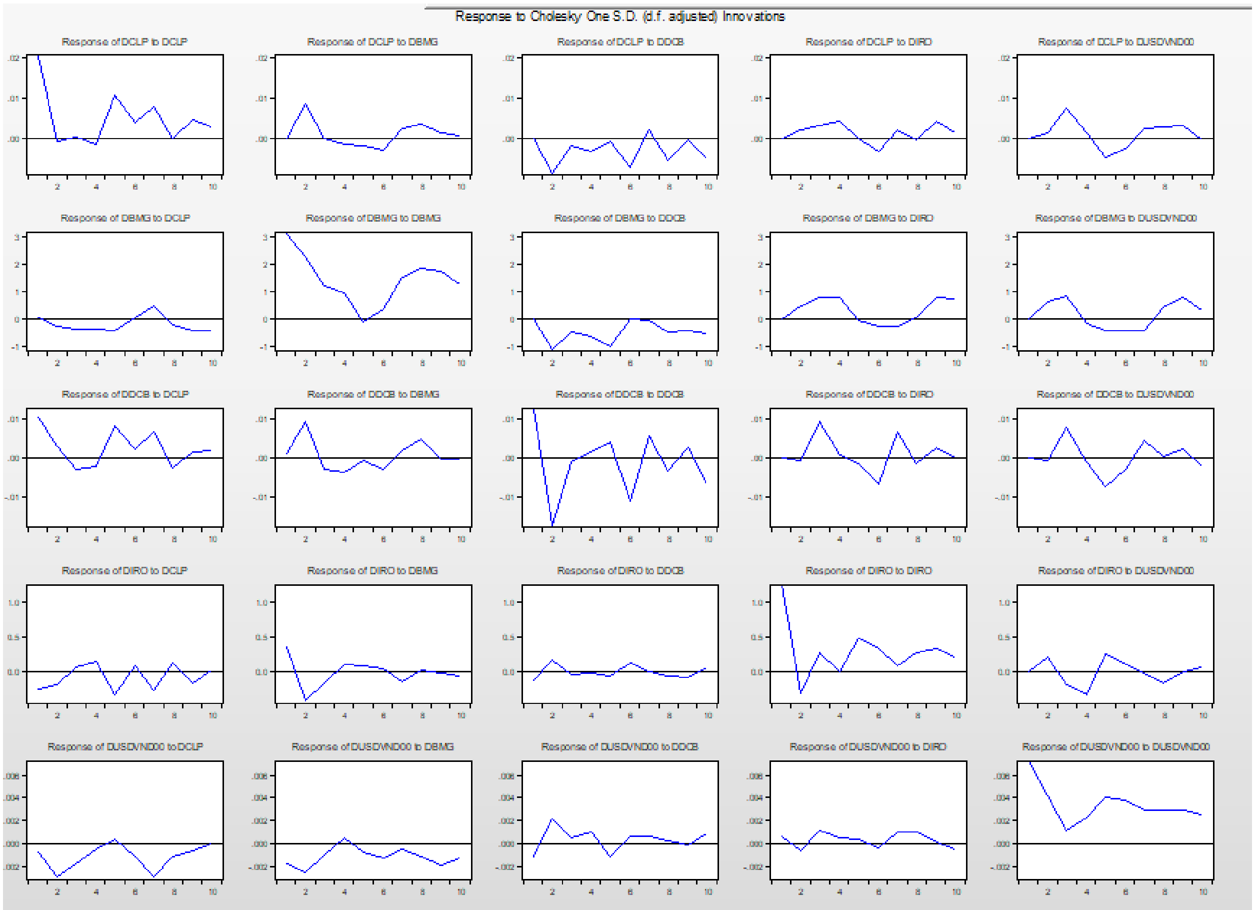

Figure 2. Thrust response function of BMG, IRO, DCB, USDVND00, CLP

Source: Compiled from regression results

Variance decomposition

Table 5. Variance decomposition of series BMG, IRO, DCB, USDVND00, CLP

Variance Decomposition of DCLP:

Period	S.E.	DCLP	DBMG	DDCB	DIRO	DUSDVND00
1	0.020395	100.0000	0.000000	0.000000	0.000000	0.000000
2	0.023771	73.67073	12.68461	12.29724	0.935968	0.411445
3	0.025173	65.72518	11.31140	11.55038	2.591711	8.821331
4	0.025844	62.60113	11.08568	12.42816	5.196519	8.688514
5	0.028396	65.69707	9.616392	10.38357	4.304332	9.998636
6	0.029910	60.95540	9.518004	14.91863	4.962774	9.645197
7	0.031289	62.14809	9.264422	14.07573	4.993186	9.518572
8	0.032036	59.28314	10.07635	16.04737	4.771878	9.821256
9	0.032832	58.36012	9.752069	15.28913	6.332736	10.26595
10	0.033358	57.25668	9.475823	17.02155	6.277613	9.968336

Variance Decomposition of DBMG

Period	S.E.	DCLP DBMG	DDCB	DIRO	DUSD	VND00
1	3.124234	0.022163	99.97784	0.000000	0.000000	0.000000
2	4.091825	0.485643	88.99901	6.943889	1.324268	2.247185
3	4.466153	1.180151	81.96875	6.845276	4.367976	5.637848
4	4.690053	1.677831	78.40226	7.986353	6.671854	5.261700
5	4.826518	2.257258	74.06976	11.63439	6.318183	5.720410
6	4.862768	2.233264	73.50324	11.46170	6.474009	6.327782
7	5.139967	2.760502	74.64404	10.27130	6.062623	6.261541
8	5.501985	2.586841	76.32558	9.728580	5.295276	6.063725
9	5.901388	2.710042	74.86085	9.026223	6.383576	7.019310
10	6.118703	3.007558	73.71154	9.179188	7.292394	6.809323

Variance Decomposition of DDCB:						
Period	S.E.	DCLP	DBMG	DDCB	DIRO	DUSDVND00
1	0.016131	41.07381	0.367309	58.55888	0.000000	0.000000
2	0.025482	17.70109	12.99803	69.11175	0.131273	0.057855
3	0.028477	15.29534	11.49710	55.45897	10.16813	7.580457
4	0.028877	15.54388	12.80228	54.19291	9.923451	7.537484
5	0.031156	19.95407	11.03834	48.13666	8.714604	12.15633
6	0.034097	17.09286	9.964809	51.10771	10.92198	10.91264
7	0.036185	18.57843	9.108495	47.81388	13.21909	11.28010
8	0.036754	18.53416	10.46969	47.11353	12.94495	10.93767
9	0.037028	18.42839	10.32611	46.85282	13.26606	11.12662
10	0.037733	17.99970	9.948265	48.23070	12.77512	11.04622
Variance Decomposition of DIRO:						
Period	S.E.	DCLP	DBMG	DDCB	DIRO	DUSDVND00
1	1.312423	3.478047	7.364566	0.843698	88.31369	0.000000
2	1.447430	4.335391	14.51544	2.050662	77.14512	1.953382
3	1.491576	4.277838	14.80269	1.979772	75.75019	3.189513
4	1.536318	4.998795	14.35692	1.898470	71.40750	7.338322
5	1.664613	8.143428	12.51276	1.772962	69.11800	8.452848
6	1.706413	7.983636	11.99396	2.243701	69.38412	8.394584
7	1.735414	10.14224	12.25235	2.174723	67.30106	8.129629
8	1.768831	10.31203	11.80246	2.175948	67.12006	8.589502
9	1.809815	10.72071	11.28931	2.284626	67.49719	8.208170
10	1.825807	10.54055	11.21435	2.394448	67.65566	8.194994

Source: Compiled from regression results

Variance decomposition of error when forecasting variables in the VECM model to separate the contribution of other time series as well as the time series itself in the variance of the forecast error. The variance decomposition results are in agreement with the impulse response function results and, more importantly, determine the importance of financial liberalization factors on the value of real domestic output. The forecast error in meeting capital needs of the private sector due to fluctuations in bank credit is about more than 14% since the 6th period. The impact level is quite large, maintained over the period with no sign of fading. The fluctuation of lending interest rates affecting the private sector economy was recorded to be over 4%. The impact of the exchange rate variable on the private sector economy is recorded to be over 9%. And the volatility of money supply for the private economy is over 9%. Thus, for a developing country like Vietnam, the large demand for capital has shown the important role of the financial intermediary system, especially credit provided from commercial banks.

The results of the study are similar to previous studies. Oleka and Maduagwu (2015) also show that credit to the private sector has a significant positive economic impact through the manufacturing sector. A positive long-term and short-term relationship between private sector credit and economic growth is noted (Lane & McQuade, 2014; Emecheta & Ibe, 2014). Shijaku & Kalluci (2013) also suggested that lending activity is positively related to economic growth, banking and financial liberalization stimulate higher lending demand.

The results of this study are also consistent with the actual situation of Vietnam. Vietnam is like emerging countries. The need for capital to develop the economy will boost credit growth. In Vietnam, bank credit to meet the capital needs of the private sector is relatively high compared to the general level in the region. Bank credit plays an important role in the economic performance of the private sector. Credit capital is mainly provided by banks to meet production and business activities of the private economic sector.

5. CONCLUSION

This study applies the VECM model to examine the impact of bank credit on the private sector economy in Vietnam in the period 2000 to 2021. Research results show that bank credit for the sector manufacturing played an important role in shaping output trends in the manufacturing sector in Vietnam during this period, which reaffirms the findings of Ogar et al (2014). Therefore, the study concludes that there is a significant long-run relationship between bank credit and the private sector economy. Bank credit has a significant impact on the private sector economy in both the short and long term. The long-term estimates are consistent with economic theories and trends of the Vietnamese economy. Although, the results from short-term dynamic correction suggest a slow adjustment to the long-run equilibrium over time to show that demand for the financial system is strong and allows investors to invest leading the way are catch-up strategies in this area. Furthermore, there is a significant one-way causality running from manufacturing output to bank credit, an indication of the influence of government efforts to perfect the sector through credit allocation.

Based on the above findings, the following policy recommendations are made to improve the overall performance of the sector as well as make a significant contribution to the private sector economy: One, the current functional policies such as credit allocation needs to be strengthened to attract potential investors in the manufacturing sector. If the policy of credit allocation function is strengthened to increase credits beneficial to investment in the manufacturing sector, more investors will invest in Vietnam's manufacturing sector, which This will increase the output of the domestic manufacturing sector. This is because bank credit to the manufacturing sector has a significant positive effect on manufacturing output in Vietnam during the period under consideration. Second, regulators should encourage the manufacturing sector through accessible and affordable bank credit to encourage investors in the manufacturing sector to access suitable loans to productivity in this area. The State Bank of Vietnam should direct all commercial banks to take advantage of cheap credits to invest in the manufacturing sector in Vietnam, which will encourage more investors in the manufacturing sector and access to suitable borrowing facilities to enhance the output of the manufacturing sector in the long run. Third, specialized financial institutions that should be licensed by the State Bank of Vietnam should be solely responsible for allocating credit for productive investment in the economy as any attempt by the economy to improve the economy. improve and achieve high levels of manufacturing output, calling for sector-specific credit allocations at all times.

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INTERNAL CONTROL OF RAISING CAPITAL PROCESS AT COMMERCIAL BANK

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Abstract: *Internal control supports the Board of Directors to minimize insecurity about possible risks and losses, especially in terms of people and assets; Enhance the efficiency of business management of enterprises through promulgated policies and regimes; Ensure adequate, accurate and correct accounting records and procedures in business activities; Ensure assets and information are not misused; Helping business leaders reduce the load of daily tasks and affairs and focus only on strategic issues. Currently, the raising capital process at commercial banks has many shortcomings that have not been resolved, so the author has pointed out the curent problem of the capital mobilization process and solutions to improve the capital mobilization process at banks commercial".*

Keywords: *Internal control, raising capital process.*

1. THE INTERNAL CONTROL IN A JOINT-STOCK COMMERCIAL BANK

The banking sector is of great importance for a nation's economy. A system of effective internal controls is a critical component of bank management and a foundation for the safe and sound operation of banking organisations. A system of strong internal controls can help to ensure that the goals and objectives of a banking organisation will be met, that the bank will achieve long-term profitability targets, and maintain reliable financial and managerial reporting. Internal control ensures effectiveness, reduces the likelihood of errors, and helps to timely detect fraud. Such a system can also help to ensure that the bank will comply with laws and regulations as well as policies, plans, internal rules and procedures, and decrease the risk of unexpected losses or damage to the bank's reputation. It can be said that effective internal control is the cornerstone of the banking sector that contributes to safety and well-being.

Internal control has formed and gradually developed into a theoretical system of control issues in the organization. The process of awareness and research on internal control has been summarized into different concepts from simple to complex.

According to the International Federation of Accountants (IFAC) definition: "Internal control is a system of policies and procedures with the following four objectives: protecting the assets of the entity, ensuring the reliability of information. information, ensuring the implementation of legal regimes and ensuring the efficiency of operations".

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According to Vietnamese Accounting Standard (VAS 315) issued under Circular No. 214/2012/TT-BTC effective from January 1, 2014, replacing Standard 400 defined: "Internal control refers to a process designed, implemented and maintained by those charged with governance, management and other individuals within the entity to provide reasonable assurance about the entity's ability to achieve its objectives and ensure the reliability of financial statements, gain operational efficiency and effectiveness, and in compliance with relevant laws and regulations".

In 1992 COSO released the "Internal Control Report – Consolidated Framework", stating that the internal control system is a process governed by the management, board of directors and employees of the entity, it is designed to provide reasonable assurance for the achievement of the following objectives: To ensure the reliability of financial statements; Ensure compliance with regulations and laws; Ensure operations are carried out efficiently.

Internal control systems operate at different levels of effectiveness. Determining whether a particular internal control system is effective is a judgement resulting from an assessment of whether the five components - Control Environment, Risk Assessment, Control Activities, Information and Communication, and Monitoring - are present and functioning. Effective controls provide reasonable assurance regarding the accomplishment of established objectives.

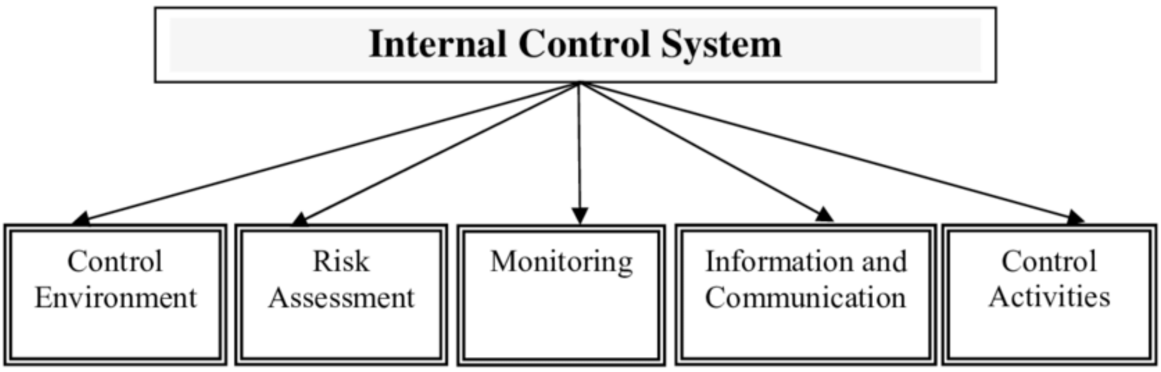

Figure 1. The Five Components of Internal Control

Source: AUS 402.43 and COSO,1992

In 2013, COSO released the Internal Control Report – Updated Consolidated Framework with the added concept of Internal Control. Accordingly, internal control is a process by an organization's management, board of directors and other employees that is designed to provide reasonable assurance about the achievement of operational objectives, reporting and compliance. Accordingly, the basic operational goals and 20 compliance objectives remain the same as before, but the reporting objectives have been expanded, not only ensuring the reliability of financial statements but also related to reliability of other non-financial and internal reports.

Currently, the most widely accepted definition is that of COSO. In this definition, there are four concepts to keep in mind that are process, people, reasonable assurance and goal.

It can be seen that the basic roles of internal control in an enterprise include:

Support the Board of Directors to reduce insecurity about possible risks and losses, especially in terms of people and property;

Enhance the efficiency of business management of enterprises through promulgated policies and regimes;

Timely detect backlog problems in business, thereby offering solutions to minimize losses and possible risks;

Prevent and detect errors and frauds in divisions and in business activities;

Ensure adequate, accurate and correct accounting records and procedures in business activities;

Ensure assets and information are not misused;

Support business leaders to reduce the load of daily tasks and events and focus only on strategic issues;

Help the Board of Directors to professionalize the management and administration.

The limitations of internal control can be mentioned as:

Internal control is difficult to prevent fraud and errors of senior management.

Control activities focus only on the expected errors, so when abnormal errors occur, the control procedures become less effective or even ineffective.

Limitations stemming from people themselves such as carelessness, carelessness, absent-mindedness, misjudgments or estimates, misinterpretations of instructions from superiors or reports of subordinates, etc.

The cost of implementing the control action must be less than the estimated loss caused by error or fraud.

Changes in the organization, changes in management attitudes and operating conditions can lead to control procedures that are no longer appropriate.

The purpose of evaluating internal controls in the fundraising process is to:

Evaluation of the internal control system in general helps to establish the level of confidence in the internal control system. An understanding of the internal control system and a proper risk assessment and overview of potential risks will help information users identify:

- Major erroneous information may occur
- Factors that affect the likelihood of serious errors...

The process of raising capital at the bank involves many different officers and departments and there are control points in every step of the process. An assessment of the fundraising process will help the bank determine:

- Common mistakes, causes and solutions
- Shortcomings in the capital raising process led to potential risks
- The control points are invalidated in the capital raising process, thereby taking appropriate preventive measures to limit risks as well as providing solutions to build a control process in accordance with reality.

2. THE CURRENT SITUATION OF CAPITAL MOBILIZATION AT COMMERCIAL BANKS

Step 1: Build interest rate framework and capital mobilization products at banks

Regarding the capital mobilization process, the basis for effective control of the execution of capital mobilization transactions is the interest rate applied at the branch. Deposit interest rate is the part of the bank's cost to mobilize capital. Therefore, a high deposit rate will attract many sources of capital, but it will lead to high capital costs and potential risks if the branch cannot lend at a guaranteed interest rate with a profit difference. Based on the market interest rate trend and the direction of the State Bank, the Commercial Bank's Head Office and the Internal Management Department develop and propose to the Board of Directors the interest rate bracket applicable to each product, each term and each currency. After being approved by the Board of Directors, the Internal Management Department will notify the transaction points and this interest rate will be publicly posted to customers.

In order to ensure timely grasping of the market situation, in addition to collecting information from the media, the Head Office provides and consults the posted interest rates at other branches in the same system, the Management Department. Internal management assigns staff to investigate the actual interest rate situation, capital mobilization products at other banks in the area and make interest rate analysis reports. The report is made on a weekly basis and thereby clearly seeing the interest rate trend, the basis for considering whether the deposit interest rate at the branch is appropriate, on that basis, the Internal Management Department makes a proposal to change the interest rate change if necessary.

Regarding capital mobilization products at commercial banks, each deposit product has its own characteristics (regulations on interest rates, early withdrawal...) should be specified by a separate identification code when transacting. To implement the mobilization program for a new product, the Commercial Bank's Head Office assigned the Information Technology Center to develop a product code to be used uniformly on the general program of the whole system. Each different product code has a different nature of that product so that the program can automatically support the transaction (calculation of interest on maturity, interest on early withdrawal, blockade...).

Step 2: Introduce fundraising products to customers

To deploy capital raising products, the Internal Management Department proposed a marketing program to be implemented at the branch. Normally, the program mainly only distributes leaflets and hangs banners to introduce products because for products deployed throughout the system, commercial banks have promoted through the media: electronic newspapers. electronics, newspapers, television, radio,...

For completely new, breakthrough products that have never been deployed, the branch organizes training sessions to disseminate to customer relations officers, transaction officers to grasp the products and advice. consulting for the right audience.

On the basis of the general program of the branch, the Customer Relations and Customer Transaction departments actively assigned to implement the plan to introduce products to customers: distributing leaflets in residential areas, businesses, contact the wards in the branch's operating area to broadcast the products through the loudspeakers, send introductory letters to traditional customers, call to notify customers directly... However, through actual survey In fact, marketing programs introduce products only 1-2 days before launching new products, so the implementation process is urgent.

Step 3: Carry out capital raising transaction - operating at the counter

When a customer needs to send money, the contact officer (personal customer relations officer) receives the customer's information. Follow the principle of customer authentication as prescribed. Check the validity and legitimacy of identification documents, let customers fill out the application form cum contract to open and use personal accounts (BM01/2020/CN/TTKH & DVTK) and sign the confirmation on the form. that sample.

For customers who are economic organizations: The focal point officer is an officer who manages corporate customers and manages corporate customers who will be the recipients of information and documents for opening corporate accounts. Unlike individuals, the enterprise's profile will further check the authenticity of signatures, seal samples, business registration, and legal validity of documents. Corporate customer managers proactively look up business information on the portal and the operating status of the business to decide to open customer information.

Customer managers make copies of customers' identity papers according to regulations. For identification documents with a fuzzy number, ask the customer to specify the number and sign on those photocopies.

Customer relations officer will offer interest rates according to the interest rate bracket approved by the Branch Manager for each type of customer.

Step 4: Tellers check transactions before printing and sending reports

To ensure the final correct execution of transactions and compliance with the accounting voucher regime, the tellers, before arranging and submitting documents to the post-inspection department, must check - control the vouchers.

+ Checking between actual documents and the transaction log (209BDS report on real estate program) to check the correct match of the actual number of transactions with the transaction performed on the machine.
+ Check the results of data synchronization between the branch server and the whole system server on the 307 BDS report, in case there is a difference, the trader performs adjustment operations according to the Real Estate Operation Procedure.
+ Check the transaction entered correctly with the function of the program to ensure the correct operation, avoiding duplication in transaction execution.
+ Check to ensure the accuracy of data on vouchers, especially customer account number, transaction amount, transaction currency.
+ Check the legality of documents: customer signatures, teller signatures, control signatures and approval signatures of competent authorities for transactions exceeding the Controller's limit.

+ Compare the total amount on the vouchers by each transaction with the number on the consolidated report of transactions by business code updated on the whole industry server (305 – Teller Totals Report (Host))
+ In the case of transactions using intermediate accounts of the General Accountant, the teller must be responsible for re-checking the accounting to these intermediate accounts to ensure the correct match between the transactions, if the balance must be reported to the Controller to summarize the report according to regulations.

Step 5: Internal inspection department

Control of deposit transactions including:

- Control of demand deposit transactions are all transactions with current account (CA) and savings deposit (SA).
- Control time deposit transactions are all transactions into time deposit accounts (FD), promissory notes and certificates of deposit (CD).

Step 6: Perform after-transaction customer care and measure customer satisfaction

Regarding customer care policy, since the Head Office has not yet approved the norm, the branch still accounts it in the norm of marketing expenses. Because there is no specific policy and plan, the customer care work performed by the focal department is the individual customer room, the transaction office is mainly carried out as follows:

- Call to notify the due date for customers with a deposit balance of VND 50 million or more.
- Give a calendar to customers who come to trade on Tet holiday.
- Previously, the branch gave birthday gifts to customers with a deposit balance of 1 billion VND or more, however, this care is still related to the average balance in the period of the customer.

3. THE NEED TO IMPROVE INTERNAL CONTROL IN COMMERCIAL BANKS

Firstly, the Bank operates in the context of the global economic downturn, so the competition is getting fiercer. Therefore, the Bank also needs to have an effective accounting organization to provide timely and reliable information for the Bank's Board of Directors to make timely and flexible decisions to operate its operations. business action.

Secondly, the accounting organization of the bank also needs to have innovations to perfect it in accordance with the changes in current conditions when the State Bank always has new decisions, circulars, new laws, etc. ask the bank to do.

Third, improve the application of the document system with enhanced internal control. In order to strictly control, the accounting voucher system needs to add "Overtime notice"; for the commodity futures business, the form "Synthetic statement of deposit for futures trading on daily basis" should be added.

Fourth, improve the application of the account system with enhanced internal control. It is necessary to open additional level 4 accounts of some term deposit detailed accounts at domestic credit institutions. According to Decision No. 02/2008/QD-NHHH of the Governor of the State Bank dated January 15, 2008 on the amendment and supplementation of a number of accounts in the accounting system of credit institutions and OL No. 2321/NHNN-KTTC of the Governor on guiding the accounts used to account for compulsory SBV bills according to Decision No. 346/QD-NHNN on February 13, 2008, trade needs to be revised and opened some more detailed accounts.

Fifth, perfecting the accounting reporting system with enhanced internal control. To serve the requirements of management as well as the organization of accounting and auditing of the bank, it is recommended to add the form "Quarterly summary report on the situation of overdue interbank deposit investments". For the convenience of the payers in tracking the swap cash flows in the daily, monthly and quarterly interest rate change transactions and easier to reconcile the balance on file with the balance on balance, need to add "Transaction cash flow report".

Sixth, perfecting the organization of the accounting apparatus with strengthening internal control. Post-verification is extremely important to detect frauds and errors in accounting. Therefore, the Post-Inspection Department should be made into a separate room, independent from the accounting department. The assignment will be rotated every six months, ensuring objectivity and creating favorable conditions for accounting staff to be fluent in many operations, avoid errors and increase creativity and improvement in work.

The quality of internal control activities is a fundamental factor that greatly influences the operational efficiency and safety of the commercial banking system. In order for this activity to get better and better, the commercial banks themselves must improve and further promote the implementation of the above solutions in order to improve the operational efficiency of the internal control system.

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THE ROLE OF FINANCIAL STATEMENT ANALYSIS OF VIETNAMESE PHARMACEUTICAL ENTERPRISES

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Abstract: *The COVID pandemic outbreak in 2020 has significantly affected the entire global economy and, in particular, the Vietnamese economy. In light of development opportunities and pandemic challenges, analyzing the financial statements of pharmaceutical companies has become more crucial and urgent than ever. At the moment, there are many different methods available to analyze financial statements, such as comparative statements, exclusion method, ratio analysis, and usage of dupont model or charts. Based on the financial statement analysis of an enterprise, one can gain an understanding of its current financial status and results of business activities, thereby assessing that enterprise's growth potential.*

Keywords: *Financial statement analysis, enterprise, pharmaceutical.*

1. THE URGENT NECESSITY OF FINANCIAL STATEMENT ANALYSIS IN THE VIETNAMESE PHARMACEUTICAL INDUSTRY

According to the Multidisciplinary Digital Publishing Institute, pharmaceutical spending per capita in Vietnam was $9.85 in 2005; the average growth in the 2010-2015 period was 14.6%, and is expected to reach $163 in 2025. The dramatic rise in pharmaceutical spending over the years is a key driving force for the development of the pharmaceutical industry.

With Vietnam's WTO membership, foreign businesses can now easily invest in the country's market through direct investments in the form of factory construction, joint ventures and affiliated companies, and distributing products to end-consumers through domestic intermediaries with low import taxes. According to the Ministry of Industry and Trade, Vietnam has cut tax rates on 47 tax lines, mostly antibiotics and vitamins, to an average of 2.5% since 2012, down from an earlier average of 10-15%. This poses a big challenge for domestic businesses, as they are no longer protected by tax rate barriers. To overcome difficulties, pharmaceutical businesses need to assess the current situation and identify target customers in order to maximize sales.

The outbreak of the Covid-19 pandemic in 2020 had a significant impact on the entire global economy, particularly the Vietnamese economy. While most businesses are negatively affected by movement restrictions and social distancing practices aimed to limit the spread of the disease, pharmaceuticals are one of the industries that suffer the least. Part of the reason is the significant importance this sector has on people's lives. During a severe, stressful pandemic, people's demand for healthcare products tends to skyrocket, especially for drugs that strengthen immune systems. Since medical facilities and households all have the need to store medicines, pharmaceutical

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companies are in high demand. Furthermore, not all pharmaceutical firms are seeing positive growth, and the business situations of pharmaceutical enterprises are also relatively disparate during the Covid-19 pandemic.

In light of development opportunities and epidemic challenges, analyzing the financial statements of pharmaceutical companies has become more crucial and urgent than ever. Financial statement analysis is a basic and effective tool, enabling analysts to understand and accurately evaluate an enterprise's production and business activities.

2. CURRENT SITUATION OF ANALYZING FINANCIAL STATEMENTS OF PHARMACEUTICAL ENTERPRISES IN VIETNAM

Regarding the capital mobilization policy of enterprises, the 10 enterprises can be classified into two groups. The first group includes DHG Pharma, Pymepharco, Imexpharm, Traphaco, Domesco, Central Pharmaceutical No3 and Pharmedic. Its proportion of equity accounts for the majority of the total corporate capital structure, which demonstrates the conformity with the long-term asset structure representing a large proportion of the total asset structure. The first group ensures the independence and security of funding sources, not being over-dependent on external funding sources. However, this proves that the enterprises of the first group have not fully utilized financial leverage. In contrast, the second group including Cuu Long Pharmaceutical, Ben Tre Pharmaceutical and Lam Dong Pharmaceutical has the value of liabilities accounting for a large proportion of the total corporate capital structure. Accordingly, it reveals that Cuu Long Pharmaceutical, Ben Tre Pharmaceutical and Lam Dong Pharmaceutical are mobilizing a lot from external funding sources, thereby posing potential risks in paying external mobilizations. Enterprises need to have accurate estimates to ensure their solvency.

Analyzing the relationship between assets and sources of asset formation

- Debt-to-asset ratio

Table 1. Debt-to-asset ratio of analyzed enterprises

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	0,33	0,18	0,21	0,25	0,36	0,27	0,32	0,19	0,66	0,61
2019	0,25	0,16	0,15	0,2	0,54	0,23	0,25	0,15	0,69	0,68
2020	0,19	0,15	0,16	0,22	0,54	0,18	0,18	0,14	0,72	0,67
2021	0,2	0,2	0,17	0,26	0,47	0,1	0,22	0,15	0,77	0,47

Source: Author calculated from financial statement data of enterprises

- Financing ratio

Table 2. Financing ratio of analyzed enterprises

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	0,67	0,82	0,79	0,75	0,64	0,73	0,68	0,81	0,34	0,39
2019	0,75	0,84	0,85	0,8	0,46	0,77	0,75	0,85	0,31	0,32
2020	0,81	0,85	0,84	0,78	0,46	0,82	0,82	0,86	0,28	0,33
2021	0,8	0,8	0,83	0,74	0,53	0,90	0,78	0,85	0,23	0,53

Source: Author calculated from financial statement data of enterprises

As can be seen from tables 1 and 2, DHG Pharma, Pymepharco, Imexpharm, Traphaco, Cuu Long Pharmaceutical, Domesco, Central Pharmaceutical No3 and Pharmedic have a relatively low debt-to-asset ratio and a relatively high financing ratio. This indicates that the assets of the above enterprises are financed mainly by owner's equity and little by liabilities. This capital mobilization policy shows a high level of safety and businesses proactively ensure a stable level of financial independence.

Also according to table 1 and 2, high debt-to-asset ratios and low financing ratios of Ben Tre Pharmaceutical and Lam Dong Pharmaceutical reflect the opposite capital mobilization priority. This shows that the assets of enterprises are actively mobilizing many loans. This policy of capital mobilization gives enterprises great financial resources from outside as well as facilitating production activities, but many potential risks and challenges in the process of mobilizing loans and paying debts. Since then, Ben Tre Pharmaceutical and Lam Dong Pharmaceutical should reasonably calculate the value and proportion of loans from outside, ensuring the solvency of the business.

- Overall solvency ratio

Table 3. Solvency ratios of analyzed enterprises

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	3,02	5,65	4,69	3,99	2,81	3,7	3,12	5,22	1,52	1,64
2019	3,95	6,13	6,58	5,06	1,84	4,37	4,07	6,52	1,46	1,47
2020	5,38	6,63	6,41	4,5	1,87	5,46	5,47	7,38	1,39	1,49
2021	5,06	4,95	5,73	3,82	2,13	9,85	4,65	6,61	1,31	2,15

Source: Calculated from the financial statement data of enterprises

The value of the overall solvency ratios indicates the extent to which an investment in an asset equals a liability. The overall solvency ratios of the 10 sampled enterprises in the period from 2018 to 2021 is all greater than 1, showing that the assets owned by enterprises are mainly financed by owner's equity. This shows that all businesses have a high level of financial independence.

Financial balance analysis

- Net working capital

Table 4. Value of net working capital of analyzed enterprises period 2018-2021

Unit: million VND

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	1.643.185	1.293.610	633.687	464.359	343.774	727.354	65.916	213.603	16.738	33.934
2019	2.139.166	1.395.341	598.264	465.959	753.339	897.201	88.407	248.383	139	5.960
2020	2.425.108	899.897	517.301	445.059	743.278	1.018.974	174.899	276.684	16.232	3.102
2021	2.664.366	906.728	635.043	464.620	748.299	1.093.513	159.900	291.055	8.814	35.831

Source: Calculated from the financial statement data of enterprises

From Table 3, it can be seen that the value of net working capital of all sampled enterprises has been positive in the period from 2018 to 2021, which shows that part of the funding source is regularly used to finance long-term assets. In general, the sampled businesses have (i) stable funding sources, (ii) abundant and solid solvency, and (iii) positive financial balance. Among the selected enterprises, the value of the net working capital of DHG Pharma reached the largest one.

- Regular funding ratio

Table 5. Analyzed regular funding ratio of analyzed enterprises period 2018-2021

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	0,68	0,84	0,81	0,75	0,78	0,73	0,71	0,81	0,34	0,47
2019	0,76	0,85	0,87	0,8	0,81	0,77	0,77	0,85	0,33	0,38
2020	0,83	0,86	0,86	0,78	0,75	0,82	0,82	0,86	0,34	0,38
2021	0,82	0,8	0,83	0,74	0,83	0,9	0,78	0,85	0,26	0,57

Source: Calculated from the financial statement data of enterprises

- Provisional funding ratio

Table 6. Analyzed provisional funding ratio of analyzed enterprises period 2018-2021

Năm/DN	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	0,32	0,16	0,19	0,25	0,22	0,27	0,29	0,19	0,66	0,53
2019	0,24	0,15	0,13	0,2	0,19	0,23	0,23	0,15	0,67	0,62
2020	0,17	0,14	0,14	0,22	0,25	0,18	0,18	0,14	0,66	0,62
2021	0,18	0,2	0,17	0,26	0,17	0,1	0,22	0,15	0,74	0,43

Source: Calculated from the financial statement data of enterprises

Tables 4 and 5 show that the regular funding ratio of these enterprises including DHG Pharma, Pymepharco, Imexpharm, Traphaco, Cuu Long Pharmaceutical, Domesco, Central Pharmaceutical 3 and Pharmedic is relatively high, while their provisional funding ratio is relatively low. Therefore, it is assessed that in these enterprises, the regular funding accounts for a larger proportion than the provisional funding in the structure of total corporate capital, and the stability of funding sources is high. In particular, the regular and provisional funding ratio of businesses including DHG Pharma, Pymepharco, Imexpharm, Traphaco, Cuu Long Pharmaceutical, Domesco, Central Pharmaceutical 3 and Pharmedic were stable during the research period. This shows that businesses maintain the structure of mobilizing funding sources, mainly still coming from regular funding sources and being less dependent on temporary funding sources.

In contrast, Ben Tre Pharmaceutical and Lardopharm have a relatively low regular funding ratio, while having a relatively high provisional financing ratio, meaning that the two companies have a larger proportion of provisional funding than the regular funding in the total financial capital structure of the company. Therefore, Ben Tre Pharmaceutical and Lardophar are losing their balance in the structure of funding sources. If the funding structure is maintained, Ben Tre Pharmaceutical and Lardophar may face payment difficulties.

- Long-term asset self-financing ratio

Table 6. Long-term asset self-financing ratio of analyzed enterprises period 2018-2021

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	2,33	4,61	1,8	1,85	1,61	4,21	1,76	4,87	1,1	1,36
2019	3,03	4,31	1,64	1,88	2,25	4,84	1,93	5,8	1	1,06
2020	3,04	1,84	1,48	1,84	2,29	5,35	2,38	5,99	1,08	1,03
2021	3,76	1,79	1,57	1,87	2,23	5,91	1,86	4,98	1,04	1,41

Source: Calculated from the financial statement data of enterprises

- Short-term asset self-financing ratio

Table 7. Short-term asset self-financing ratio of analyzed enterprises period 2018-2021

Year/Ent	DHG	PME	IMP	TRA	DCL	DMC	DP3	PMC	DBT	LDP
2018	0,45	0,19	0,35	0,42	0,42	0.33	0,49	0,23	0,95	0,81
2019	0,32	0,18	0,28	0,35	0,3	0,27	0,39	0,18	1	0,97
2020	0,23	0,27	0,34	0,39	0,37	0,22	0,28	0,16	0,96	0,98
2021	0,23	0,36	0,35	0,43	0,27	0,12	0,37	0,18	0,99	0,72

Source: Calculated from the financial statement data of enterprises

From table 6 and 7, the long-term asset self-financing ratio of the analyzed enterprises is greater than 1 and short-term asset self-financing ratio is less than 1 (except for Ben Tre Pharmaceutical and Lardophar) showing that the funding source of these enterprises is stable, solvency is good. Meanwhile, Ben Tre Pharmaceutical and Lardophar have low short-term asset self-financing ratios and high long-term asset self-financing ratios, showing that the funding sources of the two enterprises are unstable, with high risk of insolvency and difficulties in production and business activities.

3. THE ROLE OF FINANCIAL STATEMENT ANALYSIS IN PHARMACEUTICAL ENTERPRISES IN VIETNAM

Based on the analysis of the financial statements of the enterprise, the enterprise's results of operations and current financial position are analyzed and understood, thereby assessing the development prospects of the enterprise.

In the past time, Vietnam's pharmaceutical industry has been interested by the Government, ministries, and localities, to build a progressive pharmaceutical business and production environment, and create favorable conditions for pharmaceutical enterprises to operate effectively and sustainably.

Through the analysis of financial statements of pharmaceutical enterprises listed on the Vietnamese stock market, we can see that the business situation is relatively positive, especially in the context of the Covid-19 pandemic spreading globally. With a safe financial structure, most Vietnam pharmaceutical companies have a certain growth rate in terms of production scale.

In general, the short-term assets structure still accounts for the majority of total assets, mainly because businesses mainly invest in inventory and short-term assets with quick capital turnover. Besides, this also reflects that enterprises have not promoted investment in fixed assets, such as factories, machinery systems, and production lines. Businesses should consider allocating assets reasonably and effectively. On the other hand, in the capital structure of pharmaceutical enterprises in Vietnam, equity capital value still accounts for a high proportion of the total capital value, showing their self-control and financial independence ability are very good. However, limiting the use of mobilized funds may prevent businesses from making the most of the financial resources.

Through the analysis of indicators reflecting the relationship between assets and capital as well as the financial balance analysis process, the result is the debt ratio of the analyzed pharmaceutical companies is relatively low, with relatively high financing and solvency ratios. That means that the business assets are mainly financed by equity, with little use of liabilities.

Firms with a high degree of financial independence, positive financial balance, or good balance are relatively efficient operations. However, among the research enterprises, Lam Dong Lardophar Pharmaceutical Joint Stock Company and Ben Tre Pharmaceutical Joint Stock Company have low working capital value, low constant financing ratio, and high temporary financing ratio. That proves the funding sources of the two businesses are unstable, potential risk of insolvency. Although both businesses are having negative net cash flows, the business results of Ben Tre Pharmaceutical Joint Stock Company are still profitable, while Lam Dong Lardophar Pharmaceutical Joint Stock Company has reported losses in the financial years 2018 and 2021, showing that Lardophar is facing difficulties in production and business activities.

Most of the researched pharmaceutical companies have positive business results and a favorable business environment due to the attention of State agencies and creating a legal corridor, it is the essential industry that directly serves the people's health care needs. With strong growth prospect in the future, Vietnamese pharmaceutical enterprises, however, are still of modest size, mainly small and medium enterprises, lacking the participation of new enterprises. This shortcoming can be explained by the fact that the source of raw materials is mainly dependent on imports, while the traditional medicine segment has not been properly invested and cared for. With stable and positive production and business results, businesses are still hesitant in mobilizing loans, leading to not maximizing operational capacity. Among the analyzed enterprises, small and medium enterprises like Cuu Long Pharmaceutical, Ben Tre Pharmaceutical and Lam Dong Pharmaceutical are currently using a lot of debt. The use of a lot of debt in the context of difficult business operations makes the liquidity situation of Lam Dong Pharmaceutical difficult to ensure.

Evaluation of the production and business results of the analyzed enterprises shows that the revenue and profit values fluctuated unevenly, occasionally increasing and dropping, and in many cases, sales revenue increased but profit after tax decreased. Specifically, Hau Giang Pharmaceutical Joint Stock Company is the company with the highest revenue and profit values, however the rate of revenue and profit fluctuations of Hau Giang Pharma is also unstable. Lam Dong Lardophar Pharmaceutical Joint Stock Company has market capitalization and the fastest decrease in revenue and profit values.

Evaluating the business performance, the return on assets (ROA), the return on equity (ROE) and the return on sales (ROS) the analyzed enterprises are all positive except for Lam Dong Pharmaceutical. The reason why the ROA, ROE, and ROS ratios of Lam Dong Pharmaceutical Joint Stock Company are negative is because the after-tax profit value of the business in 2018 and 2020 is negative. Through analysis, the reason for Lardophar's negative profit after tax is that this enterprise has not used its inputs efficiently and has not saved and used costs rationally. Since then, in order to improve the profitability, Lardophar needs to take measures to promote the growth of the company's profit after tax, namely increase revenue and save costs.

Evaluating the business performance, the return on assets (ROA), the return on equity (ROE) and the return on sales (ROS) of the analyzed enterprises are all positive except for Lam Dong Pharmaceutical. The reason for the negative ROA, ROE, and ROS ratios of Lam Dong Pharmaceutical Joint Stock Company is because of the negative after-tax profit value of the business in 2018 and 2020. Through analysis, the reason for Lardophar's negative profit after tax is that this enterprise has not used its inputs efficiently and has not saved and used costs rationally. Since then, in order to improve the profitability, Lardophar needs to take measures to promote the growth of the company's profit after tax, namely increase revenue and save costs.

The cash flow analysis results of sampled enterprises show that the cash flow of these enterprises varies unevenly and unstable. Production and business activities are the major activities of enterprises, generating revenue and thereby generating net cash flow from production and business activities. To ensure smooth and convenient business operations, businesses need to have positive net cash flow to meet the payment and expenditure requirements of the business. However, among the analyzed enterprises, many have a net cash flow value from production and business activities that is not large enough to compensate for the negative cash flow in financing and investment activities, which indicates that the cash flow structure is not secure.

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THE PREPARATION AND PRESENTATION COMPLETION OF THE FINANCIAL STATEMENTS AT THE ADMINISTRATIVE SERVICES UNDER VPSAS01 – PRESENTATION OF FINANCIAL STATEMENTS

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Abstract: *International economic integration requires the country's financial information to be transparent and comparable. In this context, Vietnam has published 11 Vietnamese Public Accounting Standards (VPSAS). However, there are still differences between the administrative non-business accounting system and the Vietnamese public accounting system. The article summarizes, compares and analyzes the collected data in order to point out the similarities and the differences between the Vietnamese administrative accounting system and the Vietnamese public accounting system on on the basis of financial statements. Then evaluation and suggestions are given for to improving the preparation and presentation of financial statements according to VPSAS01 - Presentation of financial statements.*

Keywords: *Circular, regime, accounting, public accounting standards, financial statements.*

1. INTRODUCTION

Public sector accounting practices are now moving towards international harmonization and minimizing discrepancies in financial reporting across countries. The emergence of accounting harmonization at the international level is strongly driven by the need for financial transparency as the basis for better decision-making (Eulner & Waldbauer, 2018), equity and related efficiency to public spending (Heald & Hodges, 2015). Accordingly, harmonizing of accounting standards is associated with enhanced comparability of financial information across governments (Pontoppidan & Brusca, 2016; Brusca & Martinez, 2016; Christiaens et al, 2015).

In the context of deepening international economic integration in Vietnam, the development and application of public accounting standards create a significant legal environment. In addition, due to the requirement of international practices, many people in society are interested in financial reporting in a complete, accurate and transparent manner. Currently, Vietnam has made significant progress in researching and developing regulations in the field of public accounting towards integration with international practices. On September 1, 2021, the Ministry of Finance issued Decision No. 1676/QD-BTC announcing 05 Vietnamese public accounting standards, phase 1. On July 6, 2022, the Ministry of Finance continued to issue Decision No. 1366/QD-BTC publishing 6 Vietnamese Public Accounting Standards for the second phase. Thus, so far, Vietnam has announced 11 Vietnamese Public Accounting Standards, making an important contribution to the reform of financial and accounting management in the public sector in Vietnam.

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However, the Vietnamese public sector accounting system is still far from the world public sector accounting. The field of public accounting has so far only developed and promulgated accounting regimes to guide accounting work and organization of the sufficient and synchronous accounting apparatus in accordance with international practices. At the same time, Vietnamese public sector accounting has not yet provided useful information for accountability and decision-making. In addition, there is still a certain gap between the recording and the presentation of information on state budget revenues and expenditures, accounting of financial funds, tax accounting and accounting at administrative and non-business units with the international practice. Therefore, the research objective is to analyze and evaluate issues related to the preparation and presentation of information on financial statements according to the Public accounting system according to Circular 107/2017/TT-BTC compared with Vietnamese Public Accounting Standards on presentation of financial statements (VPSAS 01).In addition, it also proposes orientations to improve the preparation and presentation of financial statements according to VPSAS01 - Presentation of financial statements to meet integration requirements.

The article covers the following topics: Research methods, an overview of public accounting standards on financial statements, the similarities and differences between the Vietnamese administrative accounting system and the Vietnamese public accounting system in terms of financial statements, and conclusions as well as suggestions.

2. RESEARCH METHODS

To conduct the research, the author uses a qualitative research method that combines literature research and expert consultation. Specifically, the author conducts a synthesis of related documents through the method of document research. The researched documents include the international public accounting standards system, Vietnam's public accounting standards, regulations of the administrative accounting regime,ect...

Based onthe collected documents and information, the author analyzes, compares and contrast the provisions of the Vietnamese administrative and non-business accounting regime and VPSAS01 to find out the similarities and differences as the basis for evaluating compatibility.In addition, the author consults experts who are researchers, scientists, accounting lecturers, chief accountants, heads of Finance - Accounting departments of administrative units, etc. about the obstacles in the process of preparing financial statements in accordance with the provisions of VPSAS01, thechanges required on the part of state management agencies and public non-business units,and the recommendations for improving the preparation and presentation of financial statementsaccording to VPSAS01 in order to bring harmony between Vietnamese public accountants and international public accountants.

3. OVERVIEW OF VIETNAMESE PUBLIC ACCOUNTING STANDARDS ON FINANCIAL STATEMENTS

The International Public Sector Accounting Standard (IPSAS) – a standard system developed by the International Public Accounting Standards Board (IP-SASB) includes regulations and guidelines on basic, general and complete accounting principles, contents, methods and procedures.

International Public Accounting Standards on Financial Reporting are introduced in IPSAS 01 – Presentation of Financial Statements; IPSAS 02 – Cash Flow Statement; IPSAS 06 – Consolidated financial reporting and accounting of investments in the controlled entity; IPSAS 08 – Financial statements for interests from joint ventures; IPSAS 10 – Financial Reporting in a Hyperinflationary Economy; IPSAS 18 – Divisional Reporting; IPSAS 24 – Present budget information in financial statements. These standards explain the terminology, conditions, methods, and formats of financial statements in public entities such as cash flow statements, consolidated financial statements, and reporting in a hyperinflationary economy distribution, financial reporting.

In addition, IPSASB has developed the cash-based IPSAS to improve the quality of the government's cash-based financial statements. This standard helps to make financial statements clear about cash inflows, outflows and balances when performed on a cash basis. IPSASB believes that governments should use cash-based IPSAS as a stepping stone towards the adoption of the accrual-based IPSAS.

To date, several countries have decided to adopt IPSAS (partially) and aligned the cash-based accounting system with the accrual-based accounting system (Bergmann et al, 2019; Brusca et al, 2018; Berger, 2018). The trend of switching from cash-based accounting standards to an accrual basis has been observed in many countries (Cavanagh et al, 2016; OECD/IFAC, 2017). The countries that have successfully converted public sector accounting to the accrual basis are mostly developed countries. The rest of the countries depend on the conditions and capabilities of each country that they are gradually converting. IPSASB is calling and encouraging countries around the world to apply IPSAS. The use of IPSAS will improve the quality and comparability of financial information.

The objectives of the international public accounting standards are as follow:

- The information is of good quality, and the units in the world can compare the figures on the report between periods;
- Transparency expressed through various reports within the entity is verifiable and helps users analyze and evaluate financial and accounting data;
- Consistency is reflected in the preparation and presentation of financial statements among public entities;
- Accountability helps state audit units easily perform their work when auditing in administrative and non-business units of the State;
- For Governance, a scientific management process and high reliability will be provided by international public accounting standards.

Based on the international public accounting standard system, the Vietnamese public accounting standard system has been researched and developed by the Public Accounting Standard Drafting Board under the Ministry of Finance to ensure compliance with the requirements of the Ministry of Finance international accounting practices and suitable to the actual conditions of Vietnam.

Vietnamese public accounting standards are presented in the form of two levels: basic accounting standards and specific accounting standards. They are shown in the Ministry of Finance circulars where each standard has a number and its own name, abbreviated as VPSAS.

Accounting standards are issued in the form of the Ministry of Finance Circularswhere each standard is presented according to the structure of International Public Accounting Standards.

According to the roadmap for public accounting standards in Vietnam, the Ministry of Finance has recently issued 5 public accounting standards under Decision 1676/QD-BTC effective from September 1, 2021.

According to the Ministry of Finance, these standards are applied to all general- purpose financial statements prepared and presented on the accrual basis of accounting in accordance with Vietnamese public accounting standards. These standards are intended to prescribe how the general purpose financial statements should be presented and compared with the financial statements of previous periods and of other entities. In addition, these standards provide an overview of the general issues to be considered when presenting financial statements, guidance on the reporting structure, and minimum requirements for the content of financial statements to be followed on the accrual basis of accounting.

Vietnamese Public Accounting Standards have the same standard symbols with the corresponding international public accounting standards. Vietnam Public Accounting Standards only prescribe the contents that are suitable with the current conditions and legal framework of Vietnam, the paragraphs of the International Public Accounting Standards are not suitable with the financial and budgetary mechanism. Existing regulations are deleted, in case the financial and budgetary mechanism is newly prescribed, and the corresponding paragraphs are added accordingly.

Vietnam Public Accounting Standard (VPSAS) No. 01 "Presentation of Financial Statements" is prepared based on International Public Accounting Standard (IPSAS) No. 01, "Presentation of Financial Statements" and regulations current financial, budgetary and accounting mechanism of Vietnam. The development and promulgation of Vietnam's public accounting standards are indispensable and necessary in the context of our country's deeper and deeper international economic integration.Admittedly, they create an important legal environment for the State accounting sector and contribute to the increasingly effective management and administration of the national financial system.

4. THE SIMILARITIES AND THE DIFFERENCES BETWEEN THE VIETNAMESE ADMINISTRATIVE ACCOUNTING SYSTEM AND THE VIETNAMESE PUBLIC ACCOUNTING SYSTEM IN TERMS OF FINANCIAL STATEMENTS

4.1. Similarities

Vietnam's public accounting standards system is built on the basis of the international public accounting standards system. The international public accounting standards system is built on the basis of the international accounting standards system in the private sector and is implemented on an accrual basis. Over the past time, Vietnam has gradually revised and issued new regulations. Specifically, the HCSN accounting regime announced under Circular No. 107/2017/TT-BTC has had a fundamental change compared with the old accounting standards and has access to international practices.

Firstly, in regard to the application of the accounting basis, the fundamental change in the HCSN accounting regime according to Circular No. 107/2017/TT-BTC and Vietnam's public accounting standards on financial statements (VPSAS 01) is the application of the accounting basis accrual calculation with the accounts in the table. It has shown the conformity with international practices of the current Vietnamese administrative accounting system.

Second, regarding the recognition of items in the financial statements:

- Regarding asset recognition:
  + Inventories: Circular No. 107/2017/TT-BTC and Vietnam's public accounting standard on inventories (VPSAS 12) stipulate similar to international public accounting standards (IPSAS 12) as the value of exportable inventories recognized as an expense in the period and revenue is recognized in line with expenses. Meanwhile,the old Public accounting system stipulates that the entire value of raw materials purchased in the period (even if not yet used up) is also included in the expenses in the period.
  + Regarding fixed assets (fixed assets): The accounting records and public accounting standards of Vietnam stipulate that the annual depreciation value of fixed assets is included in the expenses in the period in accordance with international public standards. Different from the regulations of the old accounting system, when purchasing fixed assets, the entity records the entire value of the asset as an expense in the period, and annual depreciation of fixed assets is recorded as a decrease in the funding source for the formation of fixed assets.
  + Regarding other assets: For the recognition of capital construction in progress, Circular No. 107/2017/TT-BTC as well as Vietnam's public accounting standards and international public accounting standards stipulate that expenses are recognized in the appropriate period match the volume of completed work. It is fundamentally different from the previous regulations. At the end of the year, the value of construction in progress is included in expenses and settled within the period.
- Regarding the recognition of capital sources: The current administrative accounting system has similarities with international public accounting standards, stipulating that there must be an offset between revenue and expenditure,and the difference is recorded as an increase in capital.
- Surplus and deficit: The innovation in the regulations on recognition of budget revenues and expenditures of the current administrative accounting systemis that determination of the surplus (deficit) of administrative and non-business activities; production, business and service activities, financial and other activities is close to international public accounting standards.

4.2. Differences

In addition to the above similarities, there are still some differences in the regulations on financial statements of the Public accounting system according to Circular No. 107/2017/TT-BTC and Vietnamese public accounting standards (Table 1).

Table 1. Comparison of the differences between Circular No. 107/2017/TT-BTC and Vietnam's public accounting standards on financial statements

Content	**Regulations on financial statements of the Public accounting system according to Circular No. 107/2017/TT-BTC**	**Vietnam Public Accounting Standard on Financial Statements (VPSAS 01)**
Form of presentation	Present in accordance with the provisions of the HCSN accounting regime according to Circular No. 107/2017/TT-BTC on how to prepare and present financial statements	Guidelines for the structure of reports and minimum content requirements for financial statements prepared on the accrual basis
Apply the basis of accounting	Accrual accounting	Accrual accounting
Components of financial statements	According to the current Public accounting system, financial statements include: statement of financial position, statement of results of operations, statement of cash flows, notes to the financial statements.	According to VPSAS 01, the components of financial statements include the following 6 reports: Statement of financial position; Statement of results of operations; Reporting on changes in net assets/equity; Statements of cash flows; Notes to the financial statements, including a summary of significant accounting policies and other explanations and Information comparing with the prior period
Financial status report	According to the current Public accounting system, financial statements include: statement of financial position, statement of results of operations, statement of cash flows, notes to the financial statements.	- Guiding the identification and classification of assets and liabilities in the standards; detailing the presentation of each item on the report according to the form specified in the standard guidance document. - The entity should present provisions, which are classified as provisions for payables to employees and other items relevant to the operations of the entity; - Requires presentation of some assets and liabilities according to short-term/long-term criteria, some other assets and liabilities according to liquidity criteria
Activity report	Revenue and expenses are summarized and classified by each activity	An entity may present in the income statement or the notes to the financial statements the detailed items of total revenue and arrange them in the order appropriate to the operating characteristics of the entity. An entity may present in the income statement or in the notes to the financial statements a detailed breakdown of costs by nature or function of costs, guaranteeing to provide reliable and more relevant information.

Content	**Regulations on financial statements of the Public accounting system according to Circular No. 107/2017/TT-BTC**	**Vietnam Public Accounting Standard on Financial Statements (VPSAS 01)**
Cash flow statement	Cash flows from interest and dividends are classified as cash flows from financing activities	Cash flows relating to interest and dividends or similar payments received and paid by the entity must be presented separately. Each of these items is classified as recurrent, investing or financing activities on a consistent basis between the reporting periods. Dividends or similar payments paid can be classified as cash flows from financing activities because it is the cost of raising financial resources. In addition, dividends or similar payments paid may also be classified as cash flows from recurrent activities to help users of the report assess the ability of the entity to pay these amounts from cash flows from operate regularly. For a public financial institution, interest paid, interest and dividends or similar received are generally classified as cash flows from regular operations.

From the above differences, the author conducts an expert discussion on the difficulties and obstacles in the process of implementing Circular 107 and applying VPSAS01, Circular 107 has provided regulations on principles and required to prepare financial statements, but these regulations have not been clearly explained and are insufficient to ensure the quality of information provided to managers and users. Therefore, it is necessary to supplement any additional principles and requirements to be consistent with the provisions of international public accounting standards. In addition, some important contents which have not been guided in Circular 107/2017/TT-BTC such asprovisioning,recording the original cost of inventory arerequired to have more specific regulations to conform to the regulations of VPSAS01 when amending and supplementing Circular 107/2017/TT-BTC, it is necessary

5. CONCLUSION AND SUGGESTIONS

5.1. Suggestions

The current public sector financial statements in Vietnam mainly provide information to serve the public sector and state management agencies, not the general public and do not really provide information about the unit's explanation. With the current requirements of integration and reform, the application of Vietnamese public accounting standards (VPSAS) is very important and it is necessary to have clear orientations in the application process. High-quality financial reporting will help improve public and financial market confidence in public sector institutions, and help

Vietnam implement its plan to improve the State's credit rating. Completing the preparation and presentation of financial statements according to VPSAS01 in Vietnam will be accompanied by high-quality financial information. At the same time, with the approved project of announcing, the Vietnamese accounting standard system is an important factor for consideration by credit rating agencies and investment organizations, provides opportunities for the public sector to develop in a more sustainable direction.

For the preparation and presentation of financial statements according to VPSAS01 to be effective, it is necessary to do the following:

Firstly, convert the accounting basis synchronously

For public sector financial reporting to be transparent and useful, the Ministry of Finance needs to change the recognition basis only from the current level of accrual accounting to a full accrual basis. Moreover, the application of the accrual basis in public sector accounting is also in line with the roadmap for compiling public accounting and reforming the public sector accounting regime of the Ministry of Finance of Vietnam and in line with current world accounting trends. In addition, the Ministry of Finance should prescribe principles for the preparation and presentation of financial statements for the public sector. Like VPSAS, the principles of preparation and presentation of public sector financial statements in Vietnam include the following: Going concern, accrual basis, materiality and aggregation, clearing, consistency, and comparability.

Besides, for public sector financial statements to provide useful information to users, public sector financial statements need to clearly define the objective of providing information. When applying VPSAS to financial statements in Vietnam, it is necessary to distinguish and provide clear provisions on financial statements for general purposes and financial statements for special purposes. Also,it is required to expand the users of financial statements and widely publicize the financial statements for general purposes to meet the information usage needs of the public. The purpose of public sector financial statements is not only to provide information useful for decision making, but also to inform accountability. In line with the general trend of public sector accounting in the world, the financial statements of public entities are absolutely necessary to be divided into two types: financial statements for general purposes and financial statements for special purposes (taxes, budget revenues and expenditures, state secrets,ect..

Vietnam already has a government commitment to comply with IPSASs and the Ministry of Finance has laid out a roadmap to apply IPSAS to the remaining public sector accounting standards issuance in the future. However, it can be seen that some regulations in the accounting system of Vietnam's administrative accounting system have many differences compared with the Vietnamese public accounting standards and the international public accounting standards. Therefore, it is extremely necessary and synchronous to complete the public accounting system in line with VPSAS and IPSAS to make it easier for public entities to access and apply appropriate public accounting standards with international practices.

Second, improve the professional qualifications of public sector accounting personnel when applying VPSAS

Improving the quality of financial statements requires a team of professionals, experts, and public sector accountants to have high professional qualifications, professional knowledge, especially an understanding of IPSAS and VPSAS to be able to apply correctly and selectively. Vietnam needs to invest in improving the professional qualifications of accounting experts and experts by training and retraining policies, organizing professional exchange seminars, updating new knowledge about accounting and finance accounting in the public sector according to common international practices and enabling the team to access IPSASs and international public sector accounting trends. The recruitment policy should be reasonableto recruit domestic and foreign personnel with intensive training in public sector accounting and working experience in countries where public sector accounting reforms have been implemented and the financial statements are prepared on the basis of successful accumulation. They will serve as a pioneer and core team in Vietnam's public sector accounting reform.

Third, strengthen the application of information technology when applying IPSAS and VPSAS on financial statements in Vietnam

In fact, some accountants'duties are not really complete, leading to limited information provision. Therefore, it is necessary to invest in upgrading and synchronizing the accounting software system capable of serving the accounting work according to VPSAS and accounting according to the current accounting regime in the transition and voluntary application period. In the next period, only one accounting system according to financial accounting standards is applied to support financial accounting in general and the conversion of financial statements according to financial accounting standards in particular.

In order for public sector financial statements to provide truthful and useful information, it is necessary to build a common accounting software for public agencies and connect online nationwide. Moreover, the sharing of accounting software will be very convenient for data aggregation to prepare and present financial statements for the public sector. In parallel with the common use of software, it is necessary to design an advanced information processing system, improve transmission quality, high data transmission speed, security and safety to be able to connect data in a timely manner all public units in the system. This is absolutely necessary when the integration trend requires high requirements on information technology application and data management so that the application of VPSAS on financial statements is really effective and useful.

Fourth, develop and issue public sector accounting standards soon or temporarily use IPSAS with adjustments for Vietnam with undisclosed standard contents.

In fact, in the field of the public accounting so far, Vietnam has only developed and issued accounting regimes to guide accounting work at specific accounting units in the field of State accounting and a number of related standards. The regulations set out in these accounting regimes are mostly those guiding the accounting work and the organization of the accounting apparatus, but there are no fully unified and principled regulations synchronously in accordance with international practices. In phase 2 (2020-2024) of the project, Viet Nam has continued to research, develop, issue and publish Vietnamese public accounting standards.In this phase, Vietnam's public accounting standard system applied to public sector accounting units must ensure the country's economic integration requirementsand synchronization with the reform and renewal of economic management policies and public financial management policies of Vietnam,which is the basis for providing timely and honest financial information in order to improve the capacity, efficiency, publicity and transparency in the management of the Government's resources.

In addition, currently the use of adjusted IPSAS for Vietnam is an immediate solution to what needs to be done, demonstrating the determination of policy makers in overcoming the weaknesses of the current state accounting system and quickly responding to integration requirements. All accounting principles and methods comply with IPSAS, except for the different cases of Vietnam, which are adjusted separately. If Vietnam uses all IPSASs with adjustments, it will limit the objectivity of individuals and state management agencies in promulgating the public sector accounting regime.

5.2. Conclusion

With the rapid development of the public sector in the past decade and the orientation of public financial management reform towards financial autonomy, increasing the efficiency of the use of public resources in Vietnam requires public sector accounting which must be positive reforms. In addition, in order to develop the economy in the context of Vietnam's increasing integration into the international economy, Vietnam has ratified and joined more than 14 free trade agreements, in which all agreements have specific regulations on encouraging investment capital flows, encouraging free trade in accordance with WTO frameworks as well as agreements signed by Vietnamaimingat economic development. Therefore, the requirement of transparency and step by step perfecting the application of public standards on financial reporting is urgent to create a transparent public operating environment with the aim at attracting domestic and foreign investment capital sources. Accordingly, the quality of financial reporting of administrative and non-business units will be significantly improved through improving accountability, enhancing transparency and comparability, and providing more useful information for users of the report to make management, operation and investment decisions.

Applying VPSAS will also promote the improvement of the quality of human resources in the fields of accounting and finance. In addition, it contributesto helping Vietnam soon achieve the recognition of a market economy by international organizations and createsing more favorable conditions for international economic and financial negotiations.

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DETERMINANTS OF CAPITAL GROWTH OF LISTED CONSTRUCTION COMPANY IN VIETNAM

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Abstract: *The article divides construction businesses listed on Vietnam's stock market, during 2018 and 2021, into two groups: Large size companies and Mid-Small size companies. Then the research addressed the difference in the mean values of the following variables: growth in equity capital (GEC), earnings rate (ER), retention rate (RR), and dividend yield are then examined (DY). The influence of ER, RR, and DY on GEC is next investigated using a Regress test with panel data. The findings show that DY has a statistically significant impact on GEC, while the other variables have no such impact.*

Keywords: *Dividend, retention, capital growth, emerging companies, dividend yield.*

1. INTRODUCTION

Profit after tax is the most important factor in producing equity growth. As a result, looking at EPS growth will reveal certain possibilities to boost the company's equity.

After achieving a profit after taxes, the firm must decide whether to keep the profit for manufacturing and commercial operations or pay dividends to shareholders. The Retention Rate reflects the company's profit retention, whereas the Dividend Yield reflects the company's dividend distribution to shareholders. If the firms' profits per share (EPS) are comparable, a greater dividend payout to shareholders will result in lesser retained earnings, and vice versa. However, in reality, businesses of varying sizes and profit structures exist. Dividends and profit retention range amongst strategies, therefore the capacity to develop equity varies as well.

The article divides construction businesses listed on Vietnam's stock market, during 2018 and 2021, into two groups: Large size companies and Mid-Small size companies to do the research and the followings are: part 2 for literature review and previous research studies, part 3 addresses the data and method. Part 4 is about the result and conclusion, which buidling the foundation for some conclusion on part 5.

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2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

The Shareholder's gains (dividend) is the manager's loss (retained capital). A diligent review of dividends policy clearly means three key intellectually difficult-to-dissolve thoughts: first, high dividends increase market value because dividends are more certain than capital gains as the maxim says *a bird in hand is worth more than a thousand in the bush* (Lintner, 1956; Walter, 1956; Gordon, 1959). Second, it is not higher dividends but lower dividends that actually increase market value, as higher dividends reduce stock prices because taxable investors pay higher taxes on dividends than on capital gains (Brealey, 1981; Keown et al, 1997). And third, dividend policy does not matter as investors care only about their total returns and the level of total shareholders returns is unaffected by management decision to pay out part of that return as dividends (Miller & Modigliani, 1961; Miller & Scholes, 1978).

This section provides academic definitions that support the study's variables' relevance.

(a) Growth Equity Capital

Growth is defined in this study as the steady increase in market value, profit, and capital generated by company leaders' constant pursuit of opportunity and innovation. The study focuses on capital-efficient growth, as growth-oriented rising companies are typically expected to roll back a portion of their earnings to fund investment opportunities to support expansion. So, whether we believe Miller and Modigliani (1961), Miller and Scholes (1982) irrelevance of dividend policy position, there is an impact for rising company growth. Academic and empirical research has resulted in three in the development of at least important mindsets for maximizing shareholder wealth. But, in this case, we're talking about sustained growth.

(b) Earnings Rate

Earnings rate (ER) is the opportunity cost of a fund that investors are prepared to commit their funds to and are unwilling to commit their funds below. In this research, is defined as the growth of EPS year to year. When the earnings rate is high, shareholders are tempted to keep more money than when the rate is low. Robert G. Heisterberg (1967) found a positive relationship between and GEC.

(c) Retention Rate

The retention rate is simply the percentage of capitalized retained earnings. The dividend payout rate is its inverse. As a result, managers must choose between high and low retention rates, large and small dividends, and heavy and light external stock funding when making financial decisions. Each of these actions has a direct impact on shareholders' wealth, which has produced a flurry of dividend argument essays. The retention rate is a major determinant of growth for developing companies whose return to shareholders should mirror the J-curve prominent in private equity firms, based on the basic logic of having to capitalize retained earnings at a far lower opportunity cost than external capital (Dagogo, 2009; Emekekwue, 2005). Campbell also found a positive relationship between RR and the ability to grow equity of firms in the sample.

(d) Dividend Yield

Dividend yield (DY) is a measure of how much cash flow one receives from each Naira investments in an equity position. For investors with minimum benchmark or expected stream of cash flow, dividend yield of a given share shows if a given share is efficient with respect to its yield. DY equals annual dividend per share divided by price per share. It is actually the dividend/price ratio, and its inverse is the price/dividend (P/D) ratio, which will show how many times an investor may earn a given dividend at a given price to breakeven. DY ratio measures the relative efficiency of a share. Maio (2015) found a positive relationship between DY and GER of the firms in the sample. Koijen and Van Nieuwerburgh (2011) found some relationship between DY and equity growth while Kothari did not find a statistically significant relationship between DY and GER.

3. DATA AND METHOD

3.1. Collection of Data

From 2017 to 2020, financial data from construction enterprises was gathered from securities websites. Then it was recalculated to match the research's goals. The financial data used for comparison includes the Growth of Equity Capital, EPS Growth, Dividend Yield, and Retention Rate, as well as the four-year average values.

3.2. T Test

The businesses in the sample will be sorted into two groups: small and large. The average value of each financial indicator will then be generated and compared using Stata's T test to see if the indices are statistically different.

3.3. Panel Data Regression Model with Random Effect

To determine the influence of factors affecting the growth of equity of enterprises, a regression model is included to evaluate. The formula is as follows:

$$GEC_{it}^{EC} = \beta_1 + \beta_2 ER_{it} + \beta_3 RR_{it} + \beta_4 DY_{it} + U_{it}$$

Where:

GEC is Growth of Equity Capital

ER is Earning Rate

RR is Retention Rate

DY is Dividend Yield

4. RESULTS AND DISCUSSIONS

4.1. Test of Two Means

The author utilizes the TTest test to analyze the differences in financial information between small and big businesses, with the mean values of GEC, ER, and RR being GECTB, ERTB, and RRTB, respectively, of the businesses in the sample after splitting them into two groups (group 1 has Smaller scale and group 2 is a group of larger sized enterprises).

Table 1. T Test GECTB result

```
Two-sample t test with equal variances
------------------------------------------------------------------------------
Variable |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
  GROUP1 |      20    .0054648    .0128655    .0575364   -.0214631    .0323926
  GROUP2 |      20    .0106943    .0111564    .0498928   -.0126562    .0340449
---------+--------------------------------------------------------------------
combined |      40    .0080795     .008415    .0532214   -.0089415    .0251006
---------+--------------------------------------------------------------------
    diff |           -.0052296     .017029               -.0397029    .0292438
------------------------------------------------------------------------------
    diff = mean(GROUP1) - mean(GROUP2)                            t =  -0.3071
Ho: diff = 0                                     degrees of freedom =       38

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.3802         Pr(|T| > |t|) = 0.7604          Pr(T > t) = 0.6198
```

Table 2. T Test ERTB result

```
. ttest ERTB, by(GROUP1)

Two-sample t test with equal variances
------------------------------------------------------------------------------
Variable |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
  GROUP1 |      20   -1.507152    1.304844    5.835441   -4.238223    1.223918
  GROUP2 |      20   -.2989034     .249341    1.115087   -.8207801    .2229733
---------+--------------------------------------------------------------------
combined |      40   -.9030279    .6627539    4.191624   -2.243574    .4375183
---------+--------------------------------------------------------------------
    diff |           -1.208249    1.328454               -3.897563    1.481065
------------------------------------------------------------------------------
    diff = mean(GROUP1) - mean(GROUP2)                            t =  -0.9095
Ho: diff = 0                                     degrees of freedom =       38

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.1844         Pr(|T| > |t|) = 0.3688          Pr(T > t) = 0.8156
```

Table 3. T Test RRTB result

```
. ttest RRTB, by(GROUP1)

Two-sample t test with equal variances
------------------------------------------------------------------------------
Variable |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
  GROUP1 |      20    .6531787    .0705914    .3156944    .5054292    .8009282
  GROUP2 |      20    .3899168    .0426763    .1908542    .3005944    .4792393
---------+--------------------------------------------------------------------
combined |      40    .5215478     .045845    .2899489    .4288176    .6142779
---------+--------------------------------------------------------------------
    diff |            .2632619    .0824889                .0962719    .4302518
------------------------------------------------------------------------------
    diff = mean(GROUP1) - mean(GROUP2)                            t =   3.1915
Ho: diff = 0                                     degrees of freedom =       38

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.9986         Pr(|T| > |t|) = 0.0628          Pr(T > t) = 0.0014
```

Table 4. T Test DYTB result

```
. ttest DYTB, by(GROUP1)

Two-sample t test with equal variances
------------------------------------------------------------------------------
Variable |     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
---------+--------------------------------------------------------------------
  GROUP1 |      20     .025275    .0058099    .0259826    .0131147    .0374353
  GROUP2 |      20    .1144036    .0295591    .1321922    .0525357    .1762715
---------+--------------------------------------------------------------------
combined |      40    .0698393    .0164918    .1043032    .0364815    .1031971
---------+--------------------------------------------------------------------
    diff |           -.0891286    .0301246               -.1501128   -.0281444
------------------------------------------------------------------------------
    diff = mean(GROUP1) - mean(GROUP2)                            t =  -2.9587
Ho: diff = 0                                     degrees of freedom =       38

    Ha: diff < 0                 Ha: diff != 0                 Ha: diff > 0
 Pr(T < t) = 0.0026         Pr(|T| > |t|) = 0.0003          Pr(T > t) = 0.9974
```

At the 5% level of significance, the T test findings demonstrate that Pr(|T| > |t|) > 0.05 cannot be rejected. The null hypothesis H0 asserts that the two groups' values are similar, that is, that there is no statistically significant difference between them.

If Pr(|T| > |t|) 0.05, it is possible to reject hypothesis H0 that the values of these two groups are similar at the 5% significance level, that is, the difference between their values is statistically significant.

Thus, from the results of TTest, only the mean value of Dividend Yield, DYTB has a statistically significant difference, the mean value of the remaining variables of the 2 small and large groups large is not considered to have a statistically significant difference.

4.2. Panel Study with Random Effect

The author utilizes the Progress regression test in Stata software using data from the whole sample of 40 firms across time to analyze the influence of variables on the level of equity increase during 2016-2020.

GEC is the independent variable, whereas ER, RR, and DY are the dependent variables.

Table 5. Random-effects Result

```
Random-effects GLS regression                   Number of obs     =        160
Group variable: MCK1                            Number of groups  =         40
R-sq:                                           Obs per group:
     within  = 0.5985                                         min =          4
     between = 0.5645                                         avg =        4.0
     overall = 0.5707                                         max =          4
                                                Wald chi2(3)      =      41.63
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0000
------------------------------------------------------------------------------
         GEC |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          GER|  -.0016919   .0012092    -1.40   0.162    -.0040619    .0006781
          RR |   .0056636   .0271116     0.21   0.835    -.0474743    .0588014
          DY |   .3724413   .0589602     6.32   0.000     .2568815    .4880011
       _cons |  -.0224132   .0184931    -1.21   0.226    -.0586589    .0138326
-------------+----------------------------------------------------------------
     sigma_u |          0
     sigma_e |  .13565322
         rho |          0   (fraction of variance due to u_i)
------------------------------------------------------------------------------
. . ttest GECTB, by(GROUP1)
```

The regression test also reveals that: DY has a statistically significant influence on GEC, and that firms that pay bigger dividends have stronger equity growth. EPS growth and the Retained Earnings Ratio, on the other hand, are not significantly related to equity growth rate.

When a company pays a high dividend, it is frequently followed by the issuing of new shares in the following years. Furthermore, many businesses pay high dividends since their earnings are high in comparison to the businesses in the sample. The analysis also reveals a significant disparity in dividend levels between large and small companies in the sample. This means that huge corporations may pay greater dividends while still having enough retained earnings to considerably expand the amount of their equity. If the businesses in the sample make equal profits, the large dividend payout means there will be less money left over to grow the business

In practice, however, the difference in realized returns across the businesses in the sample is high enough that firms with greater DYs may compensate for the gap in returns while also profiting from disparities in equity growth. Despite the fact that an examination of the mean value reveals that only DY has a statistically significant difference, the GER of the two groups of firms does not. The reason for this is because when looking at the average value of spending by size group, while many small businesses have a high GER and many big businesses have a low GER, the mean value of businesses in these two categories did not show a statistically significant difference.

5. CONCLUSION

Construction businesses have technical requirements that necessitate a huge quantity of gear and equipment, therefore big-scale businesses have a unique advantage over small businesses in terms of profit and capital size. However, real data demonstrates that there is no statistically significant difference in GECTB capital size growth between large and small businesses. Small enterprises, although obtaining less money, can attain a larger percentage value, and vice versa.

When comparing large and small companies, there is a notable difference in DYTB dividends, showing that large companies are better able to provide returns to investors. Furthermore, when looking at the whole sample, the DY of the better firms has a higher GEC equity increase than the DY of the lower firms, indicating the group's health. Not only do these firms pay good DY for investors, but they also have good equity growth, both bringing current profits to investors and bringing benefits in the future for investors.

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ANALYSIS OF FINANCIAL GROWTH IN A PRIVATE ECONOMIC GROUP

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Abstract: *Financial growth of a private economic group is the growth of the group's financial indicators. When analyzing financial growth of a private economic group, analysts often use financial growth and sustainable growth indicators, which are closely related to the growth of the group. In this article, the author has gathered and explained relevant theories about financial growth of private economic entities and performed financial growth analysis on Vingroup. From this analysis, the author has proven that the analysis of financial growth of private economic entities provides financial controllers with scientific basis to make timely and accurate financial and management decisions. This article is divided into two main sections: Indicators and methods of analyzing financial growth of private economic groups, and analysis of the financial growth of Vingroup in the period 2017-2021.*

Keywords: *Growth, sustainable growth, analysis, private economic group.*

Analyzing the financial growth of a private economic group is fundamental in providing information to the financial managers of the economic group. Information from the analysis is the basis for rerasonable financial management solutions so that the economic groups can at all time maintain stable growth. Therefore, the authors choose to study the theory and practice of analyzing financial growth of private economic groups.

Part 1: Indicators and methods of analyzing financial growth of private economic groups

When studying the financial growth of a private economic group, managers often refer to the growth in assets, equity, revenue growth, profit, and cash flow. The consideration and selection of financial resources to create growth is a matter of great significance for economic groups. Private economic groups can realize growth with internal financial resources or exogenous financial resources. Within the scope of this article, the author discusses growth by endogenous financial resources, also known as sustainable growth.

Sustainable growth is defined as the growth from endogenous financial resources through reinvesting profits to increase equity. Maximizing the possibility of sustainable growth is an important condition to ensure the autonomy in production and business activities of private economic groups. The sustainable growth of private economic groups is influenced by financial management policies as well as business performance of the group. Achieving the goal of maximizing sustainable growth requires private economic groups to analyze the impact of factors on sustainable growth to make appropriate management decisions in the future for each specific condition.

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The sustainable growth of private economic groups is shown through the sustainable growth indicator.

$$\text{Sustainable growth rate (Tbv)} = \frac{\text{Reinvested retained earnings}}{\text{Equity at the beginning of the period}} \times 100$$

Applying the Dupont analytical model, it shows that the relationship of the basic financial ratios affects the sustainable growth rate of the corporation as follows:

$$\text{Sustainable growth rate (Tbv)} = \frac{\text{Retained profit for reinvestment}}{\text{Equity at the beginning of the period}}$$

$$\text{Tbv} = (\text{Equity growth}/2 + 1) \times \frac{\text{Average assets}}{\text{Average equity}} \times \frac{\text{Total revenue}}{\text{Average assets}} \times \frac{\text{Return after tax}}{\text{Total revenue}} \times \frac{\text{Retained profit}}{\text{Return after tax}}$$

Tbv	=	$(TT_{VC}/2 + 1)$	x	Asset-to-equity ratio (TS/VC)	x	Asset utilization efficiency (HS_{TS})	x	Return on sales (ROS)	x	Retained profit ratio (T_{LN})
		(1)		(2)		(3)		(4)		(5)

From the above equation, it can be shown that the sustainable growth rate of private economic groups is affected by 5 financial coefficients:

The first is equity growth: Positive equity growth will create a premise for a private economic group to grow sustainably. Therefore, private economic groups need to maintain stable equity growth from business results or by raising more capital from owners.

The second is the asset-to-equity ratio showing the level of financial leverage of a private economic group. The use of financial leverage has a great impact on the sustainable growth of private economic groups. However, the use of financial leverage can have a positive and negative impact on the ability of a private economic group to grow sustainably. If the basic return on working capital is lower than the interest rate on debt, then the use of financial leverage will have a negative impact on the sustainable growth of the private economic group. To see more clearly the impact of financial leverage on the sustainable growth coefficient, we consider based on the equation to determine the sustainable growth rate as follows:

$$\text{Tbv} = \frac{\text{LNgl}}{\text{VCđ}} = \left[\frac{\text{TTvc}}{2} + 1\right] \times \frac{\text{LNST}}{\text{VCbq}} \times \frac{\text{LNgl}}{\text{LNST}}$$

$$\text{Tbv} = \left[\frac{\text{TTvc}}{2} + 1\right] \times \left[\text{BEP} + \frac{\text{NPTbq}}{\text{VCbq}} \times (\text{BEP} - \text{I})\right] \times (1 - \text{t}) \times \text{T}_{\text{LN}}$$

In which: LNgl isprofit retained for reinvestment, VCđ is equity at the beginning of the period, LNST is profit after tax, VCbq is average equity, NPTbq is average liabilities, I is interest rate average borrowing, t is the corporate income tax rate, BEP is the economic return on business capital, and Tln is the rate of retained earnings for reinvestment.

The higher the asset-to-equity ratio, the higher the debt-to-equity ratio and vice versa. Therefore, a high debt-to-equity ratio means that a private economic group is using high financial leverage and vice versa.

Through the above formula, it can be shownthat the policy of using financial leverage to affect the sustainable growth rate can occur in the following cases:

The first case: BEP > I, then if the private economic group has greater financial leverage, the faster the impact of financial leverage will increase the sustainable growth rate and vice versa. The second case: BEP < I, then if the private economic group has greater financial leverage, the faster the impact of financial leverage will reduce the sustainable growth rate, the higher the financial risk. and vice versa. The third case: BEP = I, then a private economic group with large or small financial leverage or without financial leverage does not affect the sustainable growth coefficient.

Thirdly, the efficiency of asset use reflects the level of investment and capital use of private economic groups. A private economic group with a reasonable investment policy in terms of scale and structure, and at the same time exploiting production capacity, will create a premise for the private economic group to grow sustainably. If the asset utilization efficiency decreases, it is necessary to compare with the industry average and clearly analyze the causes and effects, thereby making reasonable proposals on investment policies and the management and enhancement of energy utilization. production and business capacity of private economic groups.

Fourthly, the operating profitability coefficient showing the situation of cost management in the process of operation. Operating profitability ratio reflects the efficiency of business management and capital investment activities of a private economic group in each period through the relationship of costs and profits generated in the period. If the operation of a private economic group is not profitable, the corporation will certainly not be able to grow sustainably, but on the contrary will fall into a recession in the future. If the operating profitability ratio decreases, it will also reduce the possibility of sustainable growth of the private economic group. At that time, the private economic group needs to clearly analyze the causes and effects so that there are reasonable measures to manage production and business costs.

Fifthly, the rate of retained earnings for reinvestment showing the profit distribution policy of private economic groups. Retained profit for reinvestment is an endogenous financial resource for sustainable growth of a private economic group that does not depend on capital mobilized from outside. Retaining profits for reinvestment determines the sustainable growth of a private economic group, but leaders and shareholders of a private economic group will consider the rate of profit retained appropriately by management to create sustainable growth momentum for the corporation and harmonize the interests of shareholders.

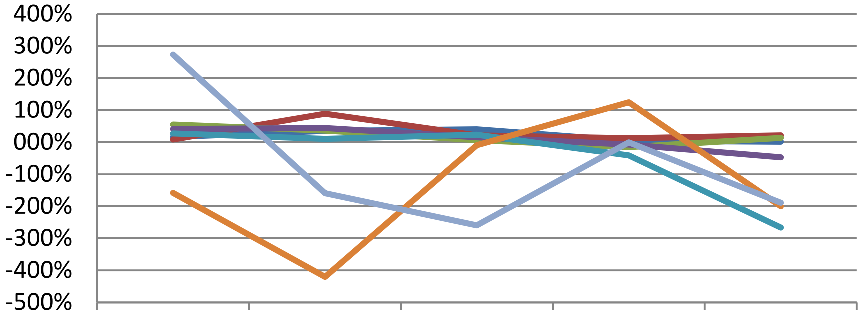
Therefore, in order to achieve the goal of maximum sustainable growth, private economic groups need to make decisions related to: the way to use financial leverage, investment policies to use mobilized capital. policy, cost management policy and profit distribution policy. On the other hand, there is also an interaction between financial ratios, such as an increase in the retention rate, which will affect equity growth and the asset-to-equity ratio.

The method of analyzing the financial growth situation of a private economic group is: Using the comparative method to compare the growth targets of the economic group between this period and the previous period to determine growth trend of private economic groups; or compare the financial growth targets of a private economic group with other groups having similar business fields and lines to determine the position of the group. Using factor analysis methods to identify and evaluate the impact of factors on sustainable growth targets of private economic groups.

Part 2: Analysis of the financial growth of Vingroup in the period 2017-2021.

For many years, Vingroup has always held the top position in the top 500 large private enterprises in Vietnam. Vingroup operates in 3 core business areas: Trade, Service, Technology and Industry. Vingroup is very successful in leading and dominating the market not only in the country but also abroad. In the following, the authors will analyze the financial growth status of Vingroup.

- **Analysis of growth in key financial indicators of Vingroup**



	2017	2018	2019	2020	2021
Growth rate of assets	017%	035%	040%	005%	001%
Growth rate of equity	009%	089%	022%	013%	022%
Growth rate of net revenue	055%	036%	007%	-015%	014%
Growth rate of operating profits	042%	044%	016%	-007%	-047%
Growth rate of profits after tax	027%	010%	024%	-041%	-266%
Growth rate of cash flow in the period	-158%	-421%	-010%	124%	-200%
Growth rate of cash flow generated from operation.	273%	-159%	-260%	000%	-189%

Figure 1. Growth of key financial indicators of Vingroup

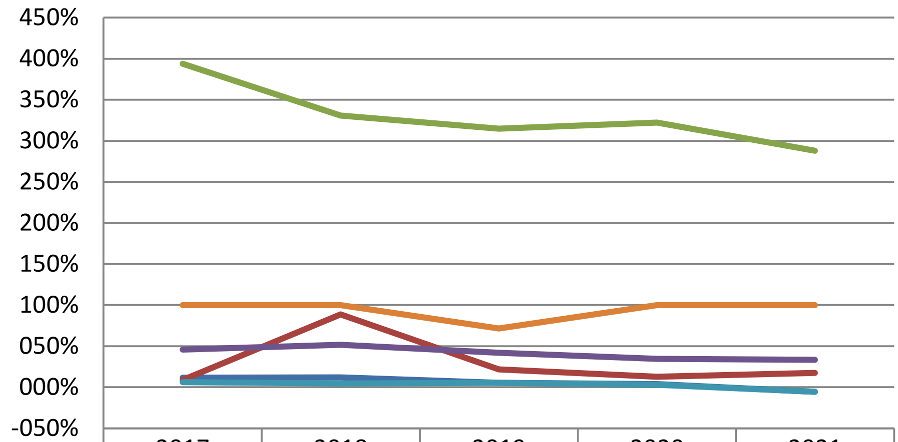
Source: Calculation from Vingroup's annual financial statements for the period of 2017-2021

The assets and equity indicators of Vingroup Group have always grown positively. Although the growth rate of the Group's assets gradually decreased in 2020, 2021, the equity growth rate still reached double digits. That shows that Vingroup is on the way to development, expanding capital scale and increasing capital mobilization from owners to increase business capacity to realize the Group's strategic goals.

In terms of net revenue, maintaining positive growth in 2017, 2018, 2019 and 2021; only decreased in 2020 because at the end of 2019, Vingroup Group transferred the entire retail system to Masan Group, which in turn affected the revenue situation of the Group in 2020.

The targets of net profit from business activities, net profit after tax, and net cash flow from business activities of the Group are unstable, especially in 2020, 2021 when these indicators were all negative with the largest decrease in 2021. This situation is due to the fact that in 2020, 2021, the outbreak of the Covid-19 epidemic and complicated developments have greatly impacted the Group's production and business activities. Specifically: The business of real estate rental, resort - entertainment is greatly affected by the prolonged social distancing period and the closure of international flight routes. On the other hand, Vincom Retall has a tenant support package of more than 2,000 billion, so it also affects revenue and profit. The pre-tax loss of the hotel and tourism service business in 2021 is VND 10,880 billion. Besides, the epidemic situation is complicated, Vingroup has made large grants of up to trillions of billions for epidemic prevention and other activities. At the same time, the group decided to stop producing gasoline cars from the end of 2022 to focus resources on electric vehicles. This decision will help the group realize faster its strategy of becoming a global vehicle, because in the future, electric vehicles will gradually replace cars powered by internal combustion engines. As a result, during the period, the group recognized an expense related to accelerated depreciation of unused assets and an expense to suppliers due to the termination of the contract. The loss before tax in production and related services in 2021 is up to 23,021 billion VND.

- **Analysis of the sustainable growth of Vingroup**



	2017	2018	2019	2020	2021
Substainable growth rate (SGR)	012%	012%	006%	004%	-006%
Equity growth rate	009%	089%	022%	013%	017%
Asset to equity ratio	3.93926	3.30811	3.14836	3.22196	2.88022
Asset performance	.46025	.51862	.41878	.34503	.33588
Return On Sales	.06186	.04793	.05327	.03189	-.05289
Retained Earning ratio	100%	100%	072%	100%	100%

Figure 2. Vingroup's sustainable growth situation

Source: Calculation from Vingroup's annual financial statements for the period of 2017-2021

In the period 2017-2020, Vingroup has always had positive sustainable growth, but the sustainable growth rate gradually decreased in 2019, 2020. Especially in 2021, the group's sustainable growth rate was reported to be negative. Using the elimination method, it is possible to quantify the change of financial coefficients affecting the growth coefficient in Table 1.

Table 1. Influence of financial ratios on Vingroup's sustainable growth

Infulence level	2018 compared to 2017	2019 compared to 2018	2020 compared to 2019	2021 compared to 2020
Tbv change (%)	**0,16%**	**-6,30%**	**-1,80%**	**-9,33%**
The influence of TTvc	4,48%	-2,76%	-0,22%	0,09%
The influence of $H_{TS/VC}$	-2,59%	-0,44%	0,12%	-0,41%
The influence of HSkd	1,72%	-1,67%	-0,96%	-0,09%
The influence of ROS	-3,45%	0,78%	-1,81%	-8,92%
The influence of Lg/LNST (T_{LN})	0,00%	-2,21%	1,07%	0,00%
Aggregate influence	**0,16%**	**-6,30%**	**-1,80%**	**-9,33%**

(Source: Calculation from Vingroup's annual financial statements for the period of 2017 - 2021)

The sustainable growth rate of Vingroup from 2017-2020 had always been positive, but the sustainable growth rate decreased in 2019 and 2020, especially in 2021 when the group's sustainable growth target is negative. The fluctuation of the sustainable growth rate as above is due to the impact of the following factors:

- Firstly, owing to the change in owner's equity: From 2017 to 2021, Vingroup's equity has always grown positively, but the equity growth rate in 2019 and 2020 decreased compared to the previous years, whichin turn made the rate of sustainable growth decrease; In 2018 and 2021, the equity growth rateincreased compared to the previous years, which has increased the sustainable growth rate.
- Secondly, due to the influence of the asset-to-equity ratio: In 2018, 2019 and 2021 the asset-to-equity ratio decreased compared to the previous years, causing the sustainable growth rate to decrease. Particularly in 2020, the asset-to-equity ratio increased because the average equity growth rate is smaller than the average asset growth rate, which has increased the sustainable growth rate. The return-on-equity ratio is always 2 times, 3 timesgreater, which means that the corporation's level of financial leverage use is relatively high. Therefore, the trend of gradually decreasing the asset-to-equity ratio helps the Group to improve its level of financial independence and autonomy, thereby reducing financial risks.
- Thirdly, owing to the effect of efficiency in using working capital (assets): The efficiency of using assets increased in 2018, then gradually decreased from 2019 to 2021. The efficiency of using assets of the Group decreased. From 2019 to 2021, the sustainable growth rate of the group has decreased.
- Fourthly, due to the influence of profit after tax/sales ratio-return on sale (ROS): Vingroup's ROS in the period 2017-2020 was always positive, which means that Vingroup's business activities are always efficient but tend to decrease gradually in 2018 and 2020 causing the sustainable growth rate to decrease. However, in 2021, negative ROS made the sustainable growth rate in 2021 drop sharply. Initially, in 2021, the negative ROS is due to the fact that in 2020, 2021, the outbreak of the Covid-19 epidemic and complicated developments have greatly impacted the Group's production and business activities. Specifically: The business of real estate rental, resort - entertainment is greatly affected by the prolonged social distancing period and the

closure of international flight routes. On the other hand, Vincom Retall has a tenant support package of more than 2,000 billion, so it also affects revenue and profit. In addition, due to the complicated situation of the epidemic, Vingoup has made large grants of up to trillions of billions for epidemic prevention and other activities. At the same time, the group decided to stop producing gasoline cars from the end of 2022 to focus resources on electric vehicles. As a result, during the period, the group recognized an expense related to accelerated depreciation of unused assets and an expense to suppliers due to the termination of the contract.

- Fifth, due to the influence of the rate of retained earnings for reinvestment: In 2019, the decrease in the percentage of retained earnings compared to the previous year reduced the sustainable growth rate. In 2020, the rate of retained earnings increased in comparision with the previous years, resulting in an increase in the sustainable growth rate. The change in the rate of retained earnings comes mainly from the policy of paying dividends and setting aside other benefits. group funds.

Through the analysis of the mentioned factors, it can be shown that the profit distribution policy, capital mobilization policy, financial leverage policy, financial use efficiency and operating profitability all have a significant impact on the sustainable growth rate of Vingroup. Consequently, operating profit ratio is the most influential factor. In the period of 2017-2020, the group always maintains a positive sustainable growth rate - This is a great success of Vingroup. In 2021, the Group's sustainable growth rate was mainly affected by the impact of the Covid-19 epidemic and the change in the Group's business strategy.

Conclusion: As can be seen from above issues, it is very important to analyze the financial growth of private economic groups, especially the analysis of sustainable growth, which is very important in providing protinent information for financial management decisions of private economic groups. A full, correct and timely awareness of the factors affecting the financial growth of private economic groups in each specific context will help financial managers have a scientific basis to make correct and timely financial management decisions.

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THE IMPACT OF FINANCIAL AUTONOMY ON THE FUNDING OF PUBLIC MUSEUMS IN HO CHI MINH CITY

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Abstract: *The study aims to analyze the influence of a financial autonomy mechanism on the operation and funding of public museums in Ho Chi Minh City, Vietnam. The study used the method of document analysis, and descriptive statistics of financial data in the period 2012 - 2018 of seven public museums. The results showed that the financial autonomy mechanism had some positive effects on the performance of museums. Several performance indicators as the number of visitors, self-generated revenues, cost savings, and additional income of employees increased. However, the authority limited the financial autonomy of museums with regulations on admission fees and expense norms. In the context that public funding tends to decrease, governing bodies should extend personnel and financial autonomy to museums. The city authority needs to be more diligent in supporting museums in developing fundraising strategies from society.*

Keywords: *Public museum, financial autonomy, public non-business units.*

1. INTRODUCTION

New public management (NPM) applies private-sector forms of organization and management to public-sector organizations. The ultimate goal of the NPM is to improve the efficiency and effectiveness of public sector organizations, improve the responsiveness and quality of public services, reduce public expenditure and increase accountability. Under the influence of NPM, public museums shifted their focus from collecting and preserving heritage to focusing on the audience (Gilmore & Rentschler, 2002). Autonomy in management and policy helped public museums in Europe change their management approach towards market orientation. Museums adapted corporate-style management techniques to increase operational efficiency. It had a positive impact on the performance indicators of public museums in Italy, Sweden, Denmark, and the Czech Republic (Thomson, Caicedo, & Mårtensson, 2014); (Bertacchini, Nogare, & Scuderi, 2018); (Plaček, Ochrana, Půček, Nemec, Křápek, & Campo, 2021); (Kann Rasmussen & Rasmussen, 2021).

NPM also influenced public sector reform programs in many developing countries in Asia. In Vietnam, the Government implemented a financial autonomy mechanism for public non-business units. As a result, the level of financial autonomy of public museums increased. However, did the financial autonomy mechanism positively impact the performance indicators of public museums in Vietnam? How did the financial autonomy mechanism affect the public funding of museums

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in Vietnam? The study analyzed the financial data of seven public museums in Ho Chi Minh City to evaluate the financial performance of museums. The study answers a question about the impact of financial autonomy on the operation and funding of public museums in Ho Chi Minh City, Vietnam.

The continuing sections of the paper are structured as follows: part two is the literature review, part three is a research methodology, part four is the autonomous context of public museums in Vietnam, part five analyzes the financial autonomy of Ho Chi Minh City's public museums, part six discusses the research findings and part seven is the conclusion.

2. LITERATURE REVIEW

Autonomy is one of the issues of a delegation that received much discussion in public organization research. Verhoest, Peters, Bouckaert, and Verschuere (2004) analyzed the concept of autonomy in terms of management, policy, and the government's ability to limit the decision-making capacity of public organizations. Managerial autonomy means that a public organization has varying levels of autonomy in the use of inputs such as finance, personnel, or other factors. A public organization has policy autonomy when it has decision-making power over objectives, audiences, policy instruments, processes and procedures, quality, and outputs. The ability of the government to limit the decision-making capacity of public institutions in terms of structure, finance, legal status, and intervention also demonstrates their autonomy (Verhoest, Peters, Bouckaert, & Verschuere, 2004). In the field of culture, Kann Rasmussen & Rasmussen (2021) suggested a paradox regarding the autonomy of public cultural institutions. From a quality standpoint, the focus of cultural organizations on users and performance indicators undermined their autonomy. However, from the view of competency decision-making, cultural organizations are increasing their autonomy in policymaking and defining their mandates (Kann Rasmussen & Rasmussen, 2021). Several empirical studies evaluated the impact of autonomy on the activities of cultural organizations. (Bertacchini, Nogare, & Scuderi, 2018) and Plaček (2021) found that autonomous public museums, outsourced public museums had higher performance than other museums (Bertacchini, Nogare, & Scuderi, 2018; Plaček, Ochrana, Půček, Nemec, Křápek, & Campo, 2021).

3. RESEARCH METHODS

The authors used descriptive statistical methods and document analysis to analyze the financial autonomy of seven local public museums in Ho Chi Minh City. These seven public museums in a sample are Museum of Ho Chi Minh City (HCMM), History Museum of Ho Chi Minh City (HISM), War Remnants Museum (WRM), Ho Chi Minh Museum – Ho Chi Minh City branch (HCBM), Ho Chi Minh City Fine Arts Museum (HFAM), Ton Duc Thang Museum (TDTM), Southern Women's Museum (SWM). Financial data of the seven museums come from the Report on the situation and results of the implementation of the autonomy mechanism of public non-business units according to Decree 43/2006/ND-CP and Decree 16/ND-CP for the period 2012-2018. Data on the operation of seven museums come from the Report on investment and performance of cultural institutions in Ho Chi Minh City; the Report on summarizing cultural and sports activities in 2018 – Direction and tasks in 2019; the Report on the impact of economic growth on the cultural and spiritual life of people in Ho Chi Minh City. The Department of Finance and The Department of Culture and Sports Ho Chi Minh City provided us with these reports.

4. THE AUTONOMY CONTEXT OF PUBLIC MUSEUMS IN HO CHI MINH CITY, VIETNAM

Vietnam's Law on Cultural Heritage defines a museum as a cultural institution collecting, preserving, researching, displaying, and introducing cultural heritage and physical evidence to serve research, study, visit, and cultural enjoyment of communities. These are public non-business units established by competent state agencies to provide public services in the cultural heritage field. They are organizations with legal status, seals, and accounts. The heads of units are civil servants, but their employees are state employees.

Public non-business units have performed the financial autonomy mechanism since 2002. Decree 10/2002/ND-CP stipulated two unit types: self-financing the entire recurrent operating expenses and self-financing a part of recurrent operating expenses. These units had more autonomy in spending and the distribution of net revenues. In 2006, Decree 43/2006/ND-CP added autonomy terms for structure, personnel, and performance tasks. Decree 43 classified public non-business units into three levels of autonomy: self-financing all recurrent expenses, partially self-financing recurrent operating expenses, and fully funded by the state budget. The governing bodies decided to classify the public non-business unit for three years.

In 2015, Decree 16/2015/ND-CP, which replaced Decree 43, classified public non-business units into four groups: public non-business units that self-finance capital and operating expenses, public non-business units that self-finance operating expenses, public non-business units that partially self-finance operating expenses, and fully-subsidized public non-business units by budget state. The most notable change of Decree 16 was autonomous units estimate public service prices under the market mechanism. The others determine prices based on economic-technical norms and cost norms. Decree 16 stipulated the roadmap for calculating the costs (direct costs, salaries, management costs, and the depreciation of fixed assets) in public service prices from 2016 to 2020. In 2021, the government issued Decree 60/2021/ND-CP (replacing Decree 16) proposed a clear roadmap to increase the level of financial autonomy of public non-business units.

5. FINANCIAL AUTONOMY OF PUBLIC MUSEUMS IN HO CHI MINH CITY

5.1. Classification of Public Museums by the Level of Autonomy

The public museums of Ho Chi Minh City implement the financial autonomy mechanism according to the central government's and city authority's regulations. Based on the level of financial autonomy, the city assigns autonomy decisions to museums within three years. The personnel autonomy of museums depends on the level of financial autonomy. Table 1 shows that there is one fully autonomous museum among the seven museums in Ho Chi Minh City. Other museums are partially self-financed and receive regular funding from the city budget.

Table 1. Classification of Ho Chi Minh City's public museums according to the level of financial autonomy

Museum code	2012	2013	2014	2015	2016	2017	2018
HCMM	66%	65%	63%	62%	64%	65%	74%
HISM	47%	56%	47%	57%	51%	52%	65%
WRM	82%	84%	100%	100%	100%	100%	100%
HCBM	19%	22%	24%	23%	30%	35%	38%
HFAM	56%	61%	53%	58%	57%	64%	73%
TDTM	40%	45%	53%	55%	1%	61%	60%
SWM	43%	43%	30%	8%	30%	25%	31%

5.2. Autonomy in Revenue Levels at Public Museums

Despite implementing the autonomy mechanism, the People's Council of Ho Chi Minh City decided on museum entrance fees. According to Resolution No. 16/2017/NQ-HDND of the People's Council of Ho Chi Minh City, the entrance fee for WRM is 40,000 VND/person/time and for HCMM, HFAM, and HISM is 30,000 VND/person/time. In addition, there are also regulations free of charge to visit the museum for children under 60 years old, the disabled, and the poor, and a 50% reduction of the entrance fee for children from 06 years old to under 16 years old and students.

According to the decision of the People's Committee of Ho Chi Minh City, WRM was a self-financed museum for regular operation on November 13, 2014; however, the city cut funding from the city budget for the museum on January 1, 2014. This sudden decision of the city authority created great difficulties for the WRM. The total revenue of the WRM decreased significantly in 2014 because there was no funding from the city budget (see tables 2 and 3). The museum had to lay off staff (10 employees/60 employees had to quit), reduce wages, and reduce the museum's regular operating expenses.

In the following years, the WRM's revenue improved because the museum made several significant changes in operations (see tables 2 and 3). WRM had focused on innovating and exploiting the strength of on-site exhibitions with attractive themes to increase ticket sales. The museum operated art performances and talks with historical witnesses. In addition, the museum published publications and catalogs introducing it in four different languages. These activities significantly increased revenue from the fees of the museum. WRM's revenue from fees was 39,620 million VND in 2018 (equivalent to 1,733 thousand USD), an increase of 477% compared to 2014. Besides, the museum provided many professional services for other organizations as implementing exhibitions, displaying traditional houses, and publishing publications for universities in Ho Chi Minh City and neighboring provinces. These activities improved the staff's professional capacity, created relationships, raised the museum's brand, and increased service revenue. The service revenue of the WRM was 5,493 million VND in 2018 (equivalent to 240 thousand USD), an increase of 536% compared to 2014 (Huynh, 2017).

Table 2. Revenue of seven public museums

Unit: Million VND

Museum Code	2012		2014		2015		2016		2017		2018	
	CB	**PNS**	**CB**	**PNS**	**CB**	**PNS**	**CB**	**PNS**	**CB**	**PNS**	**CB**	**PNS**
HCMM	2,874	5,665	3,583	6,148	3,555	5,805	3,321	5,911	3,391	6,248	3,195	9,163
HISM	3,024	2,631	3,433	3,016	3,291	4,368	3,166	3,246	3,293	3,613	3,271	6,100
WRM	1,950	8,684	0	9,953	0	14,454	0	17,572	0	20,733	0	53,431
HCBM	3,134	757	3,503	1,136	3,487	1,062	3,361	1,407	3,473	1,882	3,460	2,084
HFAM	2,655	3,319	2,884	3,210	2,859	3,908	2,899	3,889	2,997	5,272	2,765	7,375
TDTM	3,751	2,464	2,731	3,109	2,661	3,285	2,525	3,915	2,587	4,062	2,836	4,327
SWM	2,500	1,872	3,083	1,314	2,906	1,763	2,903	1,250	2,968	1,000	2,798	1,246

Note: **CB:** *Regular expenditures from the city budget;* **PNS** *Revenue from public non-business services.*

Table 3. Revenue from public non-business services of seven public museums

Unit: Million VND

Museum code		**HCMM**	**HISM**	**WRM**	**HCBM**	**HFAM**	**TDTM**	**SWM**
2012	**F&C**	818	1,394	7,581	256	0	0	0
	SA	3,533	870	628	465	3,319	2,464	1,800
	O	1,314	367	475	36	0	0	72
2014	**F&C**	934	1,546	8,308	283	0	0	0
	SA	4,690	1,442	863	572	3,210	3,106	1,314
	O	524	28	782	281	0	3	0
2016	**F&C**	1,211	1,565	13,771	298	514	0	0
	F&C	4,221	1,555	1,109	976	2,390	3,911	1,250
	SA	479	126	2,692	133	985	4	0
2017	**O**	1,584	1,695	15,711	349	680	0	0
	F&C	4,529	1,858	1,158	1,309	3,333	4,057	1,000
	SA	135	60	3,864	224	1,259	5	0
2018	**O**	3,481	4,135	47,928	0	2,521	0	0
	F&C	5,660	1,283	5,493	2,084	3,520	4,316	1,246
	F&C	22	682	10	0	1,334	11	0

Note: **F&C:** *Revenue from fees and charges***;** **SA***: Revenue from service activities;* **O:** *other revenue.*

5.3. Autonomy in Expenditure of Public Museums

The expenditure autonomy of public museums depended on the level of financial autonomy. Public museums, which were self-financed units for all recurrent expenditures, could actively use revenues for recurrent expenses. They could decide on spending levels commensurate with their financial ability for administrative management expenditure (stationery, domestic work, conferences, seminars, electricity, water, and communication). However, museums must strictly comply with the spending norm for some expenses (using a car, working abroad, receiving foreign guests, and international conferences in Vietnam). Partly self-financed public museums might decide on expenditure for administrative management, but the maximum amount must not exceed the norm spending. Public museums must pay to follow the salary ranks, grades, positions, and allowances prescribed by the government.

Public museums have an internal expenses regulation, which shows all the contents of the museum's revenues and expenditures. It is the basis for the cost management of museums. Museums submitted the internal expenses regulation to the governing bodies for monitoring, inspecting, supervising, and transferring to the State Treasury for expenditure control. Public museums opened accounts at the State Treasury, and the museum's revenues and expenditures must pay through the State Treasury.

5.4. Autonomy in the Distribution of Financial Results of Public Museums

Museums distributed net revenue after tax in the Foundation for Public Non-Business Development Fund, Income Supplement Fund, and Bonus and Welfare Funds. According to Decree 16, self-financed museums for recurrent expenditure must set aside at least 25% of net revenue to Foundation for Public Non-Business Development Fund. The portion of net revenue shared in Income Supplement Fund is the maximum amount of 3 times the salary fund according to ranks, grades, and positions and no more than three-month salary and wages made in the year into the Bonus and Welfare Fund. Partly self-financed museums must set aside at least 15% of net revenue to the Foundation For Public Non-business Development Fund; the maximum amount of two times the salary fund according to ranks, grades, and positions to Income Supplement Fund; no more than two-month salary and wages made in the year of the museum into the Bonus and Welfare Fund. Museums determine the level of additional income expenditure for employees, but the additional income expenditure of museums' leaders must not exceed two times the average extra income of the employees.

Table 4 shows that the funds of seven museums tended to increase when the level of financial autonomy increased. The Foundation for Public Non-Business Development Fund of the WRM and HFAM in 2018 was 7.7 and 2.4 times higher than in 2012. The Bonus and Welfare Funds in 2018 of these two museums also were 5.4 and 1.4 times higher than in 2012. In contrast, SWM, which had a lower level of financial autonomy and unstable revenues, had smaller and uneven Funds over the years.

Table 4. Funds of seven Public Museums

Unit: million VND

Museum code	2012			2014			2016			2018		
	FPND	B&W	IS	FPND	B&W	IS	FPND	B&W	IS	FPND	B&W	IS
HCMM	1,100	200	0	438	420	0	422	460	0	331	679	0
HISM	544	200	0	0	300	0	300	350	0	745	250	200
WRM	1,096	879	0	628	808	0	2,151	602	118	8,421	4,715	1,000
HCMBM	23	212	0	17	40	9	52	32	0	39	229	127
HFAM	624	354	0	212	90	0	400	280	0	1,483	480	0
TDTM	413	395	0	573	605	25	775	577	0	561	262	0
SWM	274	255	0	281	313	0	92	277	0	0	367	0

Note: ***FPND:*** *Foundation for public non-business development Fund,* **B&W**: *Bonus and welfare Fund, IS: Income Supplement Fund.*

One of the goals of the autonomy mechanism of public non-business units in Vietnam is to increase the income for civil servants and state employees of the units. Table 5 shows the additional income of employees in seven public museums in 2018 was higher than in 2012. The WRM's highest extra income/person/year was 278.9 million VND/person/year in 2018. SWM's lowest extra income/person/year was 12.9 million VND/person/year in 2018. Consequently, the autonomy mechanism achieved the goals for income.

Table 5. The additional income per capita/year of seven public museums

Unit: Million VND/person/year

Museum code	2012	2013	2014	2015	2016	2017	2018
HCMM	29.1	41.6	41.8	30.5	28.8	27.2	31.2
HISM	13.1	15.4	24.4	25.7	25.6	29.1	22.4
WRM	38.7	38.2	27.3	68.1	78.4	96.0	278.9
HCMBM	16.7	8.0	12.4	15.5	23.7	29.3	52.9
HFAM	26.4	22.4	25.2	25.6	29.6	41.7	31.0
TDTM	27.2	35.8	35.2	42.0	59.5	57.0	59.1
SWM	0	0	2.1	18.8	12.9	10.6	12.9

6. DISCUSSION

This financial autonomy of seven public museums had expanded over time and positively impacted their operation. Museums held various thematic exhibitions in modern galleries and opened continuously from 7:30 to 18:00 to attract visitors. As a result, the number of visitors increases gradually every year. Revenue from public non-business services increased, and the city budget for the regular operation of museums tended to decrease. The internal expenses regulation helped museums manage expenditures better and avoided wasteful use of state budget funds. The additional income of employees at seven museums improved. However, Ho Chi Minh City's public museums have faced several difficulties when implementing the financial autonomy mechanism. First, these museums perform political tasks assigned by the Ho Chi Minh City authority, such as synthesizing and researching to help the public learn the history of the formation and development of the land of Saigon - Ho Chi Minh City. Therefore, they do not separate from the control of administrative management regulations. Second, neither the Ministry of Culture, Sports and Tourism of Vietnam nor the Department of Culture and Sports of Ho Chi Minh City has issued guidelines on economic-technical norms for museums. Therefore, museums did not follow the roadmap to calculate the public service price. In addition, the facilities of many museums are lacking or have deteriorated. WRM has no parking space for visitors, whereas all buildings of HISM are old. HCMM, HFAM, and TDTM's buildings are not suitable for museum activities. Museums need a large amount of capital investment in facilities and equipment in the future.

Decree 16 allowed public non-business units to borrow capital from credit institutions, mobilize capital from employees to invest in building facilities, and improve the quality of their operations. However, seven museums in Ho Chi Minh City have not yet taken out loans to invest in facilities. Museums did not have a marketing and communication strategy to raise funds from the community. Therefore, museums still need grants from the city government.

Ho Chi Minh City funded the facilities and equipment investment projects of museums. The city invested in the renovation and expansion projects of the SWM and storage and specialized equipment project at the HCBM. The Department of Culture and Sports Ho Chi Minh City prepared a project to build a new HCMM and TDTM with a total investment of about 600 billion VND. Due to a limited budget, the city can only partially finance the museums' new construction projects. Hence, a combination of public and private financial resources to fund museum activities in Ho Chi Minh City is an effective solution. It is a common trend adopted by many museums because of declining public funding.

Raising capital from the private sector requires the support of the city government. The city needs to give museums autonomy so that museums can recruit new people into job positions such as marketing and communications. In addition, the city should allow museums to decide on their entrance fees. Museums also have to change the way they manage museums and follow the business style as a business (Romolini, Fissi, Gori, & Contri, 2020). The management board and employees of museums need to change their thinking and learn more about business-style management methods.

7. CONCLUSION

Although financial autonomy had a positive effect on several museum performance indicators, funding from the city budget was the significant financial resource for museums. Therefore, museums need to innovate their financial resources. They should implement plans to mobilize funding from the private sector for investment projects in facilities. The city government needs to work more diligently to increase the autonomy of museums. It is a necessary condition to support museums to raise funds from the community.

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WHICH SUSTAINABLE GROWTH RATE (SGR) ESTIMATOR IS BETTER FOR FISHING COMPANIES LISTED IN VIETNAM?

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Abstract: *The paper analyzes whether there is a significant difference between the Higgins, Van-Hone and G sustainable growth models in listed companies in the fishing industry in Vietnam during the period of 2010-2021. Research has shown that profitable firms with enough cash to invest in fixed assets and pay more taxes have a higher sustainable growth rate under the Higgins, G models than under the Van-Hone model. Based on those experimental results, the author suggests that Higgins' sustainable growth model and G sustainable growth model can both be applied in fishing enterprises in Vietnam.*

Keywords: *Sustainable growth rate, Higgins, Van-Hone, enterprise, fishing.*

1. INTRODUCTION

From an enterprise's perspective, growth can be understood as an increase in the size of the business, or the scale of revenue and profit achieved in the process of its production and business. Growth is necessary but not a sufficient condition for businesses to survive and develop in the future. To ensure this requires businesses to grow in a sustainable way, ensuring that the actual long-term growth of the business must be in harmony with the resources of that business.

Many investors and top managers tend to think that businesses with a higher sustainable growth rate are better. However, too much sustained growth over a long period of time will lead to significant increases in costs to maintain growth, which in turn will lead to long-term financial losses. Burden of debt, crisis of market share decline and loss of talented employees, even bankruptcy for businesses. Therefore, growth to a certain extent will be good for businesses, helping to maintain competitive advantages, however, if it exceeds the limit, it will affect the value of the business.

According to Damodaran's view, no business can ever grow faster than the economy in which it operates, so the sustainable growth rate cannot be higher than the overall growth rate of the economy.

Sustainable growth is a necessary condition for the existence and development of every business, it is seen as the power to measure the size of the business. Damodaran believes that sustainable growth is understood through two factors that are investment in new assets to create growth and improve the efficiency of existing assets to create efficiency in growth. Growth here is the general growth state of the economy in which the business is operating.

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In Gordon's growth model, when valuing corporate assets determined by the discounted cash flow method, the sustainable growth rate is understood as the long-term growth rate of the company, and it must not exceed the discount rate of cash flows (weighted average cost of capital WACC).

In the long term, sustainable growth is the state all businesses aim for. Depending on the conditions, the management board of enterprises will make changes in the corporate structure towards the expected growth rate, so the growth stage of each business will be different. So, the sustainable growth rate of the business is the constant growth rate in the long term that any company wants to aim for and maintain, depending on the type of operations, internal resources., the market, the industry in which it operates, special offers, the economy of one or more countries in which the business is operating, and estimate the growth rate accordingly. From a financial perspective, growth is not a necessary measure to maximize profits, but growth to reach the ultimate goal of maximizing business value. The sustainable growth rate is the maximum growth rate in line with the growth rate of sales without exhausting the internal financial resources of the enterprise. Therefore, estimating the sustainable growth rate of businesses is very important, it will directly affect the determination of the value of the company.

In the world today, there are many models used to estimate the sustainable growth rate, but considering the current operating conditions of seafood enterprises in Vietnam, they still face many difficulties in financial issues. There is a need for a complete study of sustainable growth rate models as a basis for deciding important business issues. Therefore, this study was conducted to analyze whether there is a significant difference between Higgins, Van-Hone and G sustainable growth model for listed companies in fishing industry in Vietnam during the period 2010-2021 or not, to suggest a sustainable growth model which is suitable for fishing enterprises.

The study consists of five parts. After the introduction, the authors will summarize the theoretical bases and overview the research situation. The third section clarifies the data source. The fourth part is the results and discussion of the study. The fifth part gives the conclusion.

2. THEORETICAL BACKGROUND AND LITERATURE REVIEW

2.1. Literature review

Higgins (1977) proposed the use of sustainable growth rate defined as the maximum growth rate in sales that a business can achieve while maintaining a certain financial policy. This is a valuable tool for long-term financial planning and analysis of company growth as it shows sustained growth from already generated sales without additional capital. It helps managers to determine the company's sales growth rate so that it can match the company's actual operating performance and financial policy.

Higgins (2007) proposed sustainable growth rate as an effective tool for a banker to determine the creditworthiness of a business. By comparing the actual growth rate with the sustainable growth rate, it will show the problem that needs to be prioritized by businesses to promote growth. Furthermore, it helps the banker understand why the business needs to borrow money and how long this need will last. Sustainable growth rate models help bankers explain to inexperienced small and medium-sized entrepreneurs with finance why it's important to keep the right balance between growth and corporate profits.

The sustainable growth rate has been applied in many different studies such as: Martani, Mulyono and Khairurizka (2009) used to test the impact of accounting information on the interpretation of profitability; Escalante, Turvey and Barry (2006) sustainable growth model helps to check the level of development of farms when applying the model to grain farms and cattle ranches; Demirguc-Kunt and Maksimovic (1988) a sustainable growth model that explores the impact of changes in the financial and legal systems on the use of non-firm capital to promote growth; Jarvis, Mayo and Lane (1992) use the sustainable growth model to launch advertising campaigns; Vasiliou and Karkazis (2002) apply the sustainable growth rate model to assess the feasibility of growth plans in the banking sector; Hyytine and Pajarinen (2005) apply the sustainable growth rate to study the relationship between the quality of information about business activities in the year published and the total external investment capital in the enterprise; Geiger and Reyes (1997) use a sustained growth rate model to assist small business owners in determining growth rates that are appropriate for the current company's financial position; Phillips, Anderson and Volker (2010) used a sustainable growth model to analyze financial ratios among privately held retail companies at different growth stages; Jin and Wu (2008) apply the sustainable growth model to study the relationship between intellectual capital and sustainable growth; Pickett (2008) applies a sustainable growth model to detect the relationship between advertising policies and business performance; Dhannapal and Ganesan (2010) use the model to find solutions related to profitability and effective use of leverage in the Indian textile industry. These case studies show the practical significance and importance of sustainable growth models for many different sectors. Ashta (2008) showed that 41% of corporate finance textbooks in Burgundry Business School (France) mentioned and discussed sustainable growth. He also asserts that it is a concept that has many practical applications in life. Firer (1995) studied 26 modern finance books, he concluded that 73% of them discussed the sustainable growth rate model. Therefore, sustainable growth is an important and useful concept in modern corporate finance research.

Sustainable growth rate models are built by different researchers. In fact, their model has been widely used and popularized in specific businesses and financial situations: Platt et al. (1995) proposed a model of sustainable growth when the business business facing financial difficulties; Hamman (1996) proposed a model of sustainable growth in terms of cash flow; Jager (2003) built a sustainable growth rate model for non-profit organizations; In general, these sustainable growth models are developed from the sustainable growth models of Higgins (1977) or of Van Hone (1998) and applied to specific situations. This is an indication of the importance of studying a common sustainable growth rate model for academic and research purposes. However, at present, among the commonly used models, there are still significant similarities and differences.

In a recent study of sustainable growth rates, Fonseka et al. (2012) examined whether there is a significant difference between two commonly used models of sustainable growth rates. Higgins and Van Hone. A further objective is to analyze whether the difference in the two ways of estimating the sustainable growth rate (SGR) is related to the change in the general financial characteristics of a company and to make recommendations for the use of sustainable growth models in the different financial situations of each company. This study confirms that the Higgins and Van Hone model results in approximately the same growth rates with respect to the most common financial characteristics of a firm such as liquidity, leverage, profitability, and cash flow. From these two models, we can understand that sustainable growth is a practical concept used as a strategic plan and control tool of an enterprise through adjusting for factors affecting financial characteristics.

Rui Huang and Guiying Liu (2009) argue that sustainable growth is a necessary condition for the existence and development of enterprises, and it is a measure to measure the health of enterprises. In this article, the authors compared the sustainable growth model of James C Van Hone and that of Robert C Higgins, and analyzed the impact of the level of use of the two types of leverage: financial leverage and operating leverage to profitability, and establish a sustainable growth model based on leverage. Sustainable growth model based on the impact of leverage can make investors interested in the function of two types of leverage, design different financial indicators suitable for existence and development. of the business, invest and finance appropriately to realize the sustainable growth of the business.

S. M. Ikhtiar Alam and Md. Shahidul Islam Zahid (2015) states that the sustainable growth rate (SGR) is the maximum growth rate in revenue, measured from a base level of sales, that a company can achieve without raising the bar. mobilize any additional external equity while maintaining a target debt-to-equity (D/E) ratio, given a given rate of retained earnings. This paper studies the effect of D/E ratio on sustainable growth rate by proposing a new formula to calculate sustainable growth rate. This paper proposes the SGR formula as an alternative tool to determine the optimal D/E ratio with a given level of forecasting the revenue growth rate of a company. The study found that as the D/E ratio increases, the SGR also increases and to some extent the D/E ratio, the SGR reaches a maximum. After that level, the SGR falls. This relationship between SGR and D/E ratio holds true if a company is not experiencing financial distress.

Thus, it can be seen that there are many foreign empirical studies on sustainable growth rates. However, there are very few research papers on the factors affecting the sustainable growth rate of enterprises for a particular industry.

In this study, we use two widely used and popular sustainable growth rate models, Higgins (1977) and Van Hone (1998) and the newly developed G sustainable growth model. The main objective of this study is to analyze the important differences between the three models when applied in practice in listed companies in the seafood industry in Vietnam, thereby making valuable suggestions in different financial situations of the business.

2.2. Theoretical background

2.2.1. Higgins's sustainable growth model (1977, 1981, 2001, 2007)

The sustainable growth model was mentioned by Robert C. Higgins in 1977 and was further developed in 1981. The Higgins sustainable growth model is based on four factors: dividend payout ratio, profit rate gross, asset turnover ratio and capital structure.

Higgins sustainable growth model:

SGR = RI/NPAT * NPBT/TO * TO/NA * NA/E

Trong đó:

SGR: Sustainable growth rate

NPAT : Profit after tax

NPBT : Profit before tax

TO : Revenue

NA : Net asset value

E: Book value of equity

According to Higgins (1977, 1981, 2001, 2007), sustained growth does not recognize an increase in new equity and retained earnings will help raise equity and debt to reinvest in asset. That increase in assets helps the business to sell more goods, thereby increasing the profit of the business. At the same time, if the enterprise maintains a consistent dividend policy, retained earnings will also increase. The Higgins model (1977) still has limitations and is only used for discrete variables.

The Higgins (1981) model incorporates more variables representing the continuous changes of the enterprise, thereby obtaining a simpler model. However, both models still use the opening balance of equity.

2.2.2. James C.Van Hone's sustainable growth model

Van Hone (1998) developed a sustainable growth model to measure sustainable growth in firms. Van Hone's sustainable growth model is based on four factors: profit margin, total asset turnover, retained earnings ratio, and equity ratio. This model includes the sales performance, financial capacity and dividend policy of the business.

Van Hone's sustainable growth model:

$$\mathbf{SGR = ((b\ (PBIT / TO) * (1+ D / E)) / ((A / S) - (b\ (PBIT / TO) * (1 + D / E)))}$$

In which:

SGR: Sustainable growth rate

PBIT : Profit before tax and interest

TO : Revenue

D: Debts

E: Equity

D/E = Debt over Equity

A/S = Total assets over sales

S: Sales

A: Total assets

b: Retained earnings

Van Hone (2007), Van Hone model quantitatively describes sustainable growth rate as a variable that affects sales of enterprises. Van Hone and Wachowicz (2008) explain that the decisive factors for achieving the expected sales growth do not depend on the realities of businesses and financial markets. Dhannapal and Ganesan (2010) have shown that Van Hone's SGR model is an effective tool to check the consistency between operational efficiency, sales growth goals and financial goals of an enterprise.

In essence, Van Hone's sustainable growth rate is also analyzed based on four factors as in the Higgins model and assumes no new equity enhancement, but Van Hone emphasizes financial goals. If Higgins offers a model aimed at increasing sales, the Van Hone model is geared towards being prudent with financial goals. Besides, the model still has the same disadvantages as the Higgins model and has not clearly analyzed the impact of leverage.

2.2.3. Sustainable growth model based on Dupont analysis

Based on previous studies, one can also understand that the sustainable growth rate in a company is not different from the growth rate of equity. Because, the additional capital used to invest in assets when the business has a need to increase revenue for growth but does not want to issue new shares, it can only be taken from retained earnings (internal equity) and increased debt. On the other hand, because the enterprise wants to keep the optimal capital structure, when the equity increases, the debt must also increase proportionally. If we call (G) the sustainable growth rate, we have the following sustainable growth equation:

$$\mathbf{g = ROE \times Retained\ earnings\ rate}$$

Based on Dupont analysis, we can rewrite the sustainable growth equation as follows:

$$\mathbf{g = Net\ Profit\ Ratio \times Asset\ Turnover \times 1/(1\text{-}Hn) \times Retained\ Profit\ Ratio}$$

In which:

Net profit ratio = Profit after tax/Net sales

Asset turnover = Net sales/Average total assets

Hn: Debt ratio = Total debt/Total assets

Through the above equation, we see that the growth rate is closely related to the level of accumulation, business performance and financing policy of the enterprise. The firm's sustainable growth rate is the product of four coefficients. In which, the total asset turnover and the ratio of profit after tax to sales (net profit coefficient) reflect the operation of the enterprise. These are two factors created by capital investment policy. The coefficient of 1/(1- debt ratio) reflects the level of financial leverage or it indicates the company's financing policy. The rate of retained earnings reflects the company's profit distribution policy after tax. Through studying the relationship between the above factors, it shows that managers who want to maximize the value of the company must maximize the growth rate of cash flow for the owner in the future.

In addition to the factors selected based on the Dupont model, the study also examines the direct impact of the investment policy in fixed assets and the impact of the ability to pay interest on the growth rate. sustainability of fishing companies listed on Vietnam's stock market.

3. RESEARCH METHOD

3.1. Sample formation

The study included 34 seafood companies listed on the Vietnamese stock market. The data used in the research is collected from 2010 to 2021. The data used is the secondary data collected from the financial statements of the enterprise in the years.

Higgins and Van Hone, when studying the sustainable growth model, both assume that firms do not issue new equity and that companies can use retained earnings and debt capital to grow sustainably. As a result, the companies sampled did not have any new shares issued between 2010 and 2021.

3.2. Research hypothesis

The study deals with two groups of hypotheses. The first part deals with the hypothesis of the sustainable growth rate calculated by Higgins, Van Horn and G sustainable growth model. The second part presents the situation when using three sustainable growth models in fishing enterprises listed on the Vietnamese stock market.

H1: There is no significant difference between the sustainable growth rate model of Higgins and Van Hone.

H2: There is no significant difference between the sustainable growth rate by the Higgins model and G model.

H3: There is no significant difference between the sustainable growth rate caculated by Van Horn model and G model.

The study assumes that all three estimators for calculating sustainable growth rates will have different results when changing businesses. Firm variables include liquidity, profitability, leverage ratio, debt structure, capital investment efficiency, tax rate, and level of financial distress. The above variables are calculated according to the following formulas:

Liquidity (X1) = Current Assets / Current Liabilities

Profitability (X2) = Earnings / Equity

Measures of leverage (X3) = Interest debt / Equity

Debt restructuring measure (X4) = Short-term debt value / Total debt value

Firm size measure (X5) = Book value journal of total assets

Capital Investment Efficiency (X6) = Profit / Total Assets

Tax rate (X7) = Corporate income tax/ Profit before tax

Financial crisis (X8) = Z score predicts bankruptcy

3.3. Data analysis

The study applies appropriate tests, using Higgins, Van Horn and G sustainable growth models to calculate sustainable growth rates for fishing companies from 2010 to 2021.

Descriptive statistics technique was used to identify notable differences between the Higgins, Van Hone and G sustainable growth models. Wilcoxon test was used to analyze whether there was a significant difference between:

(1) Higgins and Van Hone sustainable growth models.

(2) Higgins and G sustainable growth models.

(3) Van Hone and G sustainable growth models.

The study uses Stata software to estimate the parameters and perform necessary tests for the study. First, the research will conduct: (1) descriptive statistics to get basic parameters about the variables, (2) test the stationarity of the variables, (3) preliminary analysis by correlation coefficients between factors for the sustainable growth rate year by year, thereby making initial judgments about the direction and stability of the impact direction of the factors on the sustainable growth rate.

After the assessment results on the impact direction are available, the study will take steps to regress the model. Because the data is collected and processed in tabular form, the study uses three methods: (1) Pooled least squares method (pooled least square regression – Pooled OLS); (2) Fixed effects model (FEM); (3) Random effects model (REM).

Hausman's test is used to find out between the fixed effects model (FEM) and the random effects model (REM), which model is suitable for the three research models. Breusch and Pagan Lagrangian test was used to find out between the random effects model and the Pooled OLS model, which model is more suitable. Modified Wald test is used to determine which model is more suitable between the two FEM models and the Pooled OLS model. The results show that REM fits the characteristics of the data in the model of the impact of factors on the difference between Higgins' model and Van Horn's model, and at the same time, this model is also consistent with the characteristics of the data. data of the model analyzing the impact of financial factors on the difference between Van Horn's growth model and G growth model. When analyzing the impact of financial factors on the difference of the model Higgins growth model and G growth model, retests show that the random effects model is appropriate in this case. The study also carried out some necessary tests for the regression hypothesis in all three models to ensure that the results of the model regression do not suffer from autocorrelation, multicollinearity and variable variance.

Finally, to confirm the results of our study, the FGLS model was performed to recalculate the standard errors in case the model violates the regression assumptions.

The study used a relatively large sample size. However, the research results may not reflect the actual economic situation at orgnanisation. To examine the difference in economic reality, the authors conducted another study by comparing the difference in percentages between firms corresponding to each financial characteristic in the three sustainable growth model groups. Three groups include Higgins and Van Hone model group, Higgins model and G model group and Van Hone model group and G model group. This research uses non-parametric Chi square test method to test the difference in the percentage of firms in each known financial number related to the model groups: Higgins and Van Hone, Higgins and G model, and Van Hone and G model.

4. Discussion

4.1. Sample characteristics

We use a measure of the difference in value (ratio) between two sustainable growth rates (SGR): D (HSGR- VGSR), which is defined as the fundamental difference between the Higgins sustainable growth rate and the Van Hone sustainable growth rate, D (HSGR-G) is defined as the fundamental difference between Higgins' sustainable growth rate and G sustainable growth rate and D (VSGR-G) is defined as the fundamental difference between Van Hone's sustainable growth rate and G sustainable growth rate.

Table 1 presents descriptive statistics for the three different sustainable growth rate estimators of unwinsorize and winsorize data, and shows three measures of the difference among these SGR estimators labeled as D(HSGR-VSGR), D(HSGR-G) and D(VSGR-G). For the full sample, the mean, HSGR, VSGR and G were 0.056, 1.151, and 0.055, respectively for the unwinsorize data and the mean values for HSGR and ESGR is highly skewed. The mean HSGR, VSGR, and G for winsorize data were 0.056, 1.151 and 0.055, respectively, and they are all skewed very little. Although the medians of the measures that estimate sustained growth are closer than their mean, the data winsorizing process minimizes the effect of outliers, as evidenced by the corresponding reduction in standard deviations of the sustainable growth rates. The Wilcoxon tests show that, with the exception of HSGR and ESGR for the winsorized group, the mean values of all SGR models for both the un-winsorize and winsorize groups are statistically significantly different from zero. This demonstrates that the SGR disparities in the models are not the result of the effects of outliers.

Table 1. Descriptive statistics for Sustainable Growth Rates.

Variable	N	Mean	Median	Min	Max	Std. Deviation
HSGR	408	0.302	0.056	-7.448	89.1	4.474
VSGR	408	1.305	1.151	0	7.057	0.95
G	408	0.424	0.055	-7.119	135.982	6.674
wSGR	408	0.101	0.056	-2.967	3.635	0.641
wVSGR	408	1.298	1.151	0	5.321	0.912
wG	408	0.116	0.055	-1.883	4.186	0.583
D(HSGR-VSGR)	408	-1.002	-1.032	-9.025	97.959	4.572
D(HSGR-G)	408	0.882	1.025	–134.84	8.696	6.834
D(VSGR-G)	408	-0.121	0.001	-48.881	2.729	2.333

Tables 2 and 3 present descriptive statistics for the independent variables (common financial characteristics). In Table 2, we statistically describe the independent variables for HSGR, VSGR and G in general. On the other hand, Table 3 presents the same statistics as Table 2 with a classification of negative and positive sustainable growth metrics (HSGR, VSGR and G). In particular, it is observed that the number of firms calculated by the HSGR, VSGR and G tools are all equal to 408, proving that there is no loss of firms in the sample. This shows that using all 3 estimators does not lead to shrinkage, the reliability of all 3 estimators is high in regression analysis.

Table 2. Descriptive statistics for Independent Varianle

Variable	N	Mean	Std. Deviation	Min	Max
X1	408	1.641	2.67	0	29.407
X2	408	0.333	4.47	-7.448	89.100
X3	408	2.626	31.369	-21.039	630.964
X4	408	0.904	0.168	0	1.805
X5	408	26.667	3.557	0	30.53
X6	408	-0.092	1.3	-24.204	0.902
X7	408	0.079	0.338	-3.828	4.662
X8	408	0.957	8.43	-115.742	18.904

Observing Table 3 shows that the number of companies with positive sustainable growth rates is higher than the number of companies with negative sustainable growth rates. This suggests that financial characteristics are closely related to the company's SGR sign. However, the difference in SGR values is minimal in the economic sense, with most differences being less than 5%. Calculating VSGR requires more financial variables than the other two sustainable growth rate estimators, and it appears that firms with calculated VSGRs are more liquid, less profitable, highly leveraged and shorter-term debt in their capital structure. This demonstrates that if the researchers use VSGR as the dependent variable with a small sample size in their study, it is likely to include a large portion of the firms in the sample with a high probability of liquidation, less profitable, high leverage, and more short-term debt in the capital structure. It will also cause some bias in the researcher's sample selection.

Table 3. Descriptive statistics for Independent Variable in terms of positive and negative SGRs

Varaible	X1	X2	X3	X4	X5	X6	X7	X8
HSRG+								
N	310	310	310	310	310	310	310	310
Mean	1.497	0.537	3	0.917	27.097	-0.111	0.105	0.616
Median	1.109	0.116	0.993	0.971	27.166	0.029	0.05	1.858
Std. Deviation	2.198	5.081	35.918	0.119	1.519	1.489	0.291	9.528
HSRG-								
N	98	98	98	98	98	98	98	98
Mean	2.098	-0.312	1.442	0.866	25.308	-0.033	-0.005	2.036
Median	1.139	0.0002	1.134	0.964	26.897	0	0	1.408
Std. Deviation	2.179	7.084	50.113	0.119	1.564	2	0.288	11.468

Varaible	X1	X2	X3	X4	X5	X6	X7	X8
VSGR+								
N	408	408	408	408	408	408	408	408
Mean	1.641	0.333	2.626	0.905	26.667	-0.092	0.079	0.957
Median	1.119	0.083	1.028	0.969	27.085	0.012	0.01	1.759
Std. Deviation	2.67	4.47	31.369	0.168	3.557	1.3	0.338	8.431
VSGR-								
N	0	0	0	0	0	0	0	0
Mean	0	0	0	0	0	0	0	0
Median	0	0	0	0	0	0	0	0
Std. Deviation	0	0	0	0	0	0	0	0
G+								
N	324	324	324	324	324	324	324	324
Mean	1.467	0.516	2.94	0.922	27.087	-0.106	0.081	0.68
Median	1.118	0.113	1.031	0.971	27.14	0.024	0.034	1.903
Std. Deviation	2.108	4.97	35.132	0.113	1.474	1.456	0.16	9.319
G-								
N	84	84	84	84	84	84	84	84
Mean	2.315	0.375	1.415	0.84	25.048	-0.038	0.069	2.027
Median	1.134	-0.004	0.939	0.958	26.811	0	0	1.161
Std. Deviation	4.134	1.091	4.463	0.288	7.087	0.173	0.679	3.023

4.2. Factors affecting the difference of sustainable growth models

It is necessary to demonstrate how the value of the three sustainable growth rates differs from the variation in the common financial characteristics of a company. In this section, we have extended the previous section by using the fundamental difference between the sustainable growth rates of Higgins, Van Hones and G of fishing businesses and the three regression models used as follows:

$$D_{(HSGR\text{-}VSGR)} = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \varepsilon_{i,t} \quad (1)$$

$$D_{(HSGR\text{-}G)} = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \varepsilon_{i,t} \quad (2)$$

$$D_{(VSGR\text{-}G)} = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \varepsilon_{i,t} \quad (3)$$

In which:

$D_{(HSGR\text{-}VSGR)}$: the difference between Higgins's sustainable growth model and Van Hone's sustainable growth model.

$\boldsymbol{D}_{(HSGR\text{-}G)}$: the difference between Higgins's sustainable growth model and G sustainable growth model.

$\boldsymbol{D}_{(VSGR\text{-}G}$: the difference between Van Hone's sustainable growth model and G sustainable growth model.

Table 4. Regression result

Independent Variable	Dependent Variable		
Constant	0.3145	-0.0659	0.599
X1	0.0261	0.0158*	-0.0556*
X2	0.9964*	0.3795*	-0.635*
X3	-0.0003	0.085*	-0.0868*
X4	-0.6044**	-0.001	1.312*
X5	-0.0341**	-0.0034	-0.23
X6	0.1785*	-0.0299*	-0.5001*
X7	-0.0011	-0.055	-0.0242
X8	-0.3126*	-0.0084*	-0.0697*
R2	0.9868	0.994	0.3833
N	374	408	408
Giá trị F	3409.81	4405.10	36.81
Giá trị p	0.0000	0.0000	0.0000

Table 4 presents the results of the three regression analyzes above, and it helps to explain the difference between the three sustainable growth rates according to common financial characteristics of a company. The authors find that the sustainable growth rate according to Higgins (compared to the sustainable growth rate according to Van Horn) is increasing with profitability and capital investment efficiency, while decreasing in debt structure., company size, and financial crisis. This explains that the company with higher profitability and enough cash to effectively invest in fixed assets will have a higher sustainable growth rate under the Higgins model than the rate calculated under the Vanity model. Hone. However, a large company with high leverage, large debt structure, high tax rate, and financial crisis will show a lower sustainable growth rate according to Higgins than Van Hone's model. Higgins' sustainable growth rate (compared to G sustainable growth model) increases with liquidity, profitability and leverage measures, and decreases with investment efficiency and financial crisis. This finding explains that the more profitable firm with high liquidity and high leverage will have a higher Higgins sustainable growth rate than the G model sustainable growth rate. However, companies with financial crisis and high capital efficiency will show a lower sustainable growth rate according to Higgins when compared to the results calculated according to G model. Furthermore, we find found that the difference between Van Horn's sustainable growth rate compared to the G model growth rate is increasing with debt structure, while decreasing with liquidity, profitability, measure leverage, capital investment efficiency, and financial distress. This explains that a company with a larger debt structure will show a larger sustainable growth rate under the Van Horn model than the result calculated under the G model. At the same time, a large company is profitable. higher, with high liquidity, using financial leverage, having high capital efficiency and experiencing financial crisis will result in a lower sustainable growth rate according to Van Horn's model than the result. The results are calculated according to the G model. Taken as a whole, this result indicates that the difference in levels of the three estimators is associated with change in a range of commonly used financial characteristics.

5. CONCLUSION

Sustainable growth can be defined as the ability to create balance and sustainability for business expansion. Sustainable growth not only helps businesses survive, but also maintains competitiveness in the industry. Sustainable growth helps businesses avoid negative impacts caused by too fast or too slow growth such as financial stress, capital stagnation. The research has found that the model should be selected. Higgin's sustainable growth model or G sustainable growth model in 3 models and factors affecting the difference between sustainable growth models of listed fishing company stock. Therefore, the impact on these factors will help companies have solutions for sustainable growth.

The results of the research paper are a meaningful contribution to Vietnam's seafood companies, a strong industry of the country and will still be focused on developing in the future, especially in the condition that there is a lack of resources. research on the factors affecting the sustainable growth rate of companies in Vietnam in general and of companies in the seafood industry in Vietnam in particular. At the same time, the study also provides an effective tool and recommendations for financial managers to find out the factors affecting the sustainable growth rate of the industry and the company and have solutions. solutions to help your company achieve sustainable development in the future.

However, the study still has limitations. The biggest limitation of the study is the data sample. The sample of the study could not be more extensive in terms of time (years) and space (companies). Because, the number of seafood companies listed on the Vietnamese stock market is still limited and many companies have not been listed for a long time. This is understandable because Vietnam's stock market is also very young compared to other stock markets in the world.

From these limitations, it is necessary to have studies on the factors affecting the sustainable growth rate of seafood companies listed on the stock market of Vietnam with better sample quality in the future. next time. At the same time, it is also necessary to study the factors affecting the sustainable growth rate of listed and unlisted Vietnamese seafood companies on the stock market in order for the results to be more representative.

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THE CHANGE OF BANKS STOCK PRICE: THE 4 WAVES OF THE COVID-19 PANDEMIC CONTEXT IN VIETNAM

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Abstract: *This study mainly analyzes the impact of Covid-19 on the banks stock prices in Vietnam during the disease pandemic. The research data includes trading results of 14 shares in the banking industry listed on the Vietnamese stock market, the number of Covid-19 infections recorded by day and related factors . The FGLS model results show that Covid-19 has a positive impact, when the stage factor is not considered and a negative effect when the stage factor is concerned, on the banks stock prices. This result is consistent with the investment situation on the Vietnamese stock market during the Covid-19 pandemic. In addition, the capitalization control variables and the spread between lending and depositing rates variables also have a significant impact on the stock prices of banks. Those factors need to manage effectively because they can help improve the value of the bank's shares.*

Keywords: *Covid-19, stock price fluctuations, Commercial banks, Vietnam.*

JEL: G21

1. INTRODUCTION

The world has been going through an unprecedented crisis when Covid-19 fiercely swept across the globe. The first infections were recorded in Wuhan, China in December 2019 and spread to many countries around the world including Vietnam. In 2020, Vietnam is one of the few countries in the world that still maintains positive growth. In addition, Covid-19 has caused an impact on stock markets around the world. However, the extent of the impact of Covid-19 on stock prices between industries varies significantly. In particular, banking industry was strongly affected by Covid-19. In fact, Covid-19 can reduce borrowers' income and increase bad debts at banks. At the same time, the liquidity of banks is also affected when the number of people withdrawing money increases in a short time (Godell, 2020). Another explanation for the impact of Covid-19 on the banking industry is that the bailout packages of many countries often focus mainly on the non-financial sector, such as agriculture, apparel, automobiles, and aviation, food and tourism, that led to the impact of Covid-19 on stock prices of non-financial companies is often less than that of financial companies (Medina, 2020). Thus, Covid-19 could have a significant impact on banks stock prices. This statement though has been found in some previous studies, such as Anh and Gan (2020), Goodell (2020). However, there is a lack of empirical studies analyzing the specific impact of Covid-19 on banks stock prices.

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So, how has the impact of the pandemic affected the stock prices of commercial banks? The research objective is to answer this essential question because it helps bank managers and commercial banks choosing appropriate policies to ensure their stock prices develop well in the stock market. Stemming from the above issues, the study "*The impact of Covid-19 on stock prices of Vietnamese commercial banks*" was conducted to provide implications for commercial banks to ensure stable growth of their stock prices.

2. LITERATURE REVIEW

Stock prices often react sensitively to major events in the economy (Al-Awadhi et al, 2020). Existing literature has identified several major events that have a huge impact on stock prices, including: natural disasters (Kowalewski & Śpiewanowski, 2020), sports (Buhagiar et al, 2018), news (Kowalewski & Śpiewanowski, 2020), sports (Buhagiar et al, 2018), news (Li, 2018), environment (Alsaifi et al, 2020) and politics (Bash & Alsaifi, 2019). Furthermore, stock prices are also significantly affected by disease pandemics such as: Severe Acute Respiratory Syndrome (SARS) (Nippani & Washer, 2004; Chen et al, 2007; Chen et al, 2009), Avian influenza A (H7N9) (Jiang et al, 2017) and Ebola Virus Disease (EVD) (Ichev & Marinc, 2018).

Recently, Covid-19 has caused great devastation to most countries and territories worldwide (Ashraf, 2020), this devastation happened after Covid-19 was first recorded at the end of 2019 (He et al, 2020). Although it has only been around since the end of 2019, the negative impact of Covid-19 on stock prices has been found in many empirical studies.

Several previous studies have found a negative impact of Covid-19 on stock prices with a cross-country sample data. For example, Ashraf (2020) recorded the negative impact of Covid-19 on stock markets in 64 countries. The stock market response to Covid-19 simultaneously can change over time and depend on the stage of the outbreak. Goodell (2020) believes that Covid-19 has an impact on global socio-economic activities. In particular, the banking sector is most strongly affected. For instance, this sector has to face high bad debt because the Covid-19 makes borrowers difficulty to pay back their debts. Moreover, the fact that many depositors had withdrawn money in a short-time also has a significant impact on banks. He et al (2020) believe that Covid-19 has a negative short-term impact on stock prices of the stock markets in China, Italy, Korea, France, Spain, Germany, Japan and the United States. Specifically, the negative impact of Covid-19 on the stock markets of these countries is often higher than the global average. Liu et al (2020) reported that 21 stock indexes in economies around the world fell rapidly after the occurrence of Covid-19. Meanwhile, the stock markets in Asian countries are often negatively affected by Covid-19 more than in other countries. Topcu and Gulal (2020) find a negative impact of Covid-19 on emerging stock markets; however this negative impact has gradually decreased from April 2020 onwards. In terms of regional classification, Covid-19 generally affects emerging stock markets in Asia more than those markets in Europe. This study also confirms that the time and size of the government's economic stimulus package have great offsetting to the effects of the pandemic. Xu (2020) found a negative impact of Covid-19 on stock prices in Canada and the United States. However, this effect is significantly different between the two countries in the sample. Specifically, the stock price response is disproportionate to the rise and fall in the number of Covid-19 infection cases in Canada due to the uncertainties of Covid-19 in Canada. Meanwhile, the response is relatively proportionate in the United States. Zhang et al (2020) confirmed the negative impact of Covid-19 on the stock markets of Japan, South Korea, Singapore and the 10 countries with the highest number of Covid-19 infections in March 2020. The authors found that the volatility of the stock market in China reached the largest value in February 2020 and became the smallest in March 2020, whereas the volatility of the US stock market0 is higher than those countries in the sample.

There are few studies have examined the impact of Covid-19 on stock prices with a single country sample of data. The study by Alfaro et al (2020) can be mentioned when finding the negative impact of Covid-19 on stock prices in the United States. The study further shows that a doubling (or halving) of unforeseen Covid-19 infections would reduce (or increase) the stock's market value by 4% to 11%. This suggests that the stock market could begin to recover even as the number of infections continues to rise, especially as infections forecasting becomes more reliable. Al-Awadhi et al (2020) found a negative impact of Covid-19 on the prices of 1,579 stocks in China. In addition, Duan et al (2020) said that small and medium-sized companies in China are seriously affected by Covid-19.

With data samples in Vietnam, Anh and Gan (2020) examined the impact of Covid-19 on the prices of 723 stocks on the Vietnamese stock market. Research results show that Covid-19 has a negative impact on stock prices. In which, the financial sector is most affected then the industrial and consumer goods sectors. In other words, Covid-19 affects the stock prices of non-financial companies less than the stock prices of financial companies.

Overall, the impact of Covid-19 on stock prices is an interesting research topic and has been considered in many previous studies. These studies have concluded that Covid-19 has a negative impact on stock prices, the magnitude of the impact can vary across different industries and stages of Covid-19. However, some limitations still exist in previous studies such as: most of the previous studies often analyzed on a multi-country data sample. There are very few studies that have conducted analysis on a single-country sample of data. There is a lack of empirical studies analyzing the specific impact of Covid-19 on banks stock prices. There is no research analyzed the impact of Covid-19 on banks stock prices in each stage of the pandemic.

With the above limitations, it can be seen that the impact of Covid-19 on bank stock prices is an interesting topic and there are still many gaps to explore. These gaps will be an important basis for the author to carry out the rest of the content in this research.

3. RESEARCH METHODS

3.1. Proposed research model

Existing documents show that bank stock prices can react strongly to Covid-19 fluctuations. Since the Covid-19 has occurred, the operation of banks will face many difficulties and investors' sentiment will also be affected, which will significantly affect the bank's stock price. On the other hand, bank stock prices may react differently depending on each stage of Covid-19. Therefore, the author will conduct this research with the expectation to find a significant impact of Covid-19 on the stock prices of commercial banks in Vietnam. Moreover, with the data sample collected by day in the period 30/01/2020 – 31/12/2021, the author expects to analyze the impact of Covid-19 on bank stock prices in each period including: Phase 1 (30/01/2020 – 22/7/2020), Phase 2 (23/7/2020 – 27/01/2021), and Phase 3 (28/1/2021 – 26/4/2021) and phase 4 (27/4/2021 – 31/12/2021). The division of this stage is based on the statistics of the Ministry of Health (https://ncov.vncdc.gov.vn/). Thereby, the author expects to assess the specific impact of Covid-19 on bank stock prices in each period, which is also the difference of this study. In addition, Ashraf (2020), Anh and Gan (2020) argue that stock prices often react to the number of recorded Covid-19 infections and control variables with a 1-period lag. Based on this basis, the research model proposed by the author has the following equation:

$$PS_{i,t} = \alpha + \beta^{*}C19_{i,t-1} + \lambda^{*}CV_{i,t-1} + \varepsilon_{i,t}$$

Where, P is the decimal logarithm of the stock price daily. C19 is defined by the number of Covid-19 infections recorded per day. CV_i are control variables representing bank characteristics and macro factors including: capitalization value (VH) and interest rate (IR). In which, VH is measured by the decimal logarithm of the daily market capitalization of each stock; this measurement is based on the study of Al-Awadhi et al (2020). The control variable IR is measured by the spread between lending and deposit rates, which is published by the IMF on a monthly basis. The variable IR can represent macro factors, and also reflect the financial performance of banks (Svirydzenka, 2016).

Where, PS is the decimal logarithm of the stock price in days. C19 is defined by the number of Covid-19 infections recorded per day. CV_i are control variables representing bank characteristics and macro factors including: market capitalization (VH) and interest rate (IR). In which, VH is measured in decimal logarithms of the daily market capitalization of each stock; this measurement is based on the study of Al-Awadhi et al (2020). The control variable IR is measured by the difference between lending and deposit rates, which is published by the IMF on a monthly basis. The variable IR can represent a macro factor and also reflect the financial performance of banks (Svirydzenka, 2016).

Table 1. Description of variables in the research model

Variable name	Symbol	How to measure measure
Dependent variable		
Stock price	PS	Decimal logarithm of stock price
Independent variables		
Number of Covid-19 infections	C19	Decimal logarithm of the number of Covid-19 infections recorded
Control variable		
Market capitalization	VH	Decimal logarithm of the stock's capitalization
Interest rate	IR	Spread between lending interest rate and deposit interest rate

3.2. Research data

Research data was collected from January 30, 2020 to December 31, 2021. Stock price and market capitalization data are collected by the author from Vietstock website (https://finance.vietstock.vn/ket-qua-Giao-dich) with 15 stocks of commercial banks in the pandemic period including: ACB, BID, CTG, EIB, HDB, LPB, MBB, NVB, SHB, STB, TCB, TPB, VCB, VIB and VPB. NVB was rejected because it did not have enough data. Data on the number of Covid-19 infections was collected by the author from the source of the Ministry of Health (https://ncov.vncdc.gov.vn/), this is the number of Covid-19 infections in the country recorded daily. For the data of control variables representing macro factors, the author collects from the source of the IMF (https://www.imf.org/en/Data).

3.3. Analytical methods

For analytical methods, most of the previous studies used conventional estimation methods on table data including: Pooled regression model (Ashraf, 2020), Fixed effects model (Liu et al, 2020) and Random effects model (Al-Awadhi et al, 2020). These are the basic methods commonly used for table data, which are perfectly suitable if the regression hypotheses are not violated. However, if the research model suffers from defects, then these estimation methods are no longer reliable, then the Feasible Generalized Least Squares (FGLS) method will be the appropriate choice (Wooldridge, 2010). Therefore, the author will test the regression hypothesis and estimate the research model according to the above basic methods. If the regression hypothesis is violated, the FGLS method will be used for the research model.

4. RESEARCH RESULTS

4.1. Description of Variables

First, the study uses Stata 15.0 software to determine the descriptive statistics of the independent variables and the dependent variable with the median, standard deviation, minimum value and maximum value presented in table 2.

Table 2. Descriptive Statistics of Variables

Targets	Unit	Average	Median	Min	Max	Standard Deviation
Stock Price (PS)	1000 VND	26,219	22,600	4,550	90,110	16,024
Market capitalization (VH)	1000 billion VND	86,087	52,627	5,471	431,713	86,989
Interest Rate (IR)	%	0,117	0,113	0,076	0,172	0,021
Number of Covid-19 infections (C19)	Person	2.350	8	0	17.428	4.521

The research sample of 14 Vietnamese commercial banks statistical results by transaction date during the Covid-19 pandemic (Table 2) show that the general characteristics of banks with similar large market capitalization, stable interest rates, high number of Covid-19 infections. The average market capitalization of 14 Vietnamese commercial banks is 26,219 billion VND, where 7/14 banks have a market capitalization of over 22,600 billion VND and there is a significant difference in market capitalization between 14 banks that is the lowest is 5,471 billion VND and the highest is 431.713 billion VND. The difference between lending and deposit rates remained stable at 0.117%, ranging from 0.076% to 0.172%. The average number of infections per day is 2,350 and increased rapidly from 29/4/2021, and reached the highest point with 17,428 cases at 27/8/2021.

The average share price is relatively low about 26,219 VND. There is a large difference of share price between banks, which are the highest is 90,110 VND and the lowest is 4,550 VND. During the research period, the Covid-19 pandemic occurred 4 times with specific data in the following figures.

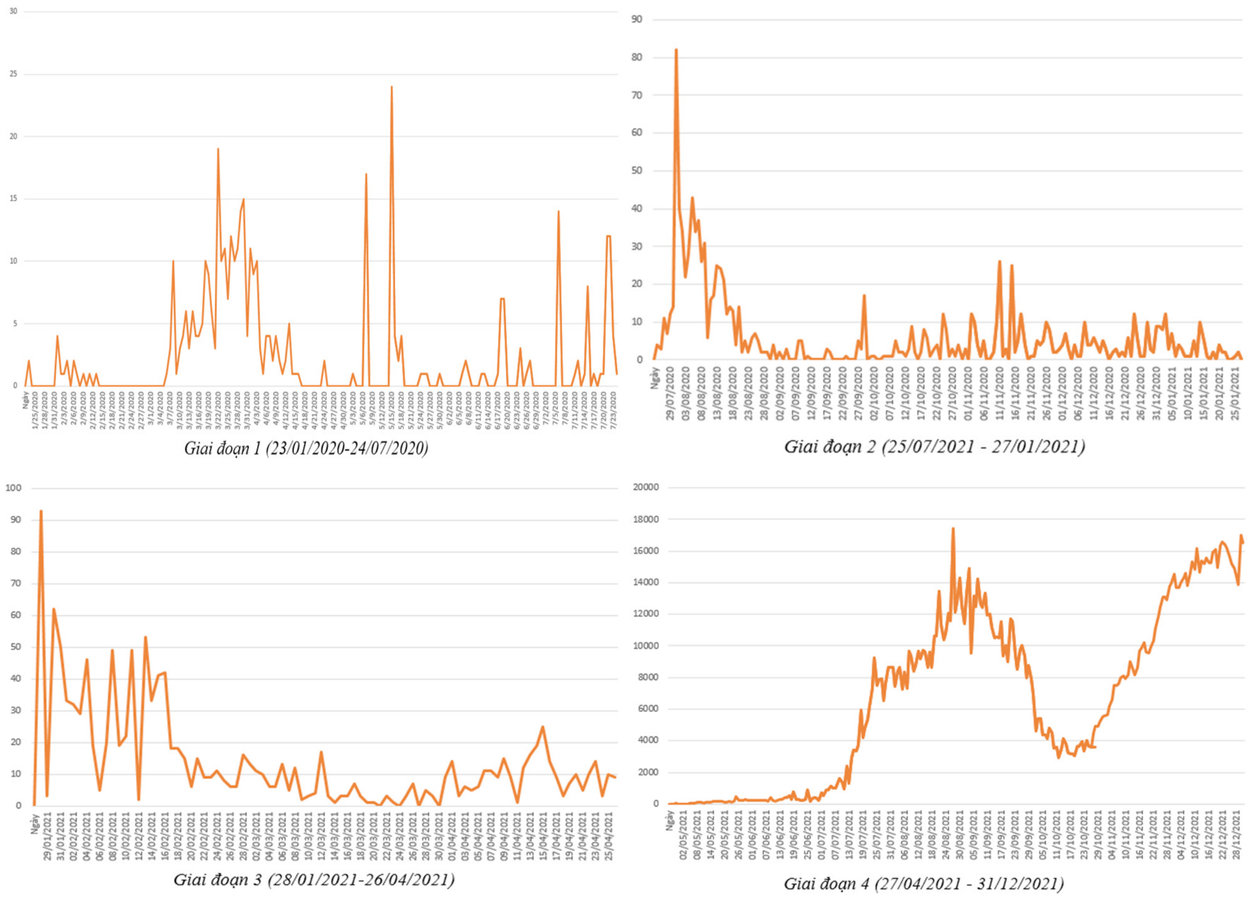

Figure 1. Evolution of the number of Covid-19 infections in Vietnam in 4 stages

As shown in Figure 1, the number of Covid-19 infections has increased sharply in the 4th phase from April 27, 2021 to December 31, 2021 and peaked at 17,428 cases on August 27, 2021.

4.2. Analysis of stock price changes over the four phases of Covid-19

The author processed to test whether there is an average difference in stock prices of Vietnamese commercial banks between the four phases of the Covid-19 pandemic. The results are shown below:

Table 3. The test of the difference in stock prices over the period

Covid-19	Number of observations	Stock Price (PS)		Paired mean difference		
		Medium	Std	Phase 1	Phase 2	Phase 3
Phase 1	1.918	17,854	13,842			
Phase 2	1.862	21,602	14,488	3,748***		
Phase 3	798	28,202	14,933	10,348***	6,600***	
Phase 4	2.450	35,630	13,921	17,776***	14,028***	7,427***
Total	7.028	26,219	16,024			
Test for mean difference		F = 654, 15 *** Degrees of Freedom = 7024 Ha: Average (diff) != 0 Prob > F = 0.000				

Note: **** denotes the mean difference at 1% significance level.*

The results of the test of stock price differences of 14 Vietnamese commercial banks by the Covid-19 in 4 phases of the pandemic (phase 1 (January 30, 2020 - July 22, 2020), phase 2 (July 23, 2020 - January 27, 2021), phase 3 (January 28, 2021- April 26, 2021) and phase 4 (April 27, 2021-December 31, 2021) (Table 3) shows that there is a significant difference in stock prices of those banks with statistical significance at 1% (F = 654.15, Prob > F = 0.000000.The stock price of the last period is significantly higher than the previous period. Specifically, during the Covid-19 pandemic, the share price of phase 2 is higher than phase 1 is 3,748 dong; phase 3 is 6,600 dong higher than phase 2; and phase 4 is 7,427 dong higher than phase 3.

4.3. Analyzing the impact of Covid-19 on stock prices of Vietnamese commercial banks

The Panel data with long time-series have been tested for stationary (Dickey-Fuller tests) Choi (2001). The results show that chi-squared(28) = 57.801 and p-value = 0.0008 are enough evidence to prove data is stationary.

Correlation and multicollinearity results

Table 4. Correlation between variables in the research model

	PS	VH	IR	VIF
Stock Price (PS)	1			
Market capitalization (VH)	0,810* **	1		1,04
Interest Rate (IR)	- 0, 610 * **	- 0, 351 ***	1	1,02
Number of cases of Covid-19 (C19)	0,373* **	0,144***	-0,411 ***	1,02

Note: **** denotes a significant correlation at the 1% level.*

VIF is the Variance Inflation Factor

Table 4 has shown Market capitalization, Interest rates, and Number of Covid-19 infections are all correlated with Stock Price at 1% significance level. In which, capitalization value has a strong positive correlation with stock price with a correlation coefficient of 0.810. Interest rates have a strong negative correlation with stock prices with a correlation coefficient of -0.610. The research results also show that the number of Covid-19 infections is positively correlated (correlation coefficient 0.373) with stock prices. Besides, the absolute value of the pair correlation coefficient between the independent variables (Capitalization value, interest rate, number of Covid-19 cases) are very small, less than 0.5. This shows that there is no strong correlation between those variables. However, to ensure the problem of multicollinearity does not occur between the variables in the research model, Gujarati et al (2012) proposed to use the Variance Inflation Factor (VIF) test. The results (Table 4) show that the correlation coefficient between the variables is relatively small and the factor components in the model for the VIF coefficient are relatively small (VIF < 2), that means the model does not have multicollinearity.

Regression results and tests

The results of testing the impact of Covid-19 on stock prices of Vietnamese commercial banks are analysed by 4 approachs POOL, FEM, REM, FGLS with and without the factor of 4 phased of the

Covid-19. The estimated results are shown below:

Table 5. Stock price regression model results

Dependent variable: Stock price (PS)	**Regression model**				
Independent variables	**POOL**	**FEM**	**REM**	**FGLS1**	**FGLS2**
Market capitalization (VH)	0,456***	0,940***	0,940***	0,452***	0,450***
	(133,06)	(368,68)	(366,94)	(151,84)	(157,27)
Interest Rate (IR)	-2,767***	-0,326***	-0,333***	-3,884***	-1,553***
	(-15,58)	(-7,11)	(-7,22)	(-35,11)	(-10,36)
Number of Covid-19 infections (C19)	0,0349***	0,0252***	0,00256***	0,0326***	-0,00481***
	(35,56)	(9,95)	(10,08)	(50,38)	(-4,06)
Phase 2					0,0921***
					(13,85)
Phase 3					0,259***
					(31,05)
Phase 4					0,443***
					(39,15)
Constant	1,471***	-0,647***	-0,644***	1,611***	1,277***
Model fit	F(3,7024)	F(3,7011)	Wald chi2(3)	Wald chi2(3)	Wald chi2(6)
Statistics F/Wald chi2	11.600,54***	144.991,71***	430.943,64***	65.734,53***	89.758,74***
Model selection					
Fixed effects test (Wald test) F(13, 7011)		11.118,38***			
Hausman test (Hausman test) (chi2 (3))			12,23***		
Heteroskedasticity Test					
chibar2(14)			1.667,28***		
Serial Correlation Test					
chi2(91)			4.106,51***		

***Note:** The symbols ***, ** and * represent 1% 5% and 10% significance levels respectively; Stage 1 is the based stage.*

Table 5 shows that 3 models POOL, FEM, REM have F-statistics, Wald has P-value <α=5%, thus those models are suitable. Choosing between FEM or POOL model to prove the existence of differences between banks in the research model by Wald test has a result that F(13, 7011) = 11,118.38 and P-value > F = 0.000 (<α=1%), then the FEM model is selected.

Furthermore, The results of Hausman's test for choosing FEM or REM (Table 5) showed that the Prob>chi2 value = 0.0066 (<α=5%) with chi2(3) = 12.23 which is the strong evidence for preferring the FEM model than REM model. *Thus, the FEM model will be used for the next analysis.*

After selecting a suitable model, the study continued to implement Modified Wald test to Heteroskedasticity test and Breusch-Pagan LM test (Breusch & Pagan, 1980) for Serial Correlation test in the FEM model. From the test results in Table 5, the value of chibar2(14) with Prob>chi2 = 0.0000 is less than 1%, and chi2(91) has Pr = 0.0000 less than 1%, showing that *the FEM model has heteroskedasticity and autocorrelation phenomenon*. This will reduce the effectiveness of the FEM model. In the condition that the assumptions about the phenomenon of constant and independent variance among the cross-units are violated, the Feasible generalized least squares (FGLS) estimation method is a suitable choice to prevent unbiased results and maintains the efficiency (Beck & Katz, 1995; Hoechle, 2007).

According to the FGLS regression results, Covid-19 has impacted the stock prices of Vietnamese commercial banks through different numbers of infections under different model conditions, specifically:

Number of Covid-19 infections: FGLS1 estimation results for uncontrolled cases by stage of Covid-19 infection show that Covid-19 has a positive impact (coefficient 0.0326, significant level at P=0.001) on the banks stock price. This means that a 1% increase in the number of Covid-19 infections will increase the share price of commercial banks by 0.033% and vice versa, other factors are constant. However, when the FGLS2 model controls 4 stages of Covid-19 infection, the research results showed that Covid-19 had a negative impact (coefficient -0.00481, significant level at P=0.001) on the banks stock prices. For instance, when the number of Covid-19 infections increases by 1%, the stock price of commercial banks will decrease by 0.00481% and vice versa, other factors remain unchanged. The results of this study are consistent with most of the previous studies such as Anh and Gan (2020), Al-Awadhi et al (2020), Alfaro et al (2020), Zhang et al (2020), Topcu and Gulal (2020), He et al (2020),…; and Ashraf (2020) recorded the negative impact of Covid-19 on stock markets in 64 countries.

The impact of Covid-19 by phase: The research results show that there is a significant change in stock prices during each phase of Covid-19. Specifically, the stock price in phase 2 increased by 0.092% on average than phase 1 (beta coefficient is 0.0921 and p = 0.000), in phase 3 stock price increased by 0.259% on average with a beta coefficient of 0.259 and p = 0.000, the stock price in phase 4 increased by an average of 0.443% (beta coefficient is 0.443 and p = 0.000). This shows that, during the Covid-19 period, the stock price of the last period tends to be higher than the previous period.

This result is in line with the actual characteristics in Vietnam during this period because, Vietnam implemented a lockdown in epidemic localities, companies stopped production, people mostly stayed at home, during idle time at home, many people made securities investment because investing in securities people just opened accounts and made Currently, online investment transactions and when investors increase (demand increases), the stock price on the exchange also increases, with the herd mentality in investment has attracted more and more investors to participate, thus causing stock prices to rise during the Covid19 epidemic.

Market capitalization: Market capitalization reflects the market value of the bank's outstanding shares, which significantly affects the share price. The estimation results (Table 5) show that market capitalization has a positive impact on stock prices of commercial banks during Covid-19, with a beta coefficient of 0.450 and P = 0.000 at a significant level 1%. This means that when the capitalization value of banks increases, the share price increases. For example, if 1% increases in market capitalization, it will increase the share price by 0.450%. Thus the impact of market capitalization is very huge on stock prices of commercial banks.

The spread between lending interest rate and deposit interest rate: The estimation results (Table 5) show that the regression coefficient of interest rate is -1,553 and p = 0.000. This result is sufficient evidence to prove that the spread between lending and deposit rates has a negative impact on stock prices of Vietnamese commercial banks. That is, when the spread between lending interest rates and deposit rates increases to 1%, the stock price of Vietnamese commercial banks will decrease by an average of 2.767% and vice versa. When the Covid-19 pandemic occurred at the end of 2019, it seriously affected activities in the economy. Commercial banks, thus, could not avoid losses and difficulties in collecting principal debts and interest payments. For commercial banks, social distancing should reduce the service provision activities of commercial banks. On the other hand, commercial banks must implement supportive packages to help individuals and organizations to recover their production, then commercial banks have to restructure debts, reduce interest rates, etc., which will inevitably affect the stock prices of Vietnamese commercial banks.

5. CONCLUSIONS AND POLICY IMPLICATIONS

This paper focuses on analyzing the impact of Covid-19 on stock prices of Vietnamese commercial banks. Feasible generalized least squares (FGLS) method was used to test data of 7,028 observations of 14 banks collected on a daily basis. The research results show that Covid-19 has a positive impact on banks stock prices when there is no period control and negative impact on stock prices when there is a period control. This can confirm that Covid-19 has an unclear impact on the stock prices of Vietnamese commercial banks. This effect is not consistent with previous studies mentioned above, but it is suitable for the actual situation in Vietnam. This is the new finding of this research paper. In addition, the research results found that there was a significant difference impact of Covid-19 on the stock prices of Vietnamese commercial banks by four phases of the pandemic. During the Covid-19 pandemic, the average stock price was VND 17,776. This shows that measures to control Covid-19, measures to support production and business of government; and positive signals from commercial banks have significantly reduced the negative impact of Covid-19 on stock prices. From the research results, the authors proposes the following implications:

First, with the research results showing that the Covid-19 pandemic has no clear impact on the stock prices of commercial banks, it is clear that the change of banks stock prices depends on business performance and potential of commercial banks. Therefore, Vietnamese commercial banks need to focus on using mobilized capital effectively in order to increase stock prices steadily in the securities market by diversifying business activities instead of focusing only on traditional activities of lending. On the other hand, the bank is also gradually shifting its activities from traditional banking to digital banking to take advantage of technological developments to increase business efficiency.

Second, the market capitalization of commercial banks has a positive impact on stock prices, thus, banks also need to increase the number of outstanding shares to increase the capitalization value, and commercial banks need to improve their prestige, quality and brand to attract investors to buy their shares.

Third, the spread between two-interest rates has a negative impact on stock prices. Therefore, commercial banks should deploy capital support plans for organizations and individuals facing many financial difficulties after the Covid-19 pandemic. Furthermore, commercial banks need to forecast and measure risks to have preventive solutions to minimize losses when lending under the direction of the government.

Fourth, stock market regulators and supervisors need to have more specific regulations and stricter supervision to prevent investors manipulating the market; to increase information transparency and disclosure. This could attract more investors to participate in the stock market to boost the capital size of the stock market, then contributing to promoting Vietnamese economic growth.

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STUDY ON IMPACTS OF EQUITY ON FINANCIAL EFFICIENCY OF VIETNAM COMMERCIAL BANKS

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Abstract: *Equity plays an integral role in the capital structure of commercial banks despite accounting for only a small proportion. Equity is an important criterion in evaluating the financial capacity of banks in conducting business activities. A bank with larger equity has a higher possibility of generating profit, increasing its competitiveness, and ensuring its reputation. In this study, the GMM method (the generalised method of moment) was used on data collected from 28 commercial banks in the period from 2009 to 2019. The study focused on analysing three indices: Return on assets (ROA), Return on equity (ROE) and Net interest margin (NIM), to evaluate the impacts of equity on the financial performance of Vietnam commercial banks. The study also proposed solutions to assist bank managers with selecting the size of equity in line with the operational strategy, to improve financial performance.*

Key words: *Equity, financial performance, ROE, ROA, NIM.*

JEL codes: C23, G21, G32

1. INTRODUCTION

Equity includes the original owner's capital and the owner's capital formed during the operation. Initial equity for newly established State Commercial Banks is the capital provided by the state budget. On the other hand, for newly established Commercial Banks, the initial equity is contributed by shareholders purchasing common or preferred shares and must be equal to the legal capital. The owner's capital formed during the operation (additional equity) is resulted from additional issues of shares or funding from the state budget, transferring part of accumulated profits, reserve funds for supplement charter capital, investment funds or issuing long-term liabilities.

To conduct business activities, Commercial Banks must first have sufficient equity or financial strength to maintain operations and develop. Equity is considered as a buffer against risks, ensuring safe business operations and providing a source of funding for all activities of Commercial Banks. Banks with large equity have good reputations on the market and find it easier to expand and develop. According to the regulations in Vietnam, banks must have Capital Adequacy Ratio higher than 9%. If this ratio is not maintained, Commercial Banks will not be able to expand, even facing the risk of bankruptcy. Improvements in financial capacity will enable banks to have sufficient capital, implement good measures to prevent risks, ensure capital adequacy in operations, and minimise any possible damages.

Commercial banks may use their equity to equip infrastructure, invest in fixed assets, lend money, invest in joint ventures or purchase shares. Besides, as protection, equity is considered as guarantee assets to build trust with customers and maintain solvency in case they are operating at a loss.

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Equity is a decisive factor for the size of capital mobilised as well as lending and guarantee activities of banks. The size and growth of equity will determine the development capacity and financial development of Commercial Banks, which is reflected through three indicators: ROA (Return on Assets), ROE (Return on Equity) and NIM (Net Interest Margin).

This study will assess the impacts of equity on financial performance of Commercial Banks in Vietnam, thereby suggesting solutions that assist bank managers with deciding the size of equity in line with the operational strategy to improve financial performance.

2. THEORETICAL FRAMEWORK AND METHOD

2.1. Theoretical Framework

Financial performance is an important indicator in evaluating the operational efficiency of banks. It is assessed based on the ability of banks to generate profit from business activities using their available resources. The relationship between equity and financial performance is explained in the Signalling theory, the expected bankruptcy costs hypothesis, and the risk-reward hypothesis. They are the theoretical foundation for studies on the impacts of equity on the profitability and financial performance of commercial banks.

Empirical studies on this subject have been conducted extensively around the word. Athanasoglou, Sophocles & Delis (2008) studied the factors affecting the profitability of Greek banks from 1985 to 2001. Profitability was measured by two indicators: ROA and ROE. Using the GGM method, the results of their study show that bank capital is an important factor, positively affecting profitability. The results also show that inflation has a positive relationship with profitability. In contrast, internal factors such Credit Risk, Expense Management negatively affect profitability. Sufian (2012) studied the factors affecting the profitability of 77 commercial banks in Bangladesh, Sri Lanka, and Pakistan from 1997 to 2008. Empirical results show that the bank-specific characteristics, especially liquidity, income diversification, credit risk and capitalization positively impact profitability, while cost posts opposite effects. For the impacts of macro variables, the study showed that economic growth has a positive effect on the profitability of banks while inflation has no impacts. In addition, during the study period, the results show that private investment positively affects profitability, while personal consumption expenditure has a negative effect. However, this observation was not uniform across the countries studied. Lee & Hsieh (2013) researched the impact of bank capital on profitability and risk in Asian banks. Their study utilised the GMM metho and panel data collected from 42 banks in Asia from 1994 to 2008. Profitability was measured through three indicators: ROA, ROE and NIM. The results show that capital poses a positive impact on profitability. In addition, economic growth, domestic credit and interest rates positively affect profitability. In contrast, credit risk, liquid assets, loan balance and inflation have negative effects on profitability. Ayaydin & Karakaya (2014) studied the influence of bank capital on the profitability and risk of Turkish banks. The study used the GMM-System estimator for panel data of 23 Turkish banks for the period from 2003 to 2011 including 207 observations. Profitability was measured by the indicator ROE. The results show that equity has a negative impact on profitability. In addition, provisions for credit risks, liquidity, foreign ownership and economic growth were found to negatively affect profitability. In contrast, inflation and HHI index have positive effects on profitability. Saeed (2014) studied the factors affecting the profitability of banks in the UK. The data for the research was collected from Bankscope for 73 commercial banks in the UK from 2006 to 2012. The studies used regression and correlation methods showing a positive relationship between equity and profitability, which was measured by two indicators: ROA and ROE. In addition, the study showed that the ratio of deposits to total assets and economic growth has a positive impact on profitability. Menicucci & Paolucci (2016) investigated the relationship between the bank-specific characteristics and profitability in the European banking industry, to find out the role of internal factors in achieving high profitability. The regression analysis was conducted using unweighted panel data set consisting of 1775 observations from the top 35 banks in Europe from 2009 to 2013. The regression results show that the size and capital ratio positively affect the profitability of European banks, whereas higher risk provisions lead to lower profitability. The study also showed that banks with higher deposits and loan ratios tend to be more profitable. Jabra, Mighri & Mansouri. (2017) examined the relationship between bank capital, risk and return in the BRICS data of the banking industry from 2004 to 2012. The study used a dynamic panel data model and a two-step GMM estimation process. The empirical study shows that the capital has a positive impact on profitability. Provisions for credits risk and economic growth also positively impact profitability. In contrast, loan balance and inflation have negative effects on profitability. Hassoun & Khalaf (2022) investigated the return on assets (ROA) and the return on equity (ROE) to assess the impacts of cash liquidity, debt ratio, capital adequacy, credit facilities to assets, bank size and quality of banking services to the profitability of Iraqi commercial banks. The research showed that the most influential internal factors affecting the profitability of commercial banks in the study sample differ from one bank to another. It was recommended to strengthen the interest in the capital adequacy ratio, debt ratio and cash liquidity due to their significant impact on the profitability of banks.

In Vietnam, there are several studies on the impact of capital on the profitability of Commercial Banks; however, research focusing on the relationship between equity and financial performance is still limited. Nguyen & Le (2015) studied the impact of bank capital on the profitability of Vietnames commercial banks from 2007 to 2014. Using the GMM method, the study showed that the ratio of equity to total assets has different effects on different indicators (ROA and ROE) of profitability. The ratio of capital to total assets positively affects ROA because the higher the equity, the higher the bank's profitability. In contrast, this ratio has a negative relationship with ROE, which means at a high ratio of capital to assets, the equity risk is low, decreasing the return on equity. In addition, economic growth and inflation positively affect profitability, while loan/deposit balance has a positive impact on ROA and a negative impact on ROE. Phan (2017) examined different factors affecting the profitability of Vietnamese commercial banks after the 2008 crisis. The study was based on a GMM regression model with ROA and ROE as dependent variables and factors affecting the profitability of Vietnamese commercial banks as independent variables. The study used a secondary data system (financial reports) collected from 33 banks from 2008 to 105. The results show that the profitability ratio of commercial banks is influenced by the following factors: equity ratio, cost management capacity, provisions ratio for credit risks, interest income, interest expense, the growth rate of total assets, corporate income tax, inflation and GDP.

2.2. Method

2.2.1. Data

The study on the impact of equity on the financial performance of commercial banks was conducted on a data set consisting of 28 commercial banks in Vietnam from 2009 to 2019, as listed in Appendix. This data set excludes banks that disclosed incomplete data or merged with other banks. The bank-related data was collected from annual reports and audited financial statements. Marco data such as growth rate and inflation were obtained from Worldbank.

2.2.2. Model

According to the study by Jabra, Mighri & Mansouri. (2017) and Ayaydin and Karakaya (2014), the financial performance of commercial banks is assessed through ROA, ROE and NIM.

This study applies these models to assess the impact of equity on the financial performance of commercial banks in Vietnam. The regression model is defined as follows:

$$ROA_{it} = \beta_0 + \beta_1 ROA_{i,t-1} + \beta_2 CAP_{it} + \beta_3 SIZE_{it} + \beta_4 NLTA_{it} + \beta_5 HHI_{it} + \beta_6 GDP_t + \beta_7 INF_t + \varepsilon_i \quad (1)$$

$$ROE_{it} = \beta_0 + \beta_1 ROE_{i,t-1} + \beta_2 CAP_{it} + \beta_3 SIZE_{it} + \beta_4 NLTA_{it} + \beta_5 HHI_{it} + \beta_6 GDP_t + \beta_7 INF_t + \varepsilon_i \quad (2)$$

$$NIM_{it} = \beta_0 + \beta_1 NIM_{i,t-1} + \beta_2 CAP_{it} + \beta_3 SIZE_{it} + \beta_4 NLTA_{it} + \beta_5 HHI_{it} + \beta_6 GDP_t + \beta_7 INF_t + \varepsilon_i \quad (3)$$

Table 1. Variables in regression model

Variables	Symbol	Determinant	Expected correlation	Empirical proxies
Dependent Variables				
Return on Assets	ROA	Net income to total assets		Hassoun & Khalaf (2022), Athanasoglou et al (2008), Saeed (2014), Jabra, Mighri & Mansouri. (2017), Nguyen & Le (2015), Phan (2017)
Rerurn on Equity	ROE	Net income to Equity		Hassoun & Khalaf (2022), Athanasoglou et al (2008), Ayaydin & Karakaya (2014), Saeed (2014), Jabra, Mighri & Mansouri. (2017), Nguyễn & Lê (2015), Phan (2017)
Net Interest Margin	NIM	Net interest revenue against average assets		Lee & Hsieh (2013), Jabra, Mighri & Mansouri. (2017)
Independent Variables				
Capital rate	CAP	Equity to total assets	Positive	Athanasoglou et al (2008), Sufian (2012), Lee & Hsieh (2013), Saeed (2014), Jabra, Mighri & Mansouri. (2017), Nguyen & Le (2015), Phan (2017)

Variables	Symbol	Determinant	Expected correlation	Empirical proxies
Control Variables				
Bank size	SIZE	Log (Total Assets)	Positive	Hassoun & Khalaf (2022), Menicucci & Paolucci (2016)
Loan rate	NLTA	Net loans to total assets	Positive	Hassoun & Khalaf (2022), Sufian (2012), Elisa Menicucci (2016)
Herfindahl-Hirschman Index	HHI	Herfindahl-Hirschman Index for assets of competition structure.	Positive	Ayaydin & Karakaya (2014)
GDP growth	GDP	GDP growth rate	Positive	Sufian (2012), Lee & Hsieh (2013), Saeed (2014), Ayaydin & Karakaya (2014), Jabra, Mighri & Mansouri. (2017), Nguyen & Le (2015), Phan (2017)
Inflation rate	INF	Consumer price index (CPI)	Positive	Athanasoglou et al, (2008), Sufian (2012), Ayaydin & Karakaya (2014), Nguyen & Le (2015), Phan (2017)

Source: author

2.2.3. Regression Method

The regression model has an endogenous phenomenon because of the mutual relationship between equity and financial performance (ROA, ROE and NIM). Commercial banks often use the profit to increase their own capital, with the aim of being more profitable in the future (Gropp & Heider, 2010). In addition, the business of commercial banks is continuous, which means the results of business in a period will be affected by that in the previous period. Any changes in outstanding loads or interest rates also affect the business in the future. Therefore, the regression model includes a lagged variable (t-1) for dependent variables. The GMM method is used in this study to estimate the models (1), (2) and (3) and overcome issues caused by endogenous phenomena.

3. RESULTS AND DISCUSSION

Table 2. Summary of regression results

	Model (1)	Model (2)	Model (3)
CAP	0.0498***	0.103	0.0466***
	[4.12]	[1.58]	[4.54]
SIZE	0.000225***	0.00131***	-0.000237
	[7.77]	[3.10]	[-3.43]

	Model (1)	Model (2)	Model (3)
NLTA	-0.0137***	-0.0432**	0.0316***
	[-5.52]	[-2.15]	[8.18]
HHI	0.299***	3.015***	0.0863
	[4.62]	[5.45]	[0.88]
GDP	0.317***	2.825***	0.277***
	[10.12]	[8.51]	[4.90]
INF	0.0117***	0.0849***	0.0618***
	[3.32]	[3.59]	[12.84]
L.ROA	0.509***		
	[12.50]		
L.ROE		0.715***	
		[22.23]	
L.NIM			0.372***
			[9.57]
_CONS	0.00688*	0.0887**	-0.0124*
	[1.79]	[2.53]	[-1.92]
Sargan test	0.9935	0.9999	0.9999
Arellano-Bond test	0.0443	0.0029	0.0062
	0.2977	0.9570	0.0730

*(***, **, * denote the significance level at 1%, 5%, 10%, respectively).*

Source: Author processed data in STATA software

The lagged variables of ROE, ROA and NIM have the significant level of 1% in the models. This result agrees with previous studies, demonstrating that the financial performance of commercial banks at present is affected by operating results and profitability from the previous year. The higher the ROE, ROA and NIM in the previous year, the higher the financial performance of banks in the current year.

Equity has a positive effect on ROA and NIM at a 1% significant level. This result is in line with the expectations and agrees with previous studies by Nguyen and Le (2015), Lee and Hsieh (2013), Jabra and Mighri (2017). In addition, the results of this study are consistent with the Signalling theory and the expected bankruptcy cost theory. Abundant equity is the driving force for growth, reducing the risk of default. As a result, bankruptcy costs are expected to decrease, and bank profit and profitability will increase. This observation means that a strong and sustainable capital structure is essential, providing commercial banks with resources to deal with any financial crisis shocks. Equity is integral in evaluating the capacity of banks to withstand losses and can act as a protective buffer against operating losses. Increasing equity can provide banks buffer capital to mitigate risks, meet capital adequacy requirements and have more financial resources to develop all banking activities.

In addition, the financial performance of commercial banks were found to be influenced by asset size, loan balance, bad depth ratio, bank competition, economic growth rate, and inflation rate.

4. CONCLUSIONS AND POLICY IMPLICATIONS

Equity is an integral financial factor, reflecting both the size of a bank and its ability to guarantee loans to customers. According to the Basel Accord, improving financial capacity is a necessary and sufficient condition for a bank to enhance its competitiveness in the market and ensure safe operation of the bank in particular and the financial system in general. In order to gradually satisfy requirements in the Basel Accord, commercial banks need to improve financial strength to ensure a safe capital ratio. It enables banks to increase liquidity and asset quality and sustain stable development. Banks will gradually increase market share, improve financial efficiency, and increase competitiveness and business profits. The positive relationship between ROA and NIM, as shown in this study, substantiates this observation.

In order to manage equity, commercial banks need to develop policies balancing distributing profits for the payments of dividends to shareholders and retaining an appropriate portion to increase the capital size for reinvestment purposes. Commercial banks should focus on a number of solutions as follows, to increase equity in the current period:

[1] Issuance of additional shares: Commercial banks can increase their charter capital by issuing additional shares to existing shareholders or foreign strategic investors. To effectively implement this solution, commercial banks need to be transparent and disclose financial information, thereby increasing the ability to raise capital through the stock market.

[2] Stock dividend: Banks can also increase their capital by paying dividends by shares and issuing bonus shares to shareholders. This form of increasing capital is effective in raising awareness and responsibility, demonstrating the role of shareholders in the performance of banks.

[3] Issuance of long-term bonds: Commercial banks can increase equity in a traditional way by issuing long-term bonds to investors. This form of raising capital contributes to improving Level 2 of capital raising (one of the factors that determine the CAR ratio of banks).

Improvement to the financial capacity of commercial banks has always been considered a core issue of the national financial system. This issue becomes more important as Vietnam increasingly integrates into the world economy. Economic events in the world will impact more or less on Vietnam. Only by improving financial capacity, commercial banks have the internal strength to cope with risks and, at the same time, to enhance the competitiveness of the Vietnamese banking system. Therefore, it is the right solution for credit institutions to increase equity to improve financial capacity. It is in line with the context of the current economy and the policy of building a stable and sustainable banking system.

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The Estate Bank of Vietnam: http://www.sbv.gov.vn

Worldbank: http://www.worldbank.org

Appendix: Commercial banks in Vietnam used in the study

No.	Bank code	Bank name
1	ABB	An Binh Commercial Joint Stock Bank
2	ACB	Asia Commercial Joint Stock Bank
3	AGRIBANK	Vietnam Bank for Agriculture and Rural Development
4	BIDV	Joint Stock Commercial Bank for Investment and Development of Vietnam
5	BAOVIETBANK	Bao Viet Joint Stock commercial Bank
6	BVB	Viet Capital Commercial Joint Stock Bank
7	CTG	Vietnam Joint Stock Commercial Bank of Industry and Trade
8	EIB	Vietnam Export Import Commercial Joint Stock
9	HDB	Ho Chi Minh city Development Joint Stock Commercial Bank
10	KLB	Kien Long Commercial Joint Stock Bank
11	LPB	LienViet Commercial Joint Stock Bank
12	MBB	Military Commercial Joint Stock Bank
13	MSB	The Maritime Commercial Joint Stock Bank
14	NAB	Nam A Commercial Joint Stock Bank
15	NCB	National Citizen Bank
16	OCB	Orient Commercial Joint Stock Bank
17	PGB	Petrolimex Group Commercial Joint Stock Bank
18	SCB	Sai Gon Commercial Joint Stock Bank
19	SEA	Southeast Asia Commercial Joint Stock Bank
20	SGB	Saigon Bank for Industry & Trade
21	SHB	Saigon-Hanoi Commercial Joint Stock Bank
22	STB	Saigon Thuong Tin Commercial Joint Stock Bank
23	TCB	Vietnam Technological and Commercial Joint Stock Bank
24	TPB	TienPhong Commercial Joint Stock Bank
25	VAB	Viet A Commercial Joint Stock Bank
26	VCB	Joint Stock Commercial Bank for Foreign Trade of Vietnam
27	VIB	Vietnam International Commercial Joint Stock Bank
28	VPB	Vietnam Commercial Joint Stock Bank for Private Enterprise

THE IMPACT OF INFORMATION AND COMMUNICATION TECHNOLOGY APPLICATIONS ON THE COMPETITIVENESS OF VIETNAMESE COMMERCIAL BANKS IN THE DIGITAL AGE

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Abstract: *The development and application of information and communication technologies to enhance the competitiveness of the banking industry is an inevitable trend in the era of digital technology. Empirical research using the ICT index represents the willingness to develop and apply information and communication technologies (ICT), impact assessment of the ICT index, ICT building blocks such as technical infrastructure, human resources infrastructure, and internal IT application on the indicators to measure the competitiveness of banks (Lerner Index). Regression tests and S.GMM estimation methods are performed on unbalanced tabular data aggregated from 30 Vietnamese commercial banks over the period 2013–2020. The findings indicate that Vietnamese commercial banks' competitiveness in promoting the use of ICT in the banking sector has improved. The outcomes also reveal that costly investments in technical infrastructure, human resources, and internal applications have had a negative impact on banks' competitiveness in the periods. Furthermore, bank-specific control variables as well as macro factors such as GDP growth rate and inflation rate are included in the research model, and experimental results reveal that they have some influence on the efficiency of banking operations. We then suggest some policy implications for banking in the digital age.*

Key words: *Competition, Information and Communication Technology (ICT), banking, GMM, Lerner.*

JEL codes: B26; G21; G31; G32; M15; O30

1. INTRODUCTION

The financial services sector, particularly the banking sector, is seen as a pioneer in the use of information technology (IT) products. The presence of financial services based on information and communication technology (ICT) offers the Vietnamese banking sector the opportunity to strengthen its competitiveness in the domestic market and expand its access to overseas markets. Based on IT characteristics and communication strengths, banks can reach potential customers from all walks of life, including those in remote areas and those without access to banking services. In the context of the rise of the digital economy, the development of ICT-oriented banking activities is a trend actively pursued by Vietnamese banks. The administration and operation of today's financial transactions are largely implemented based on increasingly widespread IT applications. Currently, payment activities in e-commerce and mobile transaction processing are gradually being replaced by traditional methods. The use of IT in banking has shifted most

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payment and transaction activities online, especially as the world is hit by the Covid-19 pandemic. The financial system in general and commercial banks in Vietnam have continuously invested in the development of technological infrastructure systems and human resources in recent years to meet the needs of ICT development and application in internal operations and online services with the goal of improving financial efficiency.

Wonglimpiyarat (2017) indicated the characteristics of an innovative financial system based on the use of technology in the banking sector, and ICT applications are considered one of the key factors that revolutionize the financial services industry in Thailand. Investments in ICT promote the development of fintech as a modern financial service, innovative payment methods and creation of new visions in the digital age of the financial sector. Investments in ICT development and applications will provide a platform for banks and non-banks to facilitate online payment and remittance services at reasonable costs. Therefore, technology can change business processes and business processes can influence the direction of technological development (Thompson,2017). Furthermore, Ghosh (2017) suggested that modern technological innovations convert traditional business models into new ones. At the same time, there can be a variety of products and services that can deliver a higher target value at a lower cost.

Many national and international studies deal with the application of ICT to the banking sector in general. However, the current articles mainly focus on the strengths and weaknesses of the use of ICT in banking performance. To get more insights into the relationship between ICT and the competitiveness of commercial banks, the authors conduct an empirical study titled: "The impact of investment in information and communication technology on the competitiveness of Vietnamese commercial banks in the digital age." Based on the results obtained, the authors propose a set of solutions to increase the efficiency of ICT applications in the banking sector in the era of digital transformation.

2. THEORETICAL BACKGROUND AND PREVIOUS STUDIES

According to Porter (1998), the competitiveness of a company is defined by its ability to maintain and increase its market share and generate high profits. It is a widely held concept today that competitiveness is the ability to consume goods and services relative to competitors and the ability of a business to profit from them. Competitiveness must be linked to the concept of sustainable development and the efficient use of social resources. According to Sanchez and Heene (2004), a firm's competitiveness is defined by its ability to maintain, distribute, and adapt resources and skills in ways that help the firm achieve its goals. Therefore, a company's competitiveness is defined by its competitive advantage, productivity, and ability to produce higher quality than its competitors. This also gives the ability to occupy a large market share, generate high profits, and develop sustainably. Nguyen (2010) claimed that a company's competitiveness means maintaining and improving its competitive advantage in product consumption; expanding its consumption network; attracting and effectively utilizing factors of production; and achieving high profitability. It is the ability to generate economic benefits and ensure sustainable economic development.

In the banking and finance sector, there are many concepts regarding the competitiveness of commercial banks. According to Nguyen (2008), the competitiveness of a bank is defined by its ability to create, maintain, and develop advantages in order to maintain and expand its market share; achieve profitability above the industry average and increase continuously; while ensuring safe and sound operations; and the ability to withstand and overcome adverse fluctuations in the business environment. Meanwhile, Nguyen (2010) stated that the competitiveness of commercial banks is the wealth created by the bank itself on the basis of maintaining and developing inherent advantages to consolidate and expand market share, increase profits, and resist and overcome adverse fluctuations in the business environment. The competitiveness of a commercial bank is assessed based on factors such as financial solidity, technical solidity, human resources, management solidity, the corporate network, and the degree of diversification of corporate products (Bikker & Boss, 2008).

Ahmed et al (2021) also indicated that the competitiveness of commercial banks is considered as the level of success that banks achieve in allocating input resources to optimize output, reflecting the level of use of resources (human resources, material resources, and capital) to achieve defined goals. In terms of information and communication technology (ICT), Khalifa (2000) defined ICT as the automation of processes, control, and production of information using computers, telecommunications, computer software, and other gadgets that keep business running smoothly and efficiently. ICT also involves skills and processes needed to carry out activities in a given context at all levels. The business environment in the digital age is very dynamic and undergoes huge changes as a result of technological innovations, increased awareness, and demand from customers. According to Rahman (2007), businesses, especially the banking industry, operate in a complex and competitive environment characterized by these changing conditions and highly unpredictable economic climates in which ICT is at the center of this global change. Landon (1991) contended that managers could not ignore information systems due to their critical role in the organization. He pointed out that the cash flow of most fortune 500 companies is linked to information systems. Chen and Zhu (2004) showed that the relationship between investment in ICT and business performance is indirect because it is influenced by intermediate and regulatory variables. For example, ICT operations in the banking sector help generate effective added value from customers in the form of deposits. Then, the banking sector can make profits by using the deposits as a source of investment funds. Beccali (2007) examined whether investments in information technologies (hardware, software, and other ICT services) affect banking activities. He used a sample of 737 European banks between 1995 and 2000. This was measured using both standard accounting ratios and alternative cost-effectiveness measures. The outcome of his study indicated that banks are the main ICT investors, but the relationship between total ICT investments and the improvement in the profitability or efficiency of banks is negligible. Nevertheless, the investment in ICT services (consulting services, implementation services, training and education, and support services) from external providers appears to have a positive effect on accounting profitability and revenue efficiency and the efficiency of banking transactions.

Dangolani (2011) examined the impact of ICT on the banking system of Keshavarzi Bank Iran. In his study, data was collected from customers and employees and analyzed using exact percentages and a five-point Likert scale, and the study found out that ICT brings huge benefits to the banking operations. ICT obviously saves time for customers and employees, reduces costs, and facilitates transactions in the network. Wadesango & Magaya (2020) examined the impact of digital banking on the financial performance of commercial banks in Zimbabwe. The study looked at 40 different branches of a commercial bank in Zimbabwe. It used data from the bank's financial statements from 2013 to 2017 to see how well the bank was doing. The findings of this study showed that the digital bank has made a positive contribution to the performance of commercial banks in Zimbabwe by increasing online customer deposits and bank transactions. However, the use of electronic banks has an inversely proportional impact on the financial performance of commercial banks. The study also suggested that commercial banks in Zimbabwe should partner with a reputable local wireless carrier and constantly update their electronic banking technology so that they have the latest systems to provide uninterrupted and effective banking services. Many international articles employ ICT indicators and ICT components to assess the relationship between ICT development and bank performance. Muhammad et al (2013) evaluated the impact of ICT indicators on the Nigerian banking sector using 11 selected commercial banks in Nigeria. The study applied FEM to analyze the banks' annual data for the period 2001 to 2011. The results of the study indicated that the employment of ICT in the banking sector in Nigeria increased the return on equity (ROE). It was also found that the inverse relationship between the additional sustainable investments in ICT and the efficiency gains was confirmed. Furthermore, there is a tendency to focus more on policies that promote the efficient and rational use of ICT equipment rather than investing more. Binuyo (2014) employed the ICT index to investigate the influence of ICT on the operations of the banking sector in South Africa. The annual data was collected from 1990 to 2012 and is presented in dynamic tabular form. According to the study's findings, the use of ICT increased the return on capital used as a return on assets in the South African banking sector. The study also indicated that the cost effectiveness of ICT contributed more to the performance of banking than investments in ICT. Rather than increasing investment, the study advised banks to focus on policies that encourage the rational use of existing ICT equipment.

The impact of technological development investments on the banking sector in Vietnam is being studied and developed in a variety of aspects. Phan & Tran (2019) conducted empirical research on the impact of technological factors on the ROE of Vietnamese commercial banks using secondary data from 21 Vietnamese commercial banks from 2008 to 2017. The results of the GMM regression method used in this study showed that the ROE ratio is negatively influenced by the use of technology in commercial activities, but technological innovation factors have a positive effect on the ROE.

Thuy (2021) used data from 20 Vietnamese commercial banks in the period from 2007–2019 and ICT indicators to investigate the impact of ICT on financial services. The results showed that the preparation for development and ICT applications have had a significant impact on the bank's performance. Tram & Nguyen (2018) investigated the impact of the ICT index on banking performance in Vietnam, using a linear regression model to analyze tabular data from 24 commercial banks in Vietnam from 2006 to 2017. The findings indicate that the ICT index is positively correlated with the performance of the bank. The authors recommend that commercial banks focus on policies that facilitate the use of emerging information technologies. Empirical research in Vietnam is still very limited, particularly research using ICT indicators to assess the impact on commercial bank competitiveness. The authors use the ICT index in Vietnam to see how ICT development readiness and adoption affect commercial bank competitiveness.

3. RESEARCH METHODOLOGY

3.1. Research Data

The study used data from 30 Vietnamese commercial banks. The total number of banks with 100% equity in Vietnam as of December 31, 2020 was 35. The assets of the 30 commercial banks used by the author represent 97% of all commercial bank assets in Vietnam. Thus, the 30 selected commercial banks are expected to be representative of the rest. The authors took data from Vietnam's Ministry of Information and Communications and compiled it into the ICT Index. The data used to calculate internal variables within the banks came from the Thomson Reuter database, annual reports, audited consolidated financial statements, official records of commercial bank general meetings, and data from government banks. The data used to calculate the external factors in the macro environment came from reliable sources such as the World Bank, IMF, and Vietnam General Statistics Office. The data is presented in a tabular format but is not balanced.

3.2. Research Method

The research was carried out using a combination of qualitative and quantitative methods.

Based on the theory of previous studies, the author uses the steps of listing, analyzing, comparing, and synthesizing previous theories and research to build a theoretical framework suited to the objectives, scope, and research content. The authors then choose the appropriate variables to construct an experimental regression model for Vietnamese commercial banks.

Several studies by Ariss (2010), Pathan and Michael (2007), Wu et al (2014), Vo & Duong, (2017); Pham & Dao, (2021) indicate that empirical research on the measurement of performance often encounters endogenous problems, partly due to the nature of the variables used in the study design. The authors tested the regression model using the Durbin Wu-Hausman test method (Beck et al, 2013) and found endogenous phenomena. To solve the endogeneity, the study proceeded to elaborate it by adding instrumental variables to the regression model, which are variables calculated from the latency of the bank's competitiveness metric (Lerner index in the previous year). To overcome endogenous phenomena, the authors used model regression estimation using the S.GMM method to obtain robust estimates (Arellano & Bond, 1991; Mensi & Labidi, 2015).

In this study, the authors also employ the Lerner index to measure the competitiveness of commercial banks. Lerner's method (Lerner, 1934) is considered an effective tool for measuring the competitiveness of banks. The Lerner index is calculated by dividing the difference between the product's price and its marginal cost by the product's price. The higher the Lerner index value, the less competition between banks and the greater the competitiveness of each bank (Lerner, 1934; Ariss, 2010). The Lerner index is computed using the following formula: $\mathbf{Lerner_{it} = (P_{it} - MC_{it})/P}$.

The survey uses the information technology readiness and application index of the Vietnamese banking sector (Information & Communication Technology-ICT Index), published in the annual report of the Ministry of Information and Communication. This report provides information on the current state of IT development and implementation at Vietnamese commercial banks. The results of the report are classified according to the set of criteria that make up the ICT Index. The report provides assessments and assessments of the IT development and adoption readiness of commercial banks in Vietnam.

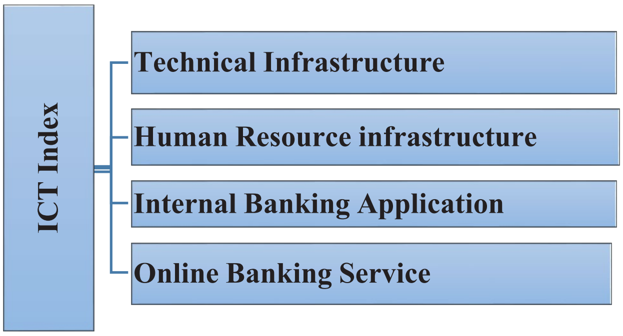


Figure 1. ICT index composition structure

Source: Ministry of Information and Communications (2021)

3.3. Research Model

The general research model on the impact of the preparation and application of IT development on the competitiveness of banks built on previous studies by Binuyo (2014); Agu & Aguegboh (2020); and Thuy (2021) and is defined as follow:

$$Bank\_Competitiveness_{it} = \alpha_0 + \alpha_1 ICT_{it} + \alpha_2 BANK_{it} + \alpha_3 MACRO_t + eit$$

The authors added the competitiveness latency variable to the model. This makes it possible for the study to consider the impact of independent variables on the dependent variable in a dynamic state, i.e., the dependent variable is influenced by its previous values. Therefore, the research model is constructed as follow:

$$Bank\_Competitiveness_{it} = \alpha_0 + \alpha_1 Bank\_Competitiveness_{it-1} + \alpha_2 ICT_{it} + \alpha_3 BANK_{it} + \alpha_4 MACRO_t + eit$$

Table 1. Variables' information

Variables	Explication	Calculation formula
Lerner	Competitiveness of banks	$Lerner_{it} = (P_{it} - MC_{it})/P_{it}$
HTKT	Technical Infrastructure	
HTNL	Human Resource infrastructure	
UDNB	Internal Banking Application	
ICT	ICT index	
$Lerner_{it-1}$	Latency variable Lerner	Lerner index in previous years
SIZE	Bank size	Ln (Total assets)
LDR	Loan to Deposit	Customer loans / Total assets
HHI	Income Diversification	$HHI = (NON/NI)^2 + (NET/NI)^2$ NON: non-interest income NET: net interest income NI = NON + NET
MS	Market strength	Operating expenses / Operating income

Variables	Explication	Calculation formula
GTA	Total asset growth rate	(Total assets – Total assets of the previous year)/Total assets of the previous year
Original	Form of ownership	Convention: 1 – State Ownership 2 – Private ownership
GDP	GDP growth rate	
INF	Inflation rate	

4. RESULTS AND DISCUSSION

4.1. Descriptive statistics

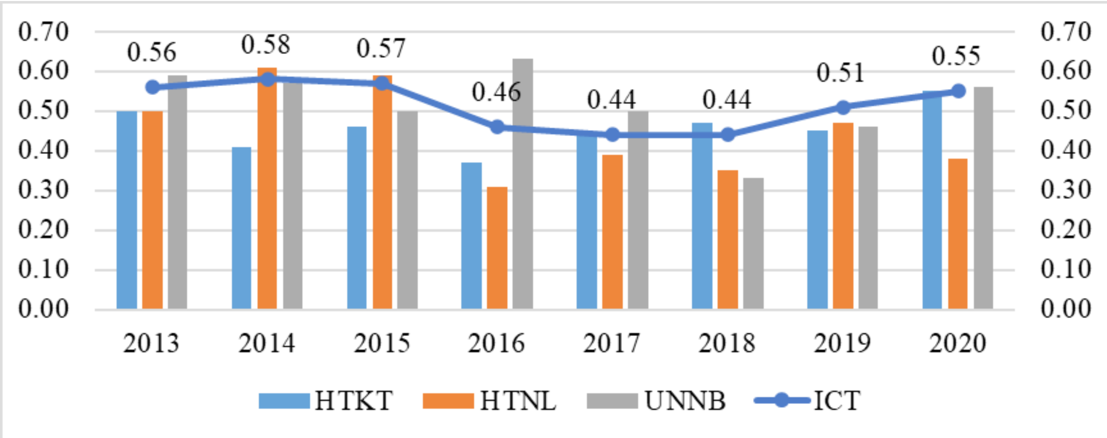
The study is conducted on secondary data from 30 Vietnamese commercial banks in the period of 2013–2020. The statistical results are described in the following table:

Table 2. Statistics describe variables in the study model

Variable	*Obs*	*Mean*	*Std. Dev.*	*Min*	*Max*
Lerner_1	191	0.1556	0.0818	-0.0836	0.3932
ICT	191	0.5043	0.1113	0.2527	0.8013
HTKT	191	0.4576	0.117	0.1500	0.7586
HTNL	191	0.4332	0.2317	0.0000	1.0000
UDNB	191	0.5097	0.2002	0.0000	1.0000
SIZE	191	18.9333	1.1289	16.6362	21.1398
LDR	191	0.8625	0.1416	0.5212	1.3442
HHI	191	0.3628	0.1129	-0.1315	0.4995
GTA	191	0.1685	0.1398	-0.2250	1.1222
MS	191	0.0317	0.0356	0.0017	0.1261
Original	191	0.1885	0.3921	0.0000	1.0000
GDP	191	0.0600	0.0138	0.0291	0.0708
INF	191	0.0245	0.0152	-0.0020	0.0476

Source: the authors' research

In 2013, the fourth industrial revolution began. Vietnamese commercial banks recognized the need to invest in ICT in their operations and began to focus heavily on both human resources and technical infrastructure to develop policies advocating data digitization and invest in online banking services to expand the potential customer market. The results show that the average ICT index of 30 commercial banks in Vietnam fluctuated between 44% and 58% during the period 2013–2020. From 2017 to 2020, there has been a gradual increase. Factors representing ICT development and investment in its applications, such as technical infrastructure, increased from 2016 to 2018, decreased slightly in 2019, and increased again in subsequent years. Furthermore, investment in human resources for ICT development and applications fluctuated in each period, particularly in the 2019-2020 period. Under the general impact of the Covid-19 pandemic, in order to minimize the concentration of people and meet customer transaction needs, many Vietnamese commercial banks have spurred investment and the development of fintech systems. This contributed to savings on personnel costs, while investment costs to promote ICT application activities increased both in terms of technical infrastructure and internal applications, as shown by the following statistical data.



Graph 1. ICT index of Vietnamese banks in the period of 2013-2020

Source: the authors' research

The increase in technology investments of many banks after the restructuring process has shown a positive change in their operational efficiency and has also helped to strengthen their competitiveness. Because of differences in financial situation, infrastructure capacity, and human responsiveness, the measures for the effectiveness of ITC applications for financial efficiency are not clearly defined, and no legal regulations regarding ICT applications have been enacted at this stage. The State Bank issued Decree No. 630/QD-NHNN on the use of security solutions in online payments and bank card payments on March 31, 2017. Authentication methods to ensure security must be applied to payment service providers and payment intermediaries on the Internet since 1 January 2019. Customers will have more confidence in online transactions if there is a relatively clear legal corridor, which will help to improve the reputation and position of Vietnamese commercial banks in the future. Commercial banks have prioritized ICT investments in their business operations. This is one of the primary reasons why the indicators defining the availability of ICT applications in the banking sector are rising between 2017 and 2020.

Regression results

The results of the regression on the dataset of 30 Vietnamese commercial banks in the period 2013-2020 implemented on the Stata 15 software are presented in the following table.

Table 3. Regression

Variables	GMM	Expectation
Lerner_1	0.05530**	+
ICT	0.3116**	+
HTKT	-0.2724**	+/-
HTNL	-0.0770	+/-
UDNB	-0.1327*	+/-
SIZE	-0.1713*	+
LDR	0.9473***	+
HHI	0.5140	+
GTA	-0.1394*	-
MS	10.3022**	+
Original	-0.6355**	-
GDP	-2.0528*	-
INF	0.7721	+
No of Obs.	191	
No of groups	30	
Instrument variable	21	
Mean VIF	2.14	
F-test	F test that all u_i=0: F(29, 150) = 6.54 Prob > F = 0.0000	
Hausman Test	Prob>chi2 = 0.3781 (V_b-V_B is not positive definite)	
Wu-Hausman test	Prob>chi2 = 1.0000	
Breusch- Pagan test	Test: Var(u) = 0 chibar2(01) = 73.43 Prob > chibar2 = 0.0000	
Wooldridge test	F(1, 27) = 13.365 Prob > F = 0.0011	
AR (2)	Pr > z = 0.722	
Sargan test	Prob > chi2 = 0.320	
Hansen test	Prob > chi2 = 0.637	

Note: *The symbols (***), (**), (*) represent statistical significance levels of 1%, 5%, 10%, respectively.*

The VIF factor of the model is 2.14, VIF <10 indicates that the risk of multilinear phenomena is negligible. When assessing the factors influencing a bank's competitiveness, many studies suggest that endogenous factors will persist in the regression model (Ariss, 2010; Amidu & Wolfe, 2013). The authors perform the Durbin Wu-Hausman test, the result obtains with a P value > 0.05 means that the variables used in the research model showed endogenous phenomena. Therefore, the S.GMM method is used to overcome the underlying endogeneity in the study results.

Sargan Test and Hansen Test for two models respectively have Prob > chi2 greater than 0.1 so the research model proposed in the paper is accepted and the representative variables are reasonable. At the same time, the results from the quadratic self-correlation test for AR(2) have a Pr > z value greater than 0.1, so it can be concluded that there is no second-order series correlation in the residual part of the model.

The results of the regression of the S.GMM show the magnitude of the influence of factors on the competitiveness of commercial banks as follows:

The regression result for the Lerner_1 variable with a positive sign suggests that the bank's competitiveness in the following year depends on its competitiveness in the previous year. The positive regression coefficient indicates a covariate relationship between this year's Lerner and the previous year's Lerner. This finding is also consistent with outcomes in previous research by Delis (2012),Vo & Mai (2017), and Pham & Dao (2021).

The results show a negative regression coefficient in the ICT index, including factors such as investments in technical infrastructure (HTKT variable), human resources infrastructure (HTNL variable), and internal application of banking information technology (UDNB variable). This means that investments in technical infrastructure, human resources infrastructure, and internal application of banking information technology are inversely related to the competitiveness of the company. This is completely consistent with the previous analysis of commercial bank performance from 2013 to 2020. Although the application of technology to banking is quite popular and at a high level of development around the world, Vietnam is still in the planning and construction phase of an initial development strategy. The generation of cost sources for ICT applications, inefficient investments, or abusive behavior in Vietnamese commercial banks are all factors contributing to the banks' declining competitiveness. Furthermore, the deployment of ICT applications is asynchronous and slow to grasp the needs for the provision of technological services in line with customer preferences, and the legal corridor is still not watertight, resulting in a drop in customer confidence when using banking online services. However, many banks are now focusing on investing in technical infrastructure and human resources rather than outsourcing or purchasing processed services from outside companies. Simultaneously, traditional banking has been gradually replaced by advanced technology and expanded services via infrastructure equipment, promoting the development of communications. As a result, the bank's competitiveness has improved significantly, and the learner index has risen steadily over the years. This demonstrates that the level of ICT adoption is favorable to banks. The outcome is also in line with the trend of data collected for 30 Vietnamese commercial banks over the period 2013-2020 (figure 1).

The research model also considers factors such as SIZE, LDR, GTA, and MS. Lerner was influenced by the regression results, which were statistically significant. The size regression coefficients, GTA, and parent variables are all statistically significant and negative, implying that these factors have the opposite effect on the bank's competitiveness. This can be explained by the fact that excessive asset growth but insufficient utilization, or high investment costs but insufficient recovery, can reduce the bank's financial capacity, resulting in a decline in the bank's competitiveness.

Positive regression coefficients for elements such as LDR, HHI, and MS imply that these factors have an impact in the same direction as competitiveness. It makes sense when the bank can efficiently use working capital and expand the development of services to increase profits, and the greater the bank's financial capacity in the market, the better the bank will be competitive. This is consistent with most expectations and previous study findings (Vo & Mai, 2017; Jeon et al, 2011; Nguyen et al, 2017; Pham & Dao, 2021).

The macro-factors act in the same direction as the initial expectations. In fact, these factors are correlated in both directions with the level of competition among banks. The banking system can only truly deploy its development potential if there is a stable economy, clear and strict legal regulations, and a mechanism for monitoring and dealing with violations quickly and accurately. This contributes to a more equitable, transparent, and open environment for the financial and banking sectors. The study's findings are consistent with the research work's initial expectations. However, the regression results show that the INF variable in the study model had no statistical significance.

5. CONCLUSIONS AND POLICY IMPLICATIONS

The authors conduct this study based on a complete review of the theoretical framework by synthesizing previous domestic and foreign research on relevant issues. The study, which carried out an experimental measurement of the impact of ICT applications on the competitiveness of Vietnamese commercial banks in the period from 2013 to 2020, indicates that the level of readiness for application (ICT) has a positive effect on the competitiveness of Vietnamese commercial banks.

Strong competition in financial and banking services will increase as the global economy develops under the influence of Industry 4.0. Completeness in ICT applications is regarded as a significant competitive advantage for commercial banks. The use of technology in banking transactions not only reduces manual handling, working hours, and financial transaction risks, but also increases work efficiency and provides new experiences to customers through banking technology applications (Dangolani, 2011). Maintaining customer confidence and quality of service is essential to the bank's development and success in today's highly competitive market. Commercial banks continue to promote the use of technology in modern banking services such as mobile banking and internet banking, chat bots, and other payment card services.It is the strategy for increasing the value, adaptability, and innovation of banking products and services using modern technology. Besides, commercial banks should continue to investigate and implement new technologies, as well as add more value to banking products and services, as well as their digital marketing activities to attract more customers. At the same time, banks should invest more in security technologies, especially for online and card transactions, to ensure their own security and increase customer trust and loyalty to their banks' services. This will create advantages and improve the competitiveness of the bank in the market. In addition to investing in information technology infrastructure, the bank should also invest in human resource infrastructure by developing training courses to ensure that employees have the necessary skills to meet job requirements in the digital age.

The process of using ICT in the banking industry to increase their competitive advantages should be properly planned, thoroughly implemented, scientific and synchronously deployed to avoid waste of resources and unnecessary costs. At the same time, the business performance of Vietnamese commercial banks is essential for bank managers' brilliant leadership and clear vision. The leader's perspective is extremely important in innovation, particularly in technological innovation that replaces traditional ways of working. As a result, the bank manager must be foresighted and keep a close eye on the market's overall development. Furthermore, the issue of legal corridors and government policies regulating the economy also play a significant role in banking activities.

Research Limitations

Data collection resources are limited. Except for data published by Vietnam's Ministry of Information and Communications, commercial banks in Vietnam have yet to publish official balance sheet data on specific investment items for infrastructure, human resources, software applications, or banking online services in the closest time. In fact, there have not been many national studies on the index of ICT applied in the banking sector. In particular, the authors have not found any previous research on the impact of ICT on the competitiveness of Vietnamese commercial banks, so the synthesis of the theoretical framework is close to the subject still limited. Finally, while ICT applications are not a new field, they are not yet developed in the Vietnamese banking sector in comparison to the rest of the world, so the investment cost for ICT development activities may vary from the officially published data.

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THE IMPACT OF WORKING CAPITAL MANAGEMENT ON CASH HOLDINGS OF CONSUMER STAPLES COMPANIES LISTED ON THE HO CHI MINH CITY STOCK EXCHANGE

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Abstract: *The study examines the impact of working capital management on cash holdings of consumer staples companies listed on the Ho Chi Minh City Stock Exchange. The study uses the regression analysis method on a research sample of 30 companies for 2015-2021. The regression analysis results show that the working capital related variables significantly influence on cash holdings of companies in the industry. Net working capital, cash conversion cycle, days sales outstanding, days sales of inventory, and days payable outstanding all have a negative relationship with cash holdings. From the research results, we make some recommendations for business managers and investors interested in cash holdings.*

Keywords: *Working capital management, cash holdings, consumer staples companies.*

1. INTRODUCTION

In recent years, corporate cash holdings have been a growing interest. The interest has been motivated by the fact that firms usually maintain a significant amount of cash on their balance sheets. Therefore, cash holding is one of the significant decisions taken by managers. An adequate cash level is necessary for the smooth business operation. Cash holdings, also called cash hoardings, are the level of cash and cash equivalents that are highly liquid assets that a firm can convert into cash in a short period (Ferreira & Vilela, 2004). Holding cash is essential because it allows a business to fulfill all its obligations on time. The cash holdings allow different investment opportunities and under-pricing issues (Cossin & Hricko, 2004). According to Ferreira & Vilela (2004), the primary benefit of cash holding is to provide a safety measure that safeguards the corporation from liquidating its existing assets and also enables them to avoid the cost of raising external funds. Cash holdings allow the pursuance of investment policy even when firms face financial difficulties. An appropriate amount of cash held by corporations enables them to minimize the cost of getting external funds or liquidating their current assets. Conversely, inadequate cash balance forces the firms to forgo beneficial investment opportunities, and these firms ultimately face a higher cost of financing.

Working capital is the difference between an organization's current asset and current liability. The significant components of working capital are accounts receivable, inventories, cash and cash equivalents, and accounts payable. Almeida et al (2004) stated that working capital substitute for cash. Therefore, the changes in net working capital affect the cash holdings. Shin & Soenen (1998) pointed out that the more efficient the firm is in managing its working capital, the less the

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requirements for external financing and the better financial performance. Thus, firms can enhance their liquidity position by increasing the amount of working capital. The way that working capital is managed has a significant impact on the cash holding levels of firms. Firms need to manage working capital as a substitute for cash holdings because if a firm's working capital management is efficient, then the need to hold onto cash is reduced. Proper working capital management generates more cash for the corporations and increases cash holdings. It also enables business corporations to save themselves against future uncertainties and failures. Abel (2008) said that efficient working capital management provides businesses with suitable cash holdings. Appropriate working capital management reduces businesses' reliance on external financing, providing them with more financial flexibility and liquidity. The more efficient working capital management, the fewer financial constraints a company bears; it expands the size of businesses and ensures liquidity (Padachi, 2006).

Different industries will have different characteristics regarding cash holdings and working capital management. The consumer staples industry is a specific industry with products consumed regularly. They are those products that people are unable or unwilling to cut out of their budgets regardless of their financial situation. However, in recent years, the strong development of science and technology and the impact of the Covid-19 pandemic have changed consumer behavior. Customers change preference values in buying behavior, tend to buy online and buy buy some goods in bulk to stock up. This causes fluctuations in revenue, expenses and current assets; thereby affecting enterprises's cash holdings and working capital. Therefore, the management of cash and working capital, as well as the relationship between these two aspects, becomes the first factor determining the survival, development and competitiveness of enterprises. So, the main objectives of the research are to ascertain the relationship between working capital management and cash holdings, and to identify some specific variables that significant impact on the cash holding of consumer staples companies listed on the Ho Chi Minh City stock exchange. The research will first present the theoretical framework, and then, a review of the previous research on the impact of working capital management on cash holdings. Then, the authors will be presented the methods used to test these hypotheses, analyzed the data, and followed a discussion of the findings to go to the conclusion.

2. LITERATURE REVIEW AND HYPOTHESES

2.1. Literature review

The number of studies on the cash holdings of enterprises attracts the attention of many scientists worldwide. Most studies focus on determining the factors affecting the cash holding ratio. In which, firm-specific variables are the factors that play a key role in decisions related to cash holdings. However, research findings are different in each country. One of the first studies was that of Opler et.al (1999). They examined the determinants of corporate cash holdings of cash for US firms from 1971-1994. Their results indicated that firms with strong growth opportunities, riskier activities, and small firms hold more cash than other firms. In addition, firms with the greatest access to the capital market tend to hold less cash. By using a sample of 9,168 firm-year observations from the Tokyo Stock Exchange for the period of 1992 to 2003, Nguyen (2006) found that cash holdings are positively associated with level risk, profitability, growth prospects, and dividend payout ratio, but negatively related to industry risk, size, and debt ratio. Megginson and Wei (2010) studied the determinants of cash holdings and the value of cash in China's share-issue privatized firms from 1993-2007. They found that smaller, more profitable and high-growth firms hold more cash. Debt, net working capital, and state ownership negatively relate to cash holdings. Similarly, Gill and Shah (2012) found that market-to-book ratio, cash flow, net working capital, leverage, firm size, board size, and the CEO (chief executive officer) duality significantly affect the corporate cash holdings in Canada. Anjum and Malik (2013) studied determinants of cash holdings of 95 non-financial companies of Pakistan listed on the Karachi stock exchange from 2005 – 2011. They found evidence that the firm's size, net working capital, leverage, and cash conversion cycle affected the cash holdings. Kariuki et al (2015) concluded that leverage, firm size, the likelihood of financial distress, and cash flow variability determine corporate cash holdings among private manufacturing firms in Kenya. Alassane Diaw (2020) investigated the determinants of firm's cash holdings in 21 emerging countries from 2010-2018. The overall results showed that the increase in cash holdings in emerging countries was associated with an increase in size and a decrease in net working capital, leverage, capital expenditure, intangibles, growth opportunities, and R&D expenses. Magerakis et al (2020) studied the financial determinants of cash holdings for non-financial and non-utility companies listed in the United Kingdom from 2010 to 2018. They found that cash holdings increased with the market to book ratio, R&D expenses, the opportunity cost of holding cash, and industry cash flow volatility. However, the cash ratio decreased when cash flow to assets, leverage, capital expenditures, net working capital, and firm size increased.

The empirical evidence emphasizes the role of firm-specific variables in cash holdings, including the working capital factors. However, the above studies have not delved into the role of working capital management. The first comprehensive paper on this issue is conducted by Abel. Abel (2008) used a dataset of 13,287 Swedish small and medium-sized manufacturing enterprises to find significant factors related to working capital management that influence on cash holdings. The study results showed that cash substitutes – namely inventory and accounts receivable– reduce the need to hold cash. Furthermore, working capital management efficiency – measured by the cash conversion cycle – is positively related to cash holdings. Zhang (2011) found that liquid assets and cash conversion cycle have a negative relationship with cash holdings with a sample of 660 Finnish trading firms from 2003 – 2007. Similarly, the study of Mahjabeen et al (2018) also showed that the cash conversion cycle and cash substitutes had a negative effect on cash holdings when using a sample of 148 non-financial listed firms in Pakistan from 2004–2013. Shubita (2019) conducted the impact of working capital management on cash holdings of 62 Jordanian industrial firms in eleven years (2006-2016) and concluded that there was a negative relationship between a working capital net of cash and cash holdings. However, the cash conversion cycle did not relate to cash levels.

In the Vietnamese market, most studies also only mention the factors affecting cash holdings. One of the first studies on this issue is the study of Thieu (2013). His study evaluated the determinants of cash holdings in the Vietnamese manufacturing firms during 2006-2011. Research findings showed that cash holdings are negatively correlated with bank debt, leverage, and liquid assets and positively correlated with cash flows, dividend payments, and the firm's size. This study does not mention the role of working capital management. In a recent study by Chi and Dzung (2021), the authors considered the cash conversion cycle (CCC) a determinant of corporate cash holdings for Vietnamese material firms. The results indicated that CCC had a negative impact but was very low on the cash holdings level.

According to our knowledge, no research in Vietnam deep into the role of working capital management in cash holdings, especially in a specific industry. Therefore, we chose consumer staples companies to conduct this study to fill the research gap.

2.2. Hypothesis

Working capital management includes the investment and finance decisions on current asset, then, how to effectively manage of its components (including accounts receivable, inventory, and accounts payable). For this study, we consider working capital management through two factors net working capital and working capital management efficiency. Therefore, we will examine the effect of net working capital and working capital management efficiency on cash holdings.

Some studies emphasized that net working capital can substitute cash (Opler et al, 1999; Almeida et al, 2004; Abel, 2008; Zhang, 2011). As Abel (2008) cited "the presence of cash substitutes ought to diminish cash holdings because cash substitutes decrease shortage costs". Therefore, firms with more working capital hold fewer cash levels. Net working capital has been identified as a determinant of corporate cash holdings in previous studies. The majority of the studies show a negative relationship between net working capital and cash holdings. Based on previous studies, we propose the following hypothesis:

H1: There is a negative relationship between cash holdings and net working capital.

Normally, working capital management efficiency is measured by the cash conversion cycle (CCC) or its components (days sales outstanding, days sales of inventory, days payable outstanding). The shorter the cash conversion cycle, the more effective the company's working capital management is. There are two views on the relationship between working capital management and cash holdings. The first view holds that firms with highly efficient working capital management (short cash conversion cycle) will increase their cash holdings. According to Abel (2008), cash must be kept in reserve in this case to hedge risks caused by low inventory and highly liquid accounts receivable, as well as to increase accounst payable. Firms have to have the resources to secure these uncertainties, unforeseen and unknown future cash shortfalls (Zhang, 2011). Similarly, Wang et al (2014) argue that firms with shorter operating cycles must continuously invest funds to complete the rapid purchase, production, and sales cycle. Mahjabeen et al (2018) also show that a firm takes fewer days to convert its inventory into cash, which leads to a high cash level. Futhermore, a short cash conversion cycle means current assets are quickly converted into cash; therefore, cash constitutes a more significant part of working capital as opposed to other current assets (Abel, 2008).

The second view holds that companies with shorter cash conversion cycles hold less cash. Opler et al (1999) argue that "firms with multiple product lines and firms with low inventory to sale have short cash conversion cycles and hold fewer liquid assets." Albel (2008) suggest that companies use internal capital generated from effective working capital management to finance their potential future investment projects, to reduce the cost of external financing and interest cost and therefore fewer cash holdings.

Based on previous studies for enterprises in emerging markets and Vietnam, we hypothesized the following:

H2: There is a negative relationship between cash holdings and the cash conversion cycle.

Zhang (2011) citied that high efficient working capital management increases corporate's cash holdings by releasing the capital investment in inventories, accounts receivable and stretching the accounts payable. According to Abel (2008), stretching accounts payable will lead to a decreased cash conversion cycle and increase cash holdings. Therefore, based on the studies of Abel (2008) and Zhang (2011), we also hypothesize the relationship between the components of the cash conversion cycle and cash holdings.

H3: There is a negative relationship between cash holdings and days sales outstanding.

H4: There is a negative relationship between cash holdings and days sales of inventory.

H5: There is a positive relationship between cash holdings and days payable outstanding.

3. DATA AND METHODOLOGY

3.1. Data

In the study, we selected a sample of consumer staples companies listed on the Ho Chi Minh City stock exchange during 2015-2021. We excluded companies that lacked the data to be collected during the research period. Thus, the sample includes 30 companies over 7 years, corresponding to 210 observations. We collected the annual audited financial statements of the companies, then calculated the research variables based on the collected data.

3.2. Methodology

To build models that test the relationship between working capital management and cash holdings, we identify variables based on previous studies. We use the ratio of cash plus cash equivalents to total assets to represent cash holdings as the dependent variable of the study (Albel, 2008; Zhang, 2011; Kariuki et al, 2015; Batuman et al, 2021; Chi and Dzung, 2021). The first independent variable is a representative variable for cash substitutes - net working capital (NWC). We construct NWC as the ratio of current assets minus current liabilities and cash scaled by total assets (Opler et al, 1999; Almeida et al, 2004; Albel, 2008; Zhang, 2011; Mahjabeen et al, 2018; Shubita, 2019). The independent variables related to working capital efficiency include cash conversion cycle and their components (days sales outstanding, days sales of inventory, days payable outstanding). We add more control variables to the model including size, financial leverage, growth, and cash flow ratio. In addition, to test whether the Covid-19 pandemic occurring in the last 2 years of the study period affects cash holdings, we include the Covid-19 dummy variable in the model.

The research variables are summarized in the following table:

Table 1. Measurement of Variables

Type of Variable	Variable	Computation
Cash holdings	CH	Cash and cash equivalent / Total assets
Net Working Capital	NWC	(Current assets – current liabilities – cash)/ Total assets
Cash conversion Cycle	CCC	DSO + DSI – DPO
Days sales outstanding	DSO	(Average accounts receivable / Sales) × 365
Days sales of inventory	DIO	(Average inventory / Costs of Goods Sold) × 365
Days payable outstanding	DPO	(Average accounts payable / Costs of Goods Sold) × 365
Size	SIZE	Log (Total assets)
Financial leverage	FL	Total debts / Total assets.
Growth	GR	$(Sale_t – Sale_{t-1}) / Sale_{t-1}$
Cash flow ratio	CFR	(Earning after Interest and Tax + Depreciation) / Total assets
Covid-19 dummy	COVID	The dummy variable was set to 1 during the Covid-19 pandemic from 2020 to 2021 and otherwise 0.

Source: Compiled by the authors

To achieve the research findings, we build the following 4 models:

$$CH_{it} = \beta_0 + \beta_1 NWC_{it} + \beta_2 DSO_{it} + \beta_3 SIZE_{it} + \beta_4 FL_{it} + \beta_5 GR_{it} + \beta_6 CFR_{it} + \beta_7 Covid\text{-}19_{it} + \varepsilon_{it} \quad (1)$$

$$CH_{it} = \beta_0 + \beta_1 NWC_{it} + \beta_2 DIO_{it} + \beta_3 SIZE_{it} + \beta_4 FL_{it} + \beta_5 GR_{it} + \beta_6 CFR_{it} + \beta_7 Covid\text{-}19_{it} + \varepsilon_{it} \quad (2)$$

$$CH_{it} = \beta_0 + \beta_1 NWC_{it} + \beta_2 DPO_{it} + \beta_3 SIZE_{it} + \beta_4 FL_{it} + \beta_5 GR_{it} + \beta_6 CFR_{it} + \beta_7 Covid\text{-}19_{it} + \varepsilon_{it} \quad (3)$$

$$CH_{it} = \beta_0 + \beta_1 NWC_{it} + \beta_2 CCC_{it} + \beta_3 SIZE_{it} + \beta_4 FL_{it} + \beta_5 GR_{it} + \beta_6 CFR_{it} + \beta_7 Covid\text{-}19_{it} + \varepsilon_{it} \quad (4)$$

where i is the i^{th} enterprise and t is the t^{th} year.

In this study, we use panel data regression to estimate the above models. At the same time, we also use some necessary tests when choosing a suitable model.

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Descriptive Statistics

Table 2. Descriptive Statistics of Variables

Variables	Observation	Mean	Std.Dev	Min	Max
CH	210	0.110295	0.114566	0.001083	0.696477
NWC	210	0.138632	0.206403	-0.69153	0.730752
CCC	210	121.517	115.7819	-18.6712	891.567
DSO	210	56.48057	75.11657	1.17842	674.741
DIO	210	101.122	79.55698	15.19275	425.8645
DPO	210	36.0856	34.69594	2.021996	210.3914
SIZE	210	12.44538	0.680542	11.30339	14.10069
FL	210	0.437445	0.185223	0.033622	0.966925
GR	210	0.136843	0.68902	-0.76124	8.72876
CFR	210	0.140155	0.096677	-0.22447	0.461728

Source: Authors's calculations from Stata software

Table 2 shows that consumer staples companies hold nearly 11.03% of their total assets in cash and cash equivalents. This ratio significantly differs between the maximum and minimum values (69.65% and 0.11% respectively), indicating a significant variation among businesses. The average annual NWC of companies is 13.86% with values ranging from negative to positive. A negative NWC value indicates that the company has more short-term debt and cash than current assets. The consumer staples companies have an average cash conversion cycle of 122 days; in which, they take nearly 56 days to collect accounts receivable, 101 days to rotate inventory, and 36 days to pay debts to suppliers. The average size of the logarithm of total annual assets is nearly 12.45, and the distance between the maximum and the minimum of the scale is quite near. The industry average leverage ratio is 43.74% with the minimum and maximum values at 3.36% and 96.69% respectively. This means that there are companies that are financed almost entirely with debt, but also companies that rely heavily on equity. Growth opportunities are represented by an average annual revenue growth rate of 13.68% with a considerable standard deviation (68.9%). This shows that there is a variation in the growth rates among consumer staples companies, for example, those with negative growth rates (with the smallest value of -76.12%). However, there are companies with high growth rates (with the largest value up to 872.88%). Finally, the average annualized cash flow ratio is 14.02%, but this ratio is uneven across the consumer staples companies. A negative CFR value indicates that profit can not cover interest and amortization.

4.1.2. Regression Analysis

To test the relationship between cash holdings and working capital management according to models (1) – (4), we perform panel data regression analysis with fixed effects model (FEM) and random effect model (REM). Performing the Hausman test to choose between two models FEM and REM, we obtain the following results:

Table 3. Hausman test findings

Model (1)	$\chi^2(7)$ = 107.94, P-value = 0.0000	FEM is selected
Model (2)	$\chi^2(7)$ = 13.69, P-value = 0.0569	REM is selected
Model (3)	$\chi^2(7)$ = 19.55, P-value = 0.0033	FEM is selected
Model (4)	$\chi^2(7)$ = 103.74, P-value = 0.0000	FEM is selected

Source: Authors's calculations from Stata software

After selecting the appropriate regression model, we get the regression results for each model from (1) to (4) in Table 4.

Table 4. Regression results from FEM and REM models

Independent variables	Dependent variable: CH			
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**
CCC	-0.0001288			
DSO		-0.00033***		
DIO			-0.0000623	
DPO				-0.0006072**
NWC	-0.4600259***	-0.4661256***	-0.4622065***	-0.4657347***
SIZE	0.0149096	-0.0374131**	0.0315504	0.0087325
FL	-0.3774064***	-0.4092361***	-0.3728541***	-0.3540186***
GR	0.0018272	-0.0008703	0.0022446	0.0003322
CFR	-0.111459	-0.0551245	-0.0979961	-0.0982211
COVID	-0.0105298	-0.0044331	-0.0150951	-0.0092922

, show the levels of significance at 1% and 5%.*

Source: Authors's calculations from Stata software

Before deciding whether to accept the above regression results, we check whether the models have autocorrelation and heteroskedasticity. We use the Wooldridge test for models (1)-(4) to detect autocorrelation; the Wald test for models (1), (3), (4), and the Breusch and Pagan Lagrangian multiplier test for model (2) to check heteroskedasticity. The results are shown in Table 5.

Table 5. The results of autocorrelation and heteroskedasticity

Model	Autocorrelation	Heteroskedasticity
Model (1)	F(1,29) = 33.42, P-value = 0.000	$\chi^2(30)$ = 2179.10, P-value = 0.000
Model (2)	F(1,29) = 29.37, P-value = 0.000	$\chi bar^2(01)$ = 67.73, P-value = 0.000
Model (3)	F(1,29) = 34.82, P-value = 0.000	$\chi^2(30)$ = 1932.34, P-value = 0.000
Model (4)	F(1,29) = 32.91, P-value = 0.000	$\chi^2(30)$ = 3301.07, P-value = 0.000

Source: Authors's calculations from Stata software

The results show that all models have autocorrelation and heteroskedasticity. Therefore, to overcome these two phenomena, we use the Feasible Generalized Least Squares (FGLS) method. The results obtained from the FGLS model are presented in the following table:

Table 6. Regression results from FGLS model

Independent variables	Dependent variable: CH			
	Model (1)	**Model (2)**	**Model (3)**	**Model (4)**
CCC	-0.000176***			
DSO		-0.000273***		
DIO			-0.000246***	
DPO				-0.000709***
NWC	-0.442128***	-0.464340***	-0.45011***	-0.491132***
SIZE	-0.046860***	-0.043766***	-0.04682***	-0.039359***
FL	-0.390394***	-0.41015***	-0.39609***	-0.419351***
GR	-0.000659	-0.000041	-0.00058	-0.001515
CFR	-0.040041	-0.026684	-0.02548	0.004137
COVID	0.00141	0.00053	0.001404	0.001541

**** show the level of significance at 1%.*

Source: Authors's calculations from Stata software

In the results of Table 6, we consider that NWC has a statistically significant negative relationship with CH in all models. This result is in line with Abel (2008), Megginson and Wei (2010), Mahjabeen et al (2018), Shubita (2019), Alassane Diaw (2020) and Magerakis et al (2020). Therefore, this result allows us to accept hypothesis H1.

Table 6 also shows that CCC has a statistically significant negative relationship with CH, that is when CCC decreases by 1 day, CH increases to 0.0176%. This result is consistent with previous studies (Albel, 2008; Mahjabeen et al, 2018; Zhang, 2011; Chi and Dzung, 2021). Thus, hypothesis H2 is accepted and we can say that businesses shortening the cash conversion cycle, which mean effective working capital management, and will increase cash holdings. All components of CCC are significantly negatively correlated with CH. Specifically, when DSO, DIO, and DPO decreased for 1 day, CH increased by 0.0273%, 0.0246%, and 0.0709%% respectively. These results allow us to accept hypotheses H3 and H4 but reject hypothesis H5.

In all 4 models, SIZE and FL have a statistically significant negative correlation with CH. This result implies that the larger the firm size and the higher the debt ratio, the lower the level of cash holdings. The factors GR, CFR, and COVID did not have a statistically significant relationship with CH.

4.2. Discussion

From the research findings, we accept hypothesis H1, H2, H3, H4 and reject hypothesis H5. The accepted hypothesis H1 shows that there is a negative relationship between cash holdings and net working capital. Indeed, compared with other assets, the components of the net working capital of consumer staples companies can be converted to cash more quickly and at a lower cost, so they can be viewed as substitutes for cash. The characteristics of consumer staples sector goods are products that are used regularly to meet daily consumption needs. As a result, when in inventory, these products can also be quickly converted to cash when cash is in short supply. For accounts receivable, although the liquidity depends on the debtor's ability to repay, in case of necessity, the enterprise can mortgage the bank to borrow in the short term.

Hypothesis H2 implies that firms with effective working capital management, as demonstrated by a low CCC value, will hold more cash than others. This can be explained for two reasons. First, inventory and accounts receivable are quickly converted to cash, while accounts payable are delayed to be paid to customers, resulting in an increase in the amount of cash. Second, consumer staples companies must maintain large amounts of cash to meet the current assets's rapid and frequent turnover. These explanations are also consistent with hypotheses H3 and H4, that is, the faster the inventory and accounts receivable turn, the larger the amount of cash generated, as well as the amount of cash that needs to be held. Therefore, the negative correlation between these quantities is inevitable.

However, hypothesis H5 was rejected. Empirical evidence shows a negative but not positive relationship between DPO and cash holdings. Although in theory, when DPO increases, CCC will decrease, thus increasing CH. However, prolonging the DPO will make the firm lose the discount for early payment and affect the relationship with customers, thereby reducing output (Albel, 2008). Furthermore, previous empirical evidence suggests that firms with high DPO have lower profitability (Deloof, 2003), thereby reducing cash flow and cash holdings. Therefore, the negative relationship between DPO and CH of firms in the consumer staples industry can be explained based on the relationship with the profitability of firms.

In addition, the regression results also show a negative relationship between the size, the financial leverage and cash holdings. There are many reasons why cash holdings decline as size increases. First, due to scale economies (Anjum & Malik, 2013) and large firms have fewer financial barriers, they are less dependent on their internal resources (Alassane Diaw, 2020). Meanwhile, small companies will find it harder to raise capital from outside and incur higher funding costs, so they have to hold more cash. Furthermore, larger firms are more likely to be diversified and therefore less likely to experience financial difficulties. Therefore, small firms must hold more cash to avoid potential crises (Ozkan & Ozkan, 2004). Regarding the relationship with leverage, the reason that firms with high leverage will hold less cash is that high leverage is representative of the ability of firms to issue debt (Ozkan & Ozkan, 2004), which means that the company can borrow easily so they don't need to keep a lot of cash. In addition, firms will often borrow when retained earnings are insufficient for future investment projects; therefore, cash will decrease (Ferreira & Vilela, 2004).

5. CONCLUSION AND POLICY IMPLICATIONS

Many studies have shown that working capital management significantly influence the cash holdings of businesses. However, this issue has not been studied much in Vietnam, especially in a specific industry. Therefore, this study aims to find out the relationship between working capital management and cash holdings of consumer staples companies listed on HOSE during the period 2015-2021. By the method of regression analysis with the final model selected as FGLS, we have obtained important research results. The regression analysis results show that both net working capital and working capital management efficiency affect cash holdings. Specifically, the higher the net working capital, the larger the substitutes for cash, the lower the level of cash holdings. Similarly, the more effective the working capital management of enterprises, that is, the lower the cash conversion cycle value, the higher the cash holding ratio. A negative relationship was also found between days sales outstanding, days sales of inventory, and days payable outstanding with cash holdings. This shows that the faster the inventory, accounts receivable, and working capital flows, the more cash is generated and the more cash is held. Although an increase in days payable outstanding will lead to a decrease in the cash conversion cycle, it will adversely affect profitability, so it will cause cash holdings to decrease. The above results allow us to conclude that working capital management has a significant influence on cash holdings of consumer staples companies listed on HOSE. In addition to working capital management, we also find evidence of a negative relationship between firm size, leverage and cash holdings.

From the research findings, we believe that consumer staples companies should pay attention to working capital management and its relationship with cash holdings. To have an effective cash management strategy, businesses should consider factors related to working capital management, size and leverage based on weighing the benefits and costs of cash holdings. We offer the following suggestions:

Firstly, if businesses want to have a low cash ratio, they should increase their holdings of current assets which can be a subsstitude to cash such as inventory and accounts receivable. However, businesses also need to evaluate the liquidity of current asset type to make the right decision on the holding ratio.

Secondly, implementing effective working capital management to shorten the cash conversion cycle to increase the business's cash amount. Enterprises need to develop a plan to control inventory, accounts receivable and accounts payable. Specifically:

- Inventory: Enterprises need to develop a plan to stabilize the supply chain, change business methods, and use information technology and digital platforms in production and business activities to increase revenue and release inventory. In addition, businesses should efficiently manage inventory turnover by planning short-term and long-term inventory needs to be proactive in purchasing and converting inventory into cash. Enterprises also need to develop policies to handle slow-moving and obsolete inventory and make provisions for inventory devaluation to cover costs reasonably.
- Accounts receivable: Maintain and update a reasonable credit policy by understanding customers and analyzing the impact of revenue and accounts receivable on working capital. Enterprises should have many trade credit policies suitable for each different customer. In addition, enterprises should develop convenient, timely, and accurate payment processes and procedures, and at the same time take measures to urge the collection of accounts receivable, analyze debt age and make provision for doubtful receivables.
- Accounts payable: Although extending the repayment period will increase the amount of cash in the short term, businesses should note the adverse effects that will lead to a decrease in output, revenue, and profit, leading to a decrease in cash. As a result, businesses can

improve the efficiency of the payment process to improve working capital efficiency and supplier relationships.

In addition, businesses should consider the negative correlation between the size and ratio of debt and cash holdings to have a flexible cash management policy.

This research result is also a reference for investors when considering the cash position of the businesses. Investors should be wary of businesses with high cash substitutes, short cash-to-cash cycles, large size, and large debt ratios but with high cash holdings. Agency costs can arise in these businesses.

The limitation of the study is that it only uses a sample of consumer staples companies listed on HOSE. In the following studies, we will expand the study to all companies of all different industries to have more general conclusions about the relationship between working capital management and cash holdings.

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TAX POLICY FOR PRIVATE ECONOMY SECTOR DEVELOPMENT IN VIETNAM

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Abstract: *The private economy sector has been identified as an important and has been making a significant contribution to the development of a socialist-oriented market economy in Vietnam. Tax policies have been implemented to promote the strong development of this economic sector. However, besides the achievements, the current tax policy still has certain limitations to the development of the private economy sector. This paper is necessary and meaningful for economic development of Vietnam today. The article discusses tax policy to develop the private sector, its achievements and remaining limitations, thereby making some recommendations for Vietnam in the future.*

Keywords: *Tax policy, private economic sector, small and medium enterpries.*

1. INTRODUCTION

For more than 35 years of renovation, Vietnam's economy has been gradually asserting its position in the region and in the world. A significant contribution to that success is the strong development from the private sector - the area which is considered the most dynamic sector and plays a big role in promoting national economic development. The private sector is an economic sector outside the state economic sector, including domestic and foreign enterprises, in which the private sector holds more than 50% of investment capital [16].

The private economy is associated with the type of private ownership, including the individual economy, the smallholder economy and the private capitalist economy based on private ownership of the means of production. The private economy exists in forms such as private enterprises, limited liability companies, joint stock companies and individual business households. The private economic development is a long-term strategic issue in multi-sector economic development, making an important contribution to the successful implementation of the central task of economic development, industrialization, modernization, and promotion of the economic internal force for international economic integration. Being aware of the importance of the private sector to the development of the whole economy, from the 6th Congress (1986) to the 13th Congress (2017) of the Party, the government affirmed that the private sector has strongly developed both in terms of numbers and quality, efficiency, sustainability, "*really become an important driving force in economic development. Remove all barriers and prejudices and create favorable conditions for private economic development...*". It can be seen that the views and policies of the Party on the development of the private sector from 1986 to the present have always been consistent and have been increasingly improved in terms of mechanisms and policies for the development of the private sector, reflected in the Law on Enterprises (2014), Law on Investment (2014), Law on Supporting Small and Medium Enterprises (2017) and Resolution No. 10-NQ/TW, dated June 3, 2017 stated that the private sector development becomes an important driving force of the socialist-oriented

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market economy. Resolution No. 54/NQ-CP dated April 12, 2022, promulgates the Government Program to implement the National Assembly's Resolution on the Economic Restructuring Plan for the 2021-2025 period, with a target of 2025 the important contribution of the private sector to GDP is about 55%, and it plays a decisive role in promoting the development of this area. In turn, the private economy, thanks to the Party's policy, constantly adjusts its important role in the international economic input and has many contributors to the socio-economic development. According to statistics, the number of private enterprises increased rapidly, from 55,236 enterprises (in 2002) to 495,826 enterprises (in 2015) with various forms; in 2016, the start-up movement has been promoted over 110,000 new enterprises that were established [8], by 2018 it had increased to 600,073 enterprises, and the average annual growth rate of enterprises was nearly 10.6% per year. According to the Vietnam White Paper (2021), as of December 31, 2020, the whole country had 811,538 operating enterprises, an increase of 7.0% compared to the same period in 2019, of which private enterprises accounted for accounting for 99% of small and micro enterprises nationwide and has the highest average labor size (the private sector attracts more than 8.6 million employees, accounting for 58.6% of the total labor force of enterprises, an increase of 0.4% compared to 2016 and there is a huge difference compared to the labor size of the state-owned enterprise sector).

The private sector participates in most of the economic sectors' structures from Agriculture, Forestry and Fisheries, Industry - Construction and Service. Investment capital of the private sector has increased rapidly in the economy. While in 2017, private capital accounted for only 36.1%, by 2018 it had increased to 43.27%. Thus, investment capital of the private sector was 803,000 billion VND in 2018. In the statistical yearbook (2021), the realized investment capital of the whole society in 2021 the prices at that time reached 2,891.9 trillion VND, up 3.2% compared to 2020, of which, investment capital from the foreign sector reached 1,720.3 trillion VND, equaling 59.5% and increasing 7.2% compared to 2019.

According to the Vietnam White Paper (2021), the domestic private sector generates about 42% of GDP, 30% of state budget revenue, and employs about 85% of the country's labor force. Thus, the private sector shows that it is leading in terms of economic structure contributing to national GDP. To help develop the private economy, besides credit policies and support policies from the state budget, the Government has used the tax policy, a popular and effective tool to promote the development of this economic sector.

2. A BRIEF OVERVIEW OF THE TAX POLICY IMPACTING THE PRIVATE ECONOMY IN VIETNAM

In order to be able to support more for the private sector, the Ministry of Finance has implemented a tax system reform strategy for the period 2011-2020 to develop the private economy. Accordingly, some Laws have been promulgated by the National Assembly such as Law on Commerce (1997) and Law on Domestic Investment Promotion (1998), the private sector was given incentives and exemptions in the process of paying import and export tax (For example, tax incentives for hi-tech enterprises, science and technology enterprises, science and technology organizations); Law on Natural Resources Tax (2009), according to which the private economic sector is entitled to lease land, choose to apply the policy of assigning/receiving land use rights with collection of money to carry out investment, production and business projects as well as other real estate project. The policy of compensation and support isapplied like other economic sectors; Circular No. 93/2017/TT-BTC of the Ministry of Finance abolished the regulation on registration of form 06/GTGT for newly established enterprises after a year that pay value added tax according to the deduction method, especially in the private sector; Decree No. 52/2021/ND-CP on the postponement of tax and land rent in 2021... Tax incentives policy is one of the financial tools used in supporting and promoting the region's private economic development in which the most popular is the reduction of corporate income tax for small and middle enterprises (SMEs).

2.1. The impact of tax policy on the development of the private economy in Vietnam

Firstly, when the Law on Domestic Investment Promotion was promulgated, tax incentives were expanded to apply to the private economic sector and stipulated in the law.

Secondly, the Government has stepped up administrative reforms in the tax field, creating many advantages for businesses to reduce many procedures, reducing the time for tax declaration from nearly 1,000 hours by the end of 2016 to only 110 hours that is the private economic sector the most benefits [7]. Besides, Circular 119/2014/TT-BTC dated August 25, 2014 of the Ministry of Finance was recognized as a special event by the simplification and reduction of many procedures in seven circulars, abolishing many declaration forms i.e. Enterprises do not have to send to the tax agency a list of goods purchased and sold together with the Value added tax declaration; they are also not to submit quarterly declarations for provisional Corporate income tax calculation; and the majority of enterprises in the private sector are reduced by two-thirds of the number of tax declarations in the year (just four times). Moreover, according to Circular 200/2014/TT-BTC clearly regulations on expenses for accounting purposes, clearly delineating deductible expenses for tax purposes (Circular 96/2015/TT-BTC) have helped Enterprises to be proactive in business and improve their governance role to both ensure business efficiency and comply with tax laws; the abolition of regulations on registration of seller's account in enterprise declaration and deduction of input value-added tax (Circular 173/2016/TT-BTC); abolishing the regulation on registration of form 06/GTGT for newly established enterprises after one year wishing to continue paying value added tax by the deduction method approved by the business community, especially in the private sector, start-ups are excited and highly appreciated.

Thirdly, incomes of enterprises in the private economic sector with fields such as planting, tending and protecting forests; incomes from cultivation, husbandry, farming and processing of agricultural and aquatic products from 2015 onward are eligible for higher preferential tax policies. According to Clause 4, Article 11 of Circular 96/2015/TT-BTC incomes of enterprises from the above activities, if carried out in difficult socio-economic areas, shall be taxed at the preferential special tax rate of 10% and only 15% (lower than the corporate income tax rate 20%) if the project is implemented in a favorable economic area. In addition, due to the negative impact of the Covid-19 pandemic, some enterprises were granted an extension to pay corporation income tax in Decree No. 15/2022/ND-CP dated January 28, 2022 of the Government regulating the policy of tax exemption and reduction according to Resolution No. 43/2022/QH15 of the National Assembly on fiscal and monetary policies support for the program for economic - social development and restore. It can be seen that, through regulations on incentives and priorities for the private economic sector, corporation income tax plays an important role in orientation and creating conditions for businesses to develop.

Fourthly, the majority of SMEs belong to the private sector. Within the framework of the current law, enterprises of this type are given incentives and maximized convenience in reducing the procedures for tax registration, tax declaration and tax declaration implementation of the accounting regime along with free assistance in training, consulting, and support on license fees in the starting period up to three years.

2.2. Disadvantages of tax policy impacting on the development of the private economy in Vietnam

Tax incentives are one of the important contents of Vietnam's tax policy to promote the development of the private economic sector. Tax incentives in Vietnam are quite diverse, including incentives for corporate income tax rates, incentives for tax exemption periods, corporate income tax reductions, and personal income tax incentives, exemption from export tax, import tax or other forms of incentives through the application of the accelerated depreciation mechanism or the mechanism of setting up the Science and Technology Fund at the enterprise. However, the practice of implementing tax incentives in Vietnam over the past time has also pointed out a number of issues that need to be identified soon, especially when fully considering the effectiveness of these policies in the past years correlating with the direct and indirect costs that the application of the preference causes.

- The list of industries, professions, fields and areas eligible for tax incentives is also quite wide, and all economic zones apply the same preferential mechanism, regardless of the characteristics, and level of development in terms of socio-economic conditions and infrastructure in each economic region. Since the Law on Support for SMEs took effect from January 1, 2018, there have been no preferential policies and laws on separate corporate income tax rates for SMEs to implement tax incentives for SMEs that the Law on Support SMEs 2017 clearly stipulates: SMEs are allowed to apply for a limited time with the corporate income tax rate which is lower than the normal tax rate applied to enterprises in accordance with the law on corporate income tax.
- The simple tax calculation method for micro-enterprises has not been applied. In order to minimize tax collection costs, simplify tax administrative procedures, create transparency, and tax self-compliance, a number of cases should be specified, specifically in this case, super enterprises. Small businesses can apply the method of calculating corporate income tax as a percentage of sales revenue. Therefore, it is necessary to overcome the shortcomings of the tax policy before the requirements of reality.
- Over the past time, Vietnam has implemented many tax incentives with the goal of promoting the development of a number of prioritized industries, fields and areas, but it can be seen that the effectiveness is not as expected. Areas with low development level still face many difficulties in attracting investment due to limitations in geographical location as well as infrastructure and human resources, especially in the private sector. The proportion of investment attraction in a number of priority sectors and fields (agriculture, science and technology development) is still low although private enterprises have brought great benefits to Vietnam in the past few years, which contributes to growth, exports and job creation. Whereas, according to regulations, in

Vietnam' current tax incentive system, there is no distinction by types of enterprise, in fact, in recent years, foreign-invested enterprises have enjoyed the most benefits from tax incentives while domestic private enterprises have limited access. The decrease in state budget revenue due to the implementation of corporate income tax incentives for foreign-invested enterprises accounted for about 75% in 2016 [21].

3. SOME RECOMMENDATIONS

In order to be able to provide more supports to the private economic sector, the Ministry of Finance is urgently continuing to review and evaluate the implementation of the Tax System Reform Strategy for the 2011-2020 period, deploy research programs, continue to improve the tax legal system, on the basis of which there are proposals to the Government and the National Assembly to include in the law-making program with specific and practical contents.

The government should continue to promote administrative reforms in the tax field, creating many advantages for businesses to reduce many procedures and reduce tax filing time. In addition, continuing to research and apply to promptly amend legal regulations in other related fields and ensure the uniformity of the whole tax system as well as the substitution or complementarity among taxes in the system.

The Ministry of Finance should regularly coordinate with relevant agencies such as the Central Institute for Economic Management, the Vietnam Chamber of Commerce and Industry, etc. to organize reviews on the implementation of the mechanism policies to continue to improve the development environment for the private economic sector.

The Ministry of Finance should quickly complete and improve the electronic, improve the electronic tax collection information system to collect tax correctly and sufficiently, especially for large business households. This means it must be concerned with how to reform the tax system so that business households pay better taxes or how to monitor tax payments properly and sufficiently.

It is also necessary to have adequate supports and encouragement policies to transform large business households into SMEs. This will help create fairness and equality among other business households as well as help SMEs, have better competitiveness and increase jobs for workers in labor market. To do this, the Ministry of Finance needs to have clear guidelines and regulations on the policy of exemption and reduction of corporate income tax for SMEs moving from household businesses.

4. CONCLUSION

Nowadays, Vietnam's economy has many components in which not only state-owned enterprises but also private enterprises dominate and most private enterprises do business effectively. An economy that wants to switch to innovation must achieve high efficiency with many added values, in which the role of the private economy is even decisive. Recent years, tax policy has contributed to the development of the private economy. However, the tax policy still reveals some of the above shortcomings as the policy mechanism for the private sector has not been completed and has not created the most favorable conditions for development; in which, tax policy, although there have been many supports for the development of the private economy, but before new requirements, it is necessary to continue to have innovation.

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OPPORTUNITIES AND CHALLENGES FOR VIETNAM MONEY MARKET IN THE FOURTH INDUSTRIAL REVOLUTION

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Abstract: *The fourth industrial revolution with the technology foundation of big data, cloud computing, and comprehensive internet connection is becoming a concern of many countries around the world. It affects all socio-economic fields, including the money market. On the basis of identifying opportunities and challenges faced by the financial and monetary market, the article offers some suggestions and solutions for the money market to develop stably in the face of the impacts of the fourth industrial revolution.*

Keywords: *Money market, opportunities, challenges, The fourth industrial revolution*

The 4.0 technology revolution is expected to create a dramatic change in global socio-economic development. The rapid development of financial technology in the world has brought many opportunities and challenges to Vietnam's currency market. In order to catch opportunities and respond to these challenges in time, In order to catch opportunities and respond to these challenges in time, Vietnam needs to create a modern financial technology platform to develop the money market, creating an important momentum for sustainable economic growth in the coming period.

The digital revolution with global influence has had many impacts on Vietnam's currency market, creating many opportunities for the development of Vietnam's information market. Change the transaction method on the Vietnamese currency market Prominent trends in the application of Industry 4.0 in Vietnam include strengthening the development of digital banking, big data applications, and applications. applying artificial intelligence to customer service in digital banking, applying cloud computing technology and researching and automating processes by robots. In the context of Industry 4.0, economists and especially pioneers in the field of IT, assets are encrypted This helps to diversify transaction methods and products on the Vietnamese currency market.

The development and use of digital banking brings many practical benefits to the bank. As income from credit activities is decreasing, developing digital technology-based products and services has created conditions for many banks to increase the proportion of revenue in total profits. Specifically, experts said that the application of digital technology to banking operations will increase costs by about 31% but also increase net profit by about 43%. The application of digital technology also helps the bank to increase profit opportunities in retail by 45%, reduce costs, and improve service quality, thereby maintaining a sustainable competitive advantage over competitors cannot compete with the digitization feature throughout. The development develop of digital banking as a new breakthrough, saving many banks from dilemmas. Some banks in the crisis period, thanks to the system developed with IT, catching up with epoch 4.0 has revived and developed well well determined. Industrial Revolution 4.0 adds a means of payment to the Vietnamese currency market: the development of cryptocurrencies, the emergence of virtual currencies. Industry 4.0

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helps the money market diversify market participants, especially the appearance of Fintechs With the diversification of members, the currency market will grow more and more.

Challenge

The challenge in developing new distribution channels, highly integrated money market products and services: consumers now live in a globally hyper-connected world with social networks, mobile applications, and more. mobile, Internet and other digital technologies. The current trend of the bank is to deploy the Omni-Channel model to unify the customer experience across all distribution channels, apply new distribution channels such as virtual assistants, multi-function ATMs. new generation, virtual branch on social network.

Challenges in investing in technology platforms for Money Market participants, especially commercial banks: basically, banks have advanced technology level, however, In order to deploy products, services and technologies in the industrial revolution 4.0, commercial banks must invest and develop new technology platforms, especially solutions integrated with core banking system. present. Investing in new technologies presents challenges such as:

+ Initial investment costs are very high, requiring strong financial resources;
+ The current core banking system is a major barrier to technological innovation. There are core banking systems with inflexible structure, monolithic operation that will require a lot of investment in finance, human resources and time in editing or integrating with digital technology platforms;
+ Requires highly qualified human resources to develop, deploy, operate and control the system.

- Challenges in information security, ensuring the safety of customers' transactions in the network environment on the money market: performing banking transactions through social networks, smart devices and the development of cross-border, real-time interactive financial products have created major risks for banks. Digital technology increases security holes, creating conditions for high-tech criminals, hackers to operate strongly and across borders. High-tech criminals can attack to cripple a bank's operations, stealing money from customer accounts.

Development orientation of Vietnam's currency market to 2030

The viewpoints and orientations for development of the Vietnamese currency market are mentioned in the Strategy for the Development of the Banking Industry to 2025, with an orientation to 2030, as follows: The money market needs to be built and developed harmoniously, balancing the stock and insurance markets; The state intervenes mainly with market tools; The State only intervenes directly in the money market and banking activities when there is a risk of instability in the money market, a threat to the safety of the banking system, and a threat to the stability of the banking system macroeconomic. According to the State Bank in the context of the Industrial Revolution 4.0 to 2030 specifically as follows: "Firstly, the development of the Money Market is a long process that cannot be rushed and burned. The development of the Money Market needs to be operated according to the market mechanism under the State's macro management, in parallel with the establishment of an adequate institutional environment for the development of the market, such as the legal framework, economic background and the development of supporting markets; Second, it is necessary to ensure market principles in the process of managing, regulating and developing the Money Market. Accordingly, the interest rate on the Money Market must accurately reflect the capital market's supply and demand, and the prices of goods and instruments on the Money Market; Third, to develop the money market in close connection with the international financial market, to ensure. ensure to minimize negative effects from developments of the international financial market on the domestic market; gradually apply international practices and standards to the operation of the Money Market; Fourth, the development of the money market needs to be implemented in sync with the process of restructuring the economy and restructuring the financial system, especially the system of credit institutions. Accordingly, the development of the money market and the restructuring of the system of credit institutions have a reciprocal relationship and mutual impact. The consolidation and improvement of operational and financial capacity of credit institutions will contribute to improving the capacity of commercial banks which are main members in the inter-market. banks, increasing public and investors' confidence in the operation of these commercial banks, contributing to freeing up capital and creating development. stability, limiting risks for the operation of the Money Market."

Accordingly, the major orientations in the development of the Vietnamese currency market in the context of the Industrial Revolution 4.0 to 2030 are determined as follows: Synchronously develop part markets such as markets. unsecured interbank. secured (loan, deposit without collateral), interbank market secured by Valuable Papers (Repo) or secured by other forms (counter-foreign currency...), foreign market exchange, the auction market for Treasury bills and other financial instruments traded on the market such as certificates of deposit, commercial paper, derivatives market; diversifying instruments, commodities and currencies on the market. Prioritize the development of the interbank money market.

Development of the Money Market in an interactive relationship. closely with the stock market, insurance market and other financial markets.

Continue to improve the operation mechanism of the Money Market in the direction of enhancing the role of the State Bank in the management, regulation, supervision and development of the Money Market, with the focus being on the interest rate mechanism.

Take advantage of the industrial revolution 4.0 to enhance the application of Information Technology in the operation of the Money Market in Vietnam.

Prize. Methods of development of the internal money market. the context of Industrial Revolution 4.0.

Strengthen the application of Industry 4.0 to develop the currency market.

First, accelerate digitization throughout the banking industry

- It is necessary to comprehensively renovate the management activities of the State Bank in the direction of modernity, on the basis of application. and effectively exploit the achievements of the industrial revolution 4.0, fully meeting the standards. In parallel, the Government's digital transformation index and index "In parallel, it is developing digital banking models, increasing utilities, customer experience and realizing the goal of financial inclusion and sustainable development on the Internet. the basis of promoting the application of new and advanced technologies in. administration and supply of products and services in the direction of automating processes and optimizing business operations.

- Development of digital infrastructure:
  + Modernize payment infrastructure, improve connectivity and interoperability: Upgrade, present. modernization of the inter-bank electronic payment system (IBPS), aiming to operate accordingly. international principles and standards; enhance ability. ability to connect with other systems in the economy and be ready to connect to the total payment system. time (RTGS) of countries in the region according to the appropriate roadmap; Expand and develop the Electronic Switching and Clearing System for retail payment transactions towards establishing a unified, synchronous payment infrastructure capable of: integrating and connecting industries and fields other, thereby expanding the digital ecosystem and deploying 24/7 payment services; support processing payment methods, new connection models (payment via QR quick response code, e-wallet transactions, mobile money, card payments, payment accounts,...) ; connecting and inter-connecting for cross-border payment transactions.;
  + Upgrade and modernize the interbank electronic payment system. national goods, aiming to operate according to international principles and standards, strengthen internationalization, enhance the ability to connect, integrate and perform payment and settlement for other systems; completing and developing financial switching and electronic clearing infrastructure, expanding the payment ecosystem. digitalization, ensuring the ability to connect and integrate with other industries and fields to serve online payments; expand, connect with financial switching systems, electronic clearing of other countries...
  + Completing and upgrading the core banking system, the internal payment system, ensuring connectivity and integration with important payment systems, technical infrastructure of public service providers and other financial institutions. other systems; apply the international electronic financial information standard ISO 20022 to the inter-bank electronic payment system.
  + Developing modern payment services, applying the achievements of the 4.0 revolution, in which focusing on research and application of advanced technologies, business models and digital solutions for multi-device development. forms of payment products and services on a digitized platform, ensuring safety and security, and bringing convenience to users; develop e-payment in e-commerce; develop non-cash payment in rural, remote and isolated areas.
  + Deploying to expand connection infrastructure, providing information

    Upgrading data processing and distribution infrastructure. providing credit information on the basis of application of digital technologies such as big data, artificial intelligence, blockchain technology,...
  + Complete financial infrastructure to support the development of the money market.

Modern information infrastructure is the core factor for the development and competition of the modern banking system. Besides... besides, the information system... is modern and connected into a unified network. for all money market transactions will facilitate the participation of market participants and ensure the performance of the supervisory and regulatory role of the Central Bank. The solutions to be implemented are as follows:

+ Build an application system to promptly monitor all developments in the market, support the collection and processing of market information and data of the State Bank such as a system of general reports on transactions, profits, etc. capacity....
+ Network connection for depository banking system, valuable papers depository system.
+ Complete information system. policy coordination between the State Bank and the Ministry of Finance in the management of the valuable paper market.
+ Building information system on issuance and trading of corporate bonds.
+ Upgrade existing payment system to increase efficiency and reliability.

The payment system must handle large transaction volumes and quickly. With playback speed. fast development. The rapidity of the Money Market, as well as the increasing demand for payments through the electronic system, has forced attention to the regular upgrading of the system interbank electronic transaction system. The upcoming adoption of electronic signatures will further increase the need for electronic transactions:

+ Building a centralized transaction system for an information system. concentration among the market segments of the interbank market to ensure meeting the needs of collecting, analyzing and publishing basic market indexes for the public and financial institutions to refer to and serve as a basis. base to. pricing and finding partners in the market.
+ Continuously update new technology in banking inspection and supervision.

Technology is constantly changing, the technologies that commercial banks apply to their products and services are also different. In order to increase efficiency in banking inspection and supervision, the State Bank needs to have a team that is good at technology to be able to update many supporting features for the job. It is not simply a data-based check or a surprise inspection at banks, with new age technology, the inspection can be performed at any time by retrieving information on the data system. big and cloud computing. "Therefore, the State Bank also needs its own technology to be used in banking inspection and supervision.

- Guaranteed. safety, network security
  + Improve the capacity to protect network systems, databases and information systems with data exchange in the network environment, meeting domestic and international standards.
  + Regularly review and assess risks to have contingency plans and timely response solutions in the entire process of designing, operating and providing products and services in the network environment.
  + Effectively deploying internal control on information security and safety to promptly detect, warn and take measures to prevent risks. arising in professional activities and internal operations.

Second, Diversify trading tools and types of operations in the money market

The diversification and standardization of financial instruments including diversification of types, maturities and international standardization will be factors that need attention to contribute to the development of the Money Market, especially is to develop secondary markets for valuable papers, encouraging the use of negotiable instruments.

In countries with developed money markets, the instruments on the market are quite diverse, especially repo and derivative activities are very developed. In contrast, in countries with less developed Money Markets, Money Market activities are almost exclusively developed in the traditional lending, deposit, repo market, or other sectors. Private financial institutions participating in the futures markets for Valuable Papers (repo) are restricted to only conducting transactions with the Central Bank. In Vietnam, although there have been quite detailed legal regulations on sanctions for the repo market, the infrastructure has not yet met the large transaction demands of the market; market participants are still limited and only stop at credit institutions; traded goods are also mainly government bonds; hedging tools, the market operations are not diversified, especially derivatives are still very underdeveloped. Therefore, it is necessary to:

- Encourage the development of derivative products (besides products such as futures, options, swaps) that contribute to diversifying financial services products that Credit Institutions provide to customers.
- Develop private repos market.
- Research and develop tools and operations in the money market according to the trend of bank digitization.
- Enhance the application of information technology. in the issuance and trading of trading instruments on the Vietnamese currency market.

Diversify members of the currency market

First, enhance the role of the Vietnam Bankers Association.

Vietnam Banks Association is a voluntary professional organization of Vietnamese credit institutions; operate on the principle of voluntariness, self-management and self-responsibility in all aspects; gather and encourage members to cooperate and support each other in business activities; represent and protect the members' legitimate rights and interests; acting as a bridge between members and State agencies; in order to stabilize and develop a healthy, efficient and safe system of credit institutions in Vietnam, thereby contributing to the implementation of monetary policy and promoting socio-economic development. When the association is active and reputable in the market, it will be the basis for improving the discipline of the market, helping to solve the problem of the policy making mechanism for the regulator.

Second, promote the formation and development of the system of elementary traders.

The development of the PDs system is also associated with the development and adjustment of the way it operates in the open market because in the interbank market, other credit institutions will order their needs with PDs; the PDs will. base on these needs and their own needs to participate in the open market (volume, bidding interest rate). In Vietnam, the system of PDs has not been shown. Credit institutions, if possible, want to directly access liquidity through the open market of the State Bank; Therefore, there is often the phenomenon of local excess and shortage of capital and abuse of capital from the State Bank.

Third, promote the formation of currency brokers or currency brokers and credit rating agencies.

The lack of professional currency brokers in the market, causing market participants to take a long time to find a partner with suitable needs, and often find familiar partners is part of the reason. This leads to the grouping of local activities in the interbank market in particular and the money market in general. Therefore, the establishment of currency brokerage companies in Vietnam will contribute to increasing transaction volume in the interbank market; reduce dependence on loans from the State Bank for credit institutions because when credit institutions lack available capital, they can look to these intermediaries to make up for additional capital. In order to promote the formation of brokers or currency brokerage companies, it is also necessary to focus on building a centralized trading system between the sub-markets of the Interbank Money Market.

The absence of a reputable rating agency in Vietnam is also a limitation for the development and use of negotiable instruments in transactions on the Money Market, making forms and instruments of There is a lack of diversity in the market, limiting the more comprehensive development of the structure of the Money Market compared to other countries. However, in order to create a premise for the birth of truly reputable, effective and independent credit rating agencies in Vietnam, besides the role of an appropriate legal framework, the market must has a transparent, up-to-date and modern information system platform that helps in the accurate valuation of Valuable Papers and limits the operational risks of market members.

Parts market development

First, build a centralized interbank market

With this model, members of the interbank market who are credit institutions will easily find partners and perform transactions quickly and conveniently; The construction of a centralized interbank market is very necessary in the Industrial Revolution 4.0. The State Bank as the organizer will be able to easily monitor the market's activities thanks to the availability of up-to-date data on market transactions, the ability to intervene prompt and timely intervention whenever there are unusual fluctuations in the Money Market. On the other hand, the stored transaction history database system will help all market members analyze and accurately assess market trends and developments in order to make reasonable decisions; The State Bank can capture all information about the market proactively, identify fluctuations of factors affecting the supply and demand of available capital: money in circulation, foreign flows. currency, government deposits, thereby implementing the management of the economy's available capital more effectively.

Second, continue to vigorously develop open market operations.

- Review the legal framework to supplement and amend to suit the development conditions of the market.

- Increasing the number of market participants so that open market operations effectively and timely affect market conditions according to operating objectives. Monetary policy.
- Increase goods used in open market operations by expanding transactions of Valuables with multiple maturities in the same trading session of buying and selling on the open market.
- The refinancing loan instrument should be improved in the direction of being a short-term credit supply tool of the State Bank as a "lender of last resort" under certain conditions and not normally used. regularly to avoid abuse. of credit institutions. Thus, lending secured by pledge of valuable papers or secured by credit records when the State Bank lends money to credit institutions is only considered as a last resort.

Strengthening the link between the domestic money market and the international money market

In order to strengthen links with the international currency market, the State Bank of Vietnam needs to implement the following specific contents:

- Strengthen research activities with the international money market to evaluate the policies of the currency markets of countries, thereby drawing lessons from experience. At the same time, the study of the international currency market will help policymakers assess the impact of the international money market on the Vietnamese market. Since then, there have been timely solutions to cope with the negative impacts of the international market on the Vietnamese market
- Take advantage of Industry 4.0 to develop plans to release some money market instruments to foreign markets, taking advantage of foreign currency capital to implement foreign exchange policies.
- Strengthen linkages with international currency markets in formulating foreign exchange policies to create favorable conditions for the foreign exchange market in Vietnam.

Micro solutions for commercial banks

Firstly, to promote innovation and application of modern technologies through the formulation and strategic planning of information technology development of the financial and banking sectors. using modern technological achievements of the 4.0 industrial revolution. According to experts, "Banks need to build a suitable solution and cooperate with technology companies, because that is an opportunity for banks to receive new technologies along with human resources with high technology expertise, helping them to improve their performance. banks reduce the time and cost of researching new technology products. Based on the development strategy and digital banking model to be built, bank administrators need to choose a number of necessary and appropriate technology platforms in each development stage. Speeding up the development and completion of a comprehensive financial strategy, emphasizing the role of information technology application, encouraging the development of cooperation between banks and financial technology companies; Promote the development ecosystem, become part of the ecosystem in the supply chain of modern banking and financial products and services.

Second, the industrial revolution 4.0 will create a new supply chain model that is more closely linked to customer needs. As a result, this new supply chain will create a single database, making the supply chain smarter, more transparent, and more efficient at every stage, from demand generation to transaction desk. service, product. Domestic banks need to find comprehensive solutions for banking and financial services through the use of intelligent data and cooperation with many business sectors.

Third, focusing on security management of the industrial revolution 4.0 has increased the level of information sharing, thereby creating a huge demand for information security and safety. Banks and financial institutions should pay special attention to building data backup centers (data recovery after disasters); Upgrade security system, security at a high level; Ensure that the expansion of the operating range (if any) is stable, safe and effective in the long term; Invest in and equip security and confidentiality solutions, regularly check and monitor compliance with regulations on security and confidentiality; detect and promptly handle security holes; improve financial capacity, bank management, especially risk management. Ensuring the confidentiality of customer information, ensuring the safety of customers' assets.

Fourth, raise awareness of all officers and employees of the bank. Make them understand the importance and influence of the Digital Revolution on the Banking industry. From there, each individual needs to actively learn and improve their professional and scientific and technological qualifications to adapt to the new requirements of the 4.0 era. The remuneration regime is appropriate to attract high-quality human resources, especially human resources with information technology and system control skills. For traditional human resources, it is necessary to screen, rearrange, train and re-train to meet the requirements of implementation, operation and control of digital banking activities, focusing on training. soft skills, management skills for middle and senior managers to create a breakthrough in thinking and management skills, creating a premise for implementing reform plans and accepting change at the executive and implementation levels.

Fifth, strengthen cooperation with Fintech enterprises to take advantage of the lean business model, exploit strong risk management advantages, create synergy in service provision, and bring benefits to customers. practical benefits in terms of cost reduction, increase in utility, convenience for customers and effectively contribute to financial universalization in rural, remote and isolated areas.

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DOES FOREIGN OWNERSHIP AFFECT THE PROFITABILITY OF LISTED FINANCIAL FIRMS ON VIETNAMESE STOCK EXCHANGE?

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Abstract: *The study examines the effect of foreign ownership on firm profitability in the Vietnamese context by using panel data of 29 listed financial firms on Vietnamese stock exchange from 2012 to 2020. This paper employs pooled OLS, FEM, REM and GLS model to investigate how foreign ownership and other factors impact firm profitability. The result has shown that leverage, tangibility, firm size, assets turnover, growth and age are statistically remarkable in indicating the change in the firm profitability. In contrast, foreign ownership does not correlate with the firm profitability in this period.*

Key words: *Foreign ownership, firm profitability, listed financial firms, Vietnamese stock exchange.*

1. INTRODUCTION

Vietnam is a success story in terms of economic development. Economic reforms implemented since 1986, together with positive global trends, have accelerated Vietnam's transition from one of the world's poorest nations to a low-middle-income nation in a very short period. GDP per capita rose 3.6 times between 2002 and 2020, reaching approximately 3,700 USD *(World Bank)*. The development has significantly contributed by the firm performance of the financial corporations in the fields of banking, insurance, and security.

In Vietnam, banks have formed, existed, and developed in association with the development of the commodity economy. The growth of the commercial banking system has had a massive and significant impact on the development of the commodity economy. And the high development of commodity economy makes banks' operations more improved and become indispensable financial institutions.

Even though Vietnam remains a bank-based economy, the Vietnamese stock market has grown drastically over the previous two decades. The Vietnam stock market has shown significant development in terms of the number of listed enterprises, market capitalization, and liquidity. More importantly, the Vietnamese government has been constantly improving the market structure and legal framework. Numerous stock market restructuring strategies aim toward a stable financial system.

Additionally, Vietnam's insurance market has maintained strong and consistent growth over the last five years, contributing to the shared aim of Vietnam's national financial system, assuring financial security and macroeconomic stability. The Vietnamese insurance sector is still developing,

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and the contest between foreign-invested life insurance businesses has not yet concluded. However, the observation is that this fosters the rapid development of the Vietnam Insurance sector and provides consumers with additional options.

As for foreign ownership, capital market globalization makes developing nations more accessible to foreign investment, increasing the proportion of indigenous firms held by foreign investors. In these days, numerous Vietnamese firms have been engaged in freeing foreign room in attracting foreign capital and advocating for greater foreign investment capital.

According to the State Securities Commission of Vietnam, approximately 30 listed enterprises lifted the foreign ownership threshold to 100% as of the beginning of the fourth quarter of 2019. The entire value of foreign investors' portfolios grew to around 36.4 billion USD in 2019. Foreign ownership has a favorable influence on business performance, according to studies by Nakano and Nguyen (2013), Srithanpong (2012), Kao et al (2019). According to the present condition of the Vietnamese market and academic study findings, raising the foreign ownership share in the business will increase its performance through the transfer of technology, capital, or management approach.

The study will use a deductive and quantitative research strategy to examine cross-sectional secondary data obtained from a reliable financial information source.

This paper is divided into 5 sections. The first section is Introduction, which includes the reason for the study, the aims and objectives of the research as well as brief description of the method. The following part discusses Literature Review demonstrating main theories of related factors to dividend policy and empirical investigations, as well as review on the connection between dividend policy and performance of listed financial firms. Methodology is the third chapter, and it explains how the research approach and methodology were chosen to meet the research purposes. Following a discussion of the study technique, section 4 will examine regression data and provide the research findings. Finally, section 5 finishes the research by summarizing research findings as well as compiling what has been accomplished in order to solve the research problem.

2. LITERATURE REVIEW AND THEORICAL BASIS

2.1. Theorical basis

2.1.1. Foreign ownership

Foreign investors contribute not only to economic development but also to firm profitability growth. Foreign investors are generally significant shareholders in domestic firms. They have strong incentives to supervise managers, which might theoretically minimize agency expenses and increase firm performance. Khanna and Palepu (2000) experimentally demonstrated the favorable association between foreign investors as significant owners and performance, as connected to monitoring that can lower agency costs. Domestic firms with foreign ownership outperform other domestic firms without foreign control. Aside from monitoring benefits, foreign ownership facilitates the transfer of technology to domestic enterprises, stimulating technological innovation and a professional staff, and restricting corporations' ability to hoard more capital and risk. Foreign ownership that is concentrated and large signals minimal agency costs and high company value.

2.1.2. Firm performance

Firm performance is an economic measure that shows a firm's capacity to use people and material resources to meet the firm's goals. Firm performance must also take into account the efficiency with which corporate resources are used during the production and consuming processes. Firm performance demonstrates the correlation between the output outcomes and the input resources used in the course of enterprise business operations.

Return on assets (ROA), return on equity (ROE), and return on investment (ROI) are typical variables used to represent firm performance. These accounting indicators of business performance are financial ratios derived from income statement and balance sheet and have been utilized by a number of academics. In this study, firm performance is measured by ROE. It is also regarded as one of the most important metrics for determining commercial bank profitability. ROE is significant since the ultimate objective of commercial banks is often to inflate the net worth of assets. As a result, shareholders might acquire more value.

2.1.3. The relationship between foreign ownership and firm performance

Several empirical research on the link between foreign ownership and business performance has been conducted across the world employed the Ordinary Least Squares (OLS) regression on a sample of Indian firms and discovered that foreign ownership had a favorable influence on company performance as evaluated by ROA and Tobin's Q. Based on the T-test verified that the ROA of foreign-owned enterprises in Turkey is greater than the ROA of domestic-owned firms. The discrepancy in ROA between the two sets of businesses might be attributed to the stronger ability of foreign-owned enterprises to oversee, control, or manage management measures. Using IV-GLS estimate (Olga, 2009) finds that foreign ownership is positively associated to the performance (as assessed by ROA and ROS) and profitability of Ukrainian-based enterprises. Nonetheless, the majority of this application comes from foreign owners in wealthy nations like as the United States and the Republic of Cyprus. Nakano and Nguyen (2013) discovered a favorable association between foreign ownership and the success of Japan's electronics sector (as assessed by ROA and Tobin's Q). Greenaway et al (2014) employed Generalized Method of Moments (GLS) estimates to discover a beneficial influence of foreign ownership on performance, as well as an inverted U-shaped link between foreign ownership and Chinese company performance (measured by four indicators including ROA, ROS, labor productivity, and total factor productivity). Using the two-stage least squares (2SLS) estimator, Kao et al (2019) concluded that major shareholder ownership, institutional ownership, foreign ownership, and family ownership all have a positive effect on business performance in Taiwan (as measured by ROA, ROE, Tobin's Q, and market value of equity). Malik and Mansoor (2021) investigated the empirical relationship between institutional ownership and business performance in the growing Pakistani economy using the 2SLS technique.

In Vietnam, Phung and Hoang (2013) used fixed-effects model (FEM) regression to discover a U-shaped relationship between foreign ownership and firm performance as measured by ROA and Tobin's. Vo Xuan Vinh (2014) discovered a significant positive correlation between foreign ownership and firm performance when foreign ownership ranged between 5% and 20%. And all the while, a negative correlation happened if foreign ownership held more than 20%, particularly if the foreign ownership rate is greater than 40%, with performance as measured by Tobin's Q. Phung and Mishra (2016) demonstrated, using the GLS regression model, that foreign ownership and firm performance get an inverse U-shaped relationship. The constancy of the link between foreign ownership and business performance remains a point of contention. From these viewpoints, the purpose of this research is to give more thorough evidence of the impact of foreign ownership on the profitability of banks listed on Ho Chi Minh stock exchange in Vietnam.

2.1.4. Agency theory

According to Mihai and Mihai (2013), agency theory governs the link between ownership structure and company performance. A conflict of interest will arise as a result of the separation of control and corporate governance. Managers can utilize their management position to enrich themselves and make non-profit judgments in the best interests of shareholders. From this vantage point, enterprises will profit as the amount of foreign ownership grows, since foreign investors demand higher corporate governance standards and actively participate in the supervisory function. When enterprises have foreign investors participating, they may oversee, control, or make business managers' suggestions to manage more efficiently and prevent business decisions or plans that might reduce the value of company outcomes. Foreign investors can also have a supervisory role in enterprises' internal governance, particularly in emerging economies (Ongore, 2011; Thanatawee, 2021). If foreign investors take an active supervisory function, their performance is projected to improve as foreign ownership grows (Lee, 2008; Thanatawee, 2021). Although, foreign investors play an essential role in overseeing managers and setting high standards of corporate governance, hence decreasing agency costs. However, when foreign ownership gets concentrated (i.e., the fraction of foreign ownership grows excessively large), it can have a negative impact on firm value due to the deterrence effect.

2.2. Empirical studies

2.2.1. Empirical studies in foreign countries

Studies on the link between ownership structure and performance conducted throughout the world using various methodologies and scopes provide varied results in different nations. According to Capobianco and Christiansen (2011), state ownership has an adverse impact on company performance. Meanwhile, Firth et al (2006) indicates that state ownership has a favorable impact on business performance because it makes it easier for a company to borrow money from banks. Wei and Varela (2003) show that state ownership has a nonlinear influence on company performance for Chinese private enterprises. Many empirical studies have been conducted to illustrate the positive and negative impacts of the foreign ownership ratio on the value of firms on the stock exchange, based on the conventional hypothesis. through various years of observing the situation in developing markets and established nations, it is clear that this issue is influenced by many elements that may be seen from many perspectives:

Research by author Jianxin Wang (2007) on "Foreign equity trading and emerging market volatility: Evidence from Indonesia and Thailand". In this study, the author looked at the current relationship between foreign equity ownership and market volatility in Indonesia and Thailand over several periods with different measures for volatility. Business activities of enterprises. In the article, the author also explores two economic theory explanations for the asymmetric effects of foreign and local investors. Although the sale of foreign currency accounts for only a small part of daily transactions, it is also the cause of market volatility in both countries. Meanwhile, trading within domestic and foreign investor groups often tends to be unrelated to this volatility. The author also examines two economic theory theories for the unequal impact of foreign and domestic investors in the essay. Although foreign currency sales make for a modest percentage of daily transactions, they are a major source of market volatility in both nations. Meanwhile, trading across domestic and international investor groups is frequently unconnected to volatility.

Another study on the Indonesian emerging stock market by the authors S. Ghon Rhee and Jianxin Wang (2009) with the article "Foreign ownership ratio and stock market liquidity" examined the relationship. Causality between foreign institutional ownership and stock liquidity. The results of the study indicate a negative effect on the future liquidity of stocks owned by foreign investors: a 10% increase in foreign institutional ownership in the current month is related to an approximate 2% increase in purchase price, a 3% decrease in depth, and a 4% increase in price sensitivity the following month. At the same time, it is found that foreign institutions hold nearly 70% of the floating value of the Indonesian stock market, accounting for 41% of the total market capitalization from January 2002 to August 2007. This study also reflects to refuted the idea that foreign institutions improve liquidity in emerging markets.

In addition, Zhian Chen, Jinmin Dub, Donghui Li, and Rui Ouyangc (2013) conducted research on the topic of "Does foreign ownership impact profitability?" Based on a dataset of 1458 listed businesses from 1998 to 2008, "Evidence from China's Stock Market" looked examined the influence of foreign ownership on profitability of Chinese companies registered on the stock exchange. Even after adjusting for the whole ownership structure, empirical studies suggest that share ownership by foreign organizations (both financial and non-financial) boosts business profitability. adjustment, size, revenue, financial leverage, and solve possible endogenous problems. However, the results also show that the share ownership rate of foreign individuals reduces volatility. Furthermore, the study notes a positive relationship between the proportion of domestic shares (individuals, institutions and governments) and the profitability of listed companies. The results also show that foreign institutional ownership increases corporate profitability flexibility by enhancing the positive effect of liquidity on volatility.

2.2.2. Empirical studies in Vietnam

Vietnam's stock market, after 20 years of establishment and development, has gradually become an important capital channel of the economy, attracting more and more foreign investment capital, especially since joining the Trade Organization. World Trade Organization (WTO). Vietnam is a developing country, so there are many policies to encourage investment capital flows from abroad. Accordingly, foreign ownership also has many impacts on the value of enterprises in Vietnam.

There are also many studies evaluating the impact of foreign ownership on listed companies in Vietnam such as:

In Vietnam, research by Pham Huu Hong Thai (2013) uses ordinary least squares regression (OLS) to conduct multiple regression with data of 646 companies on 2 Stock Exchanges in Vietnam in 2 years 2011 and 2012. The results show that State ownership does not seem to have an impact on firm value, while private ownership and foreign ownership have a positive impact on firm value at a significance level of 5%. Using the GLS method, Anil V. Mishra and Duc Nam Phung (2016) examine the relationship between ownership structure and performance of companies listed on the Vietnam Stock Exchange, using 2,744 variables. The survey in the period from 2007 to 2012 also showed similar results. Nguyen Thi Minh Hue and Dang Tung Lam (2017) study the relationship between factors including ownership structure, financial leverage, and operational efficiency with the dataset of all companies listed on the two exchanges. Securities trading in Vietnam during the period 2007-2014. With three methods of running the model: the OLS method; the method of using lagged variables in OLS; the method of fixing the effect of the Exchange, the empirical results show that there is a negative relationship between State ownership and a positive relationship of foreign ownership with the performance of listed companies measured by ROA.

Most studies show a positive relationship between foreign ownership and firm performance. Research by Vo Xuan Vinh (2014) examined the effects of ownership foreign ownership on the volatility of stock returns in Vietnam. By using detailed data sheets of companies listed on the Ho Chi Minh City Stock Exchange for the period 2006-2012 and using different econometric estimation techniques to analyze the data The empirical results show that long-term ownership by foreign investors reduces the volatility of stock returns. This result is indicative of the stabilizing role of foreign investors in emerging stock markets and this can be seen as one of the potential benefits of increased exposure to stock markets. domestic securities to foreign investors.

In the same research direction, authors Pham Quoc Viet & Pham Quang Huy (2017) used a multiple regression model to examine the impact of the foreign ownership ratio on the stock return volatility of companies listed on the Vietnam stock market. The research sample uses 81 companies listed on the Ho Chi Minh City Stock Exchange from the period 2009 to 2015. The results show that foreign ownership reduces the volatility of stock returns, and plays a crucial role in stabilizing the market. One of the factors influencing the decision to invest in Vietnam's stock market is foreign investors. This result also supports previous studies by Jianxin Wang (2007), and Vo Xuan Vo Xuan Vinh (2015). From there, the author also offers some policy suggestions to remove administrative barriers, improve listing standards, and encourage competition among intermediaries of Vietnam's stock market. Thereby, minimizing the adverse effects of foreign investment flows.

A similar study on the impact of ownership structure on the performance of companies listed on the Vietnamese stock market by Nguyen Thi Minh Hue & Dang Tung Lam (2017) was published in the scientific journal of Vietnam National University, Hanoi. The paper studies the relationship between factors including ownership structure, financial leverage, and operational efficiency with a dataset of all companies listed on two stock exchanges in Vietnam. Empirical results from quantitative models show a negative relationship between state ownership and performance of listed companies and a positive relationship between foreign ownership and performance of listed companies. In addition, the study of the relationship with financial leverage of firms shows an implication of the mediating factor between ownership structure and performance, when financial leverage is considered a tool in the financial management of the company. Accordingly, companies with high state ownership have high financial leverage, and companies with high leverage have low performance, which is contrary to the study on foreign ownership. The article additionally illustrates the policy of encouraging the reduction of state ownership rate and the increase of foreign ownership ratio in companies in Vietnam.

In Vietnam, there are many studies on the relationship between state ownership and firm performance such as Le Duc Hoang (2021) showing that state ownership has an adverse impact corporate performance while foreign ownership has a positive impact on the performance of listed construction companies. The test results also show that State ownership and foreign ownership have a non-linear relationship with company performance. Do and Wu (2014) analyzed data of 134 non-financial companies listed on HOSE for the period 2009-2012 and found a positive relationship between state ownership and firm performance (measured by ROA and ROE).

Table 2.3.1. Summary of selected empirical studies on the factors of firm performance

	Variables	Impact on firm performance	Method
1	Foreign Ownership	+	GLS, OLS, FEM, REM
2	Firm Size	+	GLS, OLS, FEM, REM
3	Leverage	-	GLS, OLS, FEM, REM
4	Tangibility	-	GLS, OLS, FEM, REM
5	Assets turnover	+	PLS, OLS, FEM
6	Growth	+	SEM
7	Age	-	GLS, OLS

Source: Compilation Author

2.3. Research gap

Numerous research studies have been conducted to determine the influence of foreign ownership on firm performance (profitability) in Vietnam and throughout the world. However, the previous research has mainly focused on investigating this subject in industrialized countries, with relatively little research undertaken in emerging economies. There has been relatively little past national-scale research in Vietnam that has not focused on a specific industry. As a result, the scope of this research is limited to the financial business to investigate if industry factors influence the research findings. Furthermore, little research has been undertaken on the case of listed financial firms on Ho Chi Minh Stock Exchange and Hanoi Stock Exchange in Vietnam. Therefore, this study has also partially inherited the results from the previous studies and has a new point that the concentration is on financial corporations listed on HOSE and HNX from 2012 to 2020 in Vietnam.

3. DATA AND METHODOLOGY

3.1. Source of data

The observed sample includes 29 financial corporations listed on the Ho Chi Minh Stock Exchange and Hanoi Stock Exchange in the period from 2012 to 2020. Statistical data is collected and aggregated from the financial statements of enterprises. STATA is used for data processing and statistical analysis.

3.2. Data analysis

The influence of variables on firm performance was then investigated using Ordinary Least Square (OLS). Then, between the Fixed Effects Model (FEM) and the Random Effects Model (REM), Hausman's test was used to determine which model was better for the data set. The results indicate that FEM is appropriate for the data in this research. Besides, Generallized Least Squares (GLS) is utilized to estimate the unknown parameters in a linear regression model when there is a certain degree of correlation between the residuals in a regression model. The paper also looked at various important tests for regressive assumptions, including as autocorrelation, multicollinearity and heteroskedasticity, to confirm that the regression is blue.

3.3. Variables

3.3.1. Dependent variables

Profitability (Firm performance): Profitability is the financial benefit that is realized when the amount of revenue gained from a business activity exceeds the expenditure, costs, and taxes needed to sustain the activity. Any profit that is gained goes to the owners of the business, who may or may not decide to spend it on the business. In this study, profitability is measured by ROE which is calculated by the ratio of earnings after interest and tax to total equity.

3.3.2. Independent variables

The explanatory variables in this paper are solely internal variables such as Foreign Ownership (FO), Leverage (LEV), Tangibility of Assets (TAN), Asset Turnover (AT), Growth (GROW), Firm Size (SIZE), and Age (AGE).

Table 3.3.1. Definition of Variables

	Variable	Code	Measure
1	Profitability	ROE	ROE= EBIT/ Total Owners' Equity
2	Foreign Ownership	FO	OWN= Shares held by foreign individual or foreign party / Total shares outstanding
3	Leverage	LEV	LEV= Total Liabilities /Total Assets
4	Tangibility of Assets	TAN	TANG= Tangible Assets/Total Assets
5	Assets Turnover	AT	AT = Revenue/Total Assets
6	Growth	GROW	GROW =[Total sale year (t) – Total sale year(t-1)]/ Total sale year(t-1)
7	Firm Size	SIZE	Log of Total Assets
8	Age	AGE	Log of Age

Source: Compilation Author

3.4. Empirical model

The empirical models below are estimated:

$$ROEi,t = \beta0 + \beta1.FOi,t + \beta2.LEVi,t + \beta3.TANi,t + \beta4.ATi,t + \beta5.GROWi,t + \beta6.SIZEi,t + \beta7.AGEi,t + ui,t.$$

4. RESULTS AND DISCUSSIONS

4.1. Descriptive statistics

Table 4.1.1. Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum
ROE	261	0.1165771	0.0631233	-0.1467566	0.3
FO	261	0.1973302	0.1418762	0.0001	0.6066
LEV	261	0.6439196	0.1926084	0.0200097	0.9494781
TAN	261	0.017131	0.0254494	0.00000621	0.1794848
SIZE	261	7.541076	0.9718303	5.440838	9.180896
AT	261	0.1838916	0.211527	0.016722	0.0979409
GROW	261	0.2048631	0.447095	-0.9015281	1.175681
AGE	261	26.58621	13.10979	11	64

Source: Data analysis results from Stata 15.1 software

Table 4.1.1 above summarizes all the descriptive statistics of all dependent variables (FO, LEV, TAN, SIZE, AT, GROW, AGE) and independent variable (ROE) used in the study. The independent variables are observed for night years from 2012 to 2020. These are the average indicators of variables calculated from financial statements. Furthermore, these Descriptive Statistics assist in spotting some irregularities or abnormalities in the data set before running the regression.

Firm performance (ROE): The Descriptive Statistics of ROE has shown that, on average, the listed financial firms have 11.65%% (0.1165) return on owners' equity. The maximum ROE of the listed financial firms have indicated the result of 30% (0.3), indicating that the firm performance is significantly dependent on owners' equity. Meanwhile, a minimum ROE of -14.6% (-0.146) and minimum foreign ownership of 0.1% (0.0001) prove that some listed financial firm have a low rate in both ROE and foreign ownership in their operations.

Foreign Ownership (FO): The average is 19.73% (0.1973). The maximum foreign ownership rate is similar to the maximum ROE at 60.66% (0.6066), therefore, the listed financial firms will be exposed to risks significantly when ownership decreases, especially foreign ownership. Besides, the lowest ratio is recorded at only 0.01% (0.0001). According to these results, the foreign ownership of all the listed firms is lower than half of the total ownership while some firms have the foreign ownership is nearly 0%.

Leverage (LEV): The listed firms utilize 64.39 % (0.6439) debt in their capital structure on average. The listed firms tend to possess a high debt ratio. The maximum debt ratio used by listed financial firms is 94.94% (0.9494), depicting that the firm capital is completely dependent on debt and has low financial autonomy. As a result, when deposit interest rates rise significantly, the listed firms will be exposed to risks. Meanwhile, a minimum debt ratio is 2% (0.02), proving that the difference in using debt between the firms is remarkable.

Assets turnover (AT): The average is 18.38%% (0.1838), with firms having the highest assets turnover of 9.79% (0.0979) and the lowest being 1.67% (0.0167). It can see the actual activities of the listed firms in the research period, most of firms are having positive financial performance from utilizing their assets.

Growth (GROW): The maximum value of 1.17 and the minimum value of -0.9 show that the growth rate among the listed firms is uneven. The average growth rate of the firms is recorded at 20.48% (0.2048), however, there are quite a few listed firms have shown growth rates of minus.

Age (AGE): The operation time of the listed financial firms ranges from 11 to 64 years, with an average of 26.5 years. This is because it is one of fundamental and oldest industries in Vietnam. Certain firms are state-owned businesses; hence they are relatively old.

Firm size (SIZE): The smallest value is 275,955 million (VND) while the largest value is 1,516,685,712 million (VND). The listed firms chosen for inclusion in the sample possess considerable fixed assets. Larger firms tend to be able to generate greater competitive capacity than smaller competitors due to superior access to resources, greater market power, and economies of size and scope.

4.2. Correlation results explanation

Table 4.2.1. Correlation Matrix of Independent Variables

Variables	FO	LEV	TAN	SIZE	AT	GROW	AGE
FO	1						
LEV	-0.0921	1					
TAN	-0.1254	-0.0662	1				
SIZE	-0.0994	0.7017	-0.2677	1			
AT	0.1112	-0.2417	0.6645	-0.6019	1		
GROW	0.0166	-0.0418	-0.1124	-0.0322	0.0056	1	
AGE	-0.0737	0.2888	0.0417	0.5366	-0.0727	-0.0650	1

Source: Data analysis results from Stata 15.1 software

Table 4.2.1 presents the correlation matrix for all of the independent variables. There was no statistically significant degree of correlation between any of the explanatory variables, hence the regression models were considered to be free of the issue of multi-collinearity.

4.3. Regression results explanation

To measure the variables influencing the firm performance of listed financial firms on Vietnamese stock exchange, this study will employ a regression of two models: FEM (Fixed Effect Model) and REM (Random Effects Model). Following that, the study will utilize the tests to choose the appropriate model and overcome the model's flaws to select the research outcome.

- The Hausman's test compares the two models FEM and REM in order to determine the appropriate model for the study's data. As a result, two hypotheses exist:

  H0: There is no correlation between the explanatory variables and the random component (the REM model is appropriate).

H1: There is a correlation between the explanatory variables and the random component (the FEM model is appropriate).

The Hausman's test result:

In panel analysis, the Hausman test can be used to differentiate between fixed effects and random effects models. The Hausman test results reveal that Prob>chi2 = 0.0 means that P value = 0.0 < α = 5%, hence hypothesis H0 is rejected, and the FEM model is an appropriate model for the data of the research.

Table 4.3.1. Hausman's test

	Coefficients (b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
FO	-.0557124	.0126852	-.0683976	.0299612
LEV	-.1534666	-.169938	.0164714	.0221006
TAN	-.1715491	-.6895357	.5179866	.1793753
SIZE	.1572125	.0781628	.0790497	.0147611
AT	.2166454	.1905622	.0260832	.0368904
GROW	.0259599	.0298306	-.0038707	.

```
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        53.86
                Prob>chi2 =       0.0000
                (V_b-V_B is not positive definite)
```

Source: Data analysis results from Stata 15.1 software

4.4. Multi-collinearity amongst variables

Table 4.4.1. Multi-collinearity amongst variables

Variable	VIF	SQRT VIF	Tolerance	R-Squared
FO	1.11	1.05	0.9041	0.0959
LEV	2.44	1.56	0.4098	0.5902
TAN	2.09	1.45	0.4777	0.5223
SIZE	5.54	2.35	0.1805	0.8195
AT	3.72	1.93	0.2687	0.7313
GROW	1.03	1.02	0.9690	0.0310
AGE	1.81	1.35	0.5510	0.4490
Mean VIF	2.54			

Source: Data analysis results from Stata 15.1 software

According to Kutner et al (2004), a maximum variance inflation factor (VIF) value higher than 10 is widely regarded as an indicator of multi-collinearity, which may impact least squares estimates. When testing FO, LEV, TAN, SIZE, AT, AGE, GROW, with ROE as dependent variables and testing for VIF values in collinearity findings for variables, there is no indication of multi-collinearity because their VIF values are all significantly lower than 10 (Table 4.4.1). As a consequence, because multi-collinearity is not a remarkable issue in this research's dataset, the regression model's efficacy in measuring the relationship between the selected factors and the financial performance of the listed firms is assured.

4.5. Modified Wald test

The Wald test (also known as the Wald Chi-Squared Test) determines if explanatory variables in a model are significant. "Significant" variables add something to the model; variables that add nothing can be removed without having any effect on the model.

The author employs the Modified Wald test to investigate the phenomenon of variable variance, and the following hypotheses are given:

H0: There is a phenomenon of uniform variance (or independent variables have no effect on the residuals).

H1: There is a phenomenon of variable variance (or there is an independent variable that affects the residuals).

Table 4.6.1. Results of Modified Wald test

```
Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (29)  =     257.91
Prob>chi2 =      0.0000
```

Source: Data analysis results from Stata 15.1 software

The result of variance error test performed on FEM model indicates that p= 0.0000<5%, the Model has variable variance.

- Lagram-Multiplier criterion was used to test series correlation. Hypothesis testing:

  H0: The model has no serial correlation.

  H1: The model has serial correlation.

4.6. Generalized Least Squares regression

Table 4.7.1. Generalized Least Squares regression

```
Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   common AR(1) coefficient for all panels  (0.5650)

Estimated covariances      =        29          Number of obs      =        261
Estimated autocorrelations =         1          Number of groups   =         29
Estimated coefficients     =         8          Time periods       =          9
                                                Wald chi2(7)       =      64.00
                                                Prob > chi2        =     0.0000
```

ROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
FO	-.0021539	.024848	-0.09	0.931	-.050855	.0465472
LEV	-.0827642	.0279866	-2.96	0.003	-.1376168	-.0279116
TAN	-.4539797	.1910985	-2.38	0.018	-.8285259	-.0794335
SIZE	.0425042	.0086922	4.89	0.000	.0254678	.0595406
AT	.0878426	.0304938	2.88	0.004	.0280758	.1476094
GROW	.0224281	.0050072	4.48	0.000	.0126141	.0322421
AGE	-.0009253	.0003539	-2.61	0.009	-.001619	-.0002316
_cons	-.1391897	.0572775	-2.43	0.015	-.2514515	-.0269278

Source: Data analysis results from Stata 15.1 software

The result has shown that FO is not correlated with the dependent variable, while LEV, TAN, SIZE, AT, GROW and AGE are statistically remarkable in explaining the change in the dependent variable. To be specific, SIZE, AT, and GROW positively influence firm profitability while LEV, TAN, and AGE have negative influences.

4.7. Discussions and testing results for hypotheses

As the results shown in tables above, LEV, TAN, SIZE, AT, GROW, and AGE are statistically significant in explaining the change in profitability while FO is not correlated with the profitability. This result is not what the author foresees, particularly in the case of the Foreign ownership factor, which is recorded in many previous studies to have positive impacts (Nurhan Aydin et al,2007; Shikha M Shrivastav,2017) or inverted U-shaped relationship (Huu Viet, 2013) with firm performance. This issue is due to several reasons: Firstly, because the financial sector is considered the lifeblood of the national economy, the government is very cautious in accepting high proportion of foreign ownership. Secondly, the research result in the chosen period may not influence the profitability. Because the research period is only nine years, which may not reflect more specifically how the change in foreign ownership thorough years influences firm performance.

For the Size factor, it has been stated that this factor has a beneficial influence on the company performance of listed enterprises in Vietnam. This finding was reported in recent research conducted in Vietnam, such as Vu, Nguyen, Ho, and Vuong (2019); Vu, Dang, Ngo, and Ha (2019); and Nguyen and Nguyen (2020). As a result, the similarity of the positive link between the size and profitability of listed financial firms on the Ho Chi Minh Stock Exchange is confirmed. Furthermore, in the world, Özgülbaş et al (2008) studied the impacts of firm size on performance for firms listed on the Istanbul Stock Exchange between 2000 and 2005. As a consequence of their research, they found that large-scale organizations perform much better. In a similar fashion, Jonsson (2007) explored the correlation between profitability and firm size in Iceland. According to the findings of this report, large enterprises are more profitable than small businesses.

Besides that, the Assets turnover factor is also a factor that has a positive relationship with the firm performance of the listed financial firms on HOSE. This finding is precisely what the author expected and is totally consistent with previous research. For instance, results from research of Abbasali Pouraghajan et al (2012) has indicated that there is a remarkable and positive correlation between the variable of assets turnover ratio with measures of the financial performance of firms.

Consistent to asset turnover and firm size, Growth also favorably interact firm's profitability. The result is consolidated by previous research objects of Serap Coban (2014).

Meanwhile, according to the Agency Theory point of view, higher leverage leads to the reduction of agency cost, enhances efficiency, and thereby makes the firm more profitable. However, the above result has shown the contrary when it indicated that the Leverage factor adversely influences on firm performance. This result is exactly consistent with expectation of the author and previous studies (Oyakhilome W.Ibhagui and Felicia O.Olokoyo, 2018).

According to Zeitun and Saleh (2015), tangibility negatively impacts firm profitability because firms incur high debt to finance long-term assets, and the negative relationship between debt and profitability is offset by the positive relationship between debt and tangibility.

Profitability will always be inversely proportional to tangibility (Zeitun and Saleh, 2015). Srivastava (2017) also supports this relationship, concluding that total firm assets predominate tangible assets, and if firms lack such investments and their management intends to enhance tangible assets, they take on debt and have significant tangible assets (Srivastava, 2017; Ullah et al, 2017). The result from this study also reveals the homogeneity with that of the previous research when it indicates that the Tangibility factor has an adverse impact on the profitability of the listed financial firms on HOSE.

As for the AGE factor, it has been identified to have a negative impact on the firm performance of listed financial firms on HOSE. This result is supported by recent studies. For example, the result of the research of Maja Pervan, Ivica Pervan, and Marijana Ćurak (2017) also showed that age negatively affects a firm's performance. As firms age, benefits of their accumulated knowledge in all critical aspects of the business (technology, supply channels, customer relations, human capital, and financing costs) are diminished by their inertia, inflexibility, and osseous by accumulated rules, routines, and organizational structure (Maja Pervan, Ivica Pervan, and Marijana Ćurak, 2017).

5. CONCLUSION

The study was carried out to assess the foreign ownership and other determinants influencing firm performance (profitability) in the situation of listed financial firms on Vietnamese stock exchange from 2012 to 2020. According to results of many previous studies, foreign ownership affects both positively and negatively firm performance, however, this study found that the foreign ownership factor does not impact firm performance. In contrast, leverage, tangibility, and age inversely correlate to firm performance while firm size, growth and assets turnover indicate a favorable correlation. Additionally, the listed firms have been identified to possess a relatively high debt ratio of 64.39%, which is significantly risky since it might result in the firm's financial imbalance. The research provided a basis for the firms' management to develop plausible plans and strategies for enhancing the ability of profit generation through the utility of owners' equity effectively.

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TAX MANAGEMENT FOR C2C E-COMMERCE ACTIVITIES IN VIET NAM

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Abstract: *This study analyzes the current situation of C2C e-commerce in Vietnam and the challenges posed in tax collection management for C2C e-commerce, thereby finding out the way to manage taxes more effectively. Through promoting the application of technologies to manage tax collection for C2C e-commerce transactions based on the following main solutions: (1) Completing the legal corridors on management of e-commerce electronic and tax management for e-commerce (including C2C e-commerce); (2) Promoting the application of technology to identify and authenticate people related to C2C e-commerce transactions; (3) Establishing a platform to share information about C2C e-commerce transactions between tax authorities and related parties; (4) Establishing a tax management mechanism of individuals selling goods on C2C e-commerce platform are clear and flexible.*

Keywords: *E-commerce, tax management.*

1. INTRODUCTION

The rapid growth of the Internet and Information technology in recent years has been promoting changes in many aspects of social and economic life. In particular, it can be seen that the field of e-commerce continues to develop at a rapid rate and the scale of online retail is continuously growing higher and higher not only in the world but also in Vietnam. However, in C2C e-commerce activities, both the buyer and the seller are individuals, and the transactions between the parties are done on an electronic platform, so it is very difficult to collect transaction data.

Moreover, the taxpayer's sense of compliance awareness in C2C e-commerce activities is often low, leading to huge tax losses. In addition, with hundreds of millions of people sending electronic messages and thousands of types of information being transmitted every second, identifying information relevant to e-commerce transactions is a huge challenge for tax administration. Therefore, to be able to manage taxes for C2C e-commerce, it is necessary to implement many new solutions that are different from tax management for traditional commercial activities.

2. LITERATURE REVIEW AND METHODS

C2C e-commerce is a business model between consumers and consumers in the online environment through a third party that is online sales platforms, social platforms or intermediary auction sites. The goods are displayed through pictures, livestream and information description articles. Buyers can consult information about goods and exchange with sellers through the online environment. The payment for the purchase of goods can be completed through a third-party payment platform.

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The goods are shipped to the buyer by a third-party shipping service. After sales services are also available online. The seller and the buyer do not meet each other during the transaction. Therefore, it can be said that in C2C e-commerce transactions, consumers can sell directly to other consumers without having to go through middlemen, or spend a large amount of money to build and maintain their own online store. This allows sellers to make more profits and buyers the ability to buy goods at better and more competitive prices.

The rapid rise of C2C e-commerce in global has brought serious difficulties to tax collection and management. Weibo Huang (2018) presented that it is necessary to apply Big Data technology to tax collection and management systems on C2C E-commerce in China. Aizhen Li (2018) suggested that electronic commerce has led to some serious problems, such as the difficulties in tax collection and management, and growing of the tax revenue loss in China. The research of Wei Han (2020) also shows, due to the imperfect third-party credit information platform, the information asymmetry makes the effectiveness of tax audit for e-commerce tax authorities and the invisible integrity revenue of the e-commerce taxpayers (the opportunity cost of tax evasion) lower, which is the main reason for the e-commerce tax losses. In other study by Megerdichian, N., Abdolvand, N. & Rajaee Harandi, S. (2021), the authors use a qualitative method to investigate the effect of blockchain on C2C e-commerce. After conducting the conceptual study, the experiences of experts in this field were used through semi-structured interviews. The data from the interviews were then coded and analyzed. Finally, 12 conceptual codes were extracted. Due to the high frequency of the transparency code, other concepts were studied around this axis and based on it. According to the results, strategies such as transparency, trust, and legal barriers were more important in using blockchain in C2C e-commerce, respectively. In general, the authors' conclusions conclude that challenges posed in tax collection management for C2C e-commerce and the use of the digital technology is most appropriate.

In Vietnam, there wasn't a lot of research on the C2C and so this article will analyze and evaluate the challenges in tax administration for C2C e-commerce activities in Vietnam and make specific recommendations in the application of new technology solutions for better tax management of C2C e-commerce activities in Vietnam.

3. RESEARCH RESULTS

3.1. Situation of tax management for C2C e-commerce activities in Vietnam

a. The development of C2C e-commerce in Vietnam

A typical example of the C2C e-commerce model in Vietnam is the appearance of e-commerce exchanges or classifieds websites such as Lazada, Vatgia, Sendo, Shopee, Tiki, Chotot, etc., and blogs or social networks such as: Facebook, Twitter, Instagram, Zalo, TikTok, or simply through chat tools such as Skype, Facebook messenger, zalo,... Those are the platforms where users can advertise, post news sell its products. However, they will not provide other services such as delivery and payment. All these factors, e-commerce platforms need to go through a certain service provider, typically: GHTK, Grab, GHN, Viettel Post, VNPost… for shipping or Momo, vnpay... or use cash on delivery (COD) for payment.

With total population of about 98 million people and Vietnam's Internet usage rate increasing rapidly from 2013 at 36% of the population to 70% of the total population by 2020. According to the Department of E-commerce and Digital Economy, the number of people participating in online shopping is also estimated to reach 49.3 million people and the value of one person's online shopping will reach 240 USD in 2020 (*see Table 1*).

Table 1. Data on e-commerce in Vietnam in the period of 2013-2020

	2013	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**
Estimated number of people participating in online shopping (million people)	18.47	20.52	30.3	32.7	33.6	39.9	44.8	49.3
Estimated value of one's online shopping (USD)	120	145	160	170	186	202	225	240
Percentage of people using the Internet	36%	39%	54%	54.2%	58.1%	60%	66%	70%

Source: Synthesized from Vietnam E-commerce Report 2018-2021-IDEA

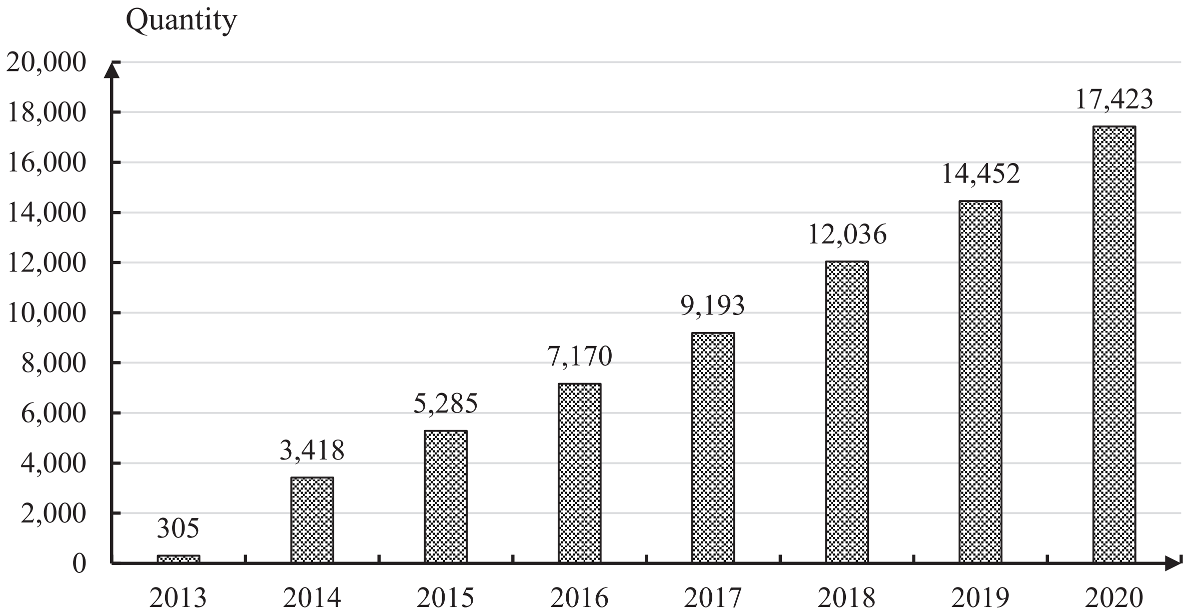

Figure 1. Number of individual account records received on the e-commerce management system of the Ministry of Industry and Trade from 2013-2020

Source: Synthesized from Vietnam E-commerce Report 2018-2021-IDEA

Also according to the e-commerce management data released by the Ministry of Industry and Trade (see Figure 1), the number of individual accounts registered for e-commerce activities has increased rapidly from 305 accounts in 2013 to 17,423 accounts in 2020.

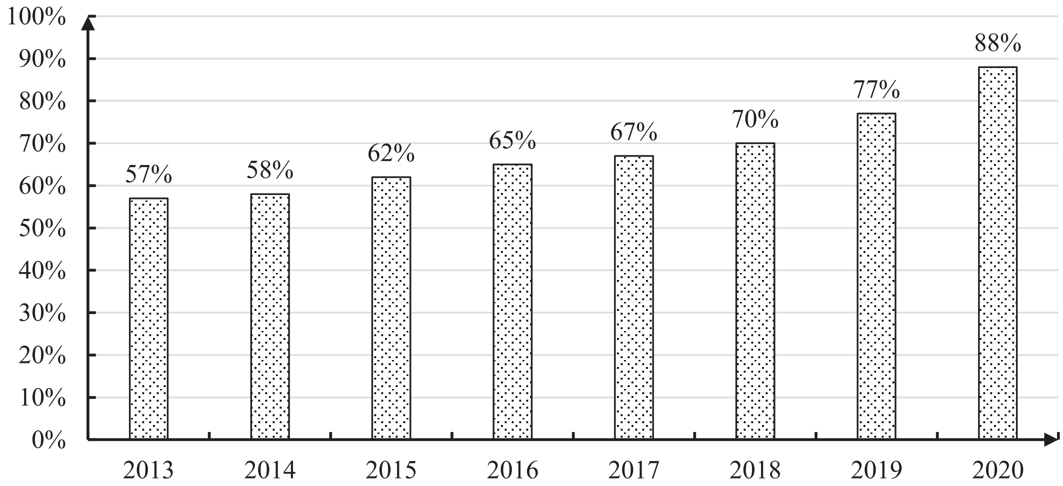

Figure 2. Percentage of Internet users who shop online at least once a year from 2013-2020

Source: Synthesized from Vietnam E-commerce Report 2013-2021-IDEA

According to statistics from Vietnam e-commerce and digital economy agency *(see Figure 2)*, the percentage of Internet users who participate in online shopping at least once a year from 2013 to 2020 has increased from 57% to 88%. Along with that, consumers are also shifting to shopping mainly on websites and e-commerce trading platforms. Specifically, in 2020, it is up to 74% of people shopping on websites and e-commerce exchanges, while buying on forums and social networks reaches 33%. This rate is significantly different from the 2013 figure of 61% on Website channels and e-commerce trading floors, and 45% on social networks. According to surveys with consumers on shopping habits, 70% of buyers said they search for items on Facebook or Instagram; 30% said they would buy directly from Pinterest, Facebook, Twitter, Instagram or Snapchat.

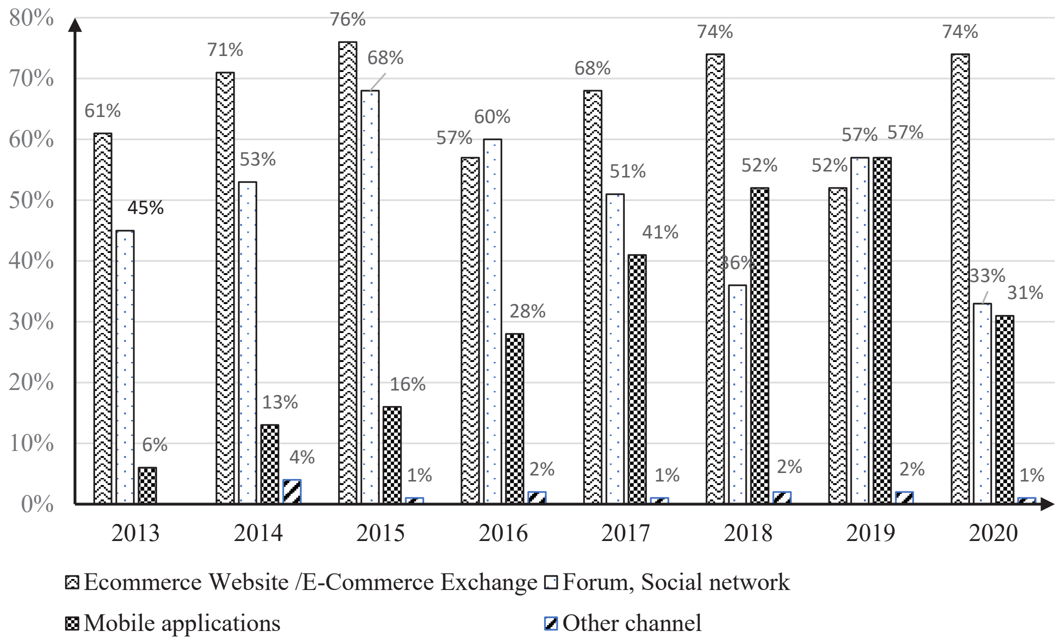

Figure 3. Percentage of online shoppers through online shopping channels from 2013-2020

Source: Synthesized from Vietnam E-commerce Report 2013-2021-IDEA

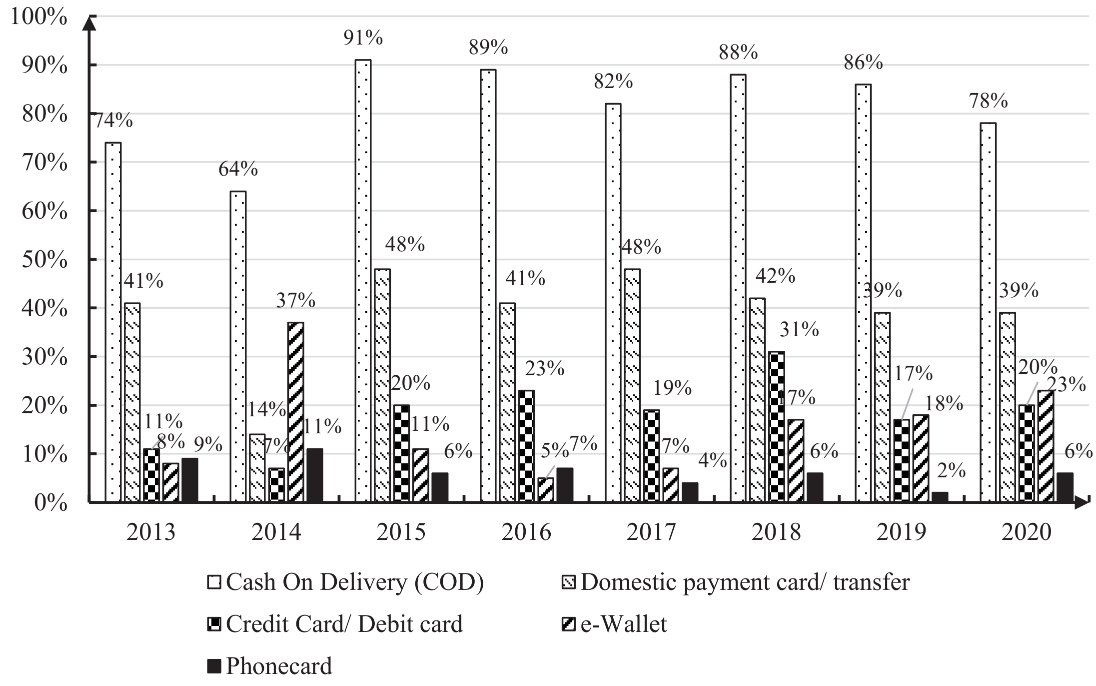

Figure 4. Prioritised payment method from 2013 to 2020

Source: Synthesized from Vietnam E-commerce Report 2013-2021-IDEA)

According to the Vietnam E-commerce Report of the Ministry of Industry and Trade, the main form of payment when shopping online is still cash on delivery (COD), this rate increased from 74% in 2013 to 91% in 2015 then tends to decrease, however, by 2020 it will still account for 78%. On the other hand, the level is still low, the percentage of consumers choosing digital payment forms via e-wallets, credit cards, debit cards and scratch cards all increased slightly in the period from 2013 to 2020.

Vietnam's e-commerce revenue in 2021 will reach about 13.7 billion USD, up 16% compared to 2020 and accounting for 6.5% of total retail revenue. The goal is that by 2025, e-commerce will account for 10% of total retail sales in Vietnam. As of March 2022, there were 1,446 e-commerce trading platforms registered to operate with the Ministry of Industry and Trade. Compared to countries in Southeast Asia, Vietnam is among the fastest growing e-commerce retail markets (Ministry of Information and Communications, 2022).

b. Policies and regulations on tax administration for C2C e-commerce activities in Vietnam

In addition to the regulations on VAT and personal income tax, the issue of tax management for C2C e-commerce activities in Vietnam has also been paid attention and the legal basis for tax management with these activities specifically:

First of all, the Law on Tax Administration No. 38/2019/QH14, effective from July 1, 2020, has established a solid legal foundation for tax administration activities for this business. Specifically, the obligation to register, declare and pay tax has been added to foreign suppliers doing e-commerce and digital-based business but having no permanent establishment in Vietnam; supplement regulations on powers and responsibilities of competent state agencies in tax administration for e-commerce.

The documents are followed by Decree 126/2020/ND-CP, Circular 105/2020/TT-BTC, Circular 40/2021/TT-BTC, Circular 80/2021/TT-BTC and Circular 100/ 2021/TT-BTC provides clear and feasible guidelines on tax administration with e-commerce such as registration, declaration and tax payment procedures for foreign suppliers doing in e-commerce business but having no permanent establishment in Vietnam; obligations of organizations and individuals in tax registration; obligations of organizations when cooperating with individuals doing e-commerce business; obligations of e-commerce exchanges when providing services to organizations, e-commerce business individuals…

In order to more closely manage state budget revenues from e-commerce, on September 25, 2021, the Government issued Decree No 85/2021/ND-CP on e-commerce, which took effect on September 25, 2021. January 1, 2022 stipulates that traders and organizations providing services of e-commerce trading platforms are responsible for appointing a focal point to receive requests and provide online information to state management agencies about subjects showing signs of law violation. This focal point will provide information within 24 hours from the time of receiving the request to promptly serve the inspection, examination, handling of violations and settlement of complaints and denunciations.

3.2. Challenges to tax management for C2C e-commerce activities in Vietnam

a. The challenge of identifying taxpayers

In C2C e-commerce, sellers easily create or register an online store or social platform without having to do business registration and tax registration with state management agencies. Transactions are done through the network platform, so the real stall operator is often not the one who is registered with the e-commerce platform provider and many platform providers also do not check the authenticity of the shopkeeper. In addition, given the virtual nature of the stores in the C2C model, it is not possible to guarantee that the location of the service, business, or residence stall matches with the information registered by the seller on the e-commerce platform. The seller's physical place of business, the buyer's location, the source of the goods and the place of business registration of the third-party e-commerce platform provider may come from different cities or countries. According to statistics, a lot of e-commerce business individuals selling goods through social networks (such as via Twitter, Instagram, Facebook, Zalo...) in Vietnam do not conduct business registration, so this is a difficult problem for tax authorities in determining the location of business activities and information about sellers to carry out management.

b. Challenge in checking transaction record information

In C2C e-commerce, all transaction information is in electronic form transmitted over the Internet, except for the order that reflects the information and the chat record with the seller, there are no documents to reflect the transaction, such as Contracts and other proof documents like other traditional transactions. In addition to reducing costs, many sellers often do not issue invoices when they sell goods or provide services, or issue invoices that are not actual. Buyers will have to pay extra if they want to receive an invoice. As a result, most buyers won't ask the seller to issue an invoice when shopping online. This leads to bill-free online shopping seemingly becoming common. Many small-scale stores do not have the habit of storing account information. do not keep accounting books, make financial statements and keep transaction information. Because of the absence of such information, it is difficult to track the amount of goods traded, as well as the revenue arising from these activities, to determine and calculate taxes.

With the characteristics of e-commerce transactions being transactions only by electronic documents, it happens easily and in a short time even with foreign countries, so it is difficult to verify identity information, and easy to delete and change. Information should be difficult to capture transactions and it is difficult to ensure the authenticity of the data. Therefore, the current tax management for online businesses faces many difficulties such as: Difficult to accurately identify taxpayers, generated revenue, etc... (functional management also has disadvantages: lack of clues to detect new taxpayers); It is difficult to grasp the scale of business activities as well as the entire transaction process... In particular, individuals doing business via social networks are not present at a fixed location, have a certain level of information technology so it is difficult for tax authorities to determine actual business revenue if based only on transaction information on social networks.

c. Challenges in tax collection

At present, it can be seen that the development of applied technology in tax administration is lagging behind the development speed of the e-commerce industry. In C2C e-commerce, the number of sellers and the amount of transaction information generated every day are huge. Tax authorities lack the technology to apply full and timely access to large amounts of electronic data, so it is difficult to identify information related to e-commerce transactions, making it difficult to accurately manage transactions made by the taxpayer. On the other hand, national e-commerce legislation requires e-commerce operators to provide e-commerce data upon request when requested by relevant state agencies. But many operators consider business information to be their core secret and in order to maximize profits, or directly to avoid paying taxes, they will not submit related transactions and business data. Information asymmetry makes it easy for businesses to modify or hide data.

On the other hand, many objects of C2C e-commerce transactions are small individuals, the volume of goods transactions is also relatively small, with a limited level of tax awareness and compliance, so to reduce costs a lot. Trading entities will not voluntarily pay their taxes.

Moreover, the process of tax collection through e-commerce is also complicated, because tax authorities have to coordinate with relevant sellers, online business platform providers, financial intermediaries and internet service providers for tax collection. With the diversity of methods, controlling e-commerce payment activities is extremely difficult. In addition, even when it is determined that there is a cash flow from one entity to another, it is not possible to confirm that it is a payment activity for an e-commerce transaction, because there are hundreds of reasons for entities to transfer money for each other. Besides, if the e-commerce business entity intentionally cheats on taxes and uses the cash on delivery (COD) payment method, it becomes even more difficult to control the cash flow to identify e-commerce transactions. In Vietnam, it is more difficult to control domestic e-commerce business transactions when the payment system in the form of COD (cash on delivery) is more commonly applied than other forms of non-cash payment methods, this is also a difficulty for tax authorities when managing taxes for e-commerce businesses.

4. DISCUSSION AND CONCLUSION

With the challenges posed to tax administration for C2C e-commerce business as analyzed above, in order to be able to manage this activity well and still promote the development of the e-commerce industry in Vietnam needs to accelerate the implementation of synchronous solutions as follows:

The first is to fully complete the legal corridors on management of electronic transactions and tax management for e-commerce (including C2C e-commerce). This is an important basis for agencies as well as tax authorities have sufficient legal basis to supervise, inspect and manage all e-commerce transaction activities.

The second is to promote the application of user identification and authentication technology related to C2C e-commerce transactions. User authentication should be done by the following mechanism: (i) Ordinary social networks that usually do not have commercial support functions are obliged to record information about the name and phone number or email address of the non-commercial users; (ii) E-commerce trading platforms with e-commerce support function (but not online ordering function) are obliged to record name, address and authenticate via phone number. (iii) E-commerce trading platforms or social networks that have the function of placing online orders and supporting shipping and payment, may require the recognition of the user's bank account number. With this application, it will help taxpayers easily register for a tax identification number and important information such as citizen identification number, place of operation, bank account… associated with information about fraudulent accounts goods on an e-commerce platform or a social platform where C2C e-commerce transactions are performed. This helps state management agencies such as tax authorities to verify the accuracy with the real name of C2C e-commerce business people and take measures to prevent people from using incorrect information to act as tax authorities in coordination with network operators and representatives of social networking sites in Vietnam to block accounts for online business account holders who have large sales but fail to comply with their tax obligations and providing incorrect information. When the old account is closed, it will not be easy to create a new account immediately. Therefore, blocking the business account is an effective measure in this case. In addition, the cooperation between the Tax sector and the Public Security Authority to provide the Tax Authority with individuals and organizations whose business activities have not yet declared and paid tax discovered by the Public Security Agency for the tax agency to collect according to regulations.

T*hird*, it is necessary to establish a platform to share information between C2C e-commerce transactions, tax authorities and related parties. Due to the virtual nature of C2C e-commerce, all transaction information is electronic. The number of stores in the C2C e-commerce model and transactions is huge. In order to manage and collect taxes, the tax authorities need to capture and process a large amount of data such as types of goods traded, costs, selling prices, and actual sales in real time. With the information-sharing platform system, tax authorities can require businesses operating e-commerce platforms, payment platforms, banks, shipping companies and other stakeholders to download to Real time data together. For businesses operating e-commerce platforms that need to provide detailed C2C e-commerce merchant business information such as real-time sales data, stock-in-trade, sales voucher information, invoice information and other business related information. For third-party banking and payment platforms that monitor the flow of funds between sellers and buyers. They also check whether the total amount occupied in the transaction information is consistent with the payee or not. In addition, shipping companies also upload the delivery information generated by the C2C e-commerce platform to the information-sharing platform. The e-commerce platforms will check whether the actual goods sent match the order information, and whether the consignee matches the payer or not. On that basis, big data analytics technology is used for integrated information analysis, then this information will be shared on the platforms and can be transmitted to tax authorities. Tax authorities calculate the amount of tax payable on the basis of that information and compare it with information reported by taxpayers to detect and prevent illegal acts such as tax evasion. Thus, it can be seen that through data sharing, tax administration agencies can know the business status of each C2C e-commerce entity transaction clearly, then can compare it with other information. Reports from taxpayers are generated on an information-sharing platform, thereby providing appropriate tax management measures, and reducing tax losses.

Fourth, the tax management issue of individuals selling on C2C e-commerce platforms (both e-commerce trading platforms and social networks) needs a clear and flexible mechanism for e-commerce platforms and social networks, especially for cross-border platforms, can directly register, declare and pay taxes or authorize a third party (such as tax agents, tax service companies, auditors...) to declare and pay taxes instead. At the same time, promote propaganda and dissemination of new regulations and policies to C2C e-commerce business entities in appropriate and effective forms; applying information technology in propaganda to ensure taxpayers understand, agree and well implement the new policy.

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CREDIT MANAGEMENT OF THE STATE BANK, FROM THE PERSPECTIVE OF SUSTAINABLE DEVELOPMENT

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Abstract: *In theory as well as practical experience, credit growth has a certain impact on economic growth as well as other macroeconomic objectives. From the perspective of monetary policy management, bank credit is the transmission channel of the national monetary policy management tool. Therefore, controlling credit growth will affect the structural transformation and development of the economy. The credit management as well as the selection of credit management tools must also aim at sustainable development goals such as stabilizing the macro-economy, controlling inflation and ensuring safety of the system. This article will refer to the actual use of credit management tools in the period 2011-2021, the problems raised in the use of credit management tools with the requirements of sustainable development in the future of the State Bank (SBV).*

Keywords: *Credit management, State bank, Credit institutions, Credit growth control, Credit limit.*

1. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

Credit management of the state bank is a topic which interests many researchers. However, research works are often mentioned from the perspective of policy administration in general without any prism analysis of macroeconomic development. Moreover, the research works only in a short term without any continuity in the period since the world financial crisis until now.

A typical study related to this issue can be mentioned, that is the grassroots - level research topic by Tran Thi Lan et al (2016) - "Effectiveness in operating the interest rate policy of the State Bank on business activities of enterprises in Vietnam" [4]. Applying quantitative methods and using a multi-factor analysis model, the work analyzed the influence of interest rates on Return on Assets (ROA) and Return on Equity (ROE) of enterprises in the period 2011-2015, thereby evaluating the effectiveness of interest rate policy management and at the same time, making suggestions and recommendations to remove limitations in interest rate management of the State Bank.

In addition, there are a number of studies such as the article "Credit management supports economic growth recovery but is not subjective to inflation risks" by Ha Thanh on the Banking Magazine [5]; the paper "Credit is an important resource for economic growth" by D Thanh Propaganda on the implementation of Resolution 84/NQ-CP dated May 29, 2020 of the Government[2]; the article "The credit management of the State Bank is appropriate and consistent" by P.V on the Financial and Money Market Magazine [6]. These works mainly refered to the credit management of the State Bank of Vietnam in each year or at specific time.

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By collecting documents related to credit management of the State Bank from the reports of the State Bank of Vietnam and the data related to the implementation of the Macroeconomics objectives such as inflation, economic growth from the General Statistics Office, the author has used research methods such as synthesis, statistics, comparison, analysis,... to clarify reality of credit management status of the State Bank of Vietnam with the requirements of sustainable development in the period from the impact of the world financial crisis until now (2009-2021) in order to propose suitable solutions.

2. CREDIT GROWTH CONTROL − AN EFFECTIVE TOOL OF CREDIT MANAGEMENT OF THE STATE BANK

Stemming from the fact that hot credit growth has been causing unsafe consequences for the banking system's operation such as bad debt and increased liquidity risk, many commercial banks have to race to raise deposit rates to lend and cover liquidity deficits, putting the banking system at risk of potential collapse. The excessive credit growth led to double-digit inflation in 2011. The safety of the financial system, therefore, was seriously threatened. In that context, in addition to monitoring the banking system with safety criteria according to international standards, the State Bank has used a tool to control credit scale through the regulation of "credit room" since 2011. Annually, based on the situation of deposit interest rates, loan balance of the previous year, bad debt ratio and management capacity of banks, the State Bank considers granting credit lines to commercial banks at the beginning of the first quarter, and then adjusts 1-2 times to match operating objectives. After more than 11 years of operation, the "credit room" tool is considered as one of the most powerful and effective tools of credit management of the State Bank, specifically:

Controlling credit growth is coupled with the restructuring of credit capital in line with the requirements of economic restructuring, contributing to improving the investment efficiency of credit capital.

Vietnam is a country whose investment capital mainly relies on credit capital of the banking system. With credit balance to GDP at 124.3%, according to the World Bank's assessment, Vietnam has the highest ratio among countries in the world. The sources of capital supplied to the economy, including medium and long-term capital, are still mainly from the banking system, thereby increasing term risk and liquidity risk (short-term mobilization for medium and long-term loans), leading to pressure and risks on the banking system as well as the whole economy.

After using the credit limit regulation tool in 2011, credit growth was controlled. From the average credit growth of 33,8% in the period 2006-2010 (the period before the implementation of the credit limit), about 5.4 times higher than economic growth, credit growth sharply dropped to an average of 15.4% (2.61 times higher than economic growth) in the period of 2011-2015. In the next few years, from 2016 to 2020, the credit growth rate and it compared to economic growth were 14.6% and 2.44 respectively. It showed that, although credit growth tended to decrease from 2011-2019, the effect of credit capital on economic growth was quite positive. The coefficient between credit growth and economic growth rate decreased to only half compared to the previous period, except for 2 years of the impact of the covid epidemic (this ratio for 2020-2021 is 4.17 and 5.84 respectively) (*Figure 1.1).*

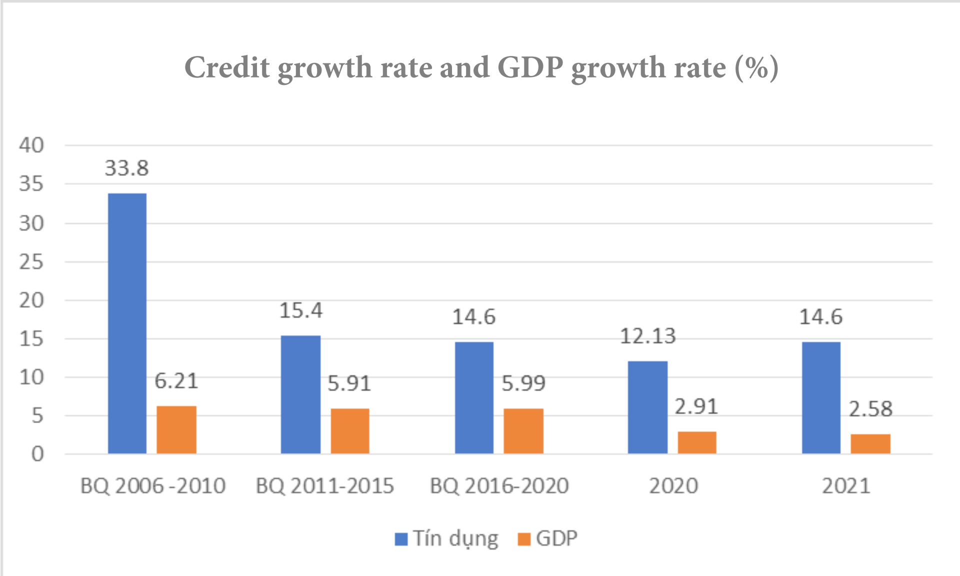

Figure 1.1. Credit growth and GDP growth (%)

Source: Compiled from the State Bank of Vietnam and the General Statistics Office [7]

Along with controlling credit growth, credit structure tended to shift in line with economic restructuring, contributing positively to economic growth. Credit focused on production and business sectors, areas which were priorities of the Government and some areas with good credit growth and higher than the general growth rate of the economy. Specifically, in the 2016-2020 period, credit for agriculture and rural areas increased by 18.17%, accounting for 24.77% of the total credit balance of the economy; small and medium enterprises increased by 16.07%, accounting for 19.79% of the total credit balance; the supporting industry sector increased by 15.31%, approximately 2.47% of the total loans of the whole economy. Export credit increased by 8.38%, accounting for 2.96% of total loans, and credit for high-tech enterprises also increased significantly. During this period, credit to potentially risky sectors was also decreasing over the years. The average outstanding loans for the period 2016-2020 in the BOT and BT sectors reached 10.18%, and it for life was 28.66%, respectively accounting for 1.18% and 20.08% of the total outstanding loans of the economy. This criteria for the period 2018-2020 in real estate sector is 20.64% and securities investment and business is 23.86%, accounting for 0.5% of the total outstanding loans of the economy [2].

Controlling credit growth contributes to improving credit quality, accelerating the process of bad debts handling in the bank's restructuring strategy.

The massive credit growth in the period before 2011 had relatively heavy consequences for many banks, and the granting of credit with loosened conditions was the cause of the high bad debt ratio. This ratio continuously increased after the period of hot credit growth, peaked in 2012 and then gradually decreased along with the decreasing trend of credit growth. The control of credit growth by the State Bank over credit institutions has contributed to preventing credit flows from moving into high-risk investment areas, encouraging credit capital into leveraged production and business sectors of the economy, thus contributing to limiting new bad debts.

Besides controlling newly arising bad debts, bad debt handling was also actively implemented at credit institutions based on the support solutions from the Government, the State Bank and relevant ministries and agencies. On average for the period 2012 - 2017, the banking system handled about 3.25 trillion VND per month. After Resolution 42/2017/QH14 was issued, the whole system of credit institutions handled 380.2 trillion VND of bad debts accumulated from August 15th, 2017 to December 31st, 2021, reaching an average of 5.67 trillion VND per month. This number was 1.7 times higher than the bad debt settlement results at the time before Resolution No. 42, contributing to decreasing the bad debt ratio of the whole system to less than 2% (except in 2020 due to the impact of the epidemic) *(Figure 1.2).*

In particular, the success in dealing with on-balance sheet bad debts by Resolution 42 was mainly through the form in which customers paid 148 trillion VND for bad debts, accounting for 38.9% of the total handled bad debts (the average rate in the period 2012-2017 was only about 22.8%), of which, in 2021, 48.3 trillion VND has been processed [1].

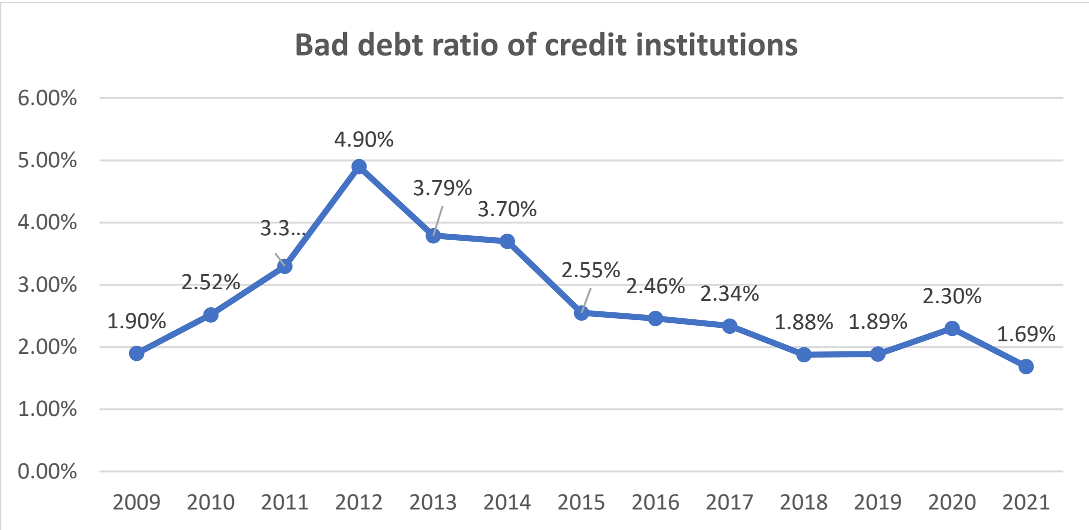

Figure 1.2. NPL ratio of credit institutions for the period 2009-2021

Source: Reports of SBV in 2009 to 2021

The management of credit growth through credit limit has contributed to ensuring financial safety for commercial banks as well as national financial security.

Over the past 11 years, the SBV's control of credit growth with strict requirements on commercial bank governance in accordance with international standards have forced commercial banks to be more careful in granting credit, not defying to run the profit only. Credit growth is controlled in accordance with the governance capacity as well as capital balance of the banks, and when bad debts are controlled in accordance with risk appetite, meeting the requirements of financial safety of credit institutions has been improved, especially in terms of capital adequacy and liquidity *(Figure 1.3).*

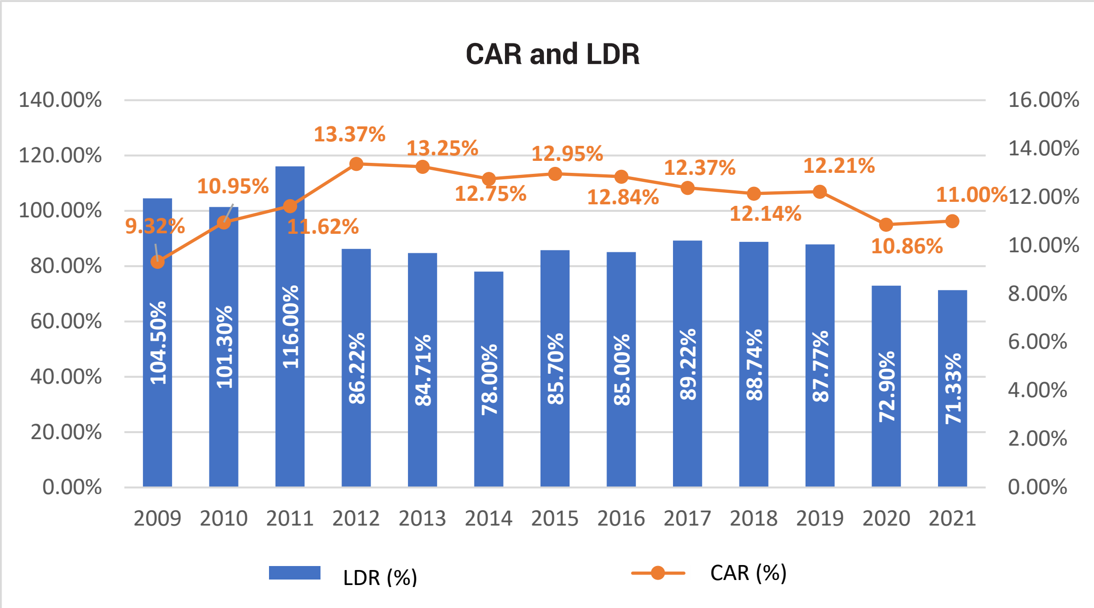

Figure 1.3. Capital adequacy ratio and credit balance to mobilized capital of credit institutions in the period 2009-2021

Source: Reports of SBV in 2009-2021

Controlling credit growth has contributed to controlling inflation and *stabilizing the macro-economy.*

Since 2011, the control of credit growth by credit institutions has contributed to bringing the inflation rate from a double-digit rate in 2010-2011 to a single-digit level in the 2012-2021 period. Inflation continuously decreased and reached the annual target of the National Assembly, even in the context of increasing inflationary pressure from monetary easing solutions and budget spending to combat the economic slowdown caused by the Covid-19 epidemic. Inflation has been under control creating a solid foundation for more positive and sustainable economic growth in the past period. Even in the context of being affected by the Covid-19 pandemic, economic growth of Vietnam is still in the top positive compared to many countries in the world (Figure 1.4).

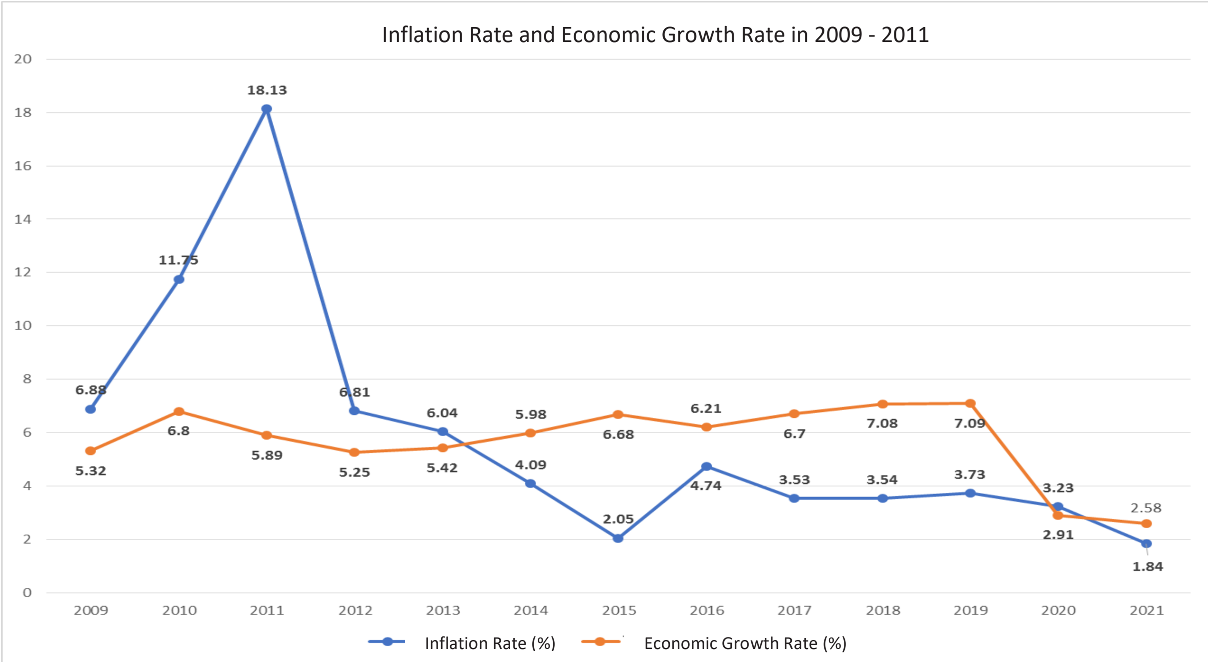

Figure 1.4. Inflation index and economic growth rate for the period 2009-2021 (%)

Source: Annoucements of GSO in 2009-2021

3. PROBLEMS IN CREDIT MANAGEMENT TODAY

According to the above analysis, the credit limit is considered a necessary tool of credit management over more than a decade. However, the management of credit growth through this tool has revealed some disadvantages.

From the perspective of management experience in many countries around the world, the use of credit room is not suitable with the operating characteristics of the market economy. Because the demand for credit capital in the open economy is often fluctuating, it is difficult to accurately determine an appropriate growth limit for the economy in each period. Adjusting the credit limit to match the movement of the economy will reduce the discipline in policy management of the central bank.

On the other hand, the use of the credit growth limit to achieve macroeconomic objectives is highly dependent on the capital absorptive capacity of the economy, not to mention the conflicts in credit management objectives implementation.

From the perspective of credit institutions which are affecting by operating tools, the credit growth restriction mechanism is still an administrative, imposed and inactive measure, specially for annual operation planning. Businesses themselves are also faced with difficulties in making annual financial and operational plans. This is clearly shown in the expectation of room expansion of many commercial banks as well as enterprises over the years, especially when the economy recovers and the demand for credit capital after the pendamic Covid-19 increases in 2022.

4. CREDIT MANAGEMENT ORIENTATION IN THE NEAR FUTURE

From the problems raised in credit management in the past time, in order to ensure sustainable development requirements, the orientation of credit management in the future would be:

Firstly, for the viewpoint of credit management

The credit management as well as the use of credit management tools must closely follow the reality, not promote credit growth to stimulate economic growth at all costs. Credit management need to guaranty macroeconomic stability, inflation control as well as operational safety of the credit institution system.

Secondly, for the use of credit management tools

Credit management can be through administrative tools such as credit growth control or management tools, which base on international standards such as compliance with operational safety limits or depending on the actual conditions of spreading the effect of operating tools, as well as urgent requirements in controlling credit growth. However, for long-term strategy, the operating tools following the market mechanism and basing on the standards international practice will be the chosen instrument. This is both consistent with the operation of the market mechanism and express the respectation of the autonomy in business activities of credit institutions.

Thirdly, for the implementation roadmap

In the current situation, there are two reasons why the SBV should continue to administer credit through the credit growth control tool along with monitoring over safety limits according to international standards.

The first, when the financial capacity of the commercial banks is still limited, especially the main source of income is still from credit activities, it is necessary to control the credit growth of the banking system, to avoid the expansion of credit beyond the management capacity and requirements to ensure the safety of operations of credit institutions, especially bad debts at credit institutions tend to increase due to the impact of the Covid-19 pandemic.

The second, inflationary pressure is increasing in the world as well as in Vietnam, so credit growth control is a very important issue. When the economy shows signs of recovery after the pandemic, the expansion of credit will put pressure on inflation, especially in the context that many strong currencies in the world are showing signs of depreciating. Therefore, along with controlling credit growth with operational safety limits, credit growth limit tools still needs to be applied.

According to the forecasts of economic experts on the world and Vietnamese economy, inflation will be gradually controlled in the last months of 2022 and in 2023. At the same time, the process of applying basel 2 in Vietnam shows that the deadline for credit institutions to meet the minimum capital adequacy ratio is on January 1, 2023 is. If the process are as forecast, the use of the credit room tool may be maintained until the end of 2023, then this tool should also be considered by the SBV to be removed for credit management in line with the market mechanism, increasing the initiative and competitiveness of credit institutions. Credit growth controlled through operational safety limits such as minimum capital adequacy ratio (CAR), credit balance/credit ratio/ mobilized capital (LDR)...is completely feasible. The State Bank still has powerful tools in macroeconomic management such as rediscount interest rates, required reserves and especially open market tools.

CONCLUSION

It is necessary and reasonable with actual conditions and context for credit institutions to operate the credit room tool along with the management tools based on international practices. However, if the post-pandemic consequences are basically well controlled, as well as the fact that credit institutions have simultaneously met the governance requirements under Basel 2, the SBV should consider using management tools according to international standards instead of controlling credit growth through the credit room in the near future.

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FINANCIAL POLICIES PROMOTE THE PRIVATE ECONOMY DIGITAL TRANSFORMATION

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Abstract: *Currently, out of nearly 1 million businesses across the country, up to 96.8% are private enterprises[2]. In which, the number of small and micro enterprises accounts for a large proportion (small enterprises account for about 27%; micro-enterprises account for about 67%[3]). Due to their small and super small scale, businesses face many difficulties in digital transformation, lack of capital to invest in modern machinery, equipment and technology; lack of management experience, and disadvantages in competition. Therefore, small and medium-sized enterprises need encouragement and support from government policies. The article refers to the current situation of financial policies to support and promote the digital transformation of small and medium-sized enterprises to present some problems that need to be overcome shortly soon.*

Keywords: *Financial policy, small and medium enterprises, digital transformation.*

1. INTRODUCTION

Digital transformation is the integration of digital technologies into all areas of a business, leveraging technologies to fundamentally change the way it operates, and its business model, and delivering new values. For its customers as well as speeding up business operations. While Small and Medium Enterprises are enterprises with small scale in terms of capital, labour or revenue. According to Article 4 of the Law on Supporting Small and Medium Enterprises, the following criteria are set forth: Small and medium-sized enterprises include micro enterprises, small enterprises and medium-sized enterprises with the number of employees participating in social insurance. An average of not more than 200 people per year and meet one of the following two criteria: (i) Total capital is not more than VND 100 billion; (ii) Total revenue of the preceding year is not more than VND 300 billion; Micro-enterprises, small enterprises and medium-sized enterprises are defined by the fields of agriculture, forestry and fishery; Industry and construction; Trade and services.

In Decision No. 749/QD-TTg dated June 3, 2020, the Prime Minister approved the "National digital transformation program to 2025, with orientation to 2030", according to which, for several solutions development of the digital economy, the program emphasizes the *promotion of the development of the digital economy with a focus on developing digital technology enterprises, etc.; Promote digital transformation in enterprises to improve the competitiveness of enterprises and the whole economy*. In which, Develop 04 types of digital technology enterprises, including: i) Large corporations,

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[2] Enterprises with foreign direct investment accounted for 2.8%; and state-owned enterprises account for 0.4% of total operating enterprises.

[3] According to the Vietnam Business White Book 2021.

commercial and service enterprises in the socio-economic fields shift their activities to the field of digital technology, invest in core technology research; ii) Information technology enterprises have affirmed their brands to take on the pioneering missions of research, development, mastering digital technology and taking initiative in production; iii) Start-ups applying digital technology to create new products and services in socio-economic sectors and fields; iv) Innovative and creative start-ups in digital technology. In particular, Innovative start-up business established to implement ideas on the basis of exploiting intellectual property, technology, new business models and capable of rapid growth[4].

Today, SMEs play a huge role in the economic growth of many countries, reflected in their expanding scope of activities and coverage in many industries and sectors of the economy: industrial production, construction, trade, service, etc. to meet the increasingly diverse of consumers. Therefore, digital transformation in SMEs is very necessary, creating a driving force to promote the comprehensive development of the economy.

2. CURRENT STATUS OF POLICIES TO SUPPORT SMALL AND MEDIUM ENTERPRISES IN DIGITAL TRANSFORMATION

Over the past time, the Party and State have had many guidelines and policies to support businesses in digital transformation, especially SMEs. Vietnam is considered one of the pioneer countries in the world in promulgating national digital transformation programs and strategies. In addition, SMEs are also particularly interested in development when they receive financial support for digital transformation from the state budget[5]. These include: Resolution No. 41/NQ-CP on tax incentives to promote the development and application of IT in Vietnam; Decision No. 844/QD-TTg of the Prime Minister approving the Project "Supporting the national innovative startup ecosystem until 2025"; Law on Supporting Small and Medium Enterprises; Law on Technology Transfer; Decision No. 749/QD-TTg dated June 3, 2020, approving the national digital transformation program to 2025, with orientation to 2030; Decision No. 411/QD-TTg dated March 31, 2022, of the Prime Minister approving the National Strategy on development of the digital economy and digital society to 2025, with orientation to 2030; including policies related to state budget spending; support tax incentives; support access to credit; technology support; support market expansion; informational, advisory and legal support; supporting human resource development, etc. has contributed significantly to promoting digital transformation of businesses, specifically:

About tax policy

In Decision No. 749/QD-TTg dated June 3, 2020 of the Prime Minister, aiming at the goals of developing digital government, digital economy, digital society, and forming Vietnamese digital technology enterprises has good capacity to integrate with the world. To achieve that goal, the program also offers several tasks and solutions to creating a foundation for digital transformation, including the *study of specific policies and regulations on taxes and fees to encourage people, and businesses to use and provide digital services*. The purpose of tax incentives is to help businesses

[4] Clause 2, Article 3 of the Law on Supporting SMEs 2017.

[5] From October 2021.

improve their accumulation capacity and promote investment in science and technology and digital transformation.

Regarding corporate income tax incentives: According to Clause 1, Article 10 of the Law on Supporting SMEs 2017: "*1. Small and medium-sized enterprises are eligible to apply for a limited time at the corporate income tax rate lower than the normal tax rate applicable to enterprises following the law on corporate income tax*". These are general incentives for SMEs, with specific incentives for innovative start-ups that will apply according to the incentives of the corporate income tax law based on business lines, revenue as well as the area of operation to enjoy incentives, are detailed in Clause 1, Article 13 of the Law on Corporate Income Tax[6], creative start-up enterprises can apply the preferential tax rate of 10% for a while. The 15-year term applies to income derived from technology such as Scientific research and technological development; High-tech applications on the list of high technologies prioritized for development investment under the Law on High Technology; High-tech incubation, high-tech enterprise incubation; Venture investment for a high-tech development on the list of high technologies prioritized for development under the law on high technology; Investment in construction – the business of high-tech incubators, high-tech enterprise incubation; Producing software products.

Regarding incentives on corporate income tax exemption and reduction: creative start-up enterprises can also enjoy 4 years of tax exemption, a 50% reduction of payable tax for the next 9 years for this income[7]. Tax exemption and reduction are calculated continuously from the first year of having taxable income from new investment projects entitled to tax incentives, in case there is no taxable income for the first three years, from the first year of business income from new investment projects, the tax exemption or reduction period is counted from the fourth year.

In addition, in Clause 3, Article 18 of the Law on Supporting Small and Medium Enterprises 2017, investors for creative start-up enterprises are entitled to exemption from and reduction of corporate income tax for a definite term on income from investments into creative start-up enterprises according to the provisions of the law on corporate income tax.

In general, the tax policy for enterprises operating in the field of science and technology has many preferential provisions at a high level in the preferential framework of tax law.

About the state budget spending

The Law on Supporting Small and Medium-sized Enterprises has detailed regulations on supporting start-up businesses in fields such as technology transfer, training, trade promotion, investment, etc. In Decree No. 80/2021/ND-CP detailing and guiding the implementation of several articles of the Law on Supporting Small and Medium Enterprises, enterprises will be supported up to 50% of the cost for enterprises to rent and purchase digital transformation solutions but not more than 20 million VND/year for micro-enterprises; no more than 50 million VND/year for small enterprises and not more than 100 million VND/year for medium enterprises.

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[6] 2008 (amended and supplemented in 2013, 2014).

[7] Clause 1, Article 14 of the Law on Corporate Income Tax 2008 (amended and supplemented in 2013, 2014). According to Clause 3, Article 14 of the Law on Corporate Income Tax 2008 (amended and supplemented in 2013, 2014).

In addition, the Ministry of Planning and Investment is also promoting the implementation of the Program to support businesses in digital transformation in the 2021-2025 period. Accordingly, in 2022 the program focuses on 3 main packages. The first package is to support the start of digital transformation for small-scale businesses, businesses that start the digital transformation, the state budget spends a part of the budget from 20 to 50 million VND/year; The second package is to accelerate digital transformation for growing businesses, supporting no more than 100 million VND/year for medium enterprises; The third package is to support businesses in the digital transformation towards export markets, supporting up to 50% of the funding for creating and maintaining accounts on cross-border e-commerce platforms.

In addition, the state budget expenditure policy has also adopted several support programs such as: building the website of the Program to support the publication of digital transformation manuals; training more than 200 businesses and 6,500 students; regulations on technological support are integrated into science and technology development programs and projects, etc. Accordingly, the state budget expenditure for science and technology in the 2016-2021 period is higher than in other periods previous paragraph.

Credit policy

Credit guarantee funds are specified in Article 2 of Decree 34/2018/ND-CP. Accordingly, Credit Guarantee Fund is an off-budget state financial fund established by the People's Committees of provinces and centrally run cities, operating for non-profit purposes, preserving and developing capital; perform the function of granting credit guarantees to small and medium-sized enterprises under relevant laws. Over the past time, credit guarantee activities at Credit Guarantee Funds have had some positive results such as: Creating favourable conditions for businesses to access loans from credit institutions, the number of SMEs guaranteed to borrow capital from credit institutions, increasing year by year, and many businesses have access to loans through guarantee activities, which has contributed to improving the financial capacity of supporting businesses better in digital conversion.

Up to now, there are 29 SME Credit Guarantee Funds established in the locality participating in guaranteeing SME loans at commercial banks (currently 26 funds are in operation, and 03 funds have been disbursed with a total charter capital of nearly VND 1,500 billion, of which nearly VND 1,300 billion is budget capital. Cumulative guarantee sales of Credit Guarantee Funds are estimated at over VND 4,300 billion. The guaranteed credit balance of the Credit Guarantee Fund of localities increased from VND 411 billion in 2016 to VND 648 billion in 2017, then decreased to VND 228 billion in 2019. As of the end of April 2022, the total outstanding loans reached about VND 250 billion, and the replacement amount was estimated at VND 36 billion (currently only 2 banks have outstanding loans, namely the Bank for Agriculture and Rural Development of Vietnam and Bank for Foreign Trade of Vietnam), an increase of 33 % compared to December 2021 (Ha Thu Giang, 2022).

The SME Development Fund regulated in Decree No. 39/2019/ND-CP of the Government, is an off-budget state financial fund, operating not for profit. The Fund operates under the model of a one-member limited liability company in which 100% of charter capital is held by the State. The minimum charter capital of the Fund is VND 2,000 billion. The Fund provides loans and grants for innovative SMEs, SMEs participating in industry clusters, and value chains, and receiving and managing loans, grants and contributions and trusts of organizations and individuals to support SMEs.

Recently, The Ministry of Planning and Investment coordinated with the United States Agency for International Development (USAID) through the Project "Promoting reform and enhancing connectivity of small and medium-sized enterprises" (LinkSME) to implement the Program to support businesses in digital transformation in the period of 2021-2025. Accordingly, the Fund provides support to SMEs through indirect lending activities, supported objects include innovative start-up SMEs, SMEs participating in industry clusters, and The value chain For production and business projects, the maximum loan period is not more than 7 years, and the grace period for a project (medium and long-term loans) is maximum 2 years. Interest rates for short-term loans are 2.16%/year, and medium-term and long-term loans are 4%/year.

The National Technology Innovation Foundation (NATIF) is an off-budget state financial fund under the Ministry of Science and Technology, operating not for profit, and performing the function of preferential lending, loan interest support, loan guarantee and capital support (collectively referred to as financial support) for businesses, organizations and individuals to conduct research, application, transfer, innovation and completion technology improvement. According to Decree No. 13/ 2019 /ND-CP dated February 1, 2019, businesses with assets used as collateral under the law or enterprises with feasible projects are eligible for the National Technology Innovation Fund provide loans with preferential interest rates, provide loan guarantees at commercial banks or support up to 50% loan interest rates at commercial banks making loans.

In addition, the State has policies to support small and medium-sized enterprises in researching, innovating technology, receiving, improving, perfecting and mastering technology through research, training, consulting activities, search, decoding and transfer of technology; establishment, exploitation, management, protection and development of intellectual property of the enterprise. At the same time, to support SMEs to have information about a suitable digital platform to develop production and business, the Minister of Information and Communications has approved the Small and Medium Enterprise Support Program number change in Decision No. 377/QD-BTTTT dated March 26, 2021, to introduce SMEs to use excellent digital platforms selected by the Program.

3. THE CURRENT SITUATION OF DIGITAL TRANSFORMATION OF VIETNAMESE ENTERPRISES

From 2020 to now, it can be said that this is a period of challenges and opportunities for Vietnamese businesses to enter the path of digital transformation in the context of the Covid-19 epidemic. In 2020, more than 92% of businesses have been interested in or even applied digital transformation in business activities. For the SME sector, the reality of innovation and science and technology is not yet qualified for digital transformation, 92% of SMEs have no understanding of digital transformation, and 72% do not know where to start[8].

[8] Vinasa. 2020 Vietnam Digital Transformation Day.

Entering 2021, there have been significant advances, most businesses have applied software and solutions for multi-channel management, online sales, and distribution channel management, resulting in About 100,000 stores in Vietnam using KiotViet software for sales activities and sales channel management, the number is similar to Sapo as well as other supporting software such as Harvan, Quick; Hundreds of thousands of businesses are directly doing business on e-commerce platforms such as Lazada, Shopee; 20% of advertising in Vietnam is being spent on digital marketing channels (Digital Marketing) including Facebook, Google, Tiktok; 60% of businesses are using accounting software, of which 200,000 are using Misa software; Over 200,000 businesses are using electronic invoice software; Most businesses have digital signatures[9], etc.

As of June 2022, the number of digital technology enterprises in Vietnam is estimated at 67,300 enterprises, an increase of nearly 3,500 enterprises compared to December 2021, reaching the rate of 0.69 enterprises per 1,000 people; The program to support small and medium-sized enterprises in digital transformation using Vietnamese digital platforms has reached 318,064 businesses, an increase of nearly 10 times compared to 2021; 47,564 businesses have used the SMEdx digital platform, an increase of nearly 3 times compared to 2021; The rate of enterprises paying taxes electronically reaches 99%; the percentage of active enterprises using e-invoices is 100%. However, the proportion of small and medium-sized enterprises using digital platforms accounts for only 6% while the target set for the whole of 2022 is 30%10. In general, businesses are gradually implementing digital transformation, but the level is still low and uneven.

4. PROBLEMS RAISED

From the side of SMEs

Vietnamese businesses in general, and SMEs in particular, are facing certain challenges in digital transformation, including:

(i) financial difficulties (investment costs for digital transformation); The digital transformation process is often time-consuming and costly when going through stages such as digitization, digital application, digital transformation, etc.

(ii) difficulties in changing organizational culture (business habits, lack of commitment from leaders, lack of flexibility in traditional thinking, fear of change, lack of commitment from employees); not properly aware of the role of digital transformation, not actively accessing technology, difficult to change the business organization model to meet technology trends;

(iii) difficulties in deploying human resources (lack of internal human resources, lack of infrastructure, lack of information and digital technology); Difficulty in management level;

(iv) difficulties in digital transformation solutions (lack of a clear digital transformation roadmap, leakage of confidential information).

[9] https://digital.fpt.com.vn/tu-van/thuc-trang-chuyen-doi-so.html

[10] Ministry of Information and Communications- Preliminary report on digital transformation in the first 6 months of 2022

According to a survey by VCCI of over 1,500 businesses, over 60% of businesses face difficulties in investment costs and digital technology application; nearly 53% of enterprises face difficulties in changing business habits and practices and a lack of internal human resources to apply digital technology; 45.4% of enterprises lack digital infrastructure; 40.4% lack of information about digital technology; 39% have difficulty integrating digital technology solutions; 32% and 26.6% lack commitment and understanding of the leadership, business management and employees (Vũ Khuê, 2022).

From the side of government policy

About tax policy

For corporate income tax incentives, currently, the law on corporate income tax has not yet concretized regulations on preferential tax rates for creative start-up enterprises. In addition, the law now stipulates exemption and reduction for corporate income tax for investors who are organizations and enterprises investing in creative start-ups. However, in reality, the number of individual investors often accounts for the majority of the investment in creative start-up enterprises, while the law has not yet provided for the exemption or reduction of personal income tax for the enterprises. This individual investor encourages investment, and business development creative start-up, capital needs large capital to develop.

About the state budget spending

In general, support programs have only been implemented on a narrow, small scale, mainly at the local level in Hanoi and Ho Chi Minh City. For other localities, due to difficulties in balancing the budget, the source cannot be guaranteed to implement policies for businesses. In addition, investment spending on science and technology is still inefficient, preferential policies of the state only focus on organizing activities to promote technology transfer without direct support for businesses in building brands, promoting products, registering for protection of intellectual property rights, etc.

About credit policy

For credit guarantee funds

In general, the Funds have not been effective, have not improved the accessibility to the capital of SMEs and promoted the digital transformation process because of the following reasons: (1) The size of the Credit Guarantee Funds is small; the financial capacity of the Credit Guarantee Fund in the localities is still limited because many provinces have relatively limited budgets, so capital contribution faces many difficulties; (2) The operating capital is not diversified, it depends mainly on the state budget; (3) The Fund's operating income is low, mainly from deposits in banks to cover the Fund's regular operations; (4) The guaranteed conditions and related procedures are still complicated and complicated, especially the regulations on collateral and capital preservation; (5) Management capacity of funds is still limited, members of the management board at some funds are also mostly part-time leads to low performance.

For the SME Development Fund: the identification of innovative small and medium-sized enterprises and participation in industry clusters and value chains has faced many obstacles in the past time, making it difficult to set standards specific criteria, suitable to the characteristics and support needs of each field or each locality. Therefore, the number of SMEs eligible for loans with preferential interest rates from the Fund is still very limited.

The National Fund for Technological Innovation is the main resource in the implementation of preferential credit policies for science, technology and innovation activities, but the Fund's credit policy has not been implemented yet reality. Up to now, the fund has not had independent financial capacity, and annually still uses a part of the funding allocated by the State Budget to supplement its charter capital to spend on regular activities.

5. SOME RECOMMENDATIONS

Firstly, in terms of tax policy, it is necessary to develop preferential policies for tax exemption, reduction, and fees to promote digital transformation enterprises digital tools/with revenue from e-commerce; or enterprises in key economic sectors and fields to create a driving force for business digital transformation. Focus on developing and implementing preferential policies on taxes and fees to encourage people and businesses to use and provide digital services.

Second, for the state budget expenditure policies, the State still plays a key role, in mobilizing all social resources to jointly promote the digital transformation in Vietnam. However, due to great demand and limited resources, the investment cannot be spread, it is necessary to support the right audience and meet the practical requirements of each business. Applying the policy according to each target group will promote the right, and hit the target audience. To do so, it is necessary to research policies to promote digital transformation for different groups of businesses based on the criteria of size, industry, development stage. Given the characteristics of Vietnam's economy, In the SME sector, micro-enterprises must be strongly supported and facilitated to promote effective digital transformation.

Third, in terms of credit policy, it is necessary to create a favourable legal corridor for businesses to access credit sources, and preferential loan policies for businesses, especially SMEs conditions for technological innovation, and to be equipped with new and modern technologies to carry out digital transformation. Through loan support programs with preferential interest rates for businesses to have funds and opportunities for digital transformation, investment in infrastructure, equipment, machinery, management software and investment in human resources, etc. Evaluate the effectiveness of the SME Development Funds, the Credit Guarantee Fund, the National Technology Innovation Fund and the State's support programs on science and technology, to create favourable conditions for enterprises to access and effectively use the support capital from the State Budget. Promote credit guarantee activities for SMEs undergoing digital transformation, in the direction of increasing the guaranteed rate of each loan, reducing or waiving guarantee costs, and simplifying guarantee procedures, extending the guarantee period, expanding the scope and subject of the credit guarantee. At the same time, consider the Credit Guarantee Fund for SMBs and Medium-sized Enterprises providing unsecured guarantees to promote access to credit capital guaranteed by the Fund; and it is necessary to review the conditions for enterprises to be guaranteed in a way that is simpler than the conditions for borrowing loans from banks, coordinate with banks to strengthen the appraisal of the effectiveness of loan projects, strengthen inspection after granting loans, guaranteeing loans to enterprises, ensuring that businesses guaranteed loans will repay the loan principal and interest in full and on time to the bank.

Fourth, some other recommendations such as diversifying capital sources to support digital transformation, and mobilizing capital from banks, it is necessary to have the connection of support centers for digital transformation, and customs clearance to build digital transformation develop incentive policies to promote stronger cooperation between Support Centers for digital, technology, digital and banks (or other financial investors) to improve financial access of SMEs for digital transformation.

Fifth, in terms of improving the business environment, completing the legal framework of the State and the Government, creating and paving the way for enterprises to innovate and limit legal risks, creating favourable conditions for enterprises digital transformation industry. Accelerating the process of building a digital transformation ecosystem, in which the Government plays the role of a bridge to promote e-government and e-services for businesses.

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THE ROLE OF FUND MANAGEMENT COMPANY IN THE SUSTAINABLE DEVELOPMENT OF THE STOCK MARKET

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Abstract: *This article aims to analyze the role of fund management companies in the sustainable development of the stock market. By using qualitative research method (discussion and interviewing experts in those banks) and quantitative research method (multiple linear regression method), the author has identified four the role of the fund management company includes (1) Role with the economy in general; (2) role with the stock market; (3) role with investors; and (4) role with the business. Based on the research results and the current situation of the stock market, the article has pointed out 5 roles of fund management companies for the sustainable development of Vietnam's stock market.*

Keywords: *Fund management company, sustainable development, stock market.*

1. INTRODUCTION

The first fund management company (Vietnam Fund Management Company – VFM) in Vietnam was founded in 2003 with the main activities including fund management and portfolio management. Initially, fund management activities were only carried out with models of a closed-end and member fund, which are pretty simply operated, so newly established fund management companies can easily access and utilize them. However, the first 06 closed-end securities investment funds (VFMVF1, VFMVF2, VFMVF4, PruBF1, MAFPF1, ACBGF) listed on Vietnam's market in the period 2004-2010 for the first time were widely acknowledged and participated by a large number of investors.

Vietnam's economy, in general, and Vietnam's stock market, in particular, are in solid international integration. The field of fund management is no exception. After 22 years of development, the area of fund management has the participation of 47 fund management companies. The fierce competition between domestic and foreign fund management companies and financial intermediaries participating in the market leads to an urgent requirement for each company to improve operational efficiency for survival and development.

In 2011-2021, the legal framework for the operation of fund management companies and investment funds continued to be supplemented with new fund models (open-ended funds, ETFs, real estate funds), which marked the strong development of Vietnam's fund management. Significantly the appearance of open-ended funds and ETFs can be considered a turning point in the development of stock investment fund management. Their growth in the world in general and Vietnam, in particular, has shown that open-ended funds account for the majority of investment funds in the market. Open-ended funds are also fundamental for designing fund models that link the stock market with other markets, such as insurance and government bonds. During this period, stock

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investment funds in Vietnam were fostered by fund management companies, and the number of funds increased nearly three times, from 23 funds in 2011 to 62 funds at the end of 2021.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

2.1. International literature review

There are many research papers on fund management companies in the world, such as:

The concept of fund management was introduced by Ray Russel in 2011 with a full range of basic concepts about the operation of a fund management company and methods to measure the performance of a fund management company. Many researchers have also researched various aspects and models of fund management companies worldwide. In detail, Michael K. Berkowitz assessed investors' risk in fund investment in 2000, and Qiu studied the differences between the technologies used in the fund management companies. The investment performance of different mutual funds, hedge funds, or index funds was also compared in 2011 by Robert Pozen and Theresa Hamacher. Exclusively for bond funds, Christopher R. Blake, Edwin J. Elton, and Martin J. Gruber have shown an inverse relationship between management costs and the return on investment of bond funds. In 2001, Melissa B. Frey proved that the investment strategies of the bank's fund management companies could be more conservative than those of other fund management companies, but they are not less effective. Also, researching commercial bank fund management companies, John G. Gallo, Vincent P. Apilado, and James W. Kolari, have shown that: mutual funds increase the efficiency of commercial banks and reduce the risk of banks. Thanks to this positive influence, in 1996, commercial banks continuously opened up backyard financial companies to reduce risks and increase banks' operational efficiency. Huang Li, 2010, made conclusions on how to improve the competitiveness of China banks' fund management companies. Cheong Sing Tng 2006 evaluated the relationship between the performance of the fund management company and the following factors: risk, cost, fund size, and type of fund management company (affiliated to a bank or not) in Singapore.

Regarding the performance evaluation model of fund management companies, the fund's net asset value (NAV) was first introduced in the US in the Investment Company Act of 1940. A model that assessed investment portfolios was announced by HM Markowitz in 1955. In investment decision-making, he applies mathematics and computer methods to solve practical problems, such as uncertainty. Markowitz tried to quantify risk, but the research took off when William Sharpe developed the CAPM model in 1964. He pointed out that past data is not a reliable predictor to predict investment performance in the future.

2.2. National literature review

In Vietnam, up to now, there are relatively many scientific studies on business performance, mainly securities companies or risk management, such as the doctoral thesis of Nguyen Duc Tu in 2012 and the doctoral dissertation of Hoang Xuan Phong in 2014. However, the research work on fund management companies is still minimal. Taking the theory as the foundation for training in finance in general and fund management in particular, National Economics University (1993) edited and published the book "Currency, banking and financial markets major" by Frederic S. Mishkin and

Textbook of Fund Management (translated from the textbook "Portfolio Management: a Dynamic Process" by Maginn, JL, Tuttle, DL, Pinto, JE and McLeavey, DW 2007). In addition, Master Chau Thien Truc Quynh studied the operation of investment funds in Vietnam in 2006, Master Nguyen Thi Chien studied the Bao Viet fund management company in 2011, and Nguyen Minh Duc researched the investment fund management company model applied to state corporations. Nguyen Xuan Thanh used the fund management company model in the investment activities of Baoviet Financial and Insurance Group in 2005. Research on improving the efficiency of portfolio management in Vietnam's stock market was carried out by Master Tran Van Chuong in 2015 and Doctor Tran Van Tri; in 2015.

Those national and international researches have provided the theoretical background on the operation of fund management companies and their performance in the world and Vietnam. However, analyzing the role of fund management companies along with the sustainable development of the stock market in the context of the Covid-19 pandemic in a fast and sustainable way presents many new challenges against the goal of sustainable development of the stock market.

3. METHODOLOGY AND PROPOSED MODEL

Research scope: the role of fund management companies

Research method: The topic uses statistical and descriptive analysis methods when evaluating the role of fund management companies with the sustainable development of the stock market.

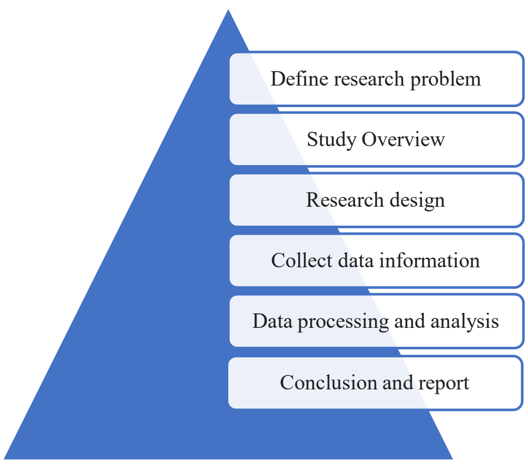
Statistical methods: Through reports, statistics, aggregate data...

Methods of document research: Read and refer to books, articles, published reports, the internet, doctoral theses, related research works that have been published.

Methods of analysis, comparison, comparison, synthesis: Synthetic analysis of data over time (period from 2010 to 2021). Along with the collection of information, data and documents through the research process (books, newspapers, dissertations, websites, ...) to conduct comparative analysis and then make comments. own opinion on the topic.

Information collection method: Secondary information: Documents, reports to the role of the fund management company

Research process



4. RESEARCH RESULTS

4.1. Theory of the fund management company

4.1.1. Definition of the fund management company

A fund management company is an intermediary financial organization that establishes and manages the public's medium and long-term investment funds. The investment company has an investment consultant or manager to decide which securities should be added to the Fund's portfolio. In Vietnam, fund management companies are regulated by the State Securities Commission of Vietnam.

Generally, the understanding of fund management companies specified in the Law on Securities No. 70/2006/QH11 is quite similar to the general knowledge of the world. Accordingly, an investment fund management company is a type of organization with the function of providing securities investment fund management services and securities investment trust portfolios to investors in the market. Under the management of the Fund Management Company, through the Investment Fund, the investment capital of individuals and organizations is effectively rotated according to the following model:

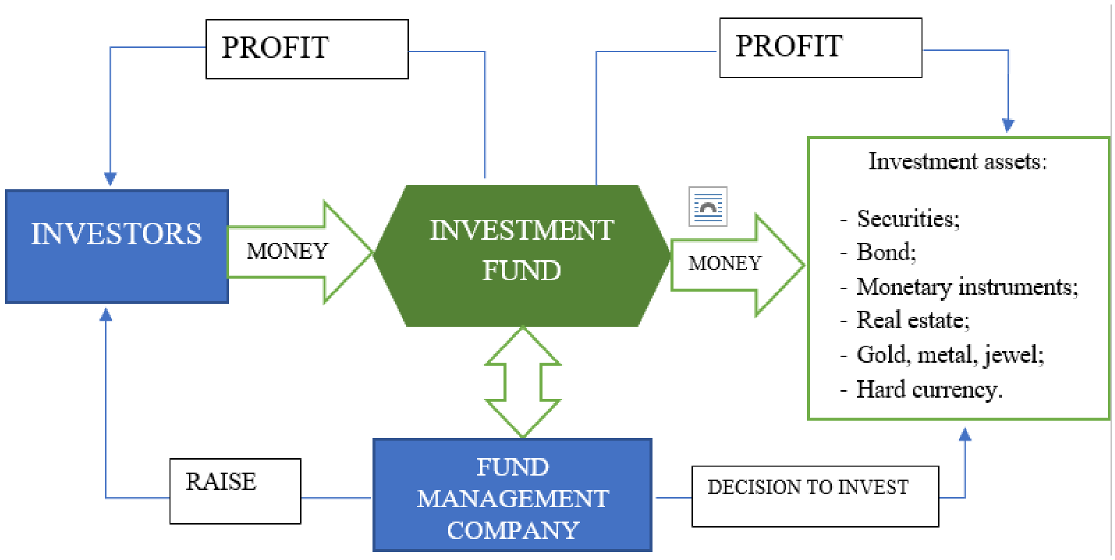


Figure 1.1. Capital flow chart of investment funds

The investment activity quality of the fund management company has an important influence on the fund performance concerning the set investment objectives. Fund management companies, therefore, will receive management fees and bonuses to encourage efforts if the results are above expectations. Different types of funds have other management fee structures and different organizing structures.

Thus, the fund management company, through investment funds, has oriented idle capital flows to places where capital is needed; furthermore, it also optimizes investment efficiency and improves the profitability of capital.

4.1.2. Organizational model of the fund management company

The organizational model of fund management companies is the same as that of other financial institutions, divided into business departments (front office), risk management department (middle office), and operating department (back office).

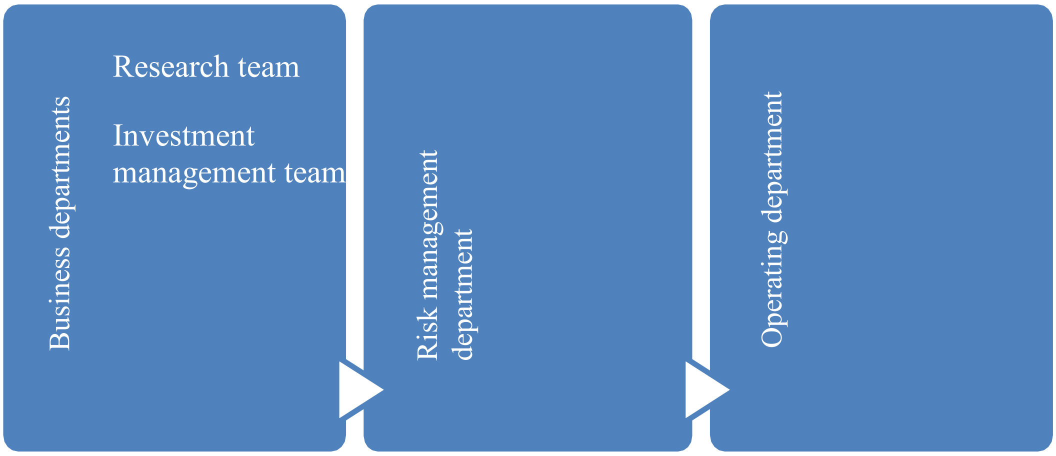


Figure 1.2. Organizational model of the fund management company

Nguồn: https://nhandan.vn

In terms of product lines, the fund management company can divide its activities into two main product lines: Fixed income products and equity securities products.

The business department can be divided into professional teams such as investment team, investment management team, and research team.... and can be organized according to the two main product lines above to facilitate customer service.

The risk management department updates the investment status for each product, currency, and risk type for each investment staff and each transaction group. This department can be divided into the capital management team, cost management team, and risk management team. The risk management team is divided into risk types: credit risk, market risk, liquidity risk, and operational risk.

The operating department usually includes the finance division, the legal consulting division, the compliance division, the control division, and the information technology, division.

The interactions among divisions within the fund management company for an investment transaction are depicted in the diagram below:

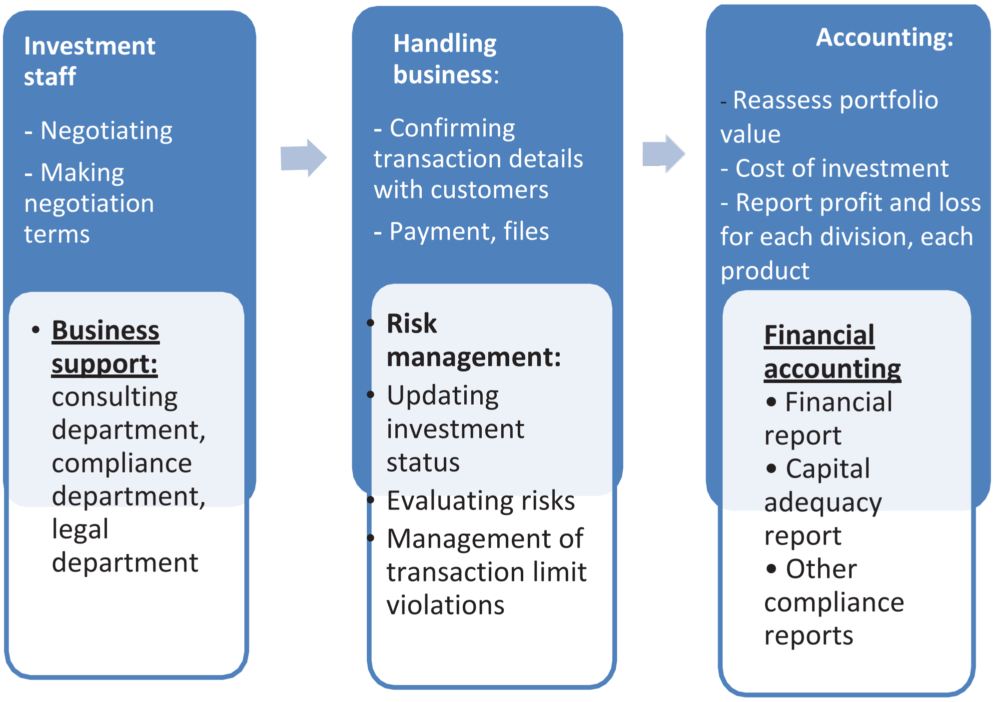


Figure 1.3. Interactions among divisions for an investment transaction

4.2. The role of the fund management company

4.2.1. The role of investment fund management company

An investment fund as an intermediary financial organization aims at carrying out capital mobilization activities and, at the same time, investing that capital back into the national economy through the form of indirect investment in types of securities circulating on the Stock Exchange. The operation of fund management companies and investment funds provides the market with a safe and effective method of using people's idle money besides traditional forms of investment such as bank deposits, investing in real estate, gold, foreign currency, or investing in securities themselves…

a. Influence on the economy in general

Along with the development of the stock market, investment funds contribute to diversifying the financial instruments of the capital market.

Investment funds are significant investors in the capital market in general and the stock market in particular, making positive contributions to the development of the economy by attracting domestic and foreign idle capital to supply to businesses in need through direct or indirect investment by trading on the stock market.

Fund management companies also help improve the level of governance and competitiveness of capital-receiving enterprises, creating dynamism and flexibility for businesses and ensuring attractiveness from outside the national economy.

b. Influence on the stock market

A stock market is where capital sources are brought together for trading, and the Investment Fund is a highly concentrated source of capital to invest in the stock market. Besides, having more securities investment funds participating in the market will create a diversity of participating partners, increasing orientation for investment decisions in the stock market.

Investment funds typically make long-term investments, traditional securities trading. This contributes to the stability of the stock market in general and the stocks of companies that the Fund invests in particular.

The investment fund is managed by a fund management company which can be seen as a professional investor, so securities investment is made according to a rigorous research process that minimizes possible risks in the stock market.

c. Influence on Investors

Funds invested through the Fund Management Company will use the capital sources of investors (including individual and institutional investors) more effectively and professionally than individual investors themselves due to the following advantages:

They benefit from professional, efficient, and prudent investment activities undertaken by highly trained and qualified financial analysts in investment research and analysis.

They diversify investment sectors through a properly published portfolio after careful analysis and calculation to minimize possible risks in the investment process.

Investment funds are often highly liquid for investors, depending on the different types of investment funds that investors can choose

d. Influence on businesses that need capital

An investment fund is a professional sponsor through direct or indirect investment, providing capital and contributing to the ability to advise on finance, administration, and corporate restructuring to develop the businesses in which the Fund invests. This role is and will have to be promoted to fundamentally change the way of doing business following the small business model. The lack of linkage is an obstacle that many Vietnamese enterprises are currently facing.

For the technical innovators, new ideas about markets, chances, and opportunities in production and business will be financed by the Investment Fund to bring them to fruition. Through the initial investment, good business ideas will grow and achieve commensurate success. In fact, we can see much evidence that investing in business ideas brings excellent success in terms of profits and encourages creativity for individuals, opening new directions in doing business.

4.3. The operational status of fund management companies

Vietnam's stock market has been in operation since 2000; so far, after more than 20 years of operation, it has become a long-term capital mobilization channel for development investment. The scale of capital mobilization through the stock market in the 2011-2020 period reached nearly

2.9 million VND, almost ten times higher than in the 2000-2010 period, contributing 19.5% on average to the total investment of the whole society, helping to restructure Vietnam's financial system towards a more balanced and sustainable direction.

The stock market is increasingly diversified in terms of traded commodities. On the stock market, more than 1,000 shares are listed and registered for trading (as of the end of 2020, there are 745 listed shares and 910 shares registered for trading), including various stocks from different business areas. In particular, the process of equitizing large-scale state-owned enterprises (SOEs) associated with listing on the stock market has created a large number of high-quality goods on the market. The total value of stock market capitalization and outstanding debt in the bond market at the end of 2020 is estimated at 131.95% of GDP, accounting for 47% of the total assets of the financial system. As of the end of 2020, market capitalization reached 64.1% of GDP, 7.3 times higher than in 2010.

Vietnam's stock market has continuously improved its structure by forming market areas: stock market, bond market, and derivatives market. Although newly established for a short time, the derivatives market has developed rapidly with an average transaction growth rate of 3.3 times/year, providing more effective investment and risk management tools.

Vietnam's stock market has developed strongly, becoming a critical capital mobilization channel for the economy, with the scale of capital mobilization through the stock market in the period 2011-2020 reaching nearly 2.9 million billion dongs, almost ten times higher than in the 2000-2010 period, contributing 19.5% of the total social investment capital on average, assisting the restructure of Vietnamese financial system towards a more balanced and sustainable direction. By the end of 2020, market capitalization reached 84.1% of GDP, 7.3 times higher than in 2010,...

Activities of the stock market are increasingly open and transparent, in line with standards and practices on corporate governance, management capacity, supervision, inspection, and enforcement of state management agencies are enhanced. Management and supervision activities are always carried out for the purpose of the stability and safety of the market and the interests of the investment public. The stock market management policies have been made to achieve the goal of enhancing the publicity and transparency of information, etc.

By the end of 2020, the total value of assets under the management of fund management companies accounted for only 5.5% of Vietnam's GDP. The ratio of assets under the control of fund management companies to GDP in Vietnam is smaller than that of some countries in the region. Some reasons can be mentioned: domestic investors have a habit of self-investing and saving with stable interest rates instead of entrusting investment funds managed by financial experts.

On the other hand, the agency system to distribute fund certificates is still limited. Although the securities law has allowed commercial banks and insurers to distribute fund certificates to take advantage of their extensive network, most fund certificates are distributed directly through fund management companies and securities companies. In contrast, the network of fund management companies and securities companies is mainly concentrated in Hanoi and Ho Chi Minh City. This leads to limited public access to investors and the development of a distribution network of fund products.

Besides, the performance quality of fund management companies is uneven. Some fund management companies operate stably and develop well, mainly due to the support of shareholders who are large financial institutions such as insurance companies, credit institutions, and securities companies. Some operate inefficiently and have not yet mobilized to establish funds.

Therefore, many believe that Vietnam's securities investment fund management activities still have great potential for development. Accordingly, to promote the development of fund management companies and securities investment funds in Vietnam, it is necessary first to improve the operational efficiency of fund management companies, ensure the capacity and financial safety, approach and implement corporate governance and risk management as well as comply with the highest professional, ethical standards following international practices. Hopefully, in 2030, the scale of asset management will reach about 6-10% of GDP.

The following solution is to develop and diversify types of investment funds, in which it is necessary to promote pension funds and new types of funds—improving the capacity of fund management companies (financial capacity, service provision capacity, competitiveness, and risk management). On the other hand, it is necessary to open the asset management service market according to the committed integration roadmap, combined with improving the competitiveness of fund management in Vietnam, improving the capacity and quality of asset management services, risk management capacity, professional ethics, and corporate governance capacity.

It is also necessary to find appropriate ways to recover investments, such as transferring fund certificates (for public funds) or selecting and searching for a qualified investor to share (for member funds).

5. DISCUSSION AND CONCLUSION

5.1. Discussion

It can be said that during the past few years, the role of fund management companies in Vietnam has proliferated, and they reached many important milestones to contribute to the sustainable development of Vietnam's stock market in many ways.

Firstly, although established very late compared to the world and developed in an unfavorable period when Vietnam faced many difficulties due to the global economic recession and the Covid-19 pandemic, the role of fund management companies is promoted in a complete and complete legal framework and is oriented to develop in a stable, safe and prudent manner based on strict legal regulations following international standards and practice; thus, many fund management companies have built a modern development infrastructure, an effective management model and actively trained experienced and specialized staff.

Second, fund management companies and securities investment funds have gradually affirmed their role as professional institutional investors when mobilizing, establishing, and developing many types of funds according to the modern global model. Fund management companies have constantly made efforts to expand their business, find customers, increase the total value of entrusted assets of investors and perform professional management to contribute to the sustainable development of the stock market and, at the same time, gain the investment community's trust.

Third, several fund management companies have raised investment capital from foreign investors, gradually creating a secure channel for foreign indirect investment capital flowing into Vietnamese enterprises and actively supporting Vietnamese businesses to raise money through the stock market.

Fourthly, fund management companies have promoted their role as professional asset managers for large financial institutions, especially insurance companies, and credit institutions, contributing to the professionalization of financial and banking activities. Up to now, many insurance enterprises, commercial banks, and securities companies have been ultimately transferring financial investment activities to fund management companies to conduct methodical investment management by the model of modern financial institutions in the world.

Fifth, developing securities investment funds has fostered the diversification of the public investors' investment channels while promoting green securities investment and responsible investment in international practices for sustainable development. In addition, the development of bond funds which forms an effective capital channel from respective idle capital to businesses with capital needs, also improved the bond market structure.

However, according to many experts, securities investment fund management activities in Vietnam still have excellent development potential shortly. By the end of 2020, the total value of assets under the management of fund management companies accounted for only 5.5% of Vietnam's GDP. The share ratio under the control of fund management companies to GDP in Vietnam is smaller than that of some countries in the region. Some of the reasons can be mentioned as follows: Domestic investors have a habit of self-investing and saving with stable interest rates instead of entrusting them through investment funds managed by financial experts; the agency system for distributing fund certificates is still limited, although securities legislation has allowed commercial banks and insurers to distribute fund certificates to take advantage of their vast network of institutions.

5.2. Conclusion

Therefore, in the coming years, to promote the fund management companies and securities investment funds in Vietnam, it is necessary to improve the performance of fund management companies, ensure financial capacity and safety, approach and implement corporate governance, risk management as well as complying with the highest professional, ethical standards in accordance with international practices, so that as of 2030, the scale of asset management will reach about 6-10% of GDP.

In addition, developing and diversifying investment fund types in which it is necessary to promote pension funds and new types of funds—in particular, improving the capacity of fund management companies (financial capacity, service provision capacity, competitiveness, and risk management). Besides, opening the asset management service market according to the committed integration roadmap, combined with improving the competitiveness of fund management in Vietnam, improving the capacity and quality of asset management, risk management capacity, professional ethics, and corporate governance capacity to highlight the role of the fund management company in the development of the stock market.

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CREDIT POLICY FOR AGRICULTURE AND RURAL DEVELOPMENT – SOME THEORETICAL AND PRACTICAL ISSUES IN VIETNAM

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Abstract: *The process of industrialization and modernization of agriculture - rural areas, restructuring the agricultural sector, requires a huge amount of investment capital. Moreover, to improve the living standards of rural areas to reduce the gap with urban areas, a large amount of capital is also required to invest in infrastructure and build new rural areas. Therefore, the Central Bank must issue policies and implement measures to open up capital flows for the development of the agricultural and rural sectors. In this article, we mainly focus on: (i) some basis on credit policy for agricultural and rural development: concepts, goals, content; (ii) Studying the implementation of credit policy for agriculture of the State bank of Vietnam in the period 2017-2021; (iii) Evaluation of achieved results and shortcomings; (iv) propose some complete solutions.*

Keywords: *Monetary policy, credit policy, interest rate policy, agriculture, and rural areas.*

1. INTRODUCTION AND RESEARCH METHOD

Rural development and policy application to agricultural and rural development have always been a topic of interest to many researchers. However, the studies are often updated by the authors related to the credit policies of commercial banks for the agricultural and rural sectors. There are not many studies on policy credits of the State Bank of Vietnam for agricultural development. Several researches can be noted as: Dinh Xuan Hang et al (2015), "Credit policy for agricultural and rural development of the State Bank of Vietnam Nam". The topic is to systemize some basis on the central bank's rural development policies, analyize the situation in Vietnam for the period 2010-2014 and propose some solutions and recommedations. Other studies are: Nguyen Thi Huong Lien (2018), "Solutions to enhance credit policies for agricultural and rural development in Vietnam"; To Ngoc Hung (2015), "Bank Credit for Exports of the Mekong Delta Region"; Le Thi Tuan Nghia et al (2015): "Bank credit for agriculture and rural areas - implementation and some recommendations"; Dao Minh Tu (2010) "Credit for agriculture and rural development - results and requirements in practice" – Managing director mainly analyzes credit policies for agriculture and rural areas in Vietnam in previous periods.

In this paper, we collect documents related to credit mechanisms and policies for agriculture and rural areas; collect secondary data from the State Bank of Vietnam Reports and use research methods such as synthesis, statistics, comparison, analysis, etc. to clarify the basic contents in terms of theory: the concept, objectives and content of the central bank's credit policy for agricultural

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and rural development; Analyze and evaluate the current situation of credit policy of the State Bank of Vietnam in the period 2017-2021, the period associated with the digital transformation process of the economy, on that basis, propose appropriate solutions.

2. THEORETICAL BASIS

Credit policy is one of the important contents of monetary policy, in which credit policy for agricultural and rural development has received much attention and attention from many countries. Credit policy for agricultural and rural development is the policy of providing credit capital for the agricultural and rural sectors, through a system of measures and policies of the State to encourage credit institutions to lend to agriculture and rural areas to transform the economic structure in agriculture, build infrastructure, eliminate hunger and reduce poverty and gradually improve the living standards of people in rural areas.

Objectives of credit policy for agricultural and rural development:

- Firstly, encourage credit institutions to provide capital for agriculture and rural areas, to open capital flows for agricultural and rural development.

The country's modernization and industrialization require a comprehensive renovation of the agricultural sector. However, due to difficult conditions, farmers, fishermen, and salt farmers, themselves only have a very low level of self-capital, along with the condition that capital from the state budget is still limited, policy credit only supports partial support for this area, and only for a small number of specific audiences and certain programs. Therefore, the promulgation of policies to encourage credit institutions and support them to actively finance capital for the agricultural and rural sectors to supply capital under the commercial credit mechanism on the one hand will promptly meet capital requirements for production and business, on the other hand, forces customers to use capital effectively, promoting the development of this area.

- Second, restructuring the agricultural economy, promoting the economic development of the agricultural and rural areas.

When increasing investment capital for agricultural production, on the one hand, will increase labor productivity, farmers have conditions to expand production. On the other hand, enterprises investing in the manufacturing sector have the capital to invest in the field of preserving and processing agricultural products, enhancing added value for products, and boosting exports. From there, it also creates jobs for people in rural areas, restructures the agricultural economy, and promotes the development of this area.

- Third, contribute to the construction of new countryside, improving the lives of people in rural areas.

When the agricultural and rural economic structure shifts and develops, on the one hand, it will create jobs for workers, and on the other hand, create conditions to improve the lives of workers in rural areas. Help them feel secure to stick with their jobs and villages, limit the situation of people leaving their villages, leaving their jobs to go to the city to find work, and limit the arising social evils. Moreover, in addition to the need for investment capital for agricultural production and business, investment capital is needed to build infrastructure, social culture, develop health and education services, etc., contributing to stability determining and improving people's living standards, and reducing the gap between rural and urban areas.

Contents of credit policy for agricultural and rural development of the Central Bank.

(i) Credit interest rate policy

The central bank's credit interest rate policy is the central bank's way of managing and regulating market interest rates. The central bank's credit interest rate policy of the central bank can be implemented in two directions: direct intervention policy and interest rate liberalization policy.

(ii) Credit policies and regulations for Agriculture and Rural Development

The basic contents of credit policies and regulations for agriculture and rural development include:

- *Regulations on subjects and scope of application:* credit policies for agricultural development in rural areas must specify the subjects and fields of lending. Usually, these are the objects and priority areas for development and so will be adjusted to suit each specific period.
- *Policy on capital sources:* promulgating regulations must maximize the exploitation of capital sources for agricultural and rural development.
- *Loan guarantee mechanism:* In addition to complying with the provisions of the loan guarantee mechanism in general, to support farmers and business entities in the field of Agriculture and agribusiness. Normally, the loan guarantee mechanism will be supplemented with loosened regulations so that borrowers can easily borrow capital for production. Regulations on loan guarantee mechanisms will have to be adjusted accordingly from time to time.
- *Loan term and interest rate:* Regulations on loan terms must be consistent with the capital turnover period, the project's ability to pay back, the production and business plans of the customer, the credit institution, and the customer must agree on a suitable loan term. Except for those who are granted policy credits and are entitled to borrow at preferential interest rates, agricultural and rural development credits are implemented under the agreed-upon interest rate mechanism.
- *Regulations related to debt classification, setting up, and use of risk provisions:* Loans under commercial mechanism for agriculture and rural areas, debt classification and risk provisioning as well made in the same way as a loan to another sector.

Credit risk handling: due to the characteristics of agricultural production, which may be affected by weather and natural conditions, it may suffer large-scale losses due to natural disasters, floods, and handling losses may exceed the capacity of the credit institution. Therefore, when issuing CREDIT PILICY, there must also be provisions to take into account the support policy of the State in special cases.

- *Agricultural insurance:* usually in credit policy for agricultural and rural development, to encourage customers to buy agricultural insurance to limit losses. The Central Bank will stipulate that credit institutions must have policies to reduce interest rates for customers participating in agricultural insurance.

3. PRACTICES IN VIETNAM

3.1. To promulgate credit policies for agricultural and rural development

Implementing Resolution No. 26/2008/NQ-TW dated August 5, 2008, of the 7th Conference of the 10th Party Central Committee on agriculture, farmers, and rural areas, the Government issued Resolution 24/NQ-CP dated October 28, 2008, on the Government's action plan to implement Resolution 26 of the Party. In which, the State Bank was assigned to assume the prime responsibility for, and coordinate with concerned ministries and branches in, formulating the Government's Decree on credit for agricultural and rural development. On that basis, the State Bank of Vietnam advised the Government to sign and promulgate *Decree 41/2010/ND-CP dated April 12, 2010, on CREDIT PILICYs for agricultural and rural development* effective as of June 1, 2010 (The Government, 2010).

Under the Government's Resolution 10/2012/NQ-CP dated April 24, 2012, on the Action Program to implement the Socio-Economic Development Strategy for the 2011-2020 period, to comprehensively restructure the economy, including restructuring the agricultural sector, the Government signed Decision 899/2013/QĐ-TTg, approving the "*Project on restructuring the agricultural sector towards enhancing added value and sustainable development*". The scheme also outlines several main groups of solutions to implement the scheme, including the solution "to continue to give priority to credit capital for agriculture and rural areas". At the same time, in the Government's Project, the Government also directs the State Bank of Vietnam to "direct credit institutions to prioritize capital for agriculture and rural areas to actively implement credit programs for the agricultural and rural sectors".

In addition, the Government also issued many support policies for each specific program related to agriculture and rural development, implementing the national program on building new countryside and restructuring the agricultural sector Karma. Such as Decree 67/2014/CP on *several fisheries development policies*; Decree 109/2010/CP *on rice export business*; Decision 68/2013/CP *on support for losses in agriculture*, Official Letter 1149/TTg-KTN on *policies on livestock and aquaculture development, etc.*

Faced with the challenges of climate change, green growth and sustainable growth are required for our country's economy in general and the agricultural sector in particular. Therefore, over the past time, credit institutions have focused a lot of capita fourteen en projects, such as applying high technology in production (lending capital to buy equipment and machinery to reduce losses in agriculture, loans for afforestation...); new rural development (hygiene, clean water, and rural environment; rural transport, wholesale markets...) has direct significance in sustainable development, in the development of the green economy, etc. Problems with policies and lending mechanisms in agriculture and rural areas were previously removed with the Government's issuance of Decree No. 55/2015/ND-CP, dated June 9, 2015, on policy credit policy for agricultural and rural development, effective from July 25, 2015 (replacing Decree No. 41/2010/ND-CP dated April 12, 2010), allowing organizations Credit institutions are allowed to lend unsecured loans to a number of customers (individuals, households, business households, cooperatives, farm owners) 1.5-2 times higher than stipulated in Decree 41/2010, taking into account specific fields and products; regulations on credit policies to encourage the development of agricultural production according to the model of value chain linkage, the model of high-tech application in agricultural production, such as regulations on unsecured loans from 70 - 80% value of production and business plans and projects; stipulating a debt settlement mechanism (debt freezing, debt cancellation) when customers face risks due to objective and force majeure causes (natural disasters, epidemics), creating conditions for businesses to boldly invest in agriculture and rural areas and closely linked with farmers. Encourage customers to participate in agricultural risk insurance (customers participating in agricultural insurance are entitled to a preferential policy with a minimum interest rate of 0.2%/year compared to the normal interest rate). Decree 55 has created a breakthrough in opening credit flows to rural areas, creating an important "push" to accelerate the implementation of restructuring, reorganizing production, increasing competitiveness, and contributing to development based on our country (The Government, 2015).

On September 7, 2018, the Government issued Decree No. 116/2018/ND-CP amending and supplementinarticleses of Decree No. 55/2015/ND-CP, dated June 9, 2015 on credit policy For agricultural and rural development, regulations on loans for agricultural and rural development are one of the solutions to help improve access to capital of the poor in rural areas, contributing to limiting the number of people living in poverty. people look to other informal sources of capital. Accordingly, the State Bank has adjusted the customers who borrow loans from the agricultural and rural credit policy, the borrowers without collateral, supplementing the debt freeze, grand ace period, and reducing administrative procedures in the direction of expanding and simplifying procedures. The maximum amount of unsecured loans for some customers who are individuals and households has increased by 2 times, limiting the situation of customers who lack the capital to seek black credit.

The banking sector has promoted the implementation of specific credit and loan programs for sustainable development of agriculture, key agricultural products such as loans to build ships for offshore fishing, loans to reduce losses in agriculture, loans for high-tech agriculture, loans for coffee replanting, production support, rice purchasing and processing, loans for seafood, vegetables, etc.

Regarding interest rates, the State Bank has stipulated a policy of ceiling short-term interest rates in VND applied to the agricultural and rural sectors, which is lower than the normal production and business sectors (currently 4.5%/year). The SBV has also directed credit institutions to step up administrative reform, simplify loan procedures, publicly list and fully guide people when borrowing capital; diversify credit products suitable to people's production and consumption activities.

Simultaneously, the State Bank has also directed the implementation of many credit programs such as lending to support interest rates to enhance mechanization and reduce losses in agriculture; lending to encourage the development of hi-tech applications of agriculture, and clean agriculture; housing loans; lending for policy credit programs at the Bank for Social Policies.

3.2. Bank credit results for agriculture and rural development

According to a report of the State Bank of Vietnam, by the end of 2021, there are more than 80 credit institutions providing credit and 1,187 people's credit funds providing loans to the agricultural and rural sectors, with a network of transaction offices throughout the country villages and remote areas to promptly meet the capital needs for the development of this field.

(1) Scale of loans for agriculture and rural development

Table 1. Outstanding loans for agriculture and rural areas under commercial mechanism for the period 2017-2021

Unit: Billion VND

Five	Outstanding loans for agriculture and rural areas (1)	The growth rate of outstanding loans for Agriculture and rural areas (2)	Total outstanding loans to the economy (3)	T growth rate of outstanding loans to the economy	The proportion of outstanding loans to agriculture and rural areas (1)/(3)
2017	1.310,832	*23%*	6.512,018	*18.17%*	*20.1%%*
2018	1,591,350	*21.4%*	7,211.175	*13.9%*	*22%*
2019	1,766.398.5	*11%*	8,195.393	*13.65%*	*21.6%*
2020	1.965.118	*12.5%*	9,192,566	*12.17%*	*21.4%*
2021	2,257.527.6	*14.88%*	10,444.078	*13.61%*	*21.6%*

Source: Reports of the State Bank of Vietnam

From the data in Table 1, it can be seen that the proportion of outstanding loans to the agricultural and rural sectors has increased significantly from 2017 to 2021, especially with a high growth rate in 2017 and 2018. After 5 years, outstanding loans for agriculture and rural areas increased by 1.72 times - this figure is higher than the growth rate of outstanding loans to the economy of 1.6 times. The scale of agricultural and rural loans is constantly expanding, creating conditions to promote large production, invest in machinery and equipment, and technology, and modernize Agriculture and rural areas. However, in recent years, from 2019 to 2021, due to the influence of the Covid Pandemic, the growth rate of outstanding loans to this sector and outstanding loans to the economy was low. Also during this period, the proportion of outstanding loans to agriculture and rural areas accounted for a relatively high proportion and a stable level of 20% to 22%. According to statistics of the State Bank of Vietnam, in 2021, if including the outstanding loans of policy credits for agriculture and rural areas, the total outstanding loans for this sector to the economy will account for about 25%.

(2) Structure of outstanding loans for agriculture and rural areas

In the period from 2017 to 2021, the structure of outstanding loans for agriculture and rural areas still focuses mainly on short-term loans, accounting for nearly 70% of the total outstanding loans to this sector. However, the structure of outstanding loans continued to be improved in the direction of gradually increasing the proportion of medium and long-term loans. At the end of 2017, the proportion of short-term loans accounted for 55%, the balance of medium and long-term loans accounted for 45%, and by the end of 2021, the proportion of short-term loans for agriculture and rural areas was 52%, the proportion of medium and long-term loans accounted for 48%.

With positive changes in loan term structure in agriculture and rural areas, the direction of increasing the proportion of medium and long-term loans in this field is extremely important. In particular, the main reason is that credit institutions increase credit for investment in medium and long-term projects in the agricultural sector, mainly to purchase machinery and equipment for the production, preservation, and processing of agricultural, forestry, aquatic products, and shipbuilding projects for fishery development. This change is in line with the orientation set by the Party and State as well as the development direction of Vietnam's agricultural industry today.

Outstanding loans for agriculture and rural areas still focus mainly on loans for crops and livestock, with 33% at the end of 2021. Meanwhile, loans to developing rural industries and especially loans for processing and preserving agricultural, forestry, and fishery products account for a low proportion. This is also a major limitation in credit work for agriculture and rural development. Recently, among many shortcomings of the agricultural industry, one problem has emerged that Vietnam's agricultural, forestry and fishery products have low added value because the preservation and processing stages have not been paid proper attention to. The level and sources of investment capital in equipment, preservation equipment, and modern technology are still low. Therefore, it has not met the requirements of the export market.

(3) Credit quality for agricultural and rural development

In the period 2017-2021, credit quality for agriculture and rural areas is guaranteed. If compared with the actual balance of loans to other industries, agriculture loans, and rural areas, the bad debt ratio is always lower.

Table 2. The bad debt ratio for agricultural and rural loans (*)

Targets	**2017**	**2019**	**The year 2021**
NPL ratio for agricultural and rural loans	1.70%	1.20%	1.50%
The ratio of bad debt lending to the economy	2%	1.60%	1.90%

(*) This data does not include bad debts sold by banks to VAMC.

Source: Reports of the State Bank of Vietnam

In the past 5 years, although the economy has faced many difficulties, the bad debt ratio of Vietnam's commercial banking system has increased, which is also the reason that requires the Vietnamese banking system to be comprehensively restructured everything like in the past. However, for agricultural and rural loans, the bad debt ratio remained lower than the bad debt ratio in lending to the economy. However, if we include the number of bad debts sold to VAMC by credit institutions, the bad debt ratio in agricultural and rural loans and the bad debt ratio for the economy are much higher.

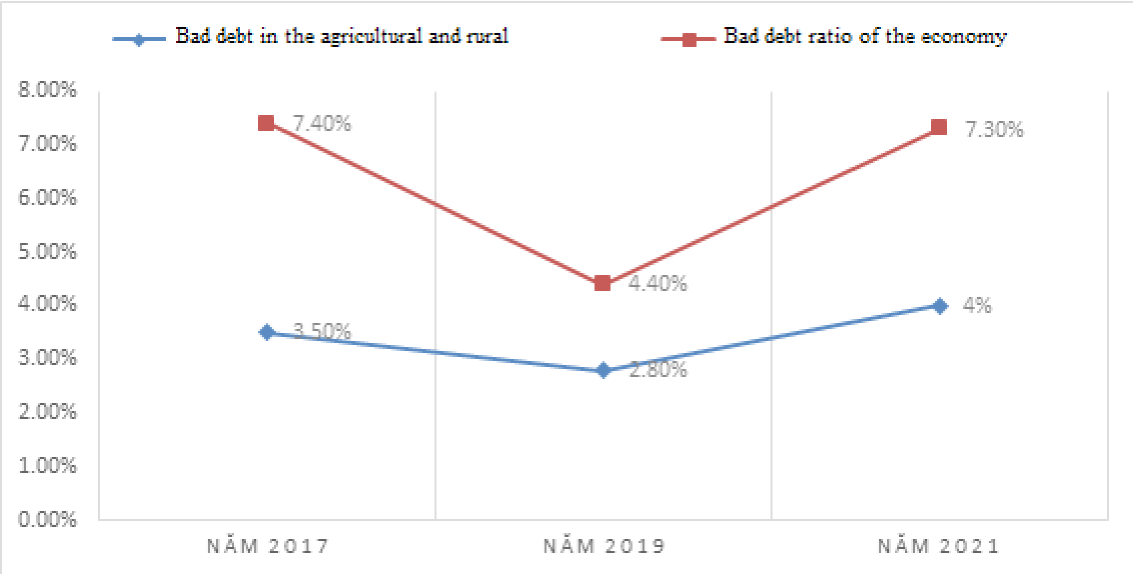

Figure 1. Bad debt ratio if including bad debts sold to VAMC

Source: Reports of the State Bank of Vietnam

3.3. Some results achieved

After more than 20 years of implementing credit programs for the development of several agricultural sectors, CREDIT PILICYfor agricultural and rural development of the State Bank has achieved some remarkable results, contributing to the success in the development process sector, especially in the process of implementing the project on restructuring agriculture and rural areas of Vietnam. It is possible to evaluate the results achieved on CREDIT PILICYfor agricultural and rural development of the State Bank of Vietnam in the past time on the following aspects:

- Remove conditions for accessing and borrowing capital for agricultural and rural economic development. The promotion of credit programs over the past time has promptly met the capital demand for agricultural, forestry, and fishery production and the capital demand for rural development.
- Credit policy for agriculture and rural areas of the State Bank has been closely linked with fiscal policy.
- Credit policy for agricultural and rural areas has had flexible responses in removing difficulties for customers.
- Initially encourage credit institutions that have actively participated in financing for agriculture and rural areas. The policy of supporting capital sources such as priority in refinancing and reducing the required reserve for credit institutions with an investment rate in agriculture and rural areas of 40% or more has encouraged credit institutions to increase their investment in this sector, contributing to a steady increase in credit to the sector every year and higher than the overall credit growth. Bad debt in the agricultural and rural sectors is always lower than the bad debt ratio of the economy.
- Implement bank credit policies, helping the agricultural sector make strong breakthroughs in the application of science, technology, and high technology. Credit capital has helped people

and businesses have more resources to invest in expanding production and business, applying mechanization, science, and technology to serve production, and improve product quality. The production technologies in greenhouses, net houses, economical watering, and deep processing of agricultural products according to national and international standards have been lent by the banking industry for investment and initially brought about effective results economic results, creating a premise to move toward large commodity production, industrialization, and modernization of agriculture and rural areas. Credit policy for agricultural and rural development of the State Bank of Vietnam has made an important contribution to the restructuring of the agricultural and rural economy, increasing labor productivity, creating jobs, and increasing incomes for workers motion.

3.4. Some limitations

- First, the system of legal documents related to credit policy for agricultural and rural development of the State Bank of Vietnam is still overlapping and inconsistent.
- Second, loans are still limited and have not met the capital needs for agricultural and rural development.
- Third, the State bank of Vietnam has not used a combination of monetary policy tools to support credit institutions for agricultural and rural loans, and the effective control of operating tools is still limited.
- Fourth, the use of management tools to encourage credit institutions to diversify forms of lending and banking services in rural areas is still poor, and the ability to mobilize capital on the spot of credit institutions is low.
- Fifth, there are still obstacles when farmers access bank loans: The issuance of land use right certificates is slow, leading to people not being able to access bank loans due to the lack of fixed assets; the standards defining the farm economic model changed in a short time, making credit institutions confused in making lending decisions. Meanwhile, the search and capture of feasible projects are still limited, as evidenced by the fact that the loan security asset is the only one, which is used to determine the loan level and whether the project is effective or not. When the capital reaches the people, the season has passed, not only affecting the production efficiency but also the bank's capital is stagnant.

4. SOLUTIONS

In the coming time, in addition to implementing policies and solutions to remove difficulties for customers affected by the Covid-19 epidemic, the banking industry will continue to prioritize capital for the agricultural and rural sectors. together with other synchronous solutions to increase access to capital for rural people, thereby contributing to limiting and repelling black credit.

- Regarding the completion of the legal framework: The State Bank continues to review and finalize documents regulating lending activities to serve the needs of life, and consumer lending; improve credit policies for agriculture and rural areas, credit policies for sectors and fields to increase people's and businesses access to capital.

- Having policies to encourage credit institutions to lend in agriculture and rural areas: The State Bank will continue to direct credit institutions to concentrate capital sources to promptly meet the demand for loans for production and business, and agricultural and agricultural development village, the living needs and legitimate consumption of people and businesses, especially when the Covid-19 pandemic is pushed back and the domestic economy recovers.
- The SBV administers credit policies in association with improving credit quality, in line with the economy's ability to absorb capital, and fully and promptly meet capital needs for the economy. Specifically, directing credit institutions to implement solutions to create favorable conditions for customers in accessing credit capital; vigorously and extensively implement the program to connect banks - enterprises to promptly remove difficulties and obstacles in accessing bank credit capital; diversify banking products and services, simplify lending procedures, publicly and transparently list loan procedures and processes; improve the appraisal efficiency and assess the credit rating of customers to increase unsecured lending with assets;...
- Promote the application of science and technology, develop online lending and payment services to increase convenience, and ensure safety for people in accessing and using financial products and services row. Promote reform of administrative procedures in credit and banking activities, improve processes and procedures, shorten loan approval time; encourage the development of mobile banking model in disadvantaged areas, rural areas, and remote areas, creating conditions for people to more conveniently access capital and other banking services.
- Improve the assessment, forecast, and warning about market demand for agricultural products, especially high-tech agricultural products as the basis for orientation of hi-tech agriculture development; promote trade promotion activities, support enterprises to find markets to consume output products of agricultural products.
- Strengthening inspection and examination; directing consumer finance companies to focus on reorganizing lending activities, adopting appropriate interest rate policies, and ensuring transparency and compliance with the law on debt collection.
- Strengthen communication on banking credit mechanisms and policies to all classes of people, helping people and businesses understand credit from official credit supply channels, contributing to capital transfer. Bank credit to the people in the most effective way.

5. CONCLUSION

Credit policy for agricultural and rural development is one of the policies to support the development of the sector and at the same time, it is also a part of the monetary policy of the State Bank. That is to say, in addition to achieving the specific goal of supporting industry development, this policy must also be correlated with the overall goal of the national monetary policy. It is also a difficult problem for the State Bank of Vietnam in recent years and in the coming time. To promote the development of the "Three Nongs" region, in addition to the efforts of the banking sector, there needs to be coordination among ministries, branches, and local authorities in strengthening information and propaganda work. In addition, local authorities coordinate with banks in appraising unsecured loan applications; Farmers must also have a project that is clear, feasible, and effective, so the appraisal and capital support are also faster and more convenient.

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DEVELOPING THE CORPORATE BOND MARKET TO BE AN EFFICIENT CHANNEL TO CREATE CAPITAL CHANNEL FOR THE ECONOMY

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Abstract: *The article analyzes the current situation of the corporate bond market in Vietnam based on the operation of the primary market and the secondary market, including the issuance and outstanding balance of corporate bonds, and the listing and trading of corporate bonds on the stock market. At the same time, the article analyzes some shortcomings and difficulties in the development of the corporate bond market, thereby proposing some solutions to improve the operational efficiency of the corporate bond market in Vietnam in the future.*

Keywords: *Corporate bonds, bond issuance, corporate bond market.*

1. INTRODUCTION

Capital is a decisive factor in the production and business activities of enterprises. To mobilize capital for production and business, enterprises have many different channels such as from own capital, retained profits, or borrowed capital. With the loan channel, businesses can borrow through indirect financing, mainly from credit institutions. However, to access credit, businesses need to have collateral, loan interest rates are often high, and the amount of mobilized capital depends heavily on the value of collateral... Besides the credit channel, businesses Businesses can raise capital directly on the stock market by issuing bonds.

According to a report from the Ministry of Finance, in the period 2016-2020, the corporate bond market in Vietnam has the strongest growth in the composition of the financial market, becoming an increasingly important capital mobilization channel. for businesses. The average volume of capital mobilized through bond issuance is nearly 239,000 billion VND/year. This number is about 9 times higher than the period 2011-2015. The average growth rate of the corporate bond market is about 48% per year. By the end of 2020, the size of the bond market will reach nearly 16% of GDP. In 2021 alone, the scale of capital mobilized through corporate bonds has reached VND 682,000 billion.

Thus, mobilizing loans through bond issuance plays an increasingly important role for Vietnamese businesses. The corporate bond market in Vietnam has grown rapidly in recent years, becoming a medium and long-term capital mobilization channel for enterprises, thereby helping to gradually reduce dependence on bank credit.

However, the rapid growth of the corporate bond market also revealed some limitations and potential risks for investors and the financial market. Therefore, it is necessary to find solutions

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to ensure the effective operation and sustainable development of the corporate bond market in Vietnam, making an important contribution to mobilizing long-term capital for the economy.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

In Vietnam, in recent times, there have been many studies related to the corporate bond market such as the issuance of corporate bonds, the development of the corporate bond market, the corporate bond market in the integration trend... Some studies can be mentioned such as: Nguyen Kim Cuong (2007), Solutions to develop the corporate bond market in Vietnam; Truong Thi Ngoc Hai (2008), Developing the Vietnamese corporate bond market; Tran Vinh Quang (2017) Developing the corporate bond market in Vietnam… The above studies have made certain contributions to theoretical research, analyzing the current situation and proposing solutions and recommendations to develop the corporate bond market in Vietnam. However, studies are mainly conducted in the context and time before and during the Covid epidemic, so solutions and recommendations may not be completely appropriate in the current post-Covid period. Most recently, the article of Master Tran Thi Hoa Ly, Corporate bond market in Vietnam: Some issues of concern and solutions for the coming time, published on the electronic newspaper of the Journal of Industry and Trade on July 28, 2022, raised a number of problems of the current corporate bond market such as many businesses with loss-making business results, a high debt-to-equity ratio still issues bonds, not ensuring safety for investors. Credit institutions are holding a large proportion of bonds issued by real estate businesses, so if the real estate market has difficulties, it will affect credit institutions… However, the article has not approached the situation of corporate bond market in Vietnam by segment of primary and secondary bond market. Therefore, the study of the operation of the Vietnamese corporate bond market according to the analysis of each market segment to find solutions to promote the sustainable development of the Vietnamese corporate bond market contributing to improving the efficiency of long-term capital mobilization for businesses in Vietnam in the current post-Covid period is very necessary.

3. RESEARCH METHODS

To achieve the research objectives, the article uses basic qualitative research methods such as collecting legal documents related to corporate bond issuance, and published primary data from major official websites of the State Securities Commission, the Stock Exchanges, scientific works related to the topic,… and combine some traditional research methods such as synthesis, statistics, comparison, analysis to clarify the contents of the formation of the corporate bond market in Vietnam, the current status of corporate bond markets in both the issuing and trading markets. From there, the article proposes some recommendations to contribute to the development of the corporate bond market in Vietnam in future.

4. RESEARCH RESULTS

4.1. The establishment of Vietnam corporate bond market

Vietnam's bond market began to form in the mid-1990s, with the Government issuing several construction and public bonds to mobilize capital for the state budget. In the period 1990-2000, the State Treasury was the only entity that issued bonds to raise capital in the market through the issuance of short-term Treasury bills and bonds with terms of less than 3 years.

Along with the development of Vietnam's financial market, besides the Government bond market, local government bonds, and Government guaranteed bonds, the corporate bond market has been formed and gradually developed, forming the bond market, meeting the capital mobilization needs of the Government, State policy banks, local authorities, and enterprises.

Vietnam's corporate bond market has been in operation since 2000 with the birth of Vietnam's stock market. Along with the improvement of the legal framework, the corporate bond market has made great strides in the period since 2011, especially from 2018 until now, meeting the needs of long-term capital mobilization and business development.

The issuance of corporate bonds in Vietnam is carried out in two ways: (i) private placement and (ii) public issuance. For corporate bonds issued to the public, the State Securities Commission shall issue a certificate of registration for the public offering of bonds / give opinions on the plan for the private sale of convertible bonds, individual bonds with warrants of public companies; directly supervise the public company's bond issuance and private placement of bonds. The Ministry of Finance is the agency that develops mechanisms and policies and monitors the situation of private bond issuance. Particularly for bonds issued to the international market, bond issuers must register foreign commercial loan limits with the State Bank of Vietnam.

Enterprises issue bonds on the principle of self-borrowing, self-paying, self-responsibility for capital mobilization efficiency, and debt repayment ability based on meeting the issuance conditions, and fully disclosing information following regulations. Corporate bonds are issued by the methods of bidding, guarantee, and direct sale to investors. Investors in the corporate bond market include commercial banks, insurance enterprises, securities investment funds, and other organizations and individuals; in which, commercial banks are the largest investors. The intermediary organizations that support bond issuers and investors to buy bonds have been formed and gradually developed such as credit rating service providers, bond issuance consulting organizations, underwriters, and corporate bond information centers.

4.2. Current status of the corporate bond market in Vietnam

To assess the current situation of Vietnam's corporate bond market, the article will analyze factors such as issuance in the primary market, trading on the secondary market, the technical infrastructure for bond trading, and the investor base in the market.

4.2.1. Issuance situation in the primary market

Table 1 below will give an overview of the issuance scale and outstanding loans of corporate bonds in Vietnam for the period 2011-2021.

Table 1. Value of corporate bonds in the primary market for the period 2011-2021

Unit: billion VND

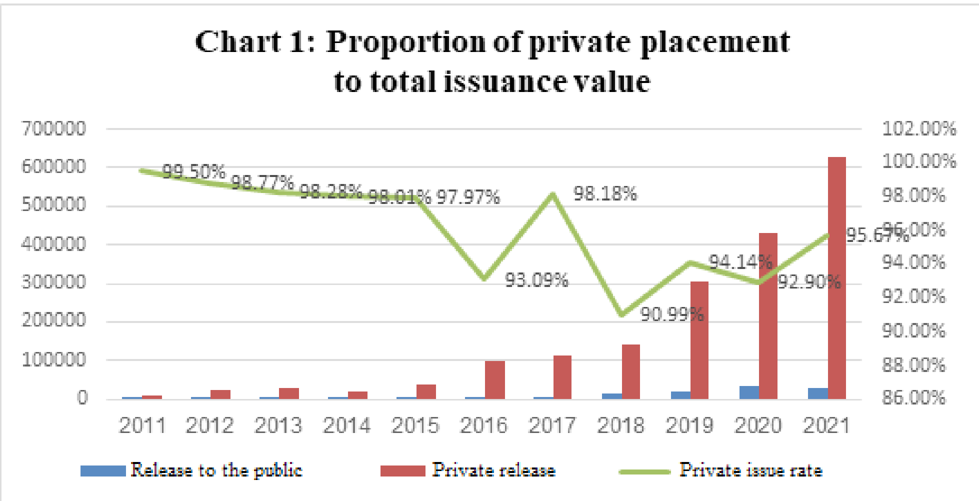
Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total release volume	10,023	25,015	27,500	20,056	40,045	105,023	113,209	154,795	324,764	462,575	658,009
Release to the public	50.3	307.5	472.5	400.0	812.0	7,255.5	2,060.4	13,947.0	19,031.2	32,842.8	28,491.8
Private release	9,973	24,708	27,028	19,656	39,233	97,768	111,149	140,848	305,733	429,732	629,517
Outstanding debt of corporate bonds	83,917	63,307	97,719	103,445	140,000	192,227	310,000	475,160	655,065	1,074,800	1,195,623
% of outstanding loans to GDP	3.31%	2%	2.65%	2.73%	3.34%	4.27%	6.29%	9.01%	11.26%	12%	14.75%

Source: Compiled according to updated data from HNX and SSC published data as of January 7, 2022.

- ***About the size of the issuance***

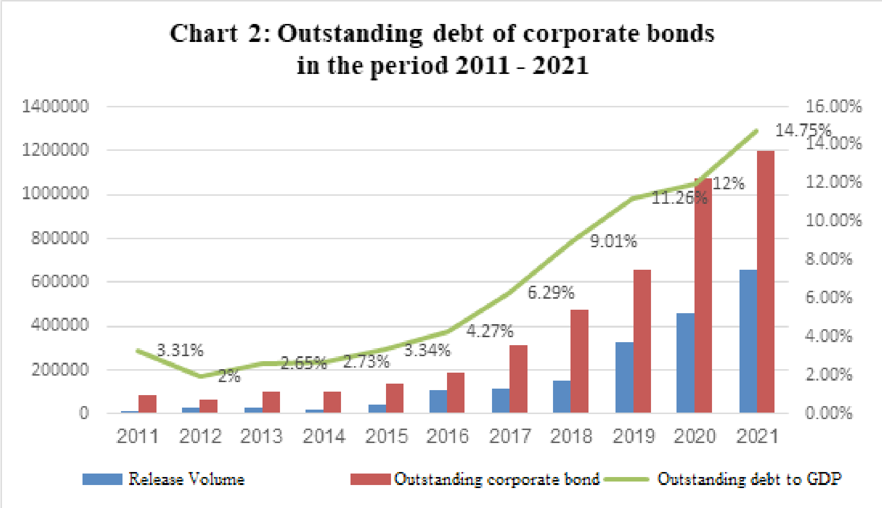
The total volume of corporate bonds issued in the period 2011-2021 reached VND 1,041,914 billion, the average issuance volume was about VND 176,456 billion/year. If in the 2011-2017 period alone, the average issuance volume reached 48,696 billion VND/year, in the 2018-2021 period, this figure has reached 400,035.7 billion VND/year, an increase of 720% compared to the 2011-2017 period. This is a great step forward for the Vietnamese corporate bond market from 2018 until now.

Although the volume of bonds issued to the public has continuously increased over the years, compared to the total volume of issued bonds, the private placement method still accounts for a large proportion, always accounting for over 90% (Chart 1). This is also a problem for the development of the corporate bond market because the private placement method may bring more risks for investors due to the conditions specified for the private placement is lower than for the public offering.



Source: According to updated data from published data of HNX and SSC as of January 7, 2022

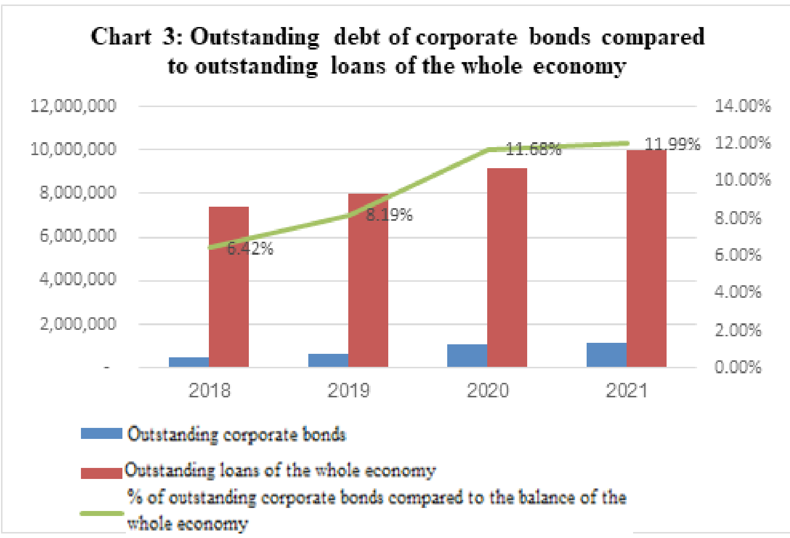
- ***About outstanding corporate bonds***



Source: According to updated data from published data of HNX and SSC as of January 7, 2022

Along with the increased issuance volume, corporate bond outstanding loans also continuously increased over the years and the ratio of outstanding corporate bonds to GDP also increased. This proves that the corporate bond market is increasingly promoting its role as an important capital mobilization channel for businesses. However, the size of Vietnam's corporate bond market is much lower than that of other countries in the region such as Malaysia (56% GDP), Singapore (38% GDP), and Thailand (25% GDP).

In the 2018-2021 period alone, the outstanding debt of corporate bonds in 2021 has increased by 152% compared to 2018 and the proportion to the total debt balance of the whole economy has increased from 6.42% to 11.99%. However, the figure of 11.99% compared to the total outstanding loans of the economy shows that the corporate bond channel is still quite small compared to the outstanding loans of the whole economy, the loan capital of the whole economy is still mainly based on bank credit.



Source: According to updated data from published data of HNX and SSC as of January 7, 2022

Regarding bond terms: Corporate bonds issued on the market have terms from 1 year to 15 years, of which the most common term is from 1 to 3 years, accounting for 67%, this is completely consistent with the implementation cycle of investment projects of enterprises.

Regarding the issuance interest rate: Corporate bonds are issued with both fixed interest rates and floating interest rates with the reference interest rate being the 1-year deposit interest rate at state-owned joint stock commercial banks plus 2%. up to 4%/year. The average corporate bond issuance interest rate in 2021 is 7.75%/year, of which the issuance interest rate is highly concentrated in some industry groups such as real estate (10.36%/year), construction (10.64%/year), industrial production (10.16%/year) and the lowest in banking sector (4.37%/year).

Regarding the structure of investors in the primary market: investors in the primary market mainly include commercial banks (about 29%), securities companies (about 27%), insurance companies (1.55%), investment funds (1.81%), professional individual investors (approximately 8.63%), the rest are other individual and institutional investors.

Regarding the method of issuance: enterprises mainly issue by the method of issuing agency, in which the securities company or commercial bank plays the role of the issuance consultant, the distribution agent, and the depository of the bonds.

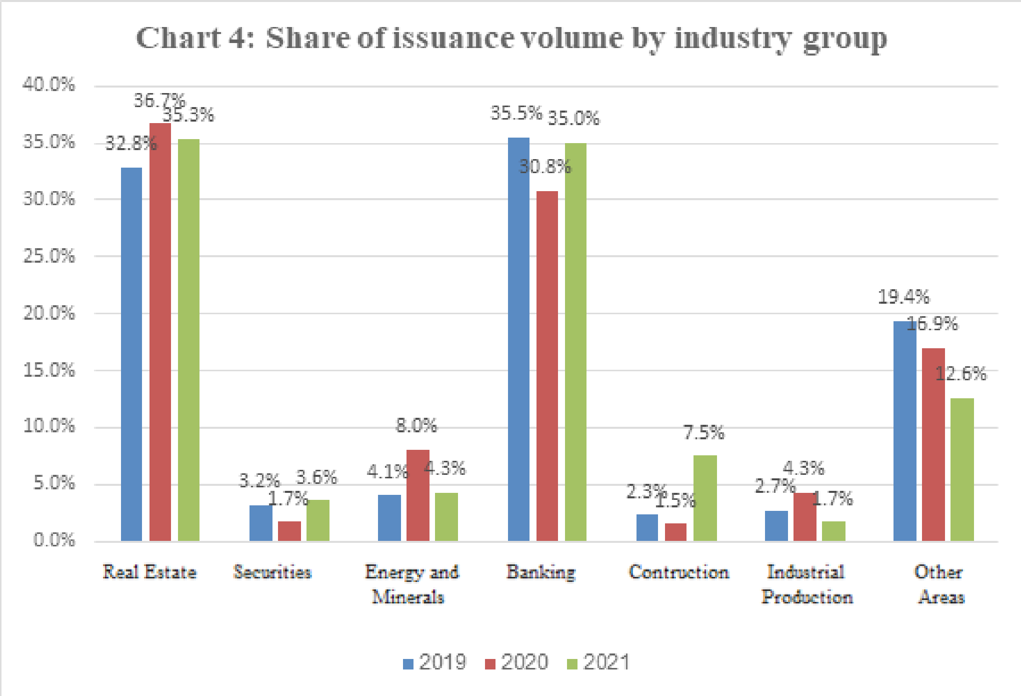
Regarding bond structure: Among enterprises issuing bonds, the group of commercial banks and real estate always accounted for the largest proportion. In 2021, the banking and real estate sectors respectively issued VND 232,337 billion and VND 230,443 billion, accounting for 35% of the total issuance volume. The group of issuing banks increased sharply in 2021 to mobilize capital for year-end credit growth and comply with Basel II regulations. In addition, 2021 is a year of strong growth in the real estate market, therefore, the demand for capital for business increases, and the issuance of bonds to mobilize capital is a major contribution channel for businesses in the real estate sector. Next is the group of construction, energy and minerals, securities…

Table 2. Corporate bond issuance structure by industry group

Unit: billion VND

Industry group	Year 2019	Year 2020	Year 2021
Real estate	106,531	169,715	232,337
Securities	10,400	7,869	23,565
Energy and minerals	13,200	37,017	28,453
Banking	115,422	142,527	230,443
Construction	7,600	7,064	49,368
Industrial Production	8,740	20,007	11,055
Other areas	62,871	78,376	82,788
Total	**324,764**	**462,575**	**658,009**

Source: According to updated data from published data of HNX and SSC as of January 7, 2022



However, entering the first half of 2022, the corporate bond market experienced strong fluctuations after the regulatory agency took action to make the market healthy. The volatility of the corporate bond market has partly affected the capital sources of businesses, especially those in the field of construction and real estate.

4.2.2. Trading on the secondary market

By the end of 2021, there are 15 corporate bond codes listed and traded on the secondary bond trading market.

Table 3. Listing data of corporate bonds on the Ho Chi Minh Stock Exchange

Criteria	Stock	Bonds	Fund certificates	ETF	CW	The whole HOSE
Number of listed tickers (1 stock)	402	15	3	10	164	594
Proportion (%)	67.68%	2.53%	0.51%	1.68%	27.61%	100%
Listing volume (1000 stocks)	136,324,190	162,720	44,960	1,291,400	1,127,820	138,951,090
Proportion (%)	98.11%	0.12%	0.03%	0.93%	0.81%	100%
Listed value (billion VND)	1,363,242.0	16,272.0	449,608.0	12,914.0	1,977.5	1,844,013.5
Proportion (%)	73.93%	0.88%	24.38%	0.70%	0.11%	100%

Source: Ho Chi Minh City Stock Exchange

From Table 3, it can be seen that listed bonds are accounting for a very small proportion compared to stocks in particular and the floor in general in terms of both value and proportion. Currently, the whole market has only 15 listed bond codes with a total volume of more than 162 million bonds, corresponding to the listed value of VND 16,272 billion, accounting for 0.12% and 0.88% of the volume, respectively, and the listing value compared to the whole Ho Chi Minh City Stock Exchange. This figure shows that the corporate bond market has too few goods for investors to choose from. The low number of listed bonds is also explained by the fact that the corporate bond issuance method in Vietnam is mainly private placement (accounting for more than 90% of the total issued bonds), while the private issuance Retailers are not allowed to list transactions on the centralized market.

Not only accounting for a small proportion of the listed volume and value, but the transaction value of corporate bonds compared to the trading value of the whole market is also very modest.

Table 4. Value and proportion of corporate bond transactions on the Vietnamese stock market

Unit: billion VND

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
The trading value of CB	1635.3	2333	3911.8	3217.9	4889.6	10471	17211.6	35588	42900	33086	49352
Stock market transaction value	161,215	219,708	265,806	536,462	487,406	613,122	1,061,182	1,382,607	1,031,994	1,619,162	5,499,239
The proportion of transaction value of CB to stock market	1.01%	1.06%	1.47%	0.60%	1.00%	1.71%	1.62%	2.57%	4.16%	2.04%	0.90%

Source: Ho Chi Minh City Stock Exchange

Although the transaction value of corporate bonds has continuously increased over the years in the period 2011 - 2021, the proportion of corporate bond transaction value compared to the transaction value of the entire Vietnam stock market is still very small, the highest year is 2019 also accounted for just over 4%. This is explained by the very few goods on the corporate bond market (15 listed bond codes), so the corporate bond market is not attractive to investors to participate in trading.

According to the assessment of economic experts, in the context of macroeconomic stability, the economy maintains a high growth rate, businesses need to issue bonds to raise capital, and the corporate bond market will have a lot of growth potential. However, the development process of the corporate bond market over the past time still has some shortcomings such as the market size is still small compared to the potential, bond issuance has not yet become the main capital mobilization channel of enterprises, and the secondary market has not yet developed, the liquidity after issuance is still low, the publicity and transparency of the market are still limited. In addition, the market still lacks credit rating agencies, and bond valuation organizations, the investor base is still thin, there is a lack of long-term investors with strong financial potential, the main investors in the market are commercial banks, and investment funds still account for a small proportion…

5. DISCUSSION AND CONCLUSION

Although the legal environment in developing the corporate bond market has improved markedly as the bond issuance process has been more complete in line with actual conditions, the level of convenience in fulfilling financial obligations (taxes, fees, charges) related to transactions on the secondary market is increasingly progressive; The impact of the implementation of legal documents related to the corporate bond market has gradually created favorable conditions for market participants. However, the Vietnamese corporate bond market is still fragmented and has not been able to effectively promote its role in mobilizing long-term capital for businesses. Many businesses have issued individual bonds with small equity but mobilized debt capital with a very large volume of bonds, many times higher than equity capital. Some businesses also offer interest rates much higher than the average interest rates in the market but have no collateral and no payment guarantees, especially real estate businesses. Besides, the Vietnamese corporate bond market lacks credit rating agencies, so investors lack a basis to evaluate bond quality. This poses a risk of insolvency, affecting the safety of the financial system.

For the corporate bond market to continue to develop and become an important capital channel of the economy, it is necessary to continue implementing the following solutions synchronously:

One is, perfecting the legal framework for corporate bond issuance in the direction that enterprises issuing corporate bonds to the public must be rated to improve publicity and transparency; Associate the issuance of corporate bonds to the public with listing and trading on the stock market to improve the liquidity of bonds. Privately issued corporate bonds can only be traded among institutional investors.

Two is, to develop credit rating agencies and encourage businesses to use credit rating services in the corporate bond market.

Three is, diversifying the investor base in the corporate bond market, including professional investment institutions and professional investment individuals.

Four is, to operate and upgrade the centralized information page on corporate bonds to enhance publicity and transparency in the process of raising bond capital.

Five is, for corporate bonds issued to the public, review to shorten the approval process. For listing and trading on the secondary market, it is necessary to improve the infrastructure and bond trading system to standardize the listing and trading process and increase the liquidity of bonds.

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DEVELOPMENT OF CORPORATE BOND MARKET IN VIETNAM

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Abstract: *Recently, the corporate bond market has gradually developed in accordance with the orientation and guidelines of the Party, the National Assembly and the Government, becoming an important medium and long-term capital mobilization channel and contributing to reducing dependence on bank credit capital. However, besides the positive results in terms of capital mobilization scale, the rapid development of the market also created new risks. These risks stem from many reasons, one of which is the uneven development of the financial market. In this article, the authors will provide some analysis and comments on the current development situation as well as propose some solutions to promote the domestic corporate bond market.*

Keywords: *Corporate bonds, investors, medium and long-term, capital mobilization channel.*

1. INTRODUCTION

For developing countries, the commercial banking system usually plays the main role in providing credit to the economy. Countries often take some time to develop capital markets and narrow down the gap between capital markets and bank credit markets.

In Vietnam, due to historical factors, the commercial banking system acts as the main channel of capital for the economy. Capital for businesses depends heavily on bank credit, including medium and long-term capital. This situation has been creating great pressures and posing risks for the credit institution system as the main source of mobilized capital is short-term (the ratio of short-term capital mobilization accounts for about 82% of total capital mobilization). Therefore, commercial banks have recently been restructuring in order to improve their financial capacity and ensure operating safety ratios in accordance with regulations. The State Bank of Vietnam has regulated to gradually tighten the ratio of short-term capital for medium and long-term loans of commercial banks, accordingly, from 40% in 2020 to 34% from October 2022 and 30% from October 2023.

The concept of capital market development to reduce the economy's dependence on bank credit has been set forth by the Party and the National Assembly for many years. Over the past time, the Government has actively implemented solutions to implement guidelines and policies on continuing to restructure the economy, renovate the growth model, and improve the competitiveness of the economy in which focus on capital market development to open up medium and long-term capital sources for investment and development, balance between money market and capital market. On that basis, the corporate bond market in Vietnam is developing strongly, increasingly asserting its role as an important medium and long-term capital mobilization channel for enterprises.

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2. THE CURRENT SITUATION OF CORPORATE BOND MARKET DEVELOPMENT IN VIETNAM

Viet Nam's corporate bond market has shown progress over the recent years. Over a 10-year period, the country has almost doubled the value of outstanding corporate bonds, reaching VND403,468 billion equivalent in 2020. Even though there are signs of growth, the Vietnamese corporate bond market is still recognized to be the smallest among the ASEAN 6 economies.

Recognizing the importance of the corporate bond market in the country, the Ministry of Finance Viet Nam (MOF Viet Nam) passed Decree 163/2018/ND-CP (or, the Decree on Issuance of Corporate Bonds), which amended Decree 90/2011/ND-CP. The goal of the amended Decree is to make issuance process simpler and easier for potential issuers in the country. Before this Decree, the Government of Viet Nam approved a roadmap for the period 2017 to 2020 and envisioned to extend up to 2030. The roadmap aims to achieve a well-functioning bond market which is aligned with international best practices and standards. Under this roadmap, total bonds to gross domestic product (GDP) ratio is targeted at 45% by 2020 and 65% by 2030.

- **Corporate Bond Market Size**

In terms of its relative size to market capitalization and GDP, Viet Nam was the smallest among the regions. To some extent, this characteristic also shows that Viet Nam still has untapped its corporate bond market. Table 2.1 shows the comparison of corporate bond market sizes across ASEAN6+3 countries.

Table 2.1. Corporate Bond Market, Government Bond Market, and Corporate Loan Market of ASEAN6+3, 2018

Country	LCY Corporate Bond Market (A)	Market Capitalization [a] (B)	GDP (C)	A/B	A/C
Viet Nam	**4.29**	**171**	**238.85**	**2.5%**	**1.8%**
Indonesia	28.62	438	1,031.09	6.5%	2.8%
Philippines	25.01	253	331.51	9.9%	7.6%
Thailand	107.00	495	504.73	21.6%	21.2%
Malaysia	160.19	392	345.92	40.9%	46.3%
Singapore	116.15	483	357.39	24.0%	32.5%
People's Republic of China	2,615.42	5,377	13,088.75	48.6%	19.9%
Japan	723.62	5,373	5,004.14	12.8%	14.5%
South Korea	1,191.26	1,377	1,604.27	84.4%	74.3%

LCY = local currency

Note: Values in USD billions.

Sources: Asian Bonds Online for corporate bond market size and GDP (as of December 2018); Market capitalization in domestic exchanges (in current values, as of 2018) from Bloomberg.

In terms of share to GDP, Viet Nam's ratio was the smallest among ASEAN 6 markets, as shown in Table 2.2.

Table 2.2. Corporate Bond Market, Government Bond Market, and Corporate Loan Market of ASEAN6+3, 2018

Country	LCY Corporate Bond Market (A)	Government Bond Market (B)	Corporate Loan Market (C)	A/B	A/C
Viet Nam	**4.29**	**46.65**	**N/A**	**9.2%**	
Indonesia	28.62	164.59	211.89	17.4%	13.5%
Philippines	25.01	91.01	139.70	27.5%	17.9%
Thailand	107.00	170.41	486.30	62.8%	22.0%
Malaysia	160.26	174.08	400.62	92.1%	40.0%
Singapore	116.15	91.64	295.55	126.7%	39.3%
People's Republic of China	2,615.42	6,837.08	12,930.28	38.3%	20.2%
Japan	688.20	9,545.11	17,749.12	7.2%	3.9%
Korea	1,167.93	679.36	710.97	171.9%	164.3%

Sources: Asian Bonds Online for corporate bond market size and government bond market size (as of December 2018); Corporate loan market size (as of December 2018) from the central bank of each country

This further relates to the underdevelopment of Vietnam's corporate bond market. On the other hand, Vietnam's official data on corporate loan market is not available for comparison with other markets. As noted by one market participant, the corporate loan market is very big in Vietnam since banks used to provide corporate loans than retail loans. Corporates see bank loans as the initial source of funding, while corporate bonds will only be a secondary option. Corporates may have bank loans with maturity ranging from 1 to 3 years.

Based on corporate bond regulations set by MOF Viet Nam, bond issuance methods include: (i) bond bidding, (ii) bond issuance underwriting, (iii) through bond issuance agency, and (iv) direct sale of bonds, if the issuer is a financial or credit institution. Bonds can be issued through a public offering or a private offering ("private placement"). Public offers pertain to bonds offered to more than 100 investors. On the other hand, any offer made to less than 100 investors would be considered as private placement. As one caveat for this report, the entire information on corporate bond market in Viet Nam remains unclear. Various data sources may be reporting different estimates on Vietnam's corporate bond market. For uniformity, this report uses corporate bond information sourced primarily from Bloomberg, and to some extent with references from Asian Bonds Online.

Although only being able to capture a sample of the total corporate bonds in Vietnam, Bloomberg provides some information on the specific characteristicsin the primary market, which may be useful in understanding the trends in Vietnam's corporate bond market.

- **Volume**

In the 2016-2020 period, the total volume of corporate bonds issued is about VND1,224.5 trillion, an average of VND238.8 trillion/year and about 9 times higher in the period 2011-2015. In which, private issuance accounted for 93.9%, issuance to the public accounted for 6.1%. The size of the corporate bond market by the end of 2020 reached about 15.75% of GDP, 4.1 times higher than in 2016 [1] .

From 2018, the corporate bond market began to grow rapidly with an average issuance volume of over VND330 trillion/year, of which individual corporate bond issuance accounted for 93.4% of the total issuance volume; especially, the volume of corporate bond issuance to the public tended to increase with an average growth rate of about 70% per year [1].

Particularly in 2020, the volume of individual corporate bonds issued was about VND403,468 billion, up 30.4% compared to 2019, 4.1 times higher than 2016; The volume of corporate bond issuance to the public also increased by 22.1% compared to 2019 and 7.1 times in 2016 [1].

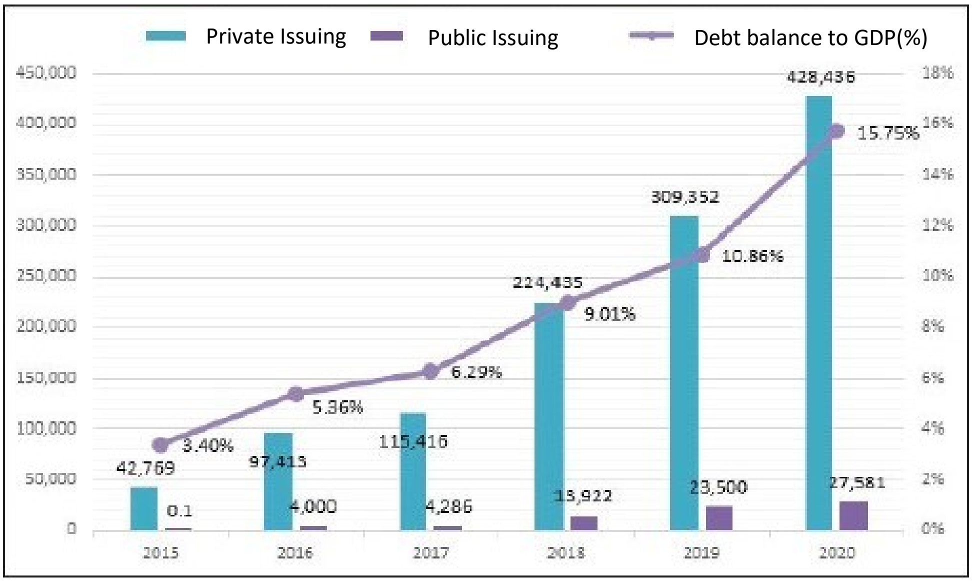


Figure 2.1. Corporate bond issuance volume 2016-2020

Source: Ministry of Finance

In 2016, the stock market capitalization was 79.6% of GDP, the bond market was 36.9% of GDP while bank credit outstanding was 135.4% of GDP. By the end of 2021, the stock market capitalization reached 93.8% of GDP, the bond market was 39.7% of GDP and the size of bank credit outstanding decreased to 124% of GDP. In particular, the stock and corporate bond market had a growth rate of over 30% per year in the period of 2019-2021, thereby gradually narrowing the gap and balancing with the bank credit market.

In 2022, the total volume of corporate bonds issued individually in the first 7 months of the year reached VND 280,641 billion (equivalent to the same period in 2021). In which, credit institutions accounted for 37.2% of the total issuance volume, real estate businesses accounted for 31.5%, construction accounted for 8.8%. Particularly in July, 84.4% of the total volume of individual corporate bonds issued by credit institutions, real estate and construction businesses accounted for 1.5% and 0.7% respectively.

- **Term and interest rate**

Privately issued corporate bonds mainly have a term of 3-5 years. The average maturity of individual corporate bonds tends to increase, from an average of 3 years (in 2016) to 4.21 years (in 2020). Corporate bonds issued to the public mainly have long maturities (7-10 years).

Interest rates for private placement of corporate bonds are popular from 7%-11% per year, in line with market movements; in which, commercial banks have lower average issuance interest rates of about 7.04%/year (in 2019) and 6.15%/year (in 2020). For corporate bonds issued to the public, the issuance interest rate is mainly floating, referencing the average deposit interest rate of commercial banks with state capital [1].

- **The issuer**

In the period 2017-2019, commercial banks were the largest issuers in the corporate bond market (by both private placement and public issuance). Issuing commercial banks promoted bond capital mobilization to increase tier II capital and increase long-term capital, in order to meet capital adequacy criteria under Basel II from 2020.

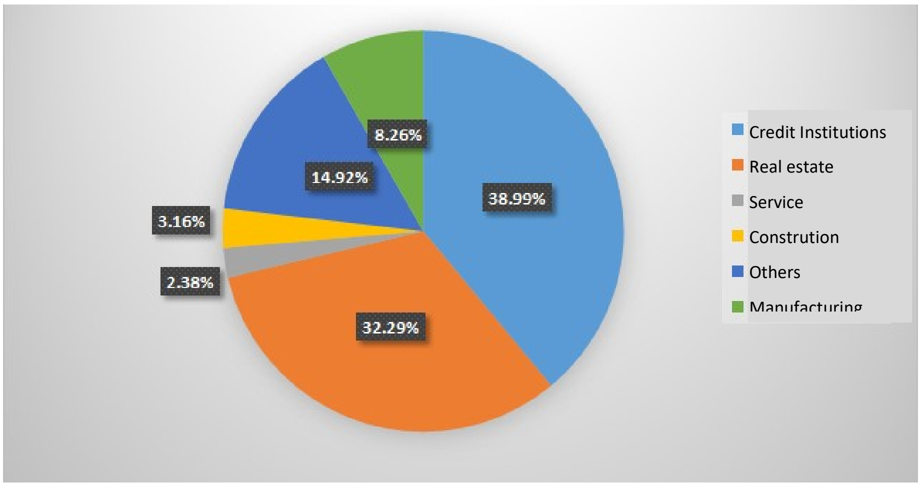


Figure 1.2. Industry structure of corporate bond

Source: HNX

For real estate businesses, due to tight credit in this field, businesses increased the issuance of bonds to raise capital and was the second largest issuer in the whole period 2016-2020, accounting for 27%. total issue volume. In addition, manufacturing, construction, tourism and service enterprises were increasingly expanding the mobilization of bond capital in addition to bank loans *(Figure 1.2).*

The issuance situation in 2022 shows that, if in the first quarter, real estate and construction businesses were the strongest issuers, accounting for 50.98% and 18.87%, respectively, in the second quarter, credit institutions boosted issuance, accounting for 64.73% of total issuance volume, real estate businesses accounted for 15.49% and construction group accounted for 0.44%.

- **Investors base**

Viet Nam's local currency bond market is dominated by domestic investors and remains limited to only a few major investor groups. Domestic investors are the main subjects holding about 98% of corporate bond issuance volume, foreign investors hold about 2% in the period 2016-2020. Institutional investors buy more than 90% of the issued corporate bond volume, individual investors buy less than 10% of the total issued volume [1].

In Vietnam, non-residents are allowed to purchase bonds. Both resident and non-resident investors are levied a 5% withholding tax. However, the tax rate may be reduced depending on existing tax treaties.

The main investors buying corporate bonds issued on the primary market are credit institutions (buying 46.14%), securities companies (buying 22.43%), professional individual investors buying 10, 11%. However, according to statistics on the secondary market, after buying bonds, securities companies mainly sold them back to individual investors, causing individual holdings to increase to 32.6%.

Most of the individual corporate bonds after being issued to institutional investors (commercial banks, securities companies) are resold to individual investors, among them, mainly investors with financial potential. This is also the general situation of Vietnam's stock market.

- ✓ ***Credit institutions***

Table 2.3. Overview of Banking Industry and Investments

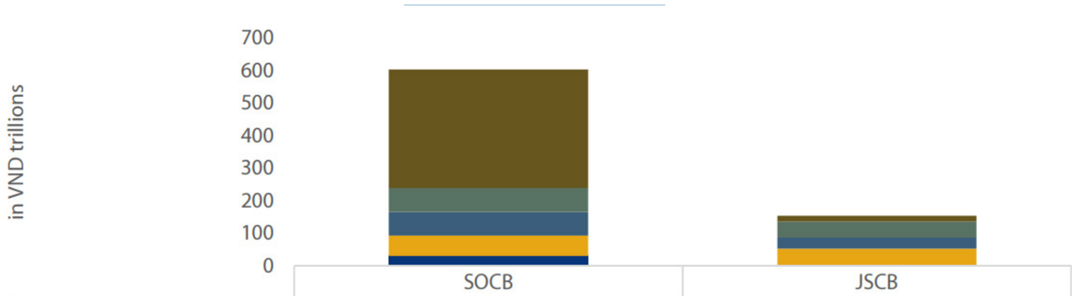
Bank Groups[a]	Major Players	Total Securities Holdings[b] (as of Dec 2017)	Total Corporate Bond Holdings[c] (as of Dec 2017)	% Share of Corp. Bond Holdings to Total Investments
SOCB	• Agribank • Vietcombank • Vietinbank • BIDV	VND593 trillion	VND149 trillion	25%
JSCB	• TechcomBank • Sacombank • ACB • Military Bank • Maritime Bank • LienVietPostBank	VND191 trillion	VND83 trillion	44%

ACB = Asia Commercial Bank, BIDV = Bank for Investment and Development of Viet Nam, JSCB = joint-stock commercial bank, SOCB = state-owned commercial bank

Source: Financial Statements of Banks in 2017; Authors' interpretation and calculations

From the data presented in Table 2.3, the estimated corporate bond holdings of SOCBs and JSCBs amounted to VND232 trillion in 2017, which was even more than the amount of reported corporate bond holdings in sources such as ABO or Bloomberg.

In addition, between SOCBs and JSCBs, Table 2.3 shows that JSCBs had higher ratio of corporate bond holdings than SOCBs. The securities investments of SOCBs were leaning towards government bonds. Figure 1 shows the distribution of bond holdings among the select SOCBs and JSCBs.



	SOCB	JSCB
GBs	365	17
Bonds issued by banks	73	49
Bonds issued by enterprises	73	34
VAMC Bonds	63	53
Others	30	0

Figure 2.4. Breakdown of Total Bond Holdings Between Several State-owned Commercial Banks and Joint Stock Commercial Banks

Source: Financial Reports of each bank in Table 14; Authors' calculations and interpretation

From previous discussions with market participants and as seen in financial reports of some banks, banks normally invest in corporate bonds with maturities of up to 5 years. They also invest in bonds with maturity of beyond 5 years, but these are mostly bonds issued by other banking institutions. Figure 1 reinforces this information that holdings from other banks (VND122 trillion for both SOCB and JSCB) were greater than the holdings from nonbank enterprises (VND107 trillion) in 2017.

Banks are quite aggressive in taking credit risks of bonds as they already give loans to small- and medium-sized enterprises (SMEs) and state-owned enterprises (SOEs). Some banks also invest in corporate bonds not only to hold them in their books but also to distribute to their retail clients.

Figure 2.4 shows that there are "VAMC Bonds" existing in the market. The Viet Nam Asset Management Company (VAMC) was established by SBV in July 2013 to clean up bad debt from the banking system and allow domestic banks to undergo restructuring.11 Banks with nonperforming loan (NPL) ratio of 3% or more are required to sell their NPLs to VAMC, which in turn will issue bonds ("VAMC Bonds" or "Special Bonds"). VAMC bonds have a maturity of 5 years. Based on the financial statements of the banks, VAMC bonds are held until maturity.

In 2018, the SBV issued Circular No. 15/2018/TT-NHNN that prohibits banks to buy corporate bonds for restructuring of existing loans of issuers. The circular also mentioned that banks should have prudential internal credit risk rating as well as a rating system for issuers.

✓ ***Social Insurance***

Social insurance is managed separately by the government agency, Viet Nam Social Security (VSS). The investment activities of VSS are generally governed by Law No. 58/2014/QH13 ("Law on Social Insurance"). The main investment principle is to ensure safety, efficiency, and capital recoverability. As such, VSS is only allowed to invest the social insurance fund on the following assets:

- Purchase of government bonds;

- Deposits or purchase of bonds, term bills or deposit certificates at well-performing commercial banks as rated by the SBV; and
- Provision of loans to the state budget.

In addition, Article 19 of Decree 115/2015/ND-CP ("Guidance on the Law on Social Insurance") states that the gains from the investment activities of the social insurance fund shall be placed into the fund and be used to pay for the administrative expenses of the social insurance.

According to a news report, the accumulated fund investment of the social insurance fund as of end of 2017 reached VND610 trillion, of which 90% were invested in government bonds and the remaining 10% were invested in short-term deposits at commercial banks.15 Based on these descriptions, it can be said that the social insurance fund is has yet to invest in corporate bonds in Viet Nam.

✓ ***Private Insurance Companies***

In 2017, there were 30 non-life insurance companies and 18 life insurance companies. According to the Annual Report of MOF Viet Nam on the insurance industry in 2017, the insurance sector had invested VND248 trillion in 2017. The annual report mentioned that the industry's investment grew by 25.1% in 2017. Most of the investments were in government bonds, government-guaranteed bonds, and local government bonds. Figure 2.5 shows the breakdown of the investments.

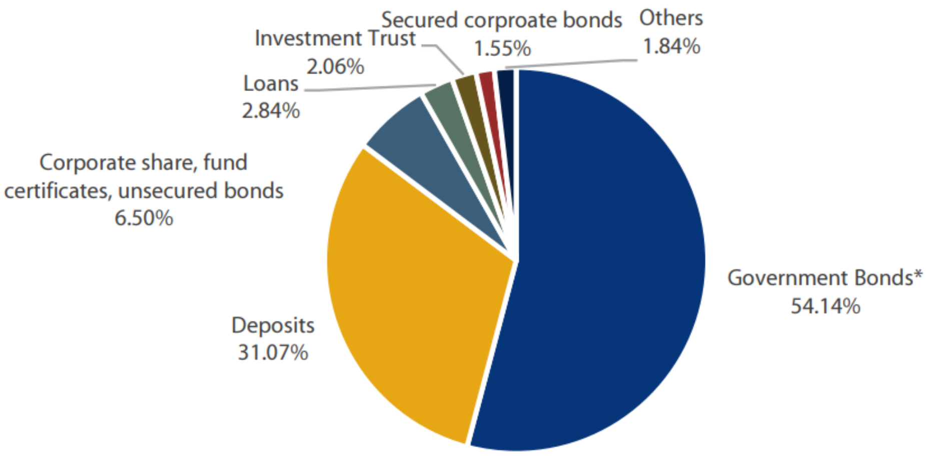


Figure 2.5. Investment Portfolio of Vietnamese Insurance Companies, 2017

Source: MOF Viet Nam. 2017. Annual Report of Viet Nam Insurance Market 2017

✓ ***Fund Management Companies***

The Securities Law of Viet Nam (2006) differentiates fund management companies from securities companies. Fund management companies are allowed to do two main activities: (i) securities investment fund management and (ii) securities investment portfolio management. The definition makes fund management companies in charge of managing mutual funds, open-ended funds, and pension funds.

Based on the data available from the State Security Commission's (SSC) website, there were 48 fund management companies registered and licensed in Viet Nam. 17 Of the 48 fund management companies, only one fund management company was under restructuring (i.e., Dong A Securities Investment Management Company Limited).

✓ ***Foreign investors***

Foreign investors are defined as those "individuals bearing foreign citizenship or organization established under foreign law and conducting investment or trading activities in Viet Nam." Based on Decree 60/2015/ND-CP, foreign investors have unrestricted investments in government bonds, government-guaranteed bonds, local government bonds and corporate bonds, unless stipulated by relevant laws or the issuer.

In the same decree, for convertible bonds, the issuer should ensure that the rate of foreign ownership on the maturity date when these bonds are converted into stocks or on the date when stocks are bought shall conform to regulations. **Risks and limitations of the corporate bond market.**

- **Limitations of the corporate bond market**

The corporate bond market grows rapidly, but it also exposes limitations:

First, corporate bonds are not bank deposits. Corporate bonds are issued by enterprises on the principle of self-borrowing, self-paying and self-responsibility for debt repayment ability. Therefore, investors buying corporate bonds are at risk when the enterprise cannot guarantee the obligation to pay the bond principal and interest.

Second, when being introduced to buy private corporate bonds, investors must note that the law only allows professional securities investors to buy privately issued corporate bonds. If investors are not professional investors, they are not allowed to buy this type of bond.

Thirdly, the distribution of credit institutions and securities companies offering to buy corporate bonds does not mean that these organizations guarantee the safety of buying bonds. These organizations are just service-providing enterprises, enjoying service fees from the issuer without being responsible for the debt repayment ability of the issuer.

Fourth, bond underwriting is not bond payment guarantee. Underwriting is just an underwriter's commitment to the issuing enterprise to distribute the number of bonds to be issued, without any obligations to investors. For payment guarantee, investors also need to carefully understand the scope of guarantee (guarantee to pay principal, interest or only part of principal and interest and investors will have to bear the risk for the rest).

Fifth, collateral assets of corporate bonds or credit loans have many types such as real estate, shares, stocks, investment programs and projects, etc. On the separate corporate bond market, most collateral assets are real estate and programs, projects, securities or a combination of assets (real estate, securities).

- **Risk of the corporate bond market**

Liquidity risk

There is limited liquidity in the secondary market trading for corporate bonds. To improve the liquidity for bondholders especially retail investors, there are more corporate bonds issued with put option as a proxy for the liquidity for bondholders. Retail investors can sell back the bond to the issuer when they need liquidity. However, for those corporate bonds with longer tenors, the put option is often not available.

Default risk

Lack of a proper risk assessment framework could lead to potential defaults. Typically, problems arise if the market infrastructure development does not keep pace with the rapid growth. For a start, there is no local credit rating agency. Further, the credit ratings by international rating agencies are not available for most corporate bond issuers in Vietnam, except for local banks which have ratings by Moody's.

Moreover, most corporate bonds are unsecured,except for corporate bonds with collaterals issued to the local banks. The credit rating of an issuer is also a relatively new concept with most investors placing more importance on the coupon rate and familiarity with the issuer name. Hence there is no available benchmark for investors to consider.

4 . THE CAUSE OF THE LIMITATIONS AND RISKS

The above risk phenomena stem from both objective and subjective causes. Besides the objective factors because the bond market is in the early stages of development, there are still many fluctuations; the above shortcomings and limitations also come from subjective reasons, specifically: (i) The situation of compliance with legal regulations of enterprises, investors and service providers is not really good; (ii) Some service providers in the corporate bond market such as consulting organizations, auditing, accounting, valuation organizations, etc., do not meet quality requirements and violate professional ethics; (iii) There are still many individual investors who are not fully equipped with legal knowledge and understanding of the market, buying and selling according to rumors, with many potential risks; (iv) Inspection and supervision activities have been implemented recently but have not yet met the requirements of the market.

In particular, the biggest risk in the market today is the risk from individual investors who lack the ability to analyze and evaluate the risks of bonds but still participate in buying corporate bonds. Some cases have committed fraud when determining to become a professional securities investor to buy individual corporate bonds. On social networks and groups, there has recently been a phenomenon of brokers of some businesses and financial institutions inviting people to buy corporate bonds as a form of savings with the offer to help break the law to become professional investors with a fee of 2-3 million VND. Besides, along with interest rates tend to increase, the mobilization of enterprises becomes more difficult, businesses have started to raise interest rates on corporate bonds to mobilize capital, especially enterprises. real estate, construction.

5. SOLUTIONS TO DEVELOP THE CORPORATE BOND MARKET IN VIETNAM

In order to develop a safe and effective corporate bond market to stabilize the macro-economy, the article proposes 5 groups of solutions including:

Firstly, completing the organization and administration of the market in association with perfecting the legal framework, developing the corporate bond market in a sustainable way to become an important capital mobilization channel for businesses, building standards market, separating bonds issued to the public and issued privately.

Second, improving the quality of securities companies and fund management companies, enhancing professional ethics and service quality of service providers.

Third, developing investors, promoting the formation and operation of professional investment institutions and professional securities investors as well as strengthen training and development of individual investors with full potential. enough knowledge to enter the market.

Fourth, improving the efficiency of supervision, continuing to expand the scope and frequency of supervision, inspection and inspection; improving the effectiveness of management, supervision and enforcement to promptly detect and limit potential risks in the market.

Fifth, strengthening the coordination between ministries and branches in the administration, management and supervision of the stock market, bond market, money and bank credit markets, ensuring publicity and transparency on the capital market, stabilizing financial markets, thereby contributing to macroeconomic stability.

6. CONCLUSION

The corporate bond market is an effective capital mobilization channel for businesses with its own advantages. In order to develop a healthy, transparent and stable corporate bond market, it is necessary to properly identify the role of corporate bonds, along with effective solutions to meet the objectives of promoting the capital market to be effective and sustainable, contributing to the development of the business community, the growth of the economy and global financial integration. Completing the legal framework, tightening management and supervision, and synchronously developing financial instruments and markets are important measures to develop the corporate bond market. From there, the corporate bond market is expected to become an effective medium and long-term capital mobilization channel for the economy in the future.

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THE MOTIVES FOR AND ETHICAL DILEMMAS ARISING IN RESPECT OF FINANCIAL STATEMENT FRAUD: A COMPARISON AND ANALYSIS BETWEEN THE UNITED KINGDOM AND JAPAN AND LESSONS FOR VIETNAM

MSc Le Hai Anh[1]

Abstract: *After many accounting scandals of big firms around the world, financial statement fraud has become more attractive for the financial community and the public. Financial statement fraud considered as a white-collar crime is usually committed by managers and employees to represent the company's financial statement in a more favourable way. There are various reasons and incentives for perpetrators to commit fraud and these motives vary significantly in different circumstances. The paper studies about motives for and ethical dilemmas arising in respect of financial statement fraud by analysing and comparing actual cases in two developed countries, the United Kingdom and Japan, and then proposes some lessons for Vietnam.*

Keywords: *Motives, ethical dilemmas, financial statement fraud,…*

1. INTRODUCTION

Financial statement fraud is considered as a scheme in which information in financial statements was misstated intentionally by employees (Jones, 2011). This has become an attractive issue among the financial community and the public as well because of high-profile and widespread fraud at many giant companies around the world. In order to investigate occupational financial statement frauds, it is necessary for researchers to gain a deep understanding of the factors motivating perpetrators to commit these frauds (Albrecht, 2016). It is also beneficial for organisations to perceive the weaknesses in their internal control systems and regulations and then carry out an effective financial fraud assessment. However, there are few studies on the subject of fraudulent motivations and ethical dilemmas in respect of financial statement fraud (Hollow, 2014). Therefore, the paper aims to dig more into this topic by analysing actual financial statement fraud cases in two developed countries, Japan and the United Kingdom. Rezaee and Riley (2010) suggested that there are many reasons and incentives for organisations or individuals to commit fraud, and these motives have varied significantly in different cases, situations and cultures. Hence, comparing and analysing two countries on different continents with significant differences in culture, tradition, and religion would gain more insights into motives and ethical dilemmas related to financial statement fraud. Moreover, in recent decades, either Japan or the United Kingdom have witnessed serval cases of accounting fraud and, eventually, a wide range of collapses of huge giant corporations derived from financial statement fraud. The paper focuses on finding answers to whether the factors motivating perpetrators to be involved in financial fraud in Japanese companies are the same as those in U.K. companies.

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2. TRIANGLE FRAUD AND OVERVIEW OF MOTIVES FOR AND DILEMMAS ARISING IN RESPECT OF FINANCIAL STATEMENT FRAUD

Before gaining insight into the motives and ethical dilemmas related to accounting fraud, it is necessary to take an overview of the elements which contribute to force people to engage in fraud. These elements are presented in the "Fraud Triangle" model (Figure 1), which was formed and developed by Donald Cressey (Albrecht, 2014). There are (1) perceived pressure; (2) perceived opportunities; (3) rationalisation. This model was supported by Albrecht (2016). He asserts that people will not be ready to take risks from engaging in fraudulent offence if they do not perceive that there are available opportunities to do that. In addition, people tend to be reluctant to commit fraud unless they rationalise that such behaviours are not bad or even good for themselves and everyone around them (Murphy, 2012). It means that only having motivation or incentives is insufficient for managers and employees to involve themselves in fraudulent acts. They also have to be aware of available opportunities to commit and rationalise that they are not doing that only for themselves but for others. In this paper, the fraud motive is considered as the perceived pressures and perceived opportunities which are the reasons for people to engage in fraud. Meanwhile, ethical dilemmas are the issues associated with moral and ethical problems in corporations, which depend significantly on corporate cultures, beliefs and traditions. Therefore, this is regarded as a factor in the aspect of rationalisation.

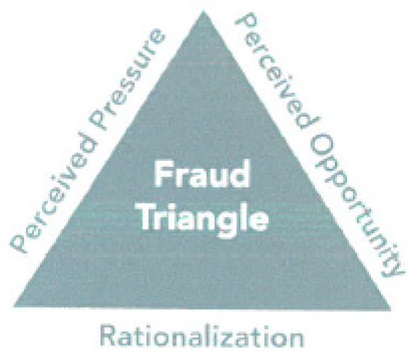

Figure 1. Fraud Triangle model

Albrecht (2008) suggested that typical identified pressures and incentives for people to be involved in financial fraud could be classified into both financial and non-financial perspectives. However, most reports have reflected that the incentives/pressures mainly fall into financial reasons (Jones, 2011). By analysing 14 U.S. and European fraud cases in 2007, Brenna and McGrath found that the primary motives leading to financial fraud were to influence stock prices and meet external analysts' expectations accompanying personal gain. This finding was supported by Jones's research conducted in 2011, in which he stated that the chance of increasing income as well as pushing up bonuses related to share price contributed significantly to indulge fraud of offenders. The motives of personal incentives such as promotions, bonuses, gambling, self-esteem and lifestyle were found as main reasons for committing fraud in the research of KPMG in New Zealand and Australia in 2008. Albrecht (2016) summarised 17 incentives grouped into three categories which are "personal incentives", "market incentives", and "special cases" might apply for fraud. Overall, each study above was researched in limited cases, in particular countries and periods, while the motives behind accounting fraud have varied significantly for different situations. Therefore, the results discussed above will be a framework for the paper to get insight into motives and ethical dilemmas in different countries and the changes following the period.

In this paper, motives and ethical dilemmas in respect of financial statement fraud in Japan and the U.K. will be studied by applying the method of case study analysis in section 3 and section 4. In section 5, a comparison of motives and ethical dilemmas between the two countries will be made to find the answer to the referred main question. The final section provides some lessons for Vietnam.

3. MOTIVES AND ETHICAL DILEMMAS IN THE U.K

Many high-profile financial scandals in the U.K. have come to light in recent decades. In order to find out the motivations and ethical dilemmas behind financial statement fraud in the U.K., three U.K. companies are selected to analyse. The main sources for analysing the U.K. cases are financial presses and the Serious Fraud Offices (SFO) website.

Firstly, commencing with a fraudulent financial case happening in the 20th century, this is the accounting scandal of Wickes Group. Wickes Group is one of the largest U.K. companies in the home improvement retailing and gardening sector, whose shares are traded on the London Stock Exchange (Wickes website). In 2002, SFO provided evidence to indicate that the Wickes' profit was overstated by £22 million during the two years from January 1994 to July 1996 through inappropriate recognition of supplier rebates and income contribution (Bowers, Wray, 2003). This accounting scandal was involved by five former directors who are Henry Sweetbaum, former chairman and chief executive, Trefor Llewellyn, the Wickes' former finance director, Geoffrey Battersby, the group's former financial controller, Terrence Carson, the finance director of the retailing operating subsidiary, Leslie Rosenthal, the group trading director (Grimsey, 2012). The question is, what factors motivate these directors to manipulate financial statements? In 1995, the Wickes paid Mr Sweetbaum a package of £1.2 million, which included a £750,000 bonus. During this period, Mr Llewellyn was also settled a similar bonus payment of £526,000, which increased his total package to £717,000 (Goodley, 2002). It can be seen that all these directors' incomes were derived mainly from bonuses which are significantly higher than their typical salaries. According to Goodley (2002), these bonuses were estimated and paid based on the provision of shares and share options. A popular form of director's remuneration is the provision of shares and share options. Share options have been considered as incentives for all directors and managers to enhance their performances and attempt to meet their targets (Jones, 2011). However, this option could lead directors to only focus on short-term performance and then put more unrealistic pressure on companies to inflate revenue and profit. Share performance can be affected by many different internal and external factors. Mulford and Comiskey (2002) indicated that operating profit plays a principal driver in the share market price. The stock price would rise if a company generates a good profit, especially satisfies analysts' expectations. On the other hand, the decrease in the company's profit can be seen as the main reason for the downturn in share price. Therefore, the significant reduction in Wickes's profit in 1993 forced directors to worry about a market share price drop which could negatively influence their bonus. Hence, this analysis has advocated the view of Brennan and McGrath (2007), which indicated that the main reason for Wickes's former directors to commit this fraud was personal gain.

A similar motive can be found in the case of Powerscreen happening in 1992, a world-leading manufacturer of mobile crushing and screening equipment. Three former directors of Powerscreen who are Mr Shay McKeown, Barristers representing, Mr Barry Cosgrove, former finance director and Mr Edward Holmes, former managing director of Matbro (Powerscreen's subsidiary) were charged with falsifying financial information in financial statements of the company from January to December 1997 (McDonnell, 2001). They were criticised for attempting to manipulate sale invoices and misclassify sales in Matbro subsidiary (Brennan & McGrath, 2007). SFO asserted that a serious accounting irregularity at Matbro had been discovered just two months after the group's successful new share issue (McDonnell, 2001). Hence, it seems that three Powerscreen's former directors had committed financial fraud to cease a weak financial performance, then attempted to make an impression toward potential investors that Powerscreen is a good deal and could provide more profitable than other investments in the market. Indeed, if a company is considered as an attractive investment, more investors desire to buy its shares, leading to an increase in the share price. As a result, an impressive financial performance would positively impact the company to raise more money by issuing new shares. Therefore, the motives behind this accounting scandal are directly linked to Powerscreen's objective which is gaining a successful share issue. Moreover, as the discussion above, the directors' remunerations highly depend on the level of targets that directors achieved. McDonnell (2001) also indicated the higher bonuses for these three former directors in 1997 than in previous years. Therefore, the incentives for directors to manipulate financial information are not only for the company's share issue but also for their incentives (higher income).

In addition, the more complex motives and ethical dilemmas could be found in the case of the Tesco accounting scandal, which was in the spotlight in 2014. In September 2014, three former directors who are Mr Chris Bush, the group's former U.K. director. Mr John Scouler, the former commercial food director and Mr Rogberg, the former U.K. financial chief, were charged with overstating Tesco's profit by £250 million (Binham & Vendevelde, 2017). After decades of growth, by 2014, Tesco, the biggest Britain retailer, was under pressure from the market recession and massive discount policies of rivals such as Aldi and Lidl (Venegas, 2017). The company then witnessed a significant reduction in the sale. However, instead of justifying and changing business strategies, aggressive and unrealistic targets were still required to be met, and a large amount of compensation was offered. Therefore, in this case, personal incentives could be assumed to motivate these directors to implement creative accounting to overinflate the company's profit. These CEOs did that because they feared decreasing salaries and losing bonuses, especially those related to share-option, which will be reduced if the share price goes down. Croft (2017) indicated that in a financial committee meeting on August 2014, Mr Rogberg was asked whether forecasts and financial targets were accurate, and he said they were. The prosecution had claimed the man as "general" who is motivated to commit fraud to keep salaries and bonuses (Croft, 2017). However, in the jury 2017, SFO failed to provide sufficient evidence to charge these three CEO with fraudulent offences in financial reporting fraud (Simpson, 2018). Finally, Tesco's U.K. unit Tesco Stores Limited agreed to pay £129 million as a penalty to settle this case and avoid a criminal charge (Davey, 2019). Hence, the motives behind the Tesco case are derived not only from personal benefits but also from the corporate norm, strategies, policies and business culture. The fraud might be implemented by involving all staff from high-position to lower-position. The employees falsified accounting figures since they needed to follow the company's strategies and accounting policies. They believe these practices are not illegal but also beneficial for their company. Based on the triangle fraud model, these norms and beliefs are not just motives but can be classified as rationalism. Both managers and employees might believe that cooking book is not a fraudulent act because it is an acceptable norm within the company, and they did not do that for themselves but for the company as a whole.

Overall, the motives for financial statement fraud in the U.K. are more and more complex, from personal incentives (maintaining salary, bonus, share-option) to special circumstances. It can be seen that in previous cases, such as the financial scandal of Wickes and Powerscreen, all perpetrators were the company's top managers, while the recent Tesco scandal was sentenced as a fraud conducted by the corporation. Meanwhile, previous financial statement frauds were mainly derived from personal interest accompanied by market expectations or particular circumstances, the recent Tesco case was caused by complicated motives which include ethical problems related to unethical behaviours in business and accounting practices. Therefore, the factors motivating financial fraud in the U.K. have changed over time.

4. MOTIVES AND ETHICAL DILEMMAS IN JAPAN

As a developed country, Japan has experienced many accounting scandals in recent decades. There are complex motives and ethical dilemmas inside these scandals. The paper analyses two dominant Japanese cases which had dynamic influences on the Japanese financial market. These are cases of Olympus group in 2011 and Toshiba in 2015.

The Olympus financial scandal came into the spotlight in 2011 when a new American CEO, Michael Woodford looked at financial information, which exposed the fraudulent accounting practices in this organisation (Morgan & Burnside, 2014). This fraud led to one of Japanese history's most prominent corporate corruption scandals. Olympus was charged with constructing a complicated system to hide its bad assets. The company sold obsoleted assets with exorbitant prices to newly created entities within its control to generate profits rather than recognising the losses from these sales. According to Association Certified Fraud Examiner (ACFE) (2017), this fraud was involved by a sophisticated system of staff from executives to employees at all levels and across the whole enterprise, rather than by individuals like fraudulent financial cases in the UK. ACFE (2017) also described the Olympus scandal as a tone at the top matter. The former CEO, chairman of the Board and group of executives at Olympus persuaded banks and other individuals to help them hide their frauds. They made a considerable number of insiders who were afraid of speaking up against top executives. Hence, the culture of Olympus Corporation can be regarded as keeping secrets and not "rocking the boat". This could be an example of unethical business culture.

This culture was also presented in Toshiba's recent financial fraud case in 2015. This is a huge accounting scandal of overstated profit of $1.2 billion with long-lasting over seven years and involved by a system of eleven employees from vice-chairman to senior staff (Inagaki, 2015). The panel of external lawyers and accountants also described this scandal as a systematic and deliberate attempt to message the accounting figures amid the unethical corporate culture in which lower-position staff feared speaking out against bosses who set unrealistic and unachievable financial targets. Rather than personal interests, Toshiba's employees attempted to manipulate accounting information because of their firm's performance in front of the threat of economic recession after the 2008 financial crisis. The Toshiba culture can be seen as loyalty. Employees tended to rationalise what they were doing are their responsibilities and for the company's benefit. Even keeping quiet was also beneficial for their companies.

Both financial fraud cases above indicate a corporate culture of keeping quiet, lack of transparency and centralised controls in Japanese corporations. Both Olympus and Toshiba's cultures also focused on enhancing financial performances and share price, rather than considering personal benefits such as higher salary or bonus, share-option. All managers and employees viewed their unethical behaviours and fraudulent acts as the right actions for the company's benefit.

5. COMPARISON OF MOTIVES AND ETHICAL DILEMMAS IN FINANCIAL STATEMENT FRAUD BETWEEN JAPAN AND THE U.K

As case study analysis in the two sections above, the increasing share prices for specific events and personal incentives was the common motive for fraud in the UK. Personal gains in these U.K. cases are mainly related to promotion, keeping jobs and receiving increased bonuses. Meanwhile, corporate culture could seem to be the central ethical problem leading to fraudulent acts in Japanese cases. The U.K. financial statement frauds were usually committed by a small number of directors. Most of these individuals were found guilty of receiving illegal bonuses and promotions. In contrast, creative accounting in Japanese cases was usually practised by many staffs who just had unethical behaviours because they believed this was beneficial for their company. However, analysis in these sections above also suggests that the motives and ethical problems in the U.K.'s cases are more complicated than in Japan. As seen through the case of Tesco, the accounting scandal was a systematic and deliberated accounting information manipulation for the company as a whole rather than for directors' gains. Overall, it is clear that the business culture has a significant influence on the committing of financial fraud in corporations. Business culture could also be considered the main factor in creating the differences in motives and ethical problems arising from financial fraud between Japan and the U.K.

Morang (2017) stated that there is a vast difference in perception toward the right or wrong behaviours between Asian (Japan) and Western (the U.K.) cultures. Lafayett De Mente (2012) asserts that in the Japanese culture, right or wrong behaviours mainly depend on the time, place and situation that people involved rather than based on a universal code of ethics or principles. There is a wide range of Japanese words used to reflect Japanese business culture. They are "makoto" which means keeping smoothly and harmony in operation, "wa" is defined as harmony and peace, "Jicho" considered as "to respect oneself" which means avoiding to speak something would make yourself is in criticism and final concept of "kata" refers to mutual co-operation, group efforts and reluctant to criticise someone (Morang, 2017). All of which mean that under the Japanese perspective, the ideal business culture is where harmony, smoothness and serenity are significantly emphasised rather than considering whether they are trustworthy or honest. Moreover, the group-think is regarded as an integral role in Japanese business culture, which is central to the group's goals rather than individual targets and responsibilities (Lafayett De Mente, 2012). Therefore, individuals in a business should be loyal and focus on meeting the KPIs allocated by managers. The reverse is true under the Western perspective that sincerity is understanded as truthfulness and honesty. It means that people should speak up against improper and unrealistic decisions from their bosses. Rather than avoiding interrupting a smooth operation containing illegal actions like in Japan, in the U.K., employees tend to have strong reactions and are ready to speak up against fraudulent acts. That is why we can see that whistle-blowing in the U.K. has developed far more rapidly than in Asian countries like Japan. This is also why the length of the period of financial fraud in U.K. is usually shorter than that in Japan.

6. LESSONS FOR VIETNAM

After the comparison and analysis of the actual cases in two developed countries, the U.K. and Japan, some lessons regarding motives for dilemmas in respect of financial statement frauds could be proposed for Vietnamese firms and regulators to enhance the ability to prevent, detect symptoms and investigate frauds.

Firstly, financial statement frauds are usually derived from perceived pressures such as maintaining or increasing personal benefits accompanying specific circumstances like meeting the company's objective and increasing share price. Therefore, setting unreliable objectives with extraordinary bonuses based on short-term performances could have a side effect: the objectives being met by manipulated financial numbers.

Secondly, actual accounting scandals reveal that people are not ready to commit a crime unless they perceive available opportunities to act in silence. The motives usually exist in companies with poor practices in corporate governance, such as inadequate control function, lack of supervision, lack of independence between operation and control systems, lack of regulations, policies, guided procedures regarding to risk management, internal control system. Hence, effective corporate governance plays an integral role in preventing and reducing the chances of accounting and finance fraud.

Thirdly, unethical business culture like "tone at the top", keeping quiet, smoothy, centralised control and lack of transparency... could be the main reason leading to fraudulent financial acts. People commit crime since they follow the company's values and beliefs and believe that they are doing the right things contributing to gain the company's goals, not for themselves. Therefore, having a healthy business culture is essential for the company to prevent ethical problems leading to criminal issues. More detail, an ethical business culture could be promoted by ethical leadership from the Board of Directors. The boards should set the foundations for an open culture which encourages reporting network, motivating employees to feel free to raise issues and speak their concerns without fear of retribution. Apart from that, to have an ethical culture, the company should follow a common corporate code of ethics or draw up one by its own which is suited to its own situation, values and culture and introduce policies and procedures as guidelines for ethical behaviour.

Fourthly, each nation has a different culture and therefore has a different set of values and ethics. This results in a difference in some certain aspects of ethical principles and values, because of the variation in what are considered as integral elements of ethical behaviours in different countries. For example, in countries which emphasise on openness, accountability in respect of ethical values like the U.K., the whistle-blowing and complaints systems have been developed more rapidly than in countries with "group-think" culture.

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THE IMPACT OF REMITTANCE INFLOW ON PRIVATE INVESTMENT IN ASIAN DEVELOPING ECONOMIES: EMPIRICAL EVIDENCE

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Abstract: *Remittance inflow plays a crucial role in the process of economic development and growth in Asian developing economies as they offset trade balance deficits, improve the living standards of recipients, increase foreign exchange reserves, and reduce dependence on foreign capital with high-interest rates. Does remittance inflow affect private investment in these economies? The paper looks for the answer by investigating the effect of remittance inflow on private investment in 20 Asian developing economies from 2002 to 2020. It employs the two-step difference GMM Arellano-Bond estimator (DGMM) for estimation and the defactored instrumental variables estimator (DIVE) for robustness check. The results illustrate that remittance inflow promotes private investment in Asian developing economies. Besides, economic growth increases private investment, while inflation and institutional quality decrease it in these economies. These findings suggest some implications for governments in Asian developing economies to receive more remittance inflow and boost private investment.*

Keywords: *Remittance inflow, private investment, Asian developing economies, the two-step difference GMM Arellano-Bond estimator, the defactored instrumental variables estimator.*

JEL code: F24, O11

1. INTRODUCTION

Remittance inflow has importance in economic development in several countries, especially Asian developing ones, due to its positive pass-through to the economy. It reduces poverty and raises the living standard of families in developing economies by covering daily living expenses and the cost of health care and education (Adams Jr & Page, 2005). Remittances received by families foster the retail market, which increases the demand for goods and services, thereby promoting economic growth (Ratha, 2003). Jawaid & Raza (2016) illustrates the positive influence of remittance inflow on economic growth in Sri Lanka, Nepal, India, and Bangladesh. Most Asian developing countries have particularly limited access to credit, underdeveloped financial markets, and scared foreign currency resources. Being an exogenous factor, remittances are independent of domestic economic circumstances, and governments do not need to pay interest for them, so they are a relatively stable capital source to improve the balance of payments, especially in economies with a bad current account deficit (Buch & Kuckulenz, 2010).

Despite its significant role in the economy, remittance inflow still expresses some adverse effects. It lowers the trade competition by appreciating the real exchange rate – a typical example of the "Dutch disease" (Polat & Rodríguez Andrés, 2019). In several countries, governments implement attractive policies to receive more remittances, which can lead to the initial cause of the dollarization

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of the economy (Luca & Petrova, 2008). For instance, recipients can receive an unlimited amount of remittances and use them in form of foreign currency to spend and invest. Besides, recipients do not pay taxes for remittances and do not resell them to the commercial banking system. Furthermore, remittance inflow can set up a psychological dependence of recipients on the migrants in the host countries. Recipients do not use remittances properly, so remittances are not necessarily a capital source for economic development (Chami et al, 2005). Meanwhile, private investment is one of the endogenous inputs in growth models to enhance economic growth and create more jobs (Khan & Reinhart, 1990). Greene & Villanueva (1991) report that private investment improves real income per capita and decreases inflation, real interest rates, and debt in developing economies.

In reality, most Asian developing economies lack investment capital for economic development. In addition to FDI (Foreign Direct Investment) inflows and ODA (Offical Development Assistance), remittance inflows play a relatively important role in promoting economic growth and creating more jobs in these economies. In particular, these economies have a large number of migrants living and working in other countries, so governments in these economies often formulate and implement some appropriate policies to attract more remittance inflows from these migrants. Therefore, the paper raises a research question "do remittance inflows crowd out private investment in Asian developing economies?" The answer to this question will be a novel contribution of this paper to the literature.

Motivated by the fact that remittance inflow has importance and can significantly affect the private sector development in Asian developing economies, the paper applies DGMM and DIVE to examine the effect of remittance inflow on private investment for a group of 20 developing countries in Asia between 2002 and 2020.

The paper describes its structure as follows. Section 1 introduces the motivation, while Section 2 reports some facts on remittance inflow in Aisa. Section 3 is the literature review that notes the impact of remittance inflow on private investment, while Section 4 is the methodology that presents the characteristics of DGMM and DIVE. Section 5 illustrates the results and discussion, and Section 6 is the conclusion.

2. SOME FACTS ON REMITTANCE INFLOW IN ASIAN DEVELOPING ECONOMIES

World Bank (2018) shows that approximately 80 million people from Asian developing economies worked and lived outside of their countries of origin in 2013. Remittance inflows to these economies grew substantially due to increasing worker migrants. Remittances are subject to adverse economic conditions in recipient countries due to the Asian financial crisis in 2015-2016 and low oil prices in 2015-2016, from which economies in the Middle East suffered. However, remittance inflows to this region increased steadily and reached 252 billion USD in 2017.

Meanwhile, World Bank (2022) reports that in 2021 remittances in middle-income and low-income economies can reach 589 billion USD with an increase of 7.3%, compared to a decline of 1.7% in 2020 due to a global recession by the coronavirus pandemic. It is the second year in which remittances in these countries (excluding China) are expected to exceed the total of official development aid (ODA) and foreign direct investment (FDI). This fact notes the significant role of remittances in supporting households for healthcare, education, and food in the recipient countries. Migrants' support for their families indeed is an important factor leading to an increase in remittances. This support stems from the economic recovery in Europe and the United States fueled by the fiscal stimulus and employment programs.

In 2021, it is expected that remittances in the East Asia and Pacific region can decrease by 4% to 131 billion USD. Except for China, remittances to this region rose 1.4% in 2021 and can increase by 3.3% in 2022. The top recipient economies are the Marshall Islands (12.8% GDP), Samoa (21.1% GDP), and Toga (43.9% GDP). Remittances in South Asia increased by 8% to 159 billion USD in 2021. High oil prices, economic recovery, and fiscal stimulus programs in the United States lead to the growth in remittances. Remittances increased 4.6% to 87 billion USD in India and 26% to 33 billion USD in Pakistan. In 2021, remittances in Europe and Central Asia can rise 5.3% to 67 billion USD due to economic recovery and high oil prices in the European Union after decreasing by 8.6% in 2020. Remittances in this region are projected to rise by 3.8% in 2022. The top recipient economies are the Kyrgyz Republic and Tajikistan, with above 25% GDP.

3. LITERATURE REVIEW

According to Dash (2020), the theoretical framework on remittances stems from the portfolio and family approaches. The former recognizes that remittances sent by migrants are investment capital in host countries (Rao & Hassan, 2012), while the latter suggests that altruism is one of the reasons for which migrants send remittances to support their families in recipient countries (Fullenkamp et al, 2008). Hence, remittance inflows can improve economic development through production and consumption, thereby enhancing domestic investment in physical and human capital. The following channels by which remittance inflows can boost domestic private investment: (1) They supply foreign exchange to import intermediate goods and services for investment in host countries (Fullenkamp et al, 2008); (2) They foster domestic investment by improving domestic savings in recipient countries (Gani, 2016); (3) They improve human capital in host countries through household spending on education and healthcare (McKenzie & Rapport, 2011); (4) They support domestic companies to mobilize money for investment by promoting financial sector development in host countries (Aggarwal et al, 2011); (5) They promote domestic investment through the multiplier effect by smoothing household consumption (Ratha, 2013). Therefore, remittance is a typical capital inflow sent by migrants to relatives in host countries to improve living standards by increasing physical and human capital. Notably, most studies find that remittances crowd in domestic investment, while a few suggest that remittances crowd out domestic investment.

Concerning the crowding-in effect, researchers insist that governments should eliminate barriers to transferring more remittance inflows into investment. Bjuggren & Dzansi (2008) apply the random-effects model, pooled OLS regression, fixed-effects model, and one-step difference GMM Arellano-Bond estimator for a group of 79 developing countries between 1995 and 2005. Adams Jr & Cuecuecha (2010) apply the two-stage selection model for the 2000 ENCOVI Survey in Guatemala from July to December 2000, while Adams Jr & Cuecuecha (2013) employ the two-stage multinomial selection model for the 2005–06 Living Standards Survey in Ghana between September 2005 and September 2006. Meanwhile, Nurul Hossain & Hasanuzzaman (2013) use the

ARDL bounds approach for the time series data in Bangladesh from 1976 to 2010, and Okodua (2013) employs the system GMM Arellano-Bond estimator for a sample of 31 Sub-Saharan African countries from 2000 to 2011. Similarly, Gyimah-Brempong & Asiedu (2015) use the one-step difference GMM Arellano-Bond estimator and fixed effects model for the Living Standards Survey in Ghana. They note that remittance inflows promote economic growth and decrease poverty through human capital. In the same vein, Manic (2017) uses the two-stage estimation process for an original survey conducted by him in Moldova. He shows that remittance inflows boost investments in urban regions at the expense of rural regions. Recently, Abbas (2019) employs the ARDL bounds approach for four South Asian countries (Bangladesh, Sri Lanka, Pakistan, and India) from 1980 through 2017. He indicates that remittance inflows enhance private investment in Sri Lanka, Bangladesh, and India but reduce it in Pakistan. Besides, Khan et al (2019) use the pooled mean group (PMG), pooled OLS regression, random-effects model, and fixed-effects model for five South Asian countries (Bangladesh, Sri Lanka, India, Pakistan, Nepal) between 1990 and 2016. They conclude that policies should channelize remittance inflows and remove barriers to business freedom to establish a conducive environment for investment. More recently, Dash (2020) uses the one-step system GMM Arellano-Bond estimator for a group of six South Asian countries (Bangladesh, Sri Lanka, India, Pakistan, Nepal, Maldives) from 1991 to 2017. He notes that remittance inflows promote investment and consumption in form of physical and human capital.

In terms of the crowding-out effect, researchers suggest that policies should focus on channelizing remittance inflows through institutional improvement to boost private investment. Mallick (2012) employs the Error-Correction Model and dynamic OLS regression for time series data in India between 1966 and 2005. He insists that governments should apply suitable measures to transfer remittance inflows from unproductive to productive sectors to promote investment and economic growth. Besides, Yiheyis & Woldemariam (2016) use the ARDL bounds testing approach for four African countries (Senegal, Burkina Faso, Nigeria, and Kenya) from 1981 to 2013. Recently, Su et al (2021) apply the cross-sectionally augmented ARDL approach to seven emerging countries (Brazil, Turkey, Mexico, China, Russia, Indonesia, and India) during the period of 1990-2019.

From the literature perspective, we highlight two main points. First, no studies investigate the impact of remittance inflow on private investment for a group of Asian developing economies. Second, no studies apply DGMM and DIVE for estimation and robustness check. Therefore, this paper focuses on them as a research gap in the literature.

4. METHODOLOGY

4.1 Methodology

Following Nurul Hossain & Hasanuzzaman (2013), the empirical model is re-modified as follows:

$$PIN_{it-1} = \beta_0 + \beta_1 PIN_{it-1} + \beta_2 REM_{it} + Z_{it}\,\beta' + \eta_i + \psi_{it} \quad (1)$$

where subscript i and t are the country and time index, respectively. PIN_{it} is gross fixed capital formation (% GDP), proxy for private investment, PIN_{it-1} is the initial level of private investment, and REM_{it} is personal remittance (% GDP). Z_{it} is a set of control variables such as economic growth, inflation, and governance; η_i is an unobserved time-invariant, country-specific effect and ψ_{it} is an observation-specific error term; β_0, β_1, β_2, and β' are estimated coefficients. Following the literature, all control variables are introduced into the model: economic growth (Su et al, 2021; Dash, 2020; Khan et al, 2019; Abbas, 2019; Yiheyis & Woldemariam, 2016; Nurul Hossain & Hasanuzzaman, 2013; Bjuggren & Dzansi, 2008), inflation (Dash, 2020; Yiheyis & Woldemariam, 2016; Okodua, 2013; Nurul Hossain & Hasanuzzaman, 2013), institutional quality (Su et al, 2021; Bjuggren & Dzansi, 2008).

The study uses Equation (1) to investigate the effect of remittance inflow on private investment for a group of 20 Asian developing economies. Four serious problems in econometrics arise from estimating Equation (1). Firstly, economic growth and inflation can be endogenous. These variables can correlate with η_i, which leads to the endogenous phenomenon. Secondly, some unobserved characteristics such as customs, geography, culture, and anthropology (fixed effects) can correlate with the regressors. These characteristics exist in η_i. Thirdly, a high autocorrelation stems from the presence of the lagged dependent variable PIN_{it-1}. Fourthly, the panel dataset has a relatively short observation length (T = 18). These problems can make the OLS estimator inconsistent and biased. The random-effects model (REM) and the fixed-effects model (FEM) can not deal with endogenous phenomena and serial autocorrelation while the IV-2SLS estimator requires some suitable instrumental variables out of regressors in the empirical model. Following the suggestion by Judson & Owen (1999), therefore, the paper applies DGMM for estimation and DIVE for robustness check.

Holtz-Eakin et al (1988) are the first to propose the general method of moments (GMM) Arellano & Bond (1991) estimator. For estimation, the GMM Arellano-Bond estimator takes the first difference in Equation (1) to remove country-fixed effects. Next, it uses the regressors in the first difference as instrumented by their lags under the assumption that there are no serial correlations in time-varying error terms in the original models (Judson & Owen 1999). This strategy is known as the difference GMM Arellano-Bond estimator (D-GMM) that may deal with simultaneity biases in regressions.

In practice, the two-step D-GMM (DGMM) is more asymptotically efficient than the one-step D-GMM. However, the application of DGMM in small samples like those in our study has some problems (Roodman, 2009). They are posed by the proliferation of instruments that quadratically rise as the time dimension increases. In this case, the number of instruments is very large relative to the number of panel units. To handle it, Roodman (2009) recommends using the rule of thumb to keep the number of instruments less than or equal to the number of countries (the number of panel units).

DGMM uses the Arellano-Bond, Sargan, and Hansen statistics to test the validity of instruments in the empirical model. The Sargan and Hansen tests detect endogenous phenomena while the Arellano-Bond test checks the autocorrelation of errors in the first difference. Therefore, the study ignores the first autocorrelation test of errors AR(1) and keeps the second autocorrelation test of errors AR(2).

For robustness check, we use the instrumental variable estimator of large panel data models with common factors (DIVE) developed by Norkutė et al (2021) and introduced by Kripfganz &

Sarafidis (2021). The main idea of this approach is to predict common factors through exogenous co-variates by analyzing principal components and perform IV regression in two stages by using de-factored co-variates as instrumental variables. In this estimation, the Sargan test is applied to check the endogenous phenomenon.

4.2. Research data

The dataset contains gross fixed capital formation (private investment), personal remittances, real GDP per capita, inflation, and governance indicators. The paper exacts it from the World Bank and International Monetary Fund database. The sample consists of 20 Asian developing economies between 2002 and 2020 (Azerbaijan, Bangladesh, Bhutan, Cambodia, China, India, Iran, Jordan, Kazakhstan, Kyrgyz, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Tajikistan, Thailand, and Vietnam). Table 1 presents the definition, while Table 2A and Table 2B report descriptive statistics for the dataset. The matrix in Table 3A indicates that the correlation coefficients between regressors are lower than 0.8, eliminating the co-linearity. Meanwhile, The matrix in Table 3B shows that the correlation coefficients between six governance indicators are relatively high; hence, the paper uses them separately in the empirical models.

Table 1. Data description

Variable	Definition	Type	Source
Private investment (PIN)	Gross fixed capital formation (% GDP)	%	IMF
Remittance inflows (REM)	Personal remittances consist of compensation of employees and personal transfers (% GDP)	%	World Bank
Economic growth (GDP)	GDP per capita (constant 2010 US$)	log	World Bank
Inflation (INF)	Inflation, consumer prices (annual %)	%	World Bank
Regulatory Quality (GO1)	Regulatory Quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	value	World Bank
Rule of Law (GO2)	Rule of Law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.	value	World Bank
Voice and Accountability (GO3)	Voice and Accountability captures perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media.	value	World Bank

Variable	Definition	Type	Source
Control of Corruption (GO4)	Control of Corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.	value	World Bank
Government Effectiveness (GO5)	Government Effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.	value	World Bank
Political Stability (GO6)	Political Stability and Absence of Violence/ Terrorism measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism.	value	World Bank

Table 2A. Descriptive statistics (variables)

Variables	Obs.	Mean	Std. Dev.	Min	Max
Private investment (PIN)	380	26.089	9.506	8.797	69.635
Remittance (REM)	380	7.175	9.142	0	44.126
Real GDP per capita (GDP)	380	3797.134	4191.523	434.66	19454.24
Inflation (INF)	380	6.535	6.155	-1.286	46.289

Table 2B. Descriptive statistics (governance indicators)

Variables	Obs.	Mean	Std. Dev.	Min	Max
Regulatory quality (GO1)	380	-0.510	0.616	-1.672	1.646
Rule of law (GO2)	380	-0.267	0.587	-1.617	1.267
Voice and accountability (GO3)	380	-0.554	0.875	-2.810	1.283
Control of corruption (GO4)	380	-0.413	0.598	-2.344	0.837
Government effectiveness (GO5)	380	-0.421	0.582	-1.739	0.627
Political stability (GO6)	380	-0.751	0.629	-2.233	0.462

Table 3A. Matrix of correlation coefficients among variables

	PIN	REM	GDP	INF
PIN	1			
REM	-0.217***	1		
GDP	0.201***	-0.495***	1	
INF	-0.100**	0.021	-0.160***	1

Note: ****, ** and *denote significance level at 1%, 5%, and 5% respectively.*

Table 3B. Matrix of correlation coefficients among six governance indicators

	GO1	GO2	GO3	GO4	GO5	GO6
GO1	1					
GO2	0.791***	1				
GO3	0.559***	0.460***	1			
GO4	0.549***	0.755***	0.384***	1		
GO5	0.886***	0.873***	0.507***	0.740***	1	
GO6	0.334***	0.318***	0.057***	0.740***	0.471***	1

Note: ****, ** and *denote significance level at 1%, 5%, and 5% respectively.*

5. EMPIRICAL RESULTS AND DISCUSSION

5.1 DGMM estimates

Table 1 shows the DGMM estimates across all models. Each column in each table is the model corresponding to each governance indicator. In all the estimations, we detect that economic growth is endogenous; thus, the paper uses economic growth as an instrumented variable in GMM-style and private investment, remittance, inflation, and governance as instrumental variables in IV-style. The results illustrate remittance inflow crowds in private investment. Besides, economic growth increases private investment, while inflation and governance decrease it.

De Haas et al (2019) argue that labor demand from destination countries can be the most crucial driver of international migration, especially household migration, which is often an indirect result of labor migration. Migrants are willing to do manual agricultural, industrial, and low-level service jobs (poor working conditions with low income) until communities of origin are still their main social reference groups (De Haas et al, 2019). Once they have a good life with a relatively stable income, migrants will send remittances to support their relatives in their countries of origin. Remittances are partly spent on consumption and human capital through healthcare and education, while the remaining is used for job creation by establishing small businesses. These small businesses bring jobs for migrants' relatives. In particular, family ties under the bloodline in Asian countries motivate migrants to send remittances to help their relatives in their countries of origin. They want their relatives in their countries of origin to have a good living standard. Therefore, remittance inflows crowd in private investment in Asian developing economies, validating the family approach. This result can be found in Bjuggren & Dzansi (2008), Adams Jr & Cuecuecha (2010), Adams Jr & Cuecuecha (2013), Okodua (2013), Gyimah-Brempong & Asiedu (2015), Manic (2017), Abbas (2019), Khan et al (2019), Dash (2020) for the case of developing economies. The finding in this paper confirms that remittance inflows significantly and positively contribute to promoting private investment in Asian developing economies. From this finding, Asian developing economies should establish appropriate policies to attract more remittance inflows from migrants, especially minimizing the receiving cost of these inflows.

Economic growth boosts capital accumulation for the economy in the form of savings - investments. The private sector uses this capital to expand production, so economic growth increases private investment. This paper finds it in Su et al (2021), Dash (2020), Khan et al (2019), Abbas (2019), Yiheyis & Woldemariam (2016), and Bjuggren & Dzansi (2008). In the same vein, inflation can enhance savings - investments, leading to the private sector's investment. Dash (2020) provides evidence to show it. However, this paper finds that institutional quality/governance reduces private investment. As indicated by statistical data, most Asian developing economies have negative scores on governance indicators, implying they have a poor institutional environment. Starting a business or expanding production in these countries faces many difficulties due to the obstacles of public officials. Businesses are often subject to harassment by public officials. Notably, institutional improvements in these economies are often slow, with little breakthrough, leading to many opportunities of rent-seeking for public officials. Therefore, institutional quality impedes private investment in Asian developing economies.

Table 1. Remittances and private investment: DGMM estimates, 2002-2020

Dependent variable: Private investment (% GDP)

Variables	GO1	GO2	GO3	GO4	GO5	GO6
Private investment (-1)	-0.136***	-0.140**	-0.126**	-0.076	-0.099	0.058
	(0.046)	(0.064)	(0.047)	(0.047)	(0.066)	(0.058)
Remittances	0.743***	0.736***	0.588***	0.698***	0.475***	0.644***
	(0.046)	(0.057)	(0.061)	(0.069)	(0.067)	(0.075)
Economic growth	0.043**	0.053***	0.048**	0.033***	0.057***	0.034**
	(0.019)	(0.014)	(0.021)	(0.007)	(0.009)	(0.017)
Inflation	-0.041***	-0.046***	-0.058***	-0.054***	-0.059***	-0.062***
	(0.016)	(0.013)	(0.012)	(0.018)	(0.019)	(0.015)
Institutional quality	-8.769***	-4.502***	-3.505***	-4.087***	-5.268**	-1.329
	(1.045)	(1.692)	(0.770)	(1.217)	(2.364)	(1.839)
Instrument	20	20	20	20	20	20
Country/Observation	20/320	20/320	20/320	20/320	20/320	20/320
AR(2) test	0.193	0.105	0.139	0.153	0.109	0.107
Sargan test	0.864	0.757	0.976	0.604	0.894	0.291
Hansen test	0.328	0.844	0.739	0.728	0.934	0.846

Note: ****, ** and *are significance at 1%, 5%, and 10% levels respectively.*

5.2. Robustness check

The paper applies DIVE to check the robustness of DGMM estimates. In line with those by DGMM, the results by DIVE report that remittance inflow promotes private investment. In addition, economic growth boosts private investment, while inflation reduces it. These findings confirm the reliability of DGMM estimates.

Table 2. Remittances and private investment: DIVE estimates, 2002-2020

Dependent variable: Private investment (% GDP)

Variables	GO1	GO2	GO3	GO4	GO5	GO6
Private investment (-1)	0.603***	0.632***	0.602***	0.606***	0.612***	0.641***
	(0.015)	(0.022)	(0.029)	(0.022)	(0.031)	(0.030)
Remittances	0.162***	0.113**	0.148***	0.141***	0.078**	0.110***
	(0.055)	(0.052)	(0.031)	(0.024)	(0.034)	(0.035)
Economic growth	0.053**	0.054***	0.044***	0.060*	0.040**	0.035*
	(0.025)	(0.014)	(0.010)	(0.035)	(0.010)	(0.020)
Inflation	-0.239**	-0.120	-0.159*	-0.268***	-0.107	-0.263***
	(0.122)	(0.090)	(0.086)	(0.077)	(0.072)	(0.086)
Institutional quality	-3.914***	0.654	1.279	-2.356	-0.610	-1.363
	(1.155)	(0.937)	(0.916)	(1.949)	(1.447)	(1.277)
Instrument	15	15	15	15	15	15
Country/Observation	20/320	20/320	20/320	20/320	20/320	20/320
Sargan test	0.433	0.126	0.290	0.659	0.487	0.635

Note: ****, ** and *are significance at 1%, 5%, and 10% levels respectively.*

6. CONCLUSION AND POLICY RECOMMENDATIONS

Remittance inflows play a crucial role in Asian developing economies for their significant contribution to economic development and growth. Besides, these inflows can crowd in or crowd out private investment in host countries. From these facts, the paper tests the effect of remittance inflows on private investment for a balanced panel data of 20 developing economies from 2002 through 2020. It employs DGMM and DIVE for estimation and robustness checks. The results confirm that remittance inflows crowd in private investment in these economies, consistent with previous related studies. Besides, economic growth increases private investment, while inflation and institutional quality decrease it.

The finding in this paper advocates the significant contribution of remittance inflows to boosting private investment in Asian developing economies. Therefore, we suggest some policy implications for governments in Asian developing countries as follows:

(1) Formulate suitable policies to attract more remittance inflows to the country, for instance, no fees and taxes (if any) for remittance recipients.

(2) Set up appropriate conditions to channelize remittance inflows into investment and human capital development.

(3) Open convenient money transfer channels with low cost to encourage migrants to send more remittances home.

(4) Encourage remittance recipients to spend remittances rationally on education, healthcare, and business purposes.

(5) Create communication channels with migrants living and working oversea to help them when they are in trouble and express gratitude for their contributions to economic development.

Future research should think of the role of institutional quality in the effect of remittance inflows on private investment in Asian developing economies. In particular, the research sample should be expanded to several developing economies in Latin America and Africa.

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IMPACT OF FISCAL DECENTRALIZATION ON LOCAL ECONOMIC GROWTH IN VIETNAM: A DECENTRALIZED APPROACH TO REVENUE

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Abstract: *This study examines the relationship between the effects of fiscal decentralization represented by government revenues and expenditures on local economic growth in Vietnam as measured by GRDP - the size of the country's gross domestic product province at current prices. Based on panel data collected covering 33 provinces and cities in Vietnam in the period 2013-2020, the study uses the S-GMM test method. The research results show that the impact of fiscal decentralization on local economic growth is different: revenue decentralization has a negative impact on GRDP, whereas decentralization of expenditure has a positive impact on GRDP.*

Keywords: *Economic growth, fiscal decentralization, tax autonomy.*

1. INTRODUCTION

Historically, it has been proven that successful market economies cannot develop spontaneously without the intervention and support of the State. As the economy grows under increasingly complex external influences, the State's intervention becomes indispensable in the effective operation of the market economy through public financial instruments. Public finance is the branch of economics that evaluates government income and expenditure and their adjustments to achieve desired effects and avoid undesirables. The role of the Government is to: Efficiently allocate available resources; Distribution of income among citizens; The stability of the economy. So governments have made the necessary adjustments to adapt. One of the basic solutions chosen is to increase the decentralization of localities instead of focusing entirely on the central government as before (Martinez-Varquez and McNab, 2003). Considering the tax autonomy of local authorities is an aspect that will lead to an exaggeration of effective decentralization.

In the view of Thiessen (2001), fiscal decentralization considers "the transfer of accountability associated with accountability to subnational governments". Moreover, he argues that fiscal decentralization is seen as the potential of local governments to increase tax revenue. Economic efficiency is increased because local authorities are better informed and have more complete knowledge of their locality than central governments, resulting in better management, taxpayers do not evade, and tax collection costs being low.

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However, through experience in many countries, local authorities are usually not decentralized to collect taxes so the goals of macro stability and social justice can be easily changed (for example CIT, PIT...). Thornton (2007a) finds that once the fiscal decentralization measure is restricted to taxing the autonomy of local governments, its effect on output growth is statistically insignificant.

Generally, the study results are still controversial (Davoodi & Zou, 1998; Diep Gia Luat & Nguyen Dao Anh, 2009; Rodríguez-Pose & Krøijer, 2009; Pasichnyi et al, 2019). Furthermore, studies have focused on the scope of developed or developing countries, regions or groups of countries (Davoodi and Zou, 1998; Mello & Barenstein, 2001; Rodríguez-Pose & Krøijer, 2009; Buettner et al, 2002). However, each country will have its own economic growth goals and different conditions. Therefore, fiscal decentralization in general and revenue decentralization in particular will also have different degrees of impact on different countries. Therefore, this study seeks to discover the relationship between revenue decentralization and economic growth in the local economy of Vietnam (33 provinces and cities). The article is done with the use of a dynamic tabular data model. The rest of the paper is organized as follows, section 2 briefly reviews previous studies. Section 3 describes the research methods and research data. Section 4 discusses research findings and policy recommendations.

2. LITERATURE REVIEW

The theoretical basis for the impact of fiscal decentralization on economic growth is inherited from the models of Tiebout (1956), Oates (1972, 1999, 2005), and Musgrave (1983). However, for the empirical literature reviewed, there is no consensus on the relationship between the two, although it has received attention in the literature. There's almost always been a lot of research finding evidence for a positive, negative, or no relationship.

Davoodi and Zou (1998) studied fiscal decentralization for economic growth. They used panel data for 46 countries from the period 1970-1989 and estimated the parameters using fixed effects (FE) methods, time dummies, and unbalanced panels. The study concludes that there is a negative relationship between fiscal decentralization and growth in developing countries, but no negative relationship in developed countries.

Mello and Barenstein (2001) cross-border analysis of fiscal and government decentralization included 78 countries in the period 1980-1992 using the OLS method. As a result of the increasing distribution of revenue to local governments in terms of non-tax revenues, transfers, and support from the central government, the link between fiscal decentralization and government is stronger, thereby promoting economic growth.

Rodríguez-Pose and Krøijer (2009) studied fiscal decentralization and economic growth in Central and Eastern Europe, comprising 16 countries for the period 1990-2004, fixed effect (FE) was used in the analysis. They argue that taxes assigned at the local level grow from a significantly negative level to a significantly positive correlation with national growth rates supporting the view that SOs with their own revenues are better at meeting the needs of the local population. However, contrary to the opinion of the majority, expenditures, and transfers to local government levels are negatively correlated with economic growth.

Buettner et al (2002) study public sector centralization and productivity growth, evaluate the German experience in the period 1950-1990, and analyze the time series. The results of the effect of the vertical structure of the public sector are negatively related to productivity growth, as the results suggest that a smaller share of the state budget is conducive to growth.

Jin and Zou (2005) study fiscal decentralization, revenue decentralization, expenditure decentralization, and economic growth in China, using panel data for 30 Chinese provinces during the period from 1979 - 1993 and 1994 - 1999 separately using a two-way fixed-effects panel (FE) data method was used for analysis. The results of this study suggest that in both time periods, revenue and expenditure decentralization should differ further to benefit provincial growth.

Diep Gia Luat and Nguyen Dao Anh (2009) study the impact of fiscal decentralization on local economic growth in Vietnam, panel data includes 62 localities in the period 2005–2016, using the FGLS test method. Empirical results show that revenue decentralization and budget expenditure decentralization have a positive impact on local economic growth.

Using a panel dataset of 61 provinces of Vietnam, Nguyen and Anwar (2011) examine the effect of fiscal decentralization on economic growth on two grounds (1) under the State Budget Law 1996, covering the period 1996 to 2001, and (2) under the State Budget Law 2002, covering the period 2002 to 2007. Empirical analysis shows that economic growth in Vietnam is positively related to revenue decentralization but negatively related to expenditure decentralization.

Gemmell et al (2013) uses pooled-mean group techniques to analyze a panel dataset of 23 Organization for Economic Co-operation and Development (OECD) countries from 1972 to 2005 to determine whether the efficiency gains that come with fiscal decentralization lead to higher growth in more decentralized economies. Findings show that revenue decentralization has been linked to higher growth.

Pasichnyi et al (2019) evaluate the impact of fiscal decentralization on the economic development of 27 advanced and emerging economies in Europe from 1992 to 2017. Applying panel data analysis, the results show that revenue decentralization is associated with lower growth rates.

By applying Panel Fully Modified Least Squares (FMOLS) and Panel Dynamic Least Squares (DOLS) regression approaches, Nantharath et al (2020) examine the effects of the fiscal decentralization on the economic growth in Thailand from 2004 to 2017. The research methodology uses a cross panel data analysis across five provincial regions and considers revenue decentralization, expenditure decentralization, transfer dependency, and vertical fiscal imbalance as influential factors of growth. The study finds empirical evidence of positive effects of revenue decentralization, transfer dependency, and vertical fiscal imbalance on regional economic growth across five regions.

3. RESEARCH DATA AND RESEARCH MODEL

Research data were collected from 33 provinces/cities (spatial) in the period 2013-2020 (year time). Our time line (2013-2020) directly results from the availability of the data. Data sources are collected from local architects, the Ministry of Customs, and the State Budget Public Portal.

Research on the direct relationship between fiscal decentralization and economic growth using the endogenous growth model of Barro (1990) as follows:

$$lnGRDP_{it} = \beta_0 + \beta_1 lnGRDP_{t-1} + \beta_2 RD_{it} + \beta_3 ED_{it} + \beta_4 lnINV_{it} + \beta_5 lnLABO_{it} + \beta_6 OPEN_{it} + \beta_7 FDI_{it} + \beta_8 INFit + \varepsilon_{it} \quad (1a)$$

In which: β is the estimated coefficient; *i*: is the i-th observation; *t*: is year t; ε is the error term;

GRDP: is the size of the province's gross domestic product at current prices (VND billion).

RD: is the variable of decentralization of the province's revenue. The variable RD is calculated as the total state budget revenue per capita of the province divided by the total state budget revenue per capita of the whole country (%).

ED: is the provincial expenditure decentralization variable. The variable ED is calculated by the province's budget expenditure per capita divided by the state budget fiscal expenditure per capita of the whole country (%).

INV: is the variable of private investment capital in the economy of the province. The variable INV is the non-state sector capital (VND billion).

LABO: is the labor force aged 15 and over in the province (thousand people).

OPEN: is the trade openness variable of the province. The variable represents the ratio of the province's total export value to the province's total import value to the provincial GRDP (%).

FDI: is a variable of foreign direct investment (FDI) of the province, reflecting capital flows (human, financial, physical) that are internationally circulated to countries (USD million).

INF: is the provincial inflation variable. The variable represents the 12-month average CPI compared to the previous year of the province (%).

The article will use the estimation methods of Pools OLS, fixed effects (FE) and random effects (Random Effects-RE) to confirm the stability of the model. The selection of the optimal method will be done through tests determined by the Hausman test. Next, check the defects and correct them if any, implementing the General Least Squared-FGLS regression model.

4. RESEARCH RESULTS AND POLICY RECOMMENDATIONS

4.1. Economic growth status and fiscal decentralization of provinces/cities in Vietnam in the period 2013-2020

- ***Economic growth***

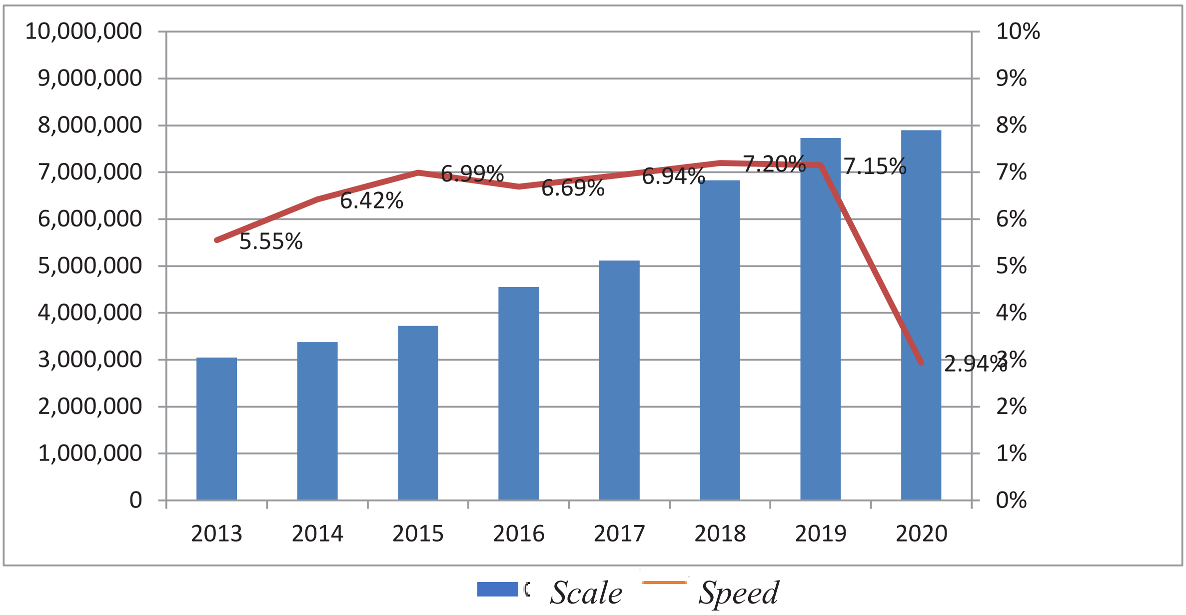

Figure 1. Vietnam's Gross Domestic Product (GDP) for the period 2013-2020

Source: General Statistics Office (unit: billion VND)

In the period 2013-2020, Vietnam has taken advantage of opportunities, overcome many difficulties and challenges, and gained significant achievements in socio-economic fields. The country got rid of underdevelopment, and the material and spiritual life of the people improved. Vietnam is in the process of deep integration with countries around the world, has expanded its diplomacy with many countries, has also joined many international organizations, and has brought many economic benefits to the growing country.

The above statistical results show that the size of Vietnam's GDP at current prices increased year by year in the period 2013-2020. If in 2013, the total GDP was 3,043,576 (VND billion), then by 2020, the GDP scale will increase to 7,899,719 (VND billion). Vietnam's economy was heavily affected by the Covid-19 pandemic but also showed considerable resilience. GDP growth is estimated at 2.94% in 2020. Vietnam is one of the few countries in the world with positive economic growth.

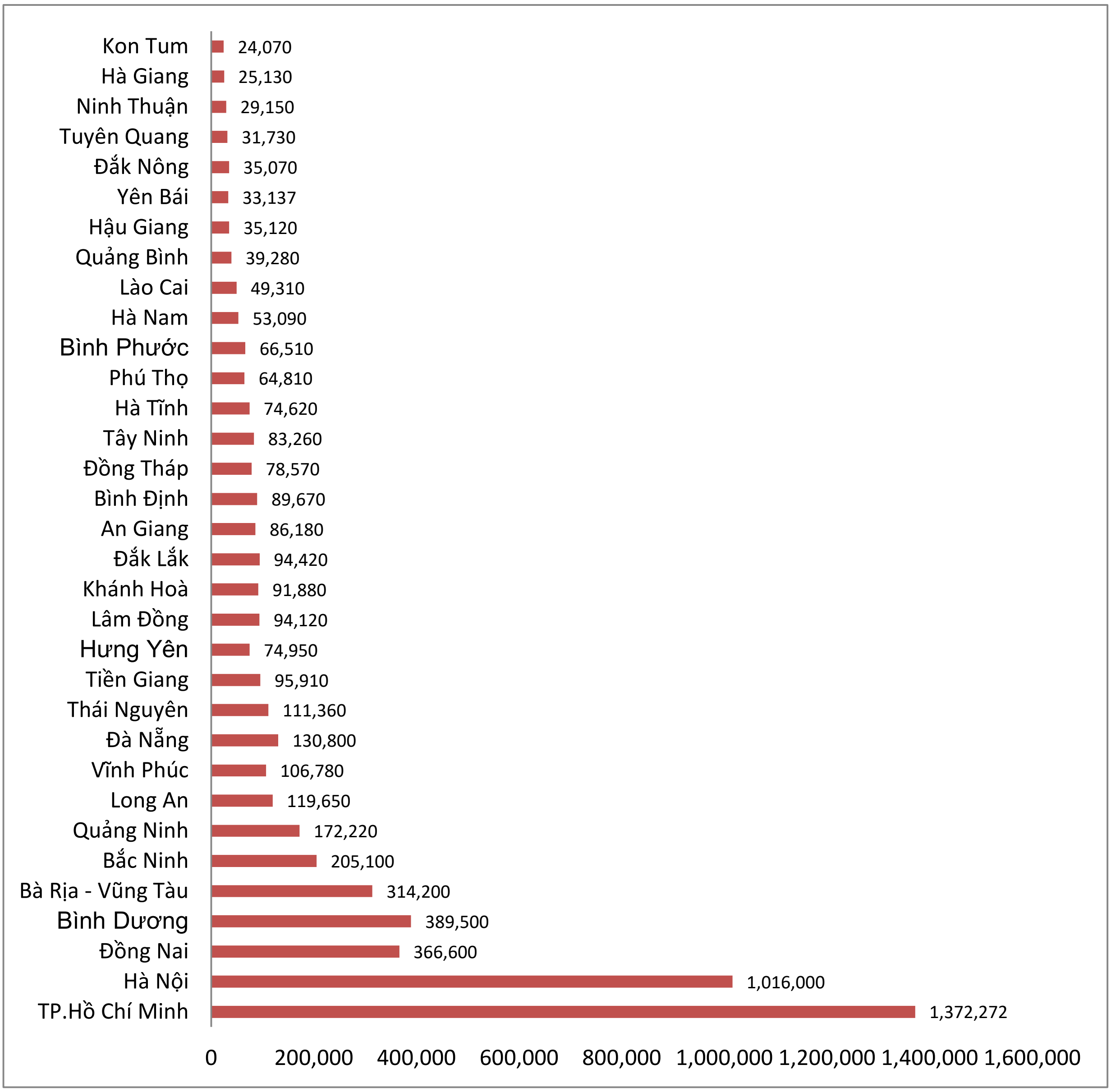

Figure 2. Scale of GRDP growth of 33 studied provinces/cities in 2020

Source: General Statistics Office (unit: billion VND).

Ho Chi Minh City and Hanoi are still the two economic locomotives, contributing high to the GDP share of the whole country, besides Dong Nai, Binh Duong, Hai Phong, Bac Ninh, Ba Ria Vung Tau. The Southeast contributes to the GDP of the whole country.

- ***Current status of fiscal decentralization in Vietnam in the period of 2013-2020***

After implementing the economic renovation policy in 1986, the Government of Vietnam has marked its acceptance of the need for reforms towards decentralization and decentralization, especially the decentralization of fiscal management to the committee people at all levels in 64 provinces and cities across the country including provincial-city, district-district, and ward-commune levels with the aim of promoting local economic growth in provinces and centrally-run cities. One of the first steps in the decentralization of fiscal management by the National Assembly and the Government of Vietnam was the promulgation of the 1996 Budget Law. The promulgation of the 1996 Budget Law created a precondition for the Human Resources Committee. People at all levels are autonomous in their income and expenditure activities. Although the promulgation of the Budget Law in 1996 created the premise for the decentralization of fiscal management in Vietnam, organizations and researchers still believe that the decentralization of fiscal management in Vietnam still takes place slowly and humbly.

Therefore, the National Assembly of the Socialist Republic of Vietnam approved the 2002 State Budget Law to replace the 1996 Budget Law in order to promote deeper fiscal decentralization, especially by creating more rights, more limitations in the management of spending activities at local governments, specifically the People's Committees at all levels. After many amendments and supplements, up to now, the 2015 State Budget Law is currently in force.

In the 2016-2020 period, the decentralization of budget management and administration has achieved many positive results, especially for the decentralization, management, and administration of local budgets. That result has ensured that national financial resources are effectively mobilized and distributed, contributing to promoting economic growth and solving pressing problems arising in society.

Although in 2020, the Covid-19 epidemic has greatly affected the implementation of socio-economic development targets of the whole country as well as of many provinces and cities, with the determination and consensus of the whole political system of the city, the state budget revenue of the whole country and many provinces and cities have achieved relatively positive results. In 2020, the total balance of state budget revenue will reach 1,507.1 trillion VND, equal to 98% of the estimate; an increase of nearly 184 trillion dongs compared to the report to the National Assembly. In there:

- Central budget revenue reached about 90%, down about 89 trillion VND compared to the estimate;
- Local budget revenue reached 108.6%, exceeding 56.8 trillion VND compared to the estimate.

State budget revenue changed positively. Before the Covid-19 pandemic, in the years 2016-2019, revenue exceeded the estimate, and the average size of state budget revenue reached about 25.5% of GDP. Particularly in 2020, due to the serious impact of the Covid-19 pandemic on all aspects of socio-economic life, the whole year's economic growth will reach about 2.9% (while the plan is 6.8% as planned.), crude oil prices fell deeply, plus the implementation of exemption, reduction, and relaxation of about 130 trillion VND of some taxes, fees, and charges to support production and business, so the state budget revenue only reached 98% of the estimate. However, for the whole period, the total state budget revenue in the 2016-2020 period still exceeded the target, reaching over VND 6.9 million billion. The average size of state budget revenue reached about 25.2% of GDP (in the period 2011-2015 was 23.6% of GDP), exceeding the target set out in Resolution 25/2016/QH14 of the National Assembly (23.5% of GDP) and Resolution 07-NQ/TW of the Politburo (20-21% of GDP); about 1.6 times higher than in the 2011-2015 period.

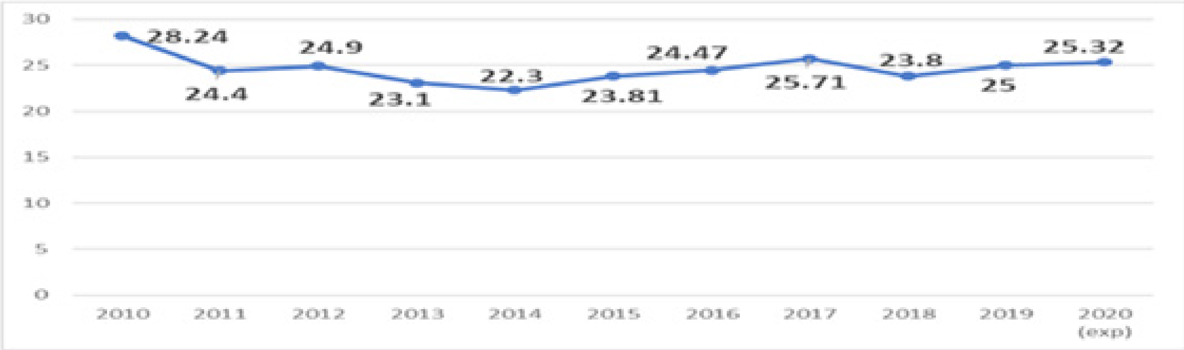

Figure 3. Ratio of state budget revenue/GDP

Source: General Statistics Office and author's calculation

According to decentralization, local budget revenue tends to increase, and the proportion of local budget revenue in total state budget revenue will reach about 45% in the period 2016-2020 (37.4%). local autonomy. The number of localities with state budget revenue of over 10 trillion dongs has doubled, from 15 in 2016 to 30 in 2020; At the same time, the number of localities with revenue of less than 5 trillion VND decreased by more than half, from 37 localities in 2016 to 16 localities in 2020.

Regarding the state budget expenditure structure, it has changed positively, increasing the proportion of spending on development investment; thereby contributing to attracting more investment from the non-state economic sector (total social investment in the five years 2016-2020 reached 33.4% of GDP; in which, the proportion of investment capital from the non-state economic sector increase rapidly from 38.9% in 2016 to about 45% in 2020), ensuring social security spending. Thanks to the increase in revenue and savings, the budget deficit has decreased from an average of 5.4% of GDP in the 2011-2015 period to an average of 3.6% of GDP in the 2016-2020 period, thus reducing the demand for debt than in the previous period.

4.2. Research results

Table 1 shows that the empirical model has 12 variables and 264 observations, in which, gross domestic product of provinces range from 9.40731 to 14.13198, with an average of 11.12401 (as a natural logarithm). The revenue decentralization (as a natural logarithm) ranges from 0.1047926 to 2.208118 and has a mean value of 0.4649641. Among the expenditure decentralization variables, ED2 (frequent expenditure decentralization) is the lowest (0.2187734) and ranges from 0.0193887 to 0.6581545.

Table 1. Descriptive statistics of variables

	Observations	Mean	Standard Deviation	Min	Max
lnGRDP	264	11.12401	1.010481	9.40731	14.13198
l.lnGRDP	231	11.07877	1.009291	9.40731	14.11097
RD	264	0.4649641	0.3107661	0.1047926	2.208118
ED	264	0.9615084	0.3920925	0.4030456	2.452986
ED1	264	0.2187734	0.1231916	0.0193887	0.6581545
ED2	264	0.3898093	0.1310144	0.0394035	0.8500109
ED3	264	0.2766121	0.2256565	0.0008769	1.459531
lnINV	264	9.539464	0.9048308	7.491645	12.75761
lnLABO	264	6.621029	0.5918995	5.630853	8.481773
OPEN	264	1.411608	1.939788	0.0543302	10.20074
lnFDI	264	5.31648	4.881238	-13.81551	11.01508
INF	264	3.447045	1.844493	-0.54	13.37

Source: Author's calculation

The correlation coefficients for all variables are displayed in Table 2. The correlation between LnGRDP and RD is 0.5102, which indicates that revenue decentralization tends to have a positive impact on economic growth. Of the four expenditure decentralization variables, only ED1 has a positive effect on LnGRDP, while the other three show a negative correlation with LnGRDP. All other variables are positively correlated with the dependent variable.

Table 2. Correlation matrix of variables

	lnGRDP	l.lnGRDP	RD	ED	ED1	ED2	ED3	lnINV	lnLABO	OPEN	lnFDI	INF
lnGRDP	1.0000											
l.lnGRDP	0.9905	1.0000										
RD	0.5102	0.4953	1.0000									
ED	-0.0547	-0.0702	0.4460	1.0000								
ED1	0.2616	0.2505	0.6953	0.6898	1.0000							
ED2	-0.2944	-0.3024	0.2442	0.7514	0.5030	1.0000						
ED3	-0.6597	-0.6549	-0.4585	0.1705	-0.1291	0.4483	1.0000					
lnINV	0.8305	0.8147	0.3892	-0.0663	0.1567	-0.2657	-0.5655	1.0000				
lnLABO	0.8465	0.8349	0.1791	-0.2604	-0.0801	-0.4177	-0.5188	0.8177	1.0000			
OPEN	0.2934	0.2857	0.2648	-0.1141	0.1088	-0.1427	-0.2773	0.2420	0.1761	1.0000		
lnFDI	0.5491	0.5441	0.3510	-0.0759	0.1388	-0.3118	-0.5494	0.4707	0.4493	0.3280	1.0000	
INF	0.0633	0.0690	0.1081	-0.0152	0.0807	-0.0281	-0.0478	0.0837	-0.0313	-0.0495	0.0857	1.0000

Source: Author's calculation

The Variance Inflation Factor (VIF) results are presented in Table 3. It can be seen that the VIF values of the variables are less than 10, indicating that the model does not have multicollinearity.

Table 3. VIF test result

Variables	VIF	1/VIF
l.lnGRDP	6.15	0.162657
lnLABO	6.12	0.163484
lnINV	3.99	0.250363
RD	2.41	0.415089
ED	1.61	0.622445
lnFDI	1.52	0.656252
OPEN	1.25	0.801261
INF	1.08	0.922395
Mean VIF	**3.02**	

Source: Author's calculation

After analyzing and selecting the model, the study determined that the FEM estimation method is suitable. The results of the defect test of the research selection model (FEM) show that the variance heterogeneity between the cross-units and the autocorrelation occurs between the observations of each country. Therefore, to deal with variable variance and autocorrelation, the author uses the adjusted FGLS model to estimate the regression coefficients of the model (Wooldridge, 2013). The FGLS estimation method applies to variables that have been transformed from a model that violates the classical assumptions to a new model that satisfies the classical assumptions of the OLS method. Therefore, the parameters estimated from the new model are more reliable. However, there exists a lag GDP variable $_{t-1}$ in the model of endogeneity, which is built by the author's own model (1a), which is a dynamic panel data model. Therefore, the topic only uses the results of the regression model with S-GMM (System Generalized method of moments), to analyze and interpret the results.

The S-GMM estimation method is used for alternative analysis in order to strengthen the robustness of the results. Model (1a) uses 14 instrumental variables to replace endogenous variables in the model. Test AR(2)= 0.718 > 0.05 models without autocorrelation Arellano and Bond. Hansen test with p-value = 0.793, in the range 0.05 < p-value < 0.8 is optimal.

The results of the research model (1a) by the S-GMM estimation method are presented in Table 4, showing the impact of fiscal decentralization on local economic growth in the period 2013-2020. The test shows a significant negative impact of revenue decentralization on local economic growth in the period 2013-2020, consistent with the results of Lam (2017), Aadil Ahmad Ganaie et al (2018). This implies that if the revenue decentralization of a province is increased by 1%, the province's gross domestic product will decrease by 0.81%. This result shows that more decentralization of revenue will lead to lower provinces' economic growth. Thus, the theoretical hypothesis is that when central government revenue autonomy is low, countries are vulnerable to macroeconomic instability, which can impede growth (Ahmad et al, 1995; Yusuf, 1994), which is supported by these results.

Table 4. Results of modeling the impact of fiscal decentralization on economic growth

	POOL OLS	FEM	REM	FGLS	SGMM
l.lnGRDP	0.8481337*** (42.08)	0.5440281*** (13.57)	0.8481337*** (42.08)	0.9115859*** (60.56)	0.7926*** (8.95)
RD	0.1419168*** (3.52)	0.0429146 (0.83)	0.1419168*** (3.52)	0.0641319** (2.18)	-0.8097548** (-2.21)
ED	0.0369456 (1.41)	0.0956271** (2.48)	0.0369456 (1.41)	0.0228825* (1.65)	0.276625** (2.38)
lnINV	0.0357211* (1.93)	0.2488986*** (6.85)	0.0357211* (1.93)	0.0258512*** (3.16)	0.2026671** (2.34)
lnLABO	0.1640012*** (4.80)	0.3644836* (1.70)	0.1640012*** (4.80)	0.085651*** (5.07)	0.1500107** (2.14)
OPEN	0.0060455 (1.30)	-0.0766096*** (-4.19)	0.0060455 (1.30)	0.0073075*** (3.18)	0.0274161** (2.09)
lnFDI	0.0013996 (0.64)	0.0013831 (0.58)	0.0013996 (0.64)	0.000785 (0.97)	0.0079822* (1.76)
INF	0.0000966 (0.02)	0.0018794 (0.33)	0.0000966 (0.02)	0.0002809 (0.13)	0.001492 (0.28)
_cons	0.2308401* (1.86)	0.3288953 (0.24)	0.2308401* (1.86)	0.1910337*** (4.21)	-0.5388739 (-1.38)

Note: *The asterisk *, ** and *** denotes statistical significance at 10, 5 and 1 percent levels, respectively.*

Based on the findings, we can say that national governments seem to be more efficient at revenue collection. In addition, a reduction in the growth rate due to decentralization of revenue may occur as measures to improve revenue collection will hinder consumption, private investment and corruption. It will lead to the diversion of resources from productive sectors to less efficient economic sectors.

Besides, the results also show that the regression coefficient (column 5, Table 4) of the private sector investment variable (INV) is positive at the significant level of 5%. This means that the investment of enterprises has also contributed a very important part to the local economic growth during this period. This result is also consistent with the studies of Lam (2017); Trung and Toan (2014).

The study shows a positive relationship between the local economic growth and the size of the private labor force aged 15 and over in the provinces at the 5% level of significance, which is consistent with Faridi (2011). The Labor factor is one of the two basic inputs of production. The theory of the origin of economic growth of Solow (1995) has shown that labor accumulation is one of the three origins of economic growth. The conclusion that the positive relationship between labor force size and growth is reasonable not only with classical theory but also with the situation of developing countries today. Increasing the labor size creates more human resources, contributing to promoting the local economic growth. With the characteristics of a large labor force, and low labor costs in these provinces, the increase in quantity will attract investment, thereby stimulating economic growth.

The trade openness coefficient (OPEN) is positive and has a significant impact on local economic growth. Openness increases imports and exports of goods and services and improves domestic technology. As a result, the production process can be more efficient and productivity increased.

As a result, economies are open to world trade; grow faster than in countries with closed economies and an increase in openness is assumed to have a positive effect on growth.

The regression variable FDI has a positive impact on local economic growth at the significant level of 10%. This implies that FDI has a positive role in the transfer of science and technology, creating pressure, forcing domestic enterprises to always innovate technology themselves, improve business management capacity, and production efficiency.

Of all the variables, only the inflation rate (INF) was not statistically significant. Therefore, it cannot be concluded whether it has an impact on the local economic growth or not.

5. POLICY RECOMMENDATIONS FOR LOCAL BUDGET COLLECTION

Using the System Generalized Method of Moments (S-GMM), this study explores the impact of fiscal decentralization on economic growth of 33 provinces and cities in Vietnam in the period 2013-2020. Findings indicate that revenue decentralization has a negative impact on GRDP, whereas decentralization of expenditure has a positive impact on GRDP. These findings are helpful to design policies in dealing with the relationship between economic growth and revenue decentralization.

Firstly, local agencies need to proactively decentralize revenue sources and share revenue distribution rates between levels in association with State budget revenue management in the locality so that it is suitable to the requirements of the socio-economic decentralization management level. In addition, the government needs to create conditions for sectors and localities to enhance their roles and responsibilities in budget management, administration, and use.

Secondly, encourage localities to strive to increase revenue and effective budget spending. Strictly manage state budget revenues from taxes. For local budgets, priority is given to the reform and modernization of long-term property tax management; diversifying the local tax base; avoiding overlapping taxes and causing economic distortions in neighboring areas; and implementing "green" taxes related to waste management, activities that pollute water and air, and energy production.

Finally, state budget publicity and transparency: Strictly complying with the provisions of the 2015 State Budget Law on publicizing the State budget, diversifying forms of publicizing the State budget in localities. In addition, it is necessary to propagate, educate, and raise people's awareness and understanding of public financial management in order to strengthen the people's supervisory role in the public implementation of the state budget.

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THE EFFECT OF NON-PERFORMING LOANS ON BANK LIQUIDITY CREATION – THE CASE OF VIETNAMESE COMMERCIAL BANKS

MSc Nguyen Thi My Linh[1]

Abstract: *According to Bernanke and Gertler (1990), an increase in NPLs affects bank lending. Those banks which have a moral hazard problem tend to increase lending in the presence of higher NPLs and this enhances liquidity creation. This study aims to analyze the effect of non-performing loans (NPLs) on liquidity creation of Vietnamese banks to see whether there is moral hazard problem among Vietnamese commercial banks or not, by employing Difference Generalized Method of Moments (D-GMM) estimators. The article used a sample of 25 commercial banks spanning from 2007 to 2020. The regression results show that NPLs have a statistically significant negative impact on liquidity creation, which is not support moral hazard hypothesis. Moreover, bank equity, bank size, Z-score, and ROE are determinants of liquidity creation. The study suggests some implications for policy makers to control NPLs in order to increase liquidity creation, which helps to stimulate the economic growth.*

Keywords: *Liquidity creation, non-performing loans, moral hazard, Vietnamese commercial banks.*

1. INTRODUCTION

Identifying the individual economy as an important driving force in the economy, the Vietnamese government's concern is policy making for its development with high growth rates in terms of size, quality and share in gross domestic product (GDP). The joint-stock commercial bank system is one of the components of individual in the economy. Especially, Berger and Bouwman (2009) suppose that when banks create liquidity by financing relatively illiquid assets with relatively liquid liabilities, their liquidity-creating role of banks is fundamental in the economy, especially in the context of financial crisis (Fidrmuc et al, 2015). However, if banks are more likely to take risks in lending, this may lead to a significant rise in liquidity creation. This means that banks have more non-performing loans, liquidity creation goes up, though may be harmful to the financial system operations and the real economy.

Banks have two important roles in the economy including liquidity creation and risk transformation (Bhattacharya & Thakor, 1993). Banks finance relatively illiquid loans with liquid deposits. This operation enables bank to create liquidity and stimulate growth in the economy (Diamond & Dybvig, 1983). Berger and Bouwman (2009) found that when risky illiquid loans are financed with liquid deposits; the function of liquidity creation coincide with risk transformation. However, these two roles are totally different since the level of liquidity creation varies for different levels of risk taken by banks (Danisman, 2018). Umar & Sun (2016) argued that an increase in liquidity creation shows the true risk taken by banks. This implies that the more banks take risk and have more non-performing loans, the more they contribute to the liquidity creation. In the meantime, banks have to face with moral hazard problems in their lending. This is a situation in which customer

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engages in risky behavior or fails to act in good faith because they know banks bear the economic consequences of their behavior. Futhermore, moral hazards arise when bank managers may have incentives to take more risky lending than the optimal level. Jensen and Meckling (1976) suggested that moral hazard problems managers pursue their private benefits by investing in 'pet projects' or through insufficient monitoring of loans. While banks take more risks, non-performing loans increase together with loan growths, contributing to bank liquidity creation. Therefore, it is noted that a moral hazard problem exists if liquidity creation increases in response to higher NPLs. Zhang et al (2016) and Umar and Sun (2016) explored the exists of moral hazard in banks. However, their findings are different. Zhang et al (2016) found that moral hazard problems exist in lending by Chinese banks. However, Umar and Sun (2016) indicate that bank liquidity creation by the Chinese banks does not depend on the level of NPLs. Therefore, the aim of this study is to investigate the effect of non-performing loans on liquidity creation, by employing Difference Generalized Method of Moments (D-GMM) with a sample of 25 Vietnamese commercial banks spanning from 2007 to 2020. This research study is thought to contribute to the existing literature by providing the evidence of the moral hazard problem exist in the developing market with Vietnamese banking system characteristics. To the best of our knowledge, studies using the concept of bank liquidity creation and NPLs to explore the moral hazard problem are quite limited. Therefore, this study provides empirical evidence to clarify the effects of NPLs on liquidity creations as well as the prove whether moral hazard problems exist in Vietnamese banking system or not.

The remainder of the paper is organized as follows. The "Literature review and previous research studies" section provides a review of relevant hypothesis and summarizes existing studies. The "Methodology and Proposed Model" section describes the data and regression framework. The "Results and discussion" section reports the results gained by analysis, and the "Conclusions and recommendations" section mentions findings and implications of the study.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

2.1. Literature review

Liquidity creation

According to the modern theory of financial intermediation, banks exist as they conduct two central roles in the economy, which includes creating liquidity and transforming risk. The arguments of bank liquidity creation were first found in the studies of Bryant (1980) and Diamond & Dybvig (1983). According to these studies, banks create liquidity on the balance sheet by financing relatively illiquid assets such as business loans with relatively liquid liabilities such as transaction deposits. Bank customers may undertake their investments with provided loans, the most common tool to create asset-side liquidity by banks. Meanwhile, the most common way to create liability-side liquidity is transaction deposit which enables public to make purchases anytime (Berger & Bouwman, 2017). Besides on balance sheet liquidity creation, banks' off-balance sheet liquidity creation via loan commitments and similar claims to liquid funds leads bank customers to make plans regarding their future investments. By holding illiquid assets and loan commitments, banks supply liquidity to stimulate the economy. However, banks also face default risk if some liabilities invested in illiquid assets are claimed at short notice.

Non-performing loans (NPLs)

NPLs represent a major obstacle to the development of banking sector and play a central role in the linkages between credit markets frictions and macroeconomic vulnerabilities. International Monetary Fund's (IMF) compilation guide of March 2006 defines "loans (and other assets) are classified as the NPLs when (1) payments of principal and interest are past due by 3 months (90 days) or more, or (2) interest payments equal to 3 months (90 days) interest or more have been capitalized (re-invested into the principal amount, refinanced, or rolled over (i.e. payment has been postponed by arrangements)". Similarly, Bank for International Settlements (BIS) defines "a default is considered to have occurred with regard to a particular obligor when the obligor is past due more than 90 days on any material credit obligation to the banking group"

Effect of NPLs on liquidity creation

The 2008 global financial crisis showed the importance of liquidity creation function as the interruption of liquidity creation can cause adverse effect of macroeconomic stability. In addition, in the context of global financial crisis, a drop in global economic activity remains the most important risk for bank asset quality (Nkusu, 2011). In last two decade, many financial institutions have faced with pertinent problem of NPLs. NPLs put increasing pressure on banks' balance sheets preventing them from pursuing their intermediation role and creating further growth (Anastasiou et al., 2016). According to Bernanke & Gertler (1990), a rise in NPLs influences bank lending. For prudential banks, the higher NPLs they have, the less they lend customers. On the contrary, for banks having moral hazard problems, the higher NPLs they have, the more they lend customers. Therefore, this may further lead to fewer or more liquidity creation amount . Therefore, there's a question raised, whether the relationship between NPLs and liquidity creation exists or not, and NPLs either increase or decrease liquidity creation of Vietnamese banks. The arguments for this relationship come from moral hazard problems hypothesis developed by (Jensen & Meckling, 1976). Jensen & Meckling (1976) argued that there are two types of moral hazard problems. Firstly, according to managerial rent-seeking, managers lend customers pet projects pursued as their personal benefits. Secondly, shareholders prefer risky portfolios by ultimately transferring risk to depositors. Therefore, moral hazard problems may exist if liquidity creation increases in response to higher NPLs. Notably, Zhang et al (2016) found the existence of a moral hazard problem in lending by Chinese banks. In other words, they studied the impact of NPLs on Chinese banks' behavior by employing a threshold panel regression model for a sample of 87 banks during 2006 to 2012. The findings are consistent with moral hazard hypothesis which means that increase in NPLs ratio increases riskier lending, which may cause further deterioration in loan quality and stability of the financial system.

2.2. Previous Research Studies

Following the important paper of Berger and Bouwman (2009), there are numerous studies which provide empirical evidences regarding determinants of liquidity creation, and the relationship between liquidity creation and bank capital for different countries with different period. However, there's not much studies investigating the effect of NPLs on liquidity creation. Therefore, this paper aim to investigate whether the moral hazard problems exist in the case of Vietnamese banks by using the arguments supporting the effect of NPLs on liquidity creation. If there's an increase in NPLs may lead to higher liquidity creation, a moral hazard problem exists.

Regarding empirical evidence of bank liquidity creation, there are two different strands of research including the relationship between liquidity creation and capital and the effect of NPLs on liquidity creation. Following the seminal paper of Berger and Bouwman (2009), there has been a surge in studies concerning bank liquidity creation. Most of these studies provide the empirical evidence regarding the relationship between bank capital and liquidity creation. Firstly, Berger and Bouwman (2009) established four advanced measures of liquidity creation and apply them to data on all U.S. banks from 1993 to 2003. They create four new measures for liquidity creation which vary in terms of the loan classification and off-balance sheet treatments. They are known as "cat nonfat," "cat fat," "mat nonfat," and "mat fat". They further test the theories of the relationship between capital and liquidity creation, and that the relationship is positive for large banks and negative for small banks. Their findings indicate that the larger banks that generate the highest liquidity. The "risk absorption" hypothesis is found to be held for large banks where more capital results in an increase of liquidity creation. On the other hand, the "financial fragility-crowding out" hypothesis holds for small banks where higher levels of capital let small banks to create more liquidity. In order to clarify the relationship between capital and liquidity, Danisman (2018) added some control variables, most notably NPLs. These variables cover both bank-specific and macroeconomic condition such as bank size, equity to total assets, Z-score, NPLs, real GDP growth and inflation in the regression model. The study used a sample of 21 Turkish banks and quarterly data for the period 2010Q1-2017Q4. The empirical results have similarities with Berger and Bouwman (2009) research. The findings indicate that the liquidity creation of Turkish banks has dramatically increased over time, and it is primarily driven by large banks. The results from the regression analysis indicate that bank liquidity creation is increased under higher levels of capital for the whole sample. For small banks, a higher level of bank capital increases bank liquidity. Meanwhile, for small banks, the opposite case occurs, the created liquidity decreases by more bank capital.

In Vietnam, research on bank liquidity creation is quite limited. Recently, Le (2019) follows the research design of Berger & Bouwman (2009) to calculate liquidity generation (LC) for the Vietnamese banking system, spanning from 2007 to 2015 and examined the interrelationship amid LC and bank capital. The findings show that large banks have a considerable contribution of strong growth of LC in Vietnam. In addition, the findings indicate that OBS activities only played a small role in LC, suggesting that Vietnamese banks were less engaged in OBS activities. Furthermore, the findings demonstrate a negative two-way relationship between LC and capital. These findings support the financial fragility-crowding out hypothesis where greater bank capital hampers LC. The findings also support the liquidity substitution hypothesis, which suggests that banks can substitute liquid liabilities for capital when they encounter higher illiquidity.

The study on the impact of NPLs on liquidity creation and NPLs is quite rare. So far, only one study has investigate this effect directly. Umar & Sun (2016) explores the impact of NPLs on bank liquidity creation to find whether a moral hazard problem exists in Chinese banks or not. The article uses a sample of 197 listed and unlisted Chinese banks, during 2005 to 2014, and employ Generalized method of moments (GMM) estimation, fixed and random effect model, and pool data techniques. The regression results showed that liquidity creation by Chinese banks does not rely on NPLs ratio. The analysis for small and large banks is repeated and the results of these subsamples are consistent with the findings of the aggregate sample.

From the above studies, it can be seen that the relationship between liquidity creation and capital can be negative or positive. This is because these studies have different econometric methods for different time periods, different data frequencies (quarterly and yearly and for different economies (developed, emerging). Especially, in the study of Umar and Sun (2016), there's no the relationship between liquidity and NPLs found. We can also draw some gap in current study for Vietnamese banking system as follows:

Firstly, there are some studies concentrating on determinants of bank liquidity, however Umar and Sun (2016)'s study is the unique one disscussing the presence of moral hardzard problem through analysing influence of NPL on liquidity creation, whereas Danisman (2008) consider NPL as control variable in the model. Secondly, in the context of Vietnamese banking system, so far there's no research explorind this issue. Thererfore, the aim of this study is providing empirical evidence to clarify the effects of NPLs on liquidity creations as well as the prove whether moral hazard problems exist in Vietnamese banking system or not.

3. METHODOLOGY AND PROPOSED MODEL

Following the models of previous studies, especially the research of Berger & Bouwman (2009), and Umar and Sun (2016), we empirically investigated the effects of NPLs on bank liquidity creation using a dynamic linear model given by:

$$(LC)_{it} = \alpha + \beta(LC)_{i,t-1} + \gamma(NPL)_{i,t} + \delta(\mathrm{X})_{i,t} + \varepsilon_{i,t} \qquad (1)$$

where $LC_{i,t}$ is the measure of liquidity creation with Catfat and Catnonfat; $LC_{i,t-1}$ is the one-period lagged liquidity creation. $NPL_{i,t}$ is the measure of non-performing loans; X is a vector of controls. The control variables which have been used for the analysis include the following: bank capital (ETA), natural log of total assets as a proxy for bank size (SIZ), average loans standardized by total assets as a proxy for the type of business (LTA), the total deposits of the bank to the total deposits of the whole banking system in a particular year as a proxy market share (MKS), a measure of bank riskiness Z-score (ZSC), return on average equity (ROA), and two macroeconomic variables including real gross domestic product growth rate (GDP) and inflation (INF). All these variables have been discussed below in detail; α is a constant term, β is the bank persistence coefficients for liquidity creation, γ is the coefficient of interest to us, which measures the effect of NPLs on liquidity creation, δ are a set of nuisance parameters; $\varepsilon_{i,t}$ is an error term; i = 1, …, n represents the bank; and t = 1,…, t represents time.

The explanation of calculating the value of variables in the proposed model as below:

Liquidity creation:

To estimate the absolute amount of liquidity created by Vietnamese banks, the three-step approach developed by Berger and Bouwman (2009) is employed. In the first step, all the assets, liabilities, equity, and off-balance-sheet activities were divided into three categories: liquid, semiliquid, and illiquid. This classification was conducted on the basis of ease, cost, and time for customers to get funds from banks and for banks to dispose of their obligations. In the second step, we assigned weight for each category. Accordingly, the weight of ½ was assigned to illiquid assets, liquid liabilities, and illiquid off-balance-sheet activities. Contrarily, liquid assets, illiquid liabilities, and liquid off-balance-sheet activities were given the weight of –½. The weight of zero is allocated for semiliquid assets, liabilities, and off-balance-sheet activities. In step 3, the cat fat and the Catnonfat measures of liquidity creation were calculated by combining activities performed in step 1 and 2. The formulas to calculate cat fat and cat nonfat measures of liquidity creation are mentioned in Table 1. Because of unavailable data on maturity, the catfat and catnonfat is measured, mat and matnonfat is excluded from the measurement in the study. However, Le (2019) argued that the classification by category is better than by maturity based on the ease, cost and timeliness with which banks obtain liquid funds to facilitate their obligations that are more crucial than the time to self-liquidation.

CatFat = (0.5 × illiquid assets + 0 × semi liquid assets – 0.5 liquid assets) + (0.5 × liquid liabilities + 0 × semi liquid liabilities – 0.5 illiquid liabilities) – 0.5 Equity capital + (0.5 × illiquid OBS + 0 × semi liquid OBS – 0.5 illiquid OBS)

Catnonfat = (0.5 × illiquid assets + 0 × semi liquid assets – 0.5 liquid assets) + (0.5 × liquid liabilities + 0 × semi liquid liabilities – 0.5 illiquid liabilities) – 0.5 Equity capital

Non-performing loans

The deterioration in the quality of the loan portfolio of banks was the main cause of instability in the banking system. A higher value of NPLs to total loans ratio means lower credit quality and vice versa. On the basis of Bernanke and Gertler (1990), Jensen and Meckling (1976) arguments, an increase in NPLs affects bank lending. Prudential banks reduce lending when they have higher NPLs, and the banks having a moral hazard problem tend to increase lending in the presence of higher NPLs. Therefore, the null hypothesis is that increase in NPLs leads to higher liquidity creation, i.e., a moral hazard problem exists in Vietnamese banks.

Control variables

Total equity to total assets ratio is one of the most important control variables. Since the amount of liquidity is also affected by the amount of bank capital (Berger & Bouwman, 2009). There are two ways that the bank capital influence liquidity creation, following the literature. One strand of the literature, which is called the "financial fragility-crowding out" hypothesis, claims that holding more capital decreases banks' ability to create liquidity by inducing a less fragile capital structure and by crowding out deposits (Diamond & Rajan, 2001). On the other hands, the opposing "risk absorption" hypothesis, indicates that higher capital absorbs risks and induces banks to provide more liquidity to the economy (Bhattacharya & Thakor, 1993). Moreover, bank size is often considered an important determinant of its liquidity creation. Most studies in banking Berger and Bouwman (2009), Danisman (2018), Le (2019), used total assets of the bank as a proxy for its size. In addition, loan size to the total asset ratio (LTA) to control for the type of the business. A bank is considered to be predominantly involved in commercial lending if it has a higher ratio. The average loan size is divided by total assets to overcome measurement distortions. According to the related literature Berger and Bouwman (2009), Distinguin et al (2012) and Horvath et al (2014), market share (MKS) was included in the model as a control variable because it can affect the availability of the funds to the banks which ultimately affect lending and hence liquidity creation. It has been calculated as the ratio of the total deposits of the bank to the total deposits of the whole banking system in a particular year. Danisman (2018) found that the impact of capital on liquidity creation is found to be driven by banks' risk transformation roles, therefore, it is very crucial to control for bank risk. In line with previous research of Danisman (2018), Berger and Bouwman (2009), and Lei and Song (2013), Z score (ZSC) – a measure of bank's distance from default risk has also been used as a control variable. Z-score will be computed by using the following indicators: ROA (return on assets), Equity/Assets ratio and the standard deviation of ROA. Z-score is computed using formula (1):

$$Z - score = \frac{ROA + ETA}{\sigma(ROA)} \tag{2}$$

Where ROA represents the rate of return on assets of bank *i* at year *t*, ETA represents the ratio of equity capital to total assets for the bank *i* at year *t*; $\sigma(ROA)$ is the estimate of the standard deviation of the return on assets rate of bank *i* at year *t*.

Return on equity (ROE) measures financial performance of banks. It is calculated by dividing net income after tax by shareholders' equity. It is an crucial control variable because an increase in profitability results in higher equity which ultimately affects bank liquidity creation (Umar & Sun, 2016). The findings of Tran et al (2016) have shown the fact that there's a trade-off between the benefits of creating more liquidity and the expense of low profitability. ROE has also been used as a control variable by Berger et al (2014), Rauch et al (2011), Umar and Sun (2016).

There're two macroeconomic control variables including real GDP growth and inflation. Real GDP growth is calculated as the annual percentage growth of GDP and inflation is defined as the annual growth rate of CPIs to the 2007 price level in order to control for inflation effects. Berger and Bouwman (2009), Distinguin et al (2012) have shown that bank liquidity creation depends on economic booms and busts. Generally, the banks create more liquidity during economic expansion and reduce their lending during economic slowdown. Therefore, real GDP growth rate is included in the model as a proxy for economic growth to control for the effect of changes in the business cycle on liquidity creation. In addition, Danisman (2018), Bunda and Desquilbet (2003) found that high inflation is one of the reasons induce banks to be more vulnerable, especially for those bank lend their customers with long-term commitments, so banks tend to hold more liquid assets. Therefore, inflation is supposed to have a negative effect on the liquidity creation.

The variable definitions and the data sources are described in Table 1.

Table 1. Variable description and data sources

	Variable	Acronym	Measurement	Sources
Dependent variable	Bank liquidity creation	LC	Catfat and catnonfat	Adapted from Berger and Bouwman (2009).
Independent variable	Non-performing loan	NPL	NPLs/total loans	Bank financial statement
Control variables	Bank capital	ETA	Equity/total assets	Bank financial statement
	Bank size	SIZ	The natural logarithm of total assets	
	Type of business	LTA	Loans/total assets	
	Market share	MKS	Total deposits of the bank/total deposit of the whole banking system	
	Bank risk	ZSC	Z-score = (ROA + ETA)/σ(ROA)	
	Profitability	ROE	Profit after tax/Equity	
	Real GDP growth rate	GDP	The GDP growth rate	WB
	Inflation rate	INF	% Change of Consumer Price Index	WB

Source: Author's estimation

The GMM technique was used to address the issues of endogeneity, heteroscedasticity, autocorrelation in the data and to monitor individual and time specific effects. The number of lags was determined by Arellano–Bond autocorrelation test and test for over identification (Hansen, 1982). It is worth noting that the system GMM estimator also controls for unobserved heterogeneity and for the persistence of the dependent variable. Overall, this estimator has been found to provide consistent estimations of the parameters Delis and Kouretas (2011). Furthermore, the amount of observation time (T) used (14 time points) is less than the number of observations (25 banks), so using GMM estimates is considered to be able to produce unbiased and consistent estimates. The specification tests used in the GMM model follow two stages, namely (i) Sargan-Hansen test, which is used to determine the validity of instrument variables that exceed the estimated number of parameters (overidentifying restrictions), and (ii) Autocorrelation test, which is employed to see whether there is no autocorrelation in the first and second orders of residuals. The test used is Arellano-Bond test using AR (1) and AR (2) with the null hypothesis is no autocorrelation. Once the model passed the tests, then the GMM model could be estimated. In addition, in order to mitigate potential endogeneity with bank-level control variables, following Berger and Bouwman (2009), Distinguin et al (2012), Danisman (2018) the study use all bank-level explanatory variables with their one-year lagged value in all regressions. The results are explained in the next section.

4. RESULTS AND DISCUSSION

Figure 1 shows the graph of non-performing loan ratio and liquidity creation generated by Vietnamese banking system over the period 2007 to 2020. It can be seen from the chart that liquidity creation is rather low in the context of global financial crisis. This status lasts until the economy recover in 2012 and continue to grow strongly in 2020. The difference between two measurement of liquidity creation Catfat and Catnonfat is considerable, and its tendency is increasing over time. Non-performing loan ratio also increase after the eruption of financial crisis and decrease from 2012 onwards.

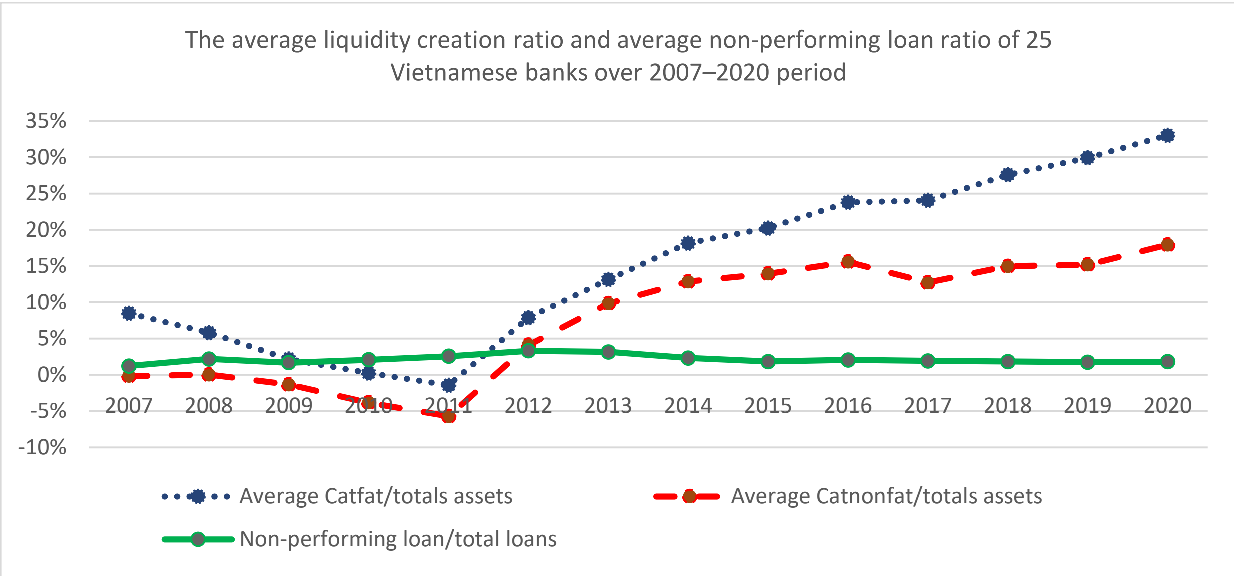

Figure 1. Non-performing loan ratio and liquidity creation over 2007-2020 period

Table 2 presents the descriptive statistics of the sample used for the analysis. The average Catfat to total assets is 13.953 percent with a standard deviation of 18.887 percent. The highest ratio created by a Vietnamese bank in the given period is 72.180 percent, and the minimum ratio - meaning that liquidity destroyed by banks is -34.781. Meanwhile, the average Catnonfat to total assets is 5.976 percent with a standard deviation of 14.139 percent. The highest ratio is 65.130 percent, and the minimum ratio - meaning that liquidity destroyed by banks is -34.800. The average of non-performing loans to total loans ratio is 2.117 percent with a standard deviation of 1.429 percent. The highest value of NPL ratio attained by a bank is 11.401 percent in a year, and the lowest value of NPLs ratio is recorded at 0.06 percent.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Catfat	348	13.953	18.887	-34.781	72.180
Catnonfat	348	5.976	14.138	-34.800	65.129
NPL	348	2.117	1.429	0.060	11.401
ETA	348	10.383	6.413	0.116	46.245
SIZ	348	32.067	1.331	28.342	34.955
LTA	348	89.655	6.123	53.755	97.379
MKS	348	4.023	4.864	0.064	21.589
ZSC	348	20.078	11.321	0.126	76.277
ROE	347	9.902	8.541	-82.002	36.276
GDP	348	6.008	1.064	2.906	7.129
INF	348	7.294	6.179	0.631	23.115

Source: Author's estimation

Before starting the multivariate analysis, the multicollinearity between the independent variables in model need to be tested. Multicollinearity arises when some explanatory variables are strongly or perfectly correlated with each other, thereby causing instability for the regression coefficients. All coefficients in Table 3 reports a correlation lower than 0.8, which is below the unaccepted limit Kennedy (2003). Therefore, serious multicollinearity is not a serious problem in the model.

Table 3. Correlation matrix

	Catfat	Catnonfat	NPLs	ETA	SIZ	LTA	MKS	ZSC	ROE	GDP	INF
Catfat	1										
Catnonfat	0.788***	1									
NPLs	0.014	0.051	1								
ETA	-0.245***	-0.331***	0.023	1							
SIZ	0.456***	0.354***	-0.051	-0.604***	1						
LTA	0.335***	0.337***	-0.005	-0.872 ***	0.629***	1					
MKS	0.087	0.152***	-0.044	-0.377***	0.704***	0.346 ***	1				
ZSC	-0.139***	-0.148***	0.074	0.268***	-0.055***	-0.271***	0.227***	1			
ROE	0.045	-0.105*	-0.197***	-0.146***	0.334***	0.121**	0.330***	0.068	1		
GDP	-0.020	-0.016	-0.103*	-0.077	-0.0612	0.025	0.005	-0.0115	-0.030	1	
INF	-0.536***	-0.467***	0.108**	0.2990***	-0.377***	-0.325***	0.001	0.290***	0.028	-0.064	1

Source: Author's estimation

The dynamic panel regression is performed to find the impact of NPLs ratio on bank liquidity creation. The difference GMM is employed to control for the issue of endogeneity. The regressions for narrow and broad measure of liquidity creation is conducted separately. The results are presented in Table 4.

Table 4. D-GMM Estimation Results

Variables	Model (1) Broad measure of liquidity creation	Model (2) Narrow measure of liquidity creation
	Catfat	Catnonfat
L.Catfat	0.747***	
	(0.089)	
L.Catnonfat		0.554***
		(0.1164)
L.NPL	-1.173*	-1.238*
	(0.686)	(0.676)
L.ETA	3.693**	2.429*
	(1.597)	(1.468)
L.SIZ	8.406***	9.549***
	(2.479)	(1.954)
L.LTA	-0.021	-1.705
	(0.373)	(2.224)
L.MKS	1.587	2.010
	(2.796)	(2.907)
L.ZSC	-1.890**	-2.080
	(0.942)	(2.907)
L.ROE	-0.824***	-0.867***
	(0.2188)	(0.304)
L.GDP	0.089	-1.614
	(1.659)	(1.469)
L.INF	0.481***	0.555***
	(0.165)	(0.156)
No. of instruments	19	19
No. of observations	272	272
AR (2) test	0.482	0.282
Sargan test	0.726	0.320

*Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1. Model (1).*

Source: Author's estimation

The above results provide further insights that are worth discussing. From the results of the specification tests, it can be seen the value of AR (2) shows a significant result with p-value of 0.482 and 0.282 for Model (1) and Model (2) respectively suggesting that the null hypothesis fails to be rejected. Therefore, there is no second order serial correlation in the empirical model. Furthermore, the p-value of Sargan test is found to be 0.726 and 0.320 (p value > 0.05), which shows that the null hypothesis could not be rejected. These results imply that there is no over identification of the model, and hence the instruments used in this model is valid. In both models, NPLs have a statistically significant negative impact on liquidity creation. The negative relationship between NPLs and liquidity creation rejects the null hypothesis that increase in NPLs results in higher liquidity creation. This finding is different from the results of Umar & Sun (2016) in which support the moral hazards hypothesis. However, it is in line with the findings of Danisman (2018). This means that moral hazard doesn't exist in the Vietnamese banking system. That show effort of Vietnamese banks in monitoring lending activities to limit moral hazard problem. This enables Vietnamese bank to provide their long-term loans to customers and contribute to liquidity creation. The results from Table 5 further indicate that some of the explanatory variables are able to explain the liquidity creation of Vietnamese banks, which include bank capital and size have a statistically significant positive influence on LC. Both an increase in bank size and in capital lead to a rise the liquidity creation of banks. This findings support the evidence of Danisman (2018). And the "risk absorption" hypothesis, stating that higher capital absorbs risks and lets banks to provide more liquidity to the economy (Bhattacharya & Thakor, 1993; Von Thadden, 2004). The positive relationship between bank size and liquidity creation suggests that larger banks create relatively more liquidity compared with their smaller counterparts. This positive sign of relationship between bank size and liquidity creation support the findings of Danisman (2018). The other control variables which explain liquidity creation include ZSC, ROE, and INF. The variation in broad measure of liquidity creation is also explained by the riskiness of the bank and the bank capital. The inverse relationship between ZSC and Catfat measure of liquidity creation means that risky banks create more liquidity and vice versa. Increase in risk taking results in higher liquidity creation. The negative relationship between ZCR and Catfat is in line with the findings of Lei and Song (2013), Umar and Sun (2016).

The negative relationship between bank profitability and liquidity creation and suggests that banks which have low profitability create more liquidity and vice versa. This finding is contradicted with the previous studies. This may be explained by the fact that Vietnamese banking system is expanding theirs finance for customer needs in spite of low returns and increasing provision for loan loss during the expansion of the economic cycle. Finally, the results reveal that higher inflation generates an increase of bank liquidity. During the research period, the average inflation is 7.3 percent, an ideal rate for the economic growth purpose of policy makers. Therefore, Vietnamese banks do not hesitate to expand their credit and hold more illiquid assets then create more liquidity without too much worry about low inflation in a developing economy.

5. CONCLUSION AND RECOMMENDATIONS

In this paper, we investigate the influence of NPLs on bank liquidity creation using a sample of 25 Vietnamese banks, using yearly data for the period 2007-2020 and employing D-GMM estimator technique for analysis. Our purpose is to see whether more NPLs decreases or enhance the liquidity creation. In other words, we explore if the moral hazard problem hypothesis exists in Vietnamese banking system. The empirical evidence shows that an increase in NPLs leads to liquidity creation decrease, and this does not support moral hazard hypothesis. As indicated by Fungacova et al (2017), a decrease in liquidity creation is very crucial to consider because it could lead to a drop the amount of financing and a slowdown in economic growth. Therefore, Vietnamese banks continue to control moral hazards well as they are doing currently. That NLPs fall enables banks to lend more and create more liquidity in the economy. From these findings, we can see that the credit line policy of Vietnamese state bank proves effectiveness for sound development of banking system and economic growth. If any bank control moral hazard and decrease NPLs, then the State bank of Vietnam could apply a higher credit limit for its expansion of lending.

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THE IMPACT OF OIL PRICES, GOLD PRICES AND RICE PRICES ON VIETNAM'S INFLATION

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Abstract: *Vietnam's economy is open to integration, so the increase in prices on the world market will more or less affect the prices of domestic products. This paper examines the impact of oil, gold and rice prices on Vietnam's inflation, over the period from January 2010 to December 2020. Applying estimation of time series data by the method of vector autoregression (VAR). The findings of the study showed that oil prices, gold prices and rice prices are positively correlated with Vietnam's inflation rate. Thereby, managers need to monitor the evolution of world commodity prices, in order to promptly respond, as well as minimize the effects, take advantage of opportunities to both control inflation, stabilize and develop the economy.*

Keywords: *oil prices, gold prices, rice prices, Vietnam's inflation.*

1. INTRODUCTION

Inflation is one of the economic issues that are always of top concern in many countries around the world, because it directly affects all production and business sectors as well as all classes of society. Prices of goods and services fluctuate over time, and once prices change too quickly, it can be a shock to the economy. The consumer price index is a basic indicator that measures the prices of goods and services. Besides, this one indicates whether the economy is experiencing inflation or deflation.

In fact, not only in other countries in the world but also in Vietnam, commodity prices are influenced by the price level of goods on the world market, so they tend to increase, especially energy products such as gasoline, equipment, etc. as weak as the price of rice. Besides, changes in world gold prices also have certain effects on domestic gold prices. Therefore, the study of the influence of oil prices, rice prices, and world gold prices is a matter of increasing interest in research.

The rise of commodity prices poses the challenges to macroeconomic management. It also may create obstacles to economic recovery. In addition, higher commodity prices can feed into the core of inflation that creates expectations of a tighter monetary policy and increases the negative impact on aggregate demand (Kilian, 2008). From a monetary policy point of view, one of the main risks is the dynamics of inflation around commodity price shocks that could impact inflation.

There have been previous studies that mention the impact of world commodity prices on domestic inflation. In which, there are studies on world oil prices (Hamilton, 2004; Blanchard & Gali 2007; Anthony N.C 2019), the world gold price (Mahdavi & Zhou,1997; Capie et al, 2005; Kyrtsou & Labys, 2016), or world rice price (Cheung et al, 2008; Ratnasari, 2009; Myint & Bauer, 2010; Abdoulaye et al, 2015; Belke and Awad, 2015). The influence of world commodity prices on domestic inflation varies depending on the specific characteristics of each country.

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In Vietnam, there have also been domestic and foreign studies focusing on this issue such as Pham The Anh (2008), Vo Van Minh (2009), Nguyen Thi Hang Nga et al 2016), Huynh Quoc Khiem and Nguyen Thi Chau Trinh (2017) mention oil prices; Pham Thi Thu Trang (2009) added the oil and rice prices; Than Thi Thu Thuy and Le Thi Thu Hong (2014) analyze the price of gold. However, most of the above studies consider the impact of each factor in oil price, gold price or rice price on Vietnam's inflation, but there have not been studies that combine the above factors. From the above reasons, this study examines the impact of world commodity prices including oil prices, gold prices and rice prices on Vietnam's inflation.

2. THEORETICAL BASIS AND LITERATURE REVIEW

2.1. Theoretical basis

This study mainly builds on the theoretical model of commodity price overshooting developed by Frankel (1986, 2008). Following Frankel (1986, 2008), the theory is derived from two assumptions. First, market participants who observe that the real commodity price today (rcp_t) lies over its perceived long-run value expect the price to move back to its long-run equilibrium ($\overline{rcp}$) over time. As shown in Eq. (1), the expected relative change in the real commodity price $E_t\Delta(cp_{t+1} - pm_{t+1})$, where cp_{t+1} is the nominal commodity price in t+1, pm_{t+1} the price of manufactured goods or the general price level in t+1, is expected to regresses back to equilibrium proportionally to the gap between real commodity price today and its long-run value. When the real price is high today, market participants expect a decrease until the long-run equilibrium is reached and vice versa.

$$E_t\Delta(cp_{t+1} - pm_{t+1}) = -\theta(rcp_t - \overline{rcp}) \quad (1)$$

Second, market participants base their decision to hold storable commodities on the arbitrage condition that the cost-adjusted expected rate of return of holding the commodity $E_t\Delta cp_{t+1} + c_t$ should equal the return on alternative assets or the interest rate it as illustrated in Eq. (2). The cost of holding commodities *ct* includes the convenience yield, the storage costs and a risk premium.

$$E_t\Delta cp_{t+1} + c_t = i_t \quad (2)$$

Combining these two assumptions yields the commodity overshooting model represented by Eq. (3). The real commodity price relative to its long-run equilibrium price is negatively related to the nominal interest rate, positively related to the expected price level and, thus, inversely related to the real interest rate it Etpmt þ1 relative to the cost of holding the commodity *ct*. A fall in the real interest rate induced by an expansion in money supply, increases the real commodity prices above its long-run equilibrium price, i.e. they overshoot, so that the expected increase in commodity prices equals the lower real interest rate and cost of holding commodities. Apparently, as the long-run real equilibrium price and the cost of holding commodities is not constant over time, the relationship between real interest rate and real commodity price does not hold precisely in practice (Frankel, 2008).

2.2. Literature review

2.2.1. Impact of world oil prices on inflation

According to modern economic theories, most countries go through the operation of the market to ensure the supply and demand of any commodity including energy. However, the oil and gas energy market often has political problems, monopoly, that's why there is always the intervention of the governments of countries around the world. In addition, oil and gas is an important source of energy and an indispensable input of economic activities, so the issue of selling prices, subsidies and taxes on petrol is always a concern of most governments. Therefore, when the world oil price fluctuates, it will affect other macro variables. The rising of world oil prices will affect domestic production costs, the general price level, and it will create inflation. Consequently, it negatively affect economic growth, and disrupt the market. Studies have found that oil price shocks affect output and inflation (Hamilton, 2004; Blanchard & Gali 2007; Choi et al, 2017; Anthony, 2019; Patricia, 2019). In addition, rising oil prices increase input production costs that lead to higher prices of goods and services.

2.2.2. Impact of world gold price on inflation

Mahdavi and Zhou (1997) test the performance of gold and commodity prices as leading indicators of inflation with cointegration and vector error-correction model (VECM) over 1958-1994. Their findings show that the stability of the gold price signalling inflation may vary depending on the time span being examined. Capie et al (2005) apply Exponential generalized autoregressive conditional heteroskedasticity (EGARCH) technique to investigate the exchange rate hedge of gold price by using weekly data over the period 1971- 2004. They find that the world gold prices can be a hedge against inflation depreciation and that there is a negative relationship between gold price and sterling-dollar and yen-dollar exchange rates but the strength of this relationship varies over time. Kyrtsou & Labys (2016) construct a noisy multivariate model describing the relationship between commodity price and inflation. They strongly confirm their argumentation about economic dynamics when a bi-directional non-linear relationship between U.S. inflation and commodity prices has been identified again. Mohammad et al (2017) also determined a relationship between gold prices in Saudi Arabia and the consumer price index (CPI) by applying an auto-recovery distributed lag (ARDL) model.

2.2.3. Impact of world rice price on inflation

Cheung et al (2008) looked into the effects of food commodity prices on inflation in several Asian countries in the 1962-2003 period. Results of analysis using the Philips Curve showed that food prices affected inflation. Ratnasari (2009) investigated factors affecting inflation in Sri Lanka in the period of 1980-2005, and reported that two main factors contributing to inflation were growing supply of money and increased prices of rice. Myint and Bauer (2010) examined markets integration and causal relationship between the prices of local rice and international rice (Thai rice), as well as the effect of the prices on consumer price index in Myanmar from 2001 to 2004. Monthly data were analyzed using the VAR analysis. Test results showed that while market integration was weakened in domestic market, a deficit in the prices of rice affected the consumer price index. Abdoulaye et al (2015) examined the effect of the prices of cereal commodities (rice, corn, and wheat) on inflation (which was proxied with the consumer price index) in Mali from 1993 to 2015. Results indicated that there was an effect of cereal prices on inflation in Mali in the long term, and there was none in the short term. Belke and Awad (2015) examined the effect of food prices on inflation in MENA, and reported that there were some long-term effects of the prices of food commodity on inflation. Mose (2019) examine the predictability of agricultural commodity prices for twelve major agricultural commodities including rice prices in the inflation projections of Nigeria.

3. RESEARCH METHODS

This study uses the consumer price index (CPI) as a proxy for inflation. Data on Vietnam's CPI is reviewed for the period January 2010 to December 2020 from International Financial Statistics (IFS) of the International Monetary Fund (IMF).

This study based on the model used in the study of Oya C. et al (2012), that builds a model to study the relationship between commodity prices and Vietnam's inflation as follows:

$$Y_t = A_{0,t} + A_{1,t}{*}Y_{t-1} + \ldots + A_{p,t}{*}Y_{t-p} + B{*}Z_t + \varepsilon_t \quad (1)$$

Where:

. Y_t: is an vector including issuance rate (CPI), world oil price (OP), world gold price (GP), world rice price (RP).

. $A_{0,t}$: vector constant (number system).

. $A_{i,t}$: matrix of different coefficients (i = 1,…, p).

. Z_t: matrix of exogenous variables (macroeconomic information variables).

. B: matrix of numbers.

. ε_t: is the vector section of the model.

. p: is a value of delay.

There are many different approaches to analyze the factors affecting inflation, but after researching, the author found that the VAR model approach has the most advantages. Therefore, in this study, the author uses VAR model to implement the experimental model. In addition to the VAR model having advantages in analyzing shock transmission mechanism, that is, considering the impact of a shock on one dependent variable on other dependent variables in the system, it also has other advantages: (1) When using the VAR model, it is not necessary to distinguish which variables are endogenous and which are exogenous, but all variables will be considered as endogenous variables. The variables in the model all play the same role; (2) With a small number of variables in the model, the reliability of the obtained prediction is usually much better than a cumbersome system of equations model with many variables and many equations.

4. EMPIRICAL RESULTS

4.1. Determine the stopping behavior of the variables included in the model

The descriptive data show that there is substantial difference in economic growth, inflation rate, exchange rate and interest rate across countries and over different time periods. Form the table it can be seen that, the mean of the stock index for the Asean countries stood at 7.2 points and the average exchange rate is 4.6 against the US dollar. The chage of inflation in Asean countries stood at a mean of 8.1779% and interest rate on loans was on average 11.35%. The standard deviation figures from Table 2, reveals that the most volatile data is of stock exhchange with a standard deviation of 5.235 and the least fluctuating data is interest rate with a standard deviation of 0.2076.

Table 1. Descriptive statistics the data of variables used in the model

	CPI	OP	GP	RP	ER	IP	IR	MS
Mean	4.949147	4.227899	7.222748	6.116836	9.976445	4.496857	2.220087	15.48167
Median	4.97571	4.22953	7.1755	6.087905	9.987705	4.47181	2.05923	15.52011
Maximum	5.14115	4.7689	7.58509	6.42203	10.05453	4.82615	2.89536	16.30959
Minimum	4.56379	3.04643	6.98076	5.87774	9.79484	4.04305	1.9373	14.48394
Std. Dev.	0.148294	0.375683	0.146759	0.144022	0.061104	0.159071	0.305219	0.530509
Skewness	-1.045971	-0.415407	0.645735	0.376107	-0.932723	-0.073556	0.859526	-0.249975
Kurtosis	3.400379	2.441232	2.401872	1.996893	3.565036	2.465823	2.296077	1.842218
Jarque-Bera	24.95091	5.513594	11.14107	8.646267	20.89536	1.688427	18.97858	8.747247
Probability	0.000004	0.063495	0.003808	0.013258	0.000029	0.429895	0.000076	0.012605
Sum	132	132	132	132	132	132	132	132

Source: Authors' analysis

4.2. Checking the stability of the data series

4.2.1. Determine the stopping behavior of the variables included in the model

To test the stopping behavior of the variables after the logarithmization, the research team performed Augmented Dickey Fuller test (ADF test). The research is based on the hypothesis H0: the series of research variables has a unit root (non-stationary) and H1: the series of research variables has no unit root (stationary). If the absolute value of the statistical test value is greater than the critical value ($|tADF| > |t\alpha|$) or p-value < α with significance level α=5% or α=10% or α=1%. When considering the characteristics of time series data, use the ADF unit root test. The results from the above table show that there are 3 variables that stop at the original data (CPI, ER, IP), the remaining variables stop at the first difference (OP, GP, RP, IR, MS). Therefore, the above variables can be used for regression in the VAR model.

Table 2. Estimation result of stationary test.

Variable	Unit Root Test at D_0		Unit Root Test at D_1	
	t(ADF)	P(value)	t(ADF)	P(value)
CPI	-3.594390	0.0071		
OP	-1.578482	0.4907	-8.704471	0.0000
GP	-1.484064	0.5387	-8.756219	0.0000
RP	-2.185049	0.2128	-8.978771	0.0000
ER	-3.258182	0.0189		
IP	-4.278552	0.0007		
IR	-0.808666	0.8131	-10.68752	0.0000
MS	-1.72819	0.4147	-11.93176	0.0000

Source: Authors' analysis

4.2.2. Determine optimal latency

In order to obtain accurate results from the VAR model, beside considering stopping behavior of the variables, the research team determined the optimal latency of the model. According to the statistical standards LR, FPE, AIC, HQ the model has an optimal latency of 2 (Table 3).

Table 3. Determine optimal latency of the model.

VAR Lag Order Selection Criteria
Sample: 2010M01 2020M12, Included Observation: 129

Lag	LogL	LR	FPE	AIC	SC	HQ
0	5246.605	NA	7.10e-41	-81.09465	-80.73994*	-80.95052
1	5353.645	200.8050	1.73e-41	-82.50613	-81.79672	-82.21788*
2	5201.046	-276.8089*	2.37e-40*	-79.89218*	-78.82806	-79.45981

Source: Authors' analysis

4.3. Estimated results of VAR model

4.3.1. Estimated results

According to the results of the table 4, the variables that can explain the changes in expected inflation with the significance level of 5% are: CPI(-2), D(OP(-2)), D(GP(-2))), D(RP(-2)). The estimation results show that past inflation has a negative (-) influence on current inflation, with statistical significance of 10%. Oil price is positively correlated (+) with the inflation rate, at 1% significance level. Gold price is positively correlated (+) with inflation rate, at 5% significance level. Rice price is positively correlated (+) with inflation rate, at 5% significance level.

Table 4. Impact of macroeconomic factors on ASEAN' s stock markets

Variables	CPI
CPI(-1)	1.460454
	(0.08235)
	[7.7345]
CPI(-2)	-0.476674
	(0.08078)
	[-15.9016]
DOP(-1)	-0.010651
	(0.00433)
	[-2.48058]
DOP(-2)	0.065441
	(0.00429)
	[3.56332]
DGP(-1)	0.009646
	(0.01075)
	[0.89696]

Variables	CPI
DGP(-2)	0.015253
	(0.01109)
	[1.37489]
DRP(-1)	-0.000712
	(0.00914)
	[-0.07787]
DRP(-2)	0.031076
	(0.00912)
	[0.33716]
ER	0.009100
	(0.00303)
	[3.00364]
IP	-0.001660
	(0.00277)
	[-0.59940]
DIR	0.018014
	(0.01071)
	[1.68188]
DMS	-0.047629
	(0.02264)
	[-2.10366]
R-squared	0.999165
Adj. R-squared	0.999086

Note: ****statistical significance at the 1% level, **significance at the 5% level, *significance at the 10% level.*

Source: Authors' analysis

4.3.2. Reaction functions

From the results of estimating the VAR model, this study consider the result of the reaction function of Vietnam's inflation rate to world commodity price factors including oil price (OP), gold price (GP), rice price (RP). The result is shown in Fig. 1 as follows.

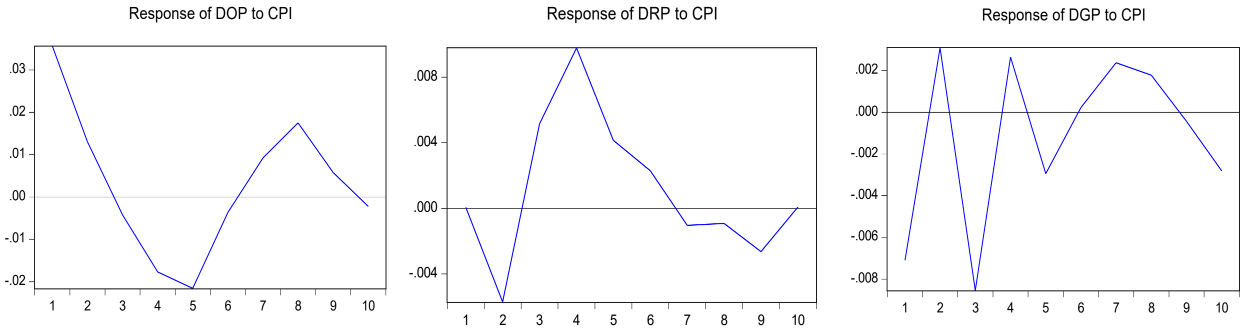

Figure 1. The reaction of Vietnam's inflation to oil price, gold price and rice price

4.3.3. Decomposition of variance

The decomposition of variance shows that CPI fluctuations are mainly explained by itself and the OP variable. The remaining variables GP, RP also explain the fluctuations of the inflation rate but not much.

Table 5. Decomposition of variance

Variance Decomposition of SP:

Period	S.E.	CPI	DOP	DGP	DRP
1	0.004142	100.0000	0.000000	0.000000	0.000000
2	0.008260	95.09162	3.623992	0.502971	0.724580
3	0.011648	91.16133	5.593544	1.563400	1.428882
4	0.014015	90.78564	5.307384	1.987463	1.744575
5	0.015921	92.11609	4.468389	1.754390	1.525206
6	0.017417	93.13782	3.800144	1.536832	1.407076
7	0.018831	92.60646	3.375218	1.877350	1.871213
8	0.020515	90.89237	3.226088	2.826816	2.395972
9	0.022373	89.04842	3.211158	3.728030	2.752777
10	0.024098	87.66499	3.091060	4.323151	2.953634

Source: Authors' analysis

5. CONCLUSION

Inflation and inflation control are always the top concerns of most countries, in Vietnam this is the focus of policy, promoting many exploratory studies. Especially in the situation that Vietnam has expanded international cooperation and trade with the world, the factors affecting inflation are increasingly complicated. To achieve the main research objective, which is to test the influence of world commodity prices on inflation, the study uses VAR model through analysis of push response function, variance decomposition. The study used decomposition of variance analysis and impulse response function analysis to test the relationship between commodity prices and expected inflation. Analysis of the push-response function and the variance decomposition of inflation before shocks in the period January 2010 to December 2020, can draw the following conclusions:

- This study shows that the public tends to retain an impression of past inflation. This is the factor that governs the current level of inflation. The impression of a period of high inflation in the past usually only begins to fade after 2 months of continuous and stable inflation. This implies that to fight inflation, the Government must first keep inflation low for at least two months, thereby gradually regaining public confidence in a more stable price environment.
- The results of the VAR model show that commodity prices and inflation have a positive relationship with each other. Inflation is most strongly influenced by world crude oil prices at 1% significance level, a shock in oil prices leads to an increase in inflation. Inflation is also affected by the world price of gold and rice at 5% significance level, a shock in gold and rice prices leads to an increase in inflation.

In the environment of integration and globalization, along with increasing import and export activities, domestic prices are more responsive to world commodity price shocks. Therefore, the supply and demand management of the domestic market should be closely monitored with the world commodity price movements.

Specifically, continue to closely monitor market price movements of essential commodities to promptly propose solutions to ensure the balance of supply and demand in order to stabilize domestic market prices, especially for commodities. goods whose supply is in short supply due to the impact of natural disasters, supply disruption due to the impact of Covid-19. When world price movements continue to be unfavorable for a long time, it is necessary to proactively propose a timely response plan to limit losses from inflation. In the short term, not to mention the increase in prices of goods under the management of the State to create favorable conditions for businesses to take advantage of the recovery opportunities of the economy. If world prices turn to decrease gradually in the coming time as expected, it is also necessary to quickly take advantage of this trend by stepping up demand-stimulating and growth-supporting programs to take advantage of rapid growth without too concerned about inflationary pressures.

It is necessary to focus on promoting information and propaganda on price management, publicizing and transparent information on prices to anchor inflation expectations; limit false information that causes confusion for consumers and destabilizes the market.

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FACTORS AFFECTING CREDIT RISK: AN EMPIRICAL EVIDENCE IN VIETNAM'S COMMERCIAL BANKS

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Abstract: *We conduct this study to analyze the factors affecting credit risk at Vietnamese commercial banks from 2011 to 2020. Using a feasible generalized least squares regression model (FGLS) model. Based on panel data of 25 Vietnamese commercial banks, the research results show that factors including the previous year's credit risk ratio, bad-debt ratio, marginal net interest income, and bank size are proportional to the bank's credit risk ratio. In contrast, last year's credit growth, income to total assets, loan-to-deposit ratio, and economic growth negatively affected the bank's credit risk ratio. From the study findings, we propose some policy implications to improve the effectiveness of credit risk management at Vietnamese commercial banks.*

Keywords: *Credit risk, credit provision, bad debt, credit growth.*

1. INTRODUCTION

The credit risk of commercial banks has been receiving the attention of researchers and policymakers, especially after the financial crisis. According to Basel II and international practices, credit risk is the possibility that the borrower or the bank's counterparty will not be able to fulfill the debt repayment obligations committed in the contract. In Vietnam, according to Clause 24, Article 2 of Circular 41/2016/TT-NHNN dated December 30, 2016: "Credit risk is the risk due to the customer's failure to perform or inability to perform a part or the whole of the debt repayment obligation under the contract or agreement with the bank or foreign bank branch". The credit risk is the most considerable risk that commercial banks face to achieve their credit growth target. If credit risk management is not good, commercial banks will face many difficulties in mobilizing and lending, leading to financial losses and even bankruptcy. Many factors directly or indirectly affect the credit risk of commercial banks, including micro-factors and macro factors. Micro-factors are related to a bank's characteristics, such as bank size, profitability, lending interest rates, credit size, and leverage structure. Macro factors include economic growth, inflation, exchange rate, interest rate, and market capitalization. The bad debt ratio is the most crucial criterion for assessing commercial banks' credit risk. Bad debt refers to loans or outstanding balances owed that are no longer deemed recoverable. The arising of bad debt is inevitable in the banking sector. However, banking activities will be paralyzed if the bad debt ratio is too high because banks do not have enough capital to pay customers when they are due. Therefore, credit risk management, prevention, limitation, and handling bad debts are vital tasks at commercial banks. Especially with

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Vietnam - an emerging market that has experienced a credit boom in the past decade, the issue of credit risk management has become even more necessary.

Vietnam has experienced a period of rapid credit growth with many risks, as shown by the continuous increase in the bad debt ratio at commercial banks since 2007, and was especially aggravated at the end of 2012 when the debt ratio bad of Vietnam's commercial banking system up to 8.82%. The more the economy expands and develops, the larger the credit activities at banks, making the debt balance grow. The increase in bad debt forced the bank to increase the provision for credit risks and caused negative consequences to the bank's operations, such as reducing profits, the bank's share price, and loss of shareholder confidence. Facing the problem of increasing bad debt, causing instability in the banking system's operations, the State Bank has implemented the project "Handling bad debts of the system of credit institutions" and the project "Restructuring the system of credit institutions for the period 2011-2015". After nearly three years of implementing these projects, Vietnam's commercial banking system's bad debts have made positive changes. Specifically, at the end of 2017, the system's bad debt ratio dropped to 2.56%, improving credit growth. Besides, new standards on debt classification were implemented and made bad debts more transparent. However, the bad debts of Vietnamese commercial banks still have many concerns. Up to the present time, although the profit of Vietnamese commercial banks is still growing positively, it is partly because bad debts have not been fully revealed. The other part is because the banks have actively reduced operating costs and increased income from non-credit activities. The financial statements of commercial banks in 2020 also show that credit risk provisions tend to increase by 2-3 times compared to the same period in 2019. In that context, studying factors affecting credit risk in Vietnamese commercial banks is necessary and has practical significance.

There are many studies on this issue, but most of the banks in these studies have met Basel II (Adamgbo et al, 2019; Stephanou & Mendoza, 2005; Hamerle et al, 2002). By the end of 2020, there are 18 of 34 commercial banks in Vietnam meeting Basel II including VCB, VIB, MBB, TCB, ACB, MSB, HDB, OCB, VPB, Vietbank, Vietcapital bank, Seabank, Shinhan bank, NamA bank, LienvietPost bank, BIDV & Standard Chartered Vietnam. However, only six banks met all three Basel II conditions on minimum capital adequacy, internal capital adequacy assessment process (ICAAP), supervisory capacity, and information disclosure according to market principles. The remaining 12 banks only stop at "measure and ensure the minimum capital adequacy." Stemming from that fact, the authors studied "Factors affecting credit risk: Empirical evidence in Vietnamese commercial banks". This will be the driving force for commercial banks to complete Basel II standards.

2. THEORITICAL BACKGROUND AND LITERATURE REVIEW

2.1. Theoritical background

Many theories about the correlation between credit risk and influencing factors have been proven. To explain the relationship between credit growth and bad debt, Keeton (1999) considered the fluctuations of three factors: expected return, creditworthiness, and total loan amount. He explained that when commercial banks want high credit growth or, in other words, lend more, they are willing to accept lowering credit standards and accepting loans to customers with high risk. Therefore, a positive relationship exists between credit growth and bad debt, as well as credit growth and credit risk.

The theory of "Bad Management" (Berger & Deyoung, 1997) deals with the problem of moral hazard. It can happen when one party to a transaction tries to profit from the risk of harming the other party. Moral hazards can come from both the Bank and the customer. On the Bank's side, to achieve credit growth targets, banks with less capital and smaller scale tend to accept the risks of making poor quality loans by loosening credit policies for customers and lowering the standards for loan appraisal and loan monitoring (Keeton & Morris, 1987). On the customer side, information asymmetry between banks and customers or customers actively using capital for wrong purposes and investing in high-risk areas are all causes of credit risk increase.

In terms of macroeconomics, fluctuations in the market economy can directly affect the credit market and vice versa. Specifically, when the Central Bank implements a tight monetary policy (reducing money supply, increasing interest rates), causing the price of bonds and financial derivatives held by banks to decrease, bank capital also falls, and lending declines (Van den Heuvel, 2009). Moreover, the increase in interest rates causes borrowing costs to increase, then people and businesses limit investment and consumption, which reduces the demand for loans. As a result, the economy's GDP decreased, the revenue and profit of enterprises decreased, and affected the ability to pay debts on time, creating credit risks.

2.2. Literature review

Banks are increasingly facing credit risk. Massive credit risk will lead to difficulties in mobilizing capital and developing products and services, difficulty in expanding relationships with partners, forcing banks to reduce operations, and reducing profits. This causes huge losses, even leading to bankruptcy (Bessis, 2002). Many economists studied to identify the factors that can affect credit risk and assess the extent of their influence on banking activities.

Some studies show that credit growth is one of the crucial factors affecting credit risk, but the direction of this factor is still controversial. Cavallo and Majnoni (2002), Laeven and Majnoni (2003), Suluck and Supat (2012) find a negative effect between credit growth and provision for credit risk. High credit growth can lead to reduced credit risk in the next few years through careful selection of loan customers and effective risk management. Even some banks used the management support of professional financial institutions. It helps them expand their business scale while limiting the risks faced. In contrast, the study by Bikker and Metzemakers (2005), Hess et al., (2009), Foos et al., (2010), Quynh and Tuan (2019) showed a positive effect between these two factors. In particular, Hess et al (2009) and Foos et al (2010) found evidence that credit growth reduces credit quality and increases credit risk in banks with a lag of 2-4 years.

The correlation between net interest income margin and credit risk provision ratio is studied by Hess et al (2009); Garza-Garcia (2010); López-Espinosa et al (2011); Thuan and Ngoc (2015); Quynh and Tuan (2019). However, their results are not consistent. According to Hess et al (2009), the net interest income margin has a negative relationship with credit risk provision ratio. In contrast, the study of Garza-Garcia (2010); López-Espinosa et al (2011); Thuan and Ngoc (2015); Quynh and Tuan (2019) found that credit risk provision ratio has a positive relationship with net interest income margin. The more banks lend, the higher the risk, so they must make more credit risk provisions. It forces them to calculate higher returns to offset the expected risks.

Regarding the impact of bad debt on credit risk provision ratio, the results of previous studies are pretty consistent when most of the findings show a positive correlation between them. Specifically, Hasan and Wall (2004) studied the factors affecting credit risk provision at banks in the US, Canada, Japan, and 21 other countries and found that bad debt positively impacts credit risk. This result is similar to the study of Floro (2010), Misman and Ahmad (2011), N. Hien and Tuan (2020).

The effect of income on credit risk is shown by the direction of fluctuations in the return ratio to total assets _ROA. Thuan and Ngoc (2015), Quynh and Tuan (2019), Mustafa et al (2012), Misman and Ahmad (2011) studied the correlation between these two factors and found that ROA negatively affects the bank's credit risk provision ratio. Mainly, Bikker and Metzemakers (2005) studied the credit provisioning of banks in 29 OECD countries within ten years and found a positive effect between income and credit provision ratio.

For macroeconomic factors, economic growth is represented by the GDP growth rate, which is considered an essential factor affecting the credit risk provision ratio. Research results are consistent when finding a negative correlation between GDP growth and credit risk provision (Bikker & Metzemakers, 2005; Floro, 2010).

There are also many studies on the impact of loan outstanding balance ratio, loan-to-deposit ratio, bank size, and previous-year credit losses provision ratio on the current credit losses provision ratio. For loan outstanding balance ratio, Cavallo & Majnoni (2002) found an inverse relationship between the provisioning ratio and the ratio of outstanding loans to total assets, while Hasan and Wall (2004), Floro (2010) found a positive correlation between them. For the loan-to-deposit ratio, Ashour (2011), Zoubi and Al-Khazali (2007) find a negative relationship between the loan-to-deposit ratio and credit provision. They explain that the business' capital demand also increases as the loan amount increases. For the credit provision ratio in the previous year, the research results are pretty consistent when finding a positive impact on the credit provision ratio (Floro, 2010; Bikker & Metzemakers, 2005). In terms of bank size, most studies have found a positive correlation between size and credit provision ratio (N. Hien & Tuan, 2020; Thuan & Ngoc, 2015). However, Foos et al (2010) did not find any statistically significant evidence of the relationship between these two factors.

Previous studies only looked at the specific impact of one factor or a few factors. However, we examine the simultaneous effects of many factors on the credit provision ratio in our study, including credit growth, previous year's credit growth, bad debt ratio, return on assets, net interest margin, economic growth, loan to deposit ratio, bank's size, and inflation. Besides, we also update data to 2021 for commercial banks in Vietnam.

3. MODEL, DATA AND RESEARCH METHOD

3.1. Model

Based on the literature review, the authors build a research model with the dependent variable being the credit risk provision ratio, as follows:

$$\mathbf{LLP_{i,t} = \beta_0 + \beta_1 LLP_{i,t-1} + \beta_2 CREDITGR_{i,t} + \beta_3 CREDITGRt_{i,t-1} + \beta_4 NPL_{i,t} + \beta_5 NIM_{i,t} + \beta_6 ROA_{i,t} + \beta_7 LDR_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 GDP_t + \beta_{10} INF_t + \varepsilon_{it}}$$

where: $\mathbf{LLP_t}$**:** Credit Loss Provision ratio

Setting up the credit risk provision is one of the bank's policies to overcome credit risks that may occur in the future.

LLP_{t-1}: Credit Loss Provision ratio in previous year

In the study of Bikker and Metzemakers (2005), Suluck & Supat (2012) show that credit loss provision has a trend in the long run in most Asian banks. It means that the credit loss provision ratio in the past has impacted the current one. Specifically, a high credit loss provision in the past will increase the current one with a 1-year lag. Therefore, we hypothesize that "*A bank's historical credit loss provision ratio has a positive effect on the current credit loss provision ratio.*"

$CREDITGR_t$: Credit growth rate

Credit growth too fast can easily lead to a decrease in credit quality. Besides, the race for profit will make banks less controllable in lending. It causes the non-performing loan to increase, and banks need to make more provisions for credit risk. So we hypothesize that *"The credit growth rate of banks has a positive impact on the credit risk provision ratio".*

$CREDITGR_{t-1}$: Credit growth rate in previous year

Foos et al (2010) showed that some banks have a positive relationship between past credit growth rate and credit loss provision ratio, so we developed the hypothesis: "*Last year credit growth rate of the bank has a positive impact on the credit loss provision ratio*".

NPL_t: Non-performing Loan ratio

A non-performing loan is one of the leading causes of credit risk. When non-performing loan ratio increases, the credit loss provision ratio also increases to compensate for possible risks (Hasan & Wall, 2004; N. Hien & Tuan, 2020; Thuan & Ngoc, 2015). Therefore, we hypothesize that "*A bank's NPL ratio positively impacts the credit risk provision ratio*".

NIM_t: Net interest Margin

Net interest margin (NIM) also affects a bank's credit loss provision. Most studies have found a positive relationship between net interest margin and credit loss provision (Garza-Garcia, 2010; López-Espinosa et al., 2011; Thuan & Ngoc, 2015; Quynh & Tuan, 2019). They argued that the banks lend more, the higher the credit risk, so they have to make more provisions. It forces them to calculate higher returns to offset the expected risks. Therefore, we hypothesize that "Bank's net interest margin positively affects the credit loss provision ratio".

ROA_t: Return on Assets

Misman & Ahmad (2011) and Mustafa et al (2012) found a negative relationship between LLP and ROA. Similarly, Thuan & Ngoc (2015) and Quynh & Tuan (2019) also conclude that in a difficult economic situation, the risk of non-recovery of loans increases. That forces banks to make more provisions for credit losses, reducing the return on assets ratio. So, we hypothesis that: "*Earnings to total bank assets have a negative impact on the credit risk provision ratio*".

LDR_t: Loan-to-Deposit ratio

As the capital needs of businesses increase, loans are higher than bank deposits. In order to reduce the cost of raising capital from outside sources, banks tend to reduce their risk provisions

(Ashour, 2011; Zoubi & Al-Khazali, 2007). In other words, the loan-to-deposit ratio of customers negatively correlates with the credit loss provision ratio. Therefore, we hypothesize that "*the loan-to-deposit ratio has a negative effect on the credit provision ratio*".

$SIZE_t$: Bank's size

The larger the bank's size, the more the loans. Therefore, to offset the possible risks, the bank must increase the provision for credit risks. This is similar to the research results of N. Hien & Tuan (2020) and Thuan & Ngoc (2015). Based on the results of previous studies, we hypothesize that: "*Bank size has a positive impact on the credit loss provision ratio*".

GDP_t: Economic growth rate

A growing economy shows that businesses are operating efficiently. Increasing the consumer's demand for goods and services will spur businesses to reproduce and invest, thereby increasing their profits. That means improving the debt-service coverage of businesses. Businesses can pay their debts on time, so the Non-performing Loan ratio is low, and the credit loss provision ratio is also low. On the contrary, when the economy falls into a recession, GDP decreases, businesses are inefficient, and their revenue declines. That makes it difficult for businesses to repay loans on time, causing banks' bad debt to increase, and they need to make more provisions for risks. Therefore, we hypothesize that *"Economic growth negatively affects the credit risk provision ratio"*.

INF_t: Inflation rate

In high inflation, banks often face difficulties performing banking services, mobilizing capital, and lending because of the local currency's depreciation and the currency's purchasing power decreases. In order to control inflation, the State Bank must implement a tight monetary policy to reduce the amount of money in circulation. This forces banks to tighten lending activities and only meet capital needs for pre-signed contracts or projects with high efficiency and low risk. As a result, the bank's bad debt decreases, so the credit loss provision decreases. In other words, when inflation increases, the credit loss provision ratio decreases. Therefore, we hypothesize that *"the inflation rate has a negative impact on the credit risk provision ratio"*.

Table 3.1. Definition of variables and data sources

Notation	Variable	Calculation	References	Expect
LLP_t	Current credit loss provision ratio	$\frac{\text{Credit loss provision}}{\text{Total loans}}$	Misman & Ahmad (2011); Thuan & Ngoc (2015); Quynh & Tuan (2019)	
LLP_{t-1}	Previous-year credit loss provision ratio	$\frac{\text{Credit loss provision inprevious year}}{\text{Total loans in previous year}}$	Bikker & Metzemakers (2005); Suluck & Supat (2012)	+
CREDITGR	Credit growth rate	$\frac{\text{Debit balance in year t}}{\text{Debit balance in year (t – 1)}} - 1$	Bikker & Metzemakers (2005); Foos et al (2010); Suluck & Supat (2012); Quynh & Tuan (2019)	+
NPL	Non-Performing Loan ratio	$\frac{\text{Non-performing loans}}{\text{Total loans}}$	Hasan & Wall, 2003); N. Hien & Tuan (2020); Thuan & Ngoc (2015)	+

Notation	Variable	Calculation	References	Expect
NIM	Net interest margin	(Net return on Investment – Interest paid) / Average Assets	Garza-Garcia (2010); López-Espinosa et al (2011); Thuan & Ngoc (2015); Quynh & Tuan (2019)	+
ROA	Return on Assets	Earning after tax / Total Assets	Misman & Ahmad (2011); Mustafa et al (2012); Thuan & Ngoc (2015); Quynh & Tuan (2019)	-
LDR	Loan-to-Deposit ratio	Total Loans / Total Deposits	Zoubi & Al-Khazali (2007); Ashour (2011)	-
SIZE	Bank's size	Logarit of total assets	N. Hien & Tuan (2020); Thuan & Ngoc (2015)	+
GDP	Economic growth	GDP per capita at 2010 constant prices (thousand of USD)	Floro (2010); Bikker & Metzemakers (2005)	-
INF	Inflation rate	Annual inflation rate	Quynh & Tuan (2019)	-

3.2. Data

Research data are panel data with 250 observations. Bank-specific data such as non-performing loan ratio, bank size, net interest margin, ROA, loan-to-deposit ratio, and credit growth rate are collected from financial statements and annual reports of 25 Vietnamese commercial banks over ten years from 2011 to 2020. Macroeconomic indicators, including inflation rate (INF), and economic growth (GDP), are collected from the IMF. According to Tabachnick et al (2007), for the best regression analysis, the minimum number of observations should be calculated by the formula: $n \geq 50 + 8m$; where m is the number of independent variables in the regression model. In our study, the research model has ten independent variables, so $n \geq 130$ observations. Thus, the research data with 250 observations met the research requirements.

3.3. Research Method

Based on the collected data and the literature review, we build research model and research hypothesis. After analyzing descriptive statistics, we analyze Pearson correlation to check the existence of the linear relationship between variables and, at the same time, detect multicollinearity. After ensuring that the model does not have multicollinearity, we continue to do a regression analysis and choose the most suitable estimation model. We, in turn, test the following models: Pooled ordinary least squares model (Pooled OLS), the Fixed effects model (FEM), and the Random effects model (REM). After choosing the most suitable model, we check the regression model's defects, including autocorrelation and variable variance. We use Wooldrigre's test for autocorrelation and Wald's test for Heteroskedasticity. If the model has the above defects, the regression coefficient is not statistical significance, leading to erroneous estimation results. We use the Feasible General Least Squares estimation method (FGLS) to overcome these defects. Finally, based on the results of regression models, we conclude and recommend some policy implications.

4. RESEARCH RESULTS AND DISCUSSION

4.1. Descriptive Statistics Results

Table 4.1. Descriptive Statistics Results

Variables	Mean	St.deviation	Min	Max
LLP_t	0.0122	0.0110	-0.0025	0.1113
LLP_{t-1}	0.0106	0.0118	-0.0235	0.1113
$CREDITGR_t$	0.1985	0.1779	-0.2986	1.0820
$CREDITGR_{t-1}$	0.2282	0.2070	-0.2986	1.0820
NPL	0.0213	0.0115	0.0050	0.0880
NIM	0.0306	0.0144	-0.0078	0.1274
ROA	0.0085	0.0091	-0.0551	0.0704
LDR	0.8661	0.1884	0.0162	1.5977
SIZE	2.19E+08	2.90E+08	1.47E+07	1.52E+09
GDP	0.0590	0.0119	0.0291	0.0708
INF	0.0517	0.0480	0.0063	0.1858

(Source: Authors calculated and synthesized on Stata)

According to table 4.1, the mean of the loss provision is 0.0122, in which the smallest value is -0.0025 belongs to MSB bank, and the maximum value is 0.113 belongs to TPB bank. The standard deviation of this variable is 0.0110, indicating that the variation is not significant between the observed samples.

4.2. Correlation Analysis

Table 4.2. Correlation Matrix

	LLP	LLPB	CRED ITGR	CRED ITGRB	NPL	NIM	ROA	LDR	SIZE	GDP	INF
LLP	1.000										
LLPB	0.525	1.000									
CRED ITGR	-0.177	-0.001	1.000								
CRED ITGRB	-0.176	-0.176	0.241	1.000							
NPL	0.108	0.014	0.004	-0.117	1.000						
NIM	0.354	0.293	-0.117	-0.023	0.055	1.000					
ROA	0.021	0.110	0.161	0.016	-0.031	0.454	1.000				
LDR	-0.063	-0.015	-0.048	-0.024	-0.066	0.368	0.326	1.000			
SIZE	0.107	0.161	-0.010	-0.006	-0.301	-0.048	0.103	0.106	1.000		
GDP	0.003	0.070	0.060	0.067	-0.085	-0.031	-0.119	0.009	-0.010	1.000	
INF	-0.108	-0.131	-0.121	0.314	0.139	0.148	0.150	0.075	-0.197	-0.109	1.000

Source: Authors calculated and synthesized on Stata

The results of Table 4.2 show that the correlation coefficient between the independent variable and the dependent variables has an absolute value of less than 0.8, so the rate of multicollinearity in the model is nonexistent. However, to ensure no multicollinearity, we also perform the VIF (Variance Inflation Factors) test.

Table 4.3. Results of VIF test

Denpendent Variables	VIF	1/VIF
NIM	1.630	0.615
ROA	1.490	0.673
INF	1.330	0.751
CREDITGRB	1.320	0.759
LDR	1.260	0.793
CREDITGR	1.240	0.809
LLPB	1.230	0.810
SIZE	1.220	0.818
NPL	1.160	0.864
GDP	1.060	0.947
Mean VIF	**1.290**	

Source: Authors calculated and synthesized on Stata

The results of Table 4.3 show that all independent variables have VIF < 2, once again confirming that the model certainly does not have multicollinearity.

4.3. Autocorrelation test and Heteroskedasticity test

Autocorrelation and Heteroskedasticity affect the results of model estimation and reduce the reliability of the tests. Therefore, we perform the Woolridge test for autocorrelation and the Wald test for variable variance.

Table 4.4. Results of Autocorrelation and Heteroskedasticity test

Test	Statistics results	Conclusion
Wooldridge test	F = 64.30 Prob = 0.0000	Autocorrelation
Wald test	Chi-Sq = 3,390.77 Prob = 0.0000	Heteroskedasticity

Source: Authors calculated and synthesized on Stata

We perform Woolridge and Wald tests with the null hypothesis: The model has no autocorrelation and Heteroskedasticity. However, the results of the two tests both give Prob less than 5%, showing that the null hypothesis is rejected. The model has autocorrelation and Heteroskedasticity. Models with autocorrelation and Heteroskedasticity will violate the hypothesis of linear regression models (Pool OLS, FEM, REM) and lose the effectiveness of conventional estimates. Therefore, we have chosen the feasible general least squares estimation method _FGLS to overcome the model defects in this case.

4.4. Regression results and Discussion

Table 4.5. Regression results

Variable	Pool OLS	FEM	REM	FGLS
LLPB	0.3785***	0.1810***	0.3559***	0.1622***
CREDITGR	-0.0081**	-0.0090**	-0.0082**	-0.0022
CREDITGRB	-0.0015	-0.0044	-0.0018	-0.0033**
NPL	0.1036**	0.0623	0.0982*	0.0902***
NIM	0.2528***	0.2900***	0.2598***	0.2967***
ROA	-0.1201	-0.1556**	-0.1238*	-0.1656***
LDR	-0.0088***	-0.0101**	-0.0092***	-0.0053**
SIZE	0.0022*	0.0008	0.0023*	0.0036***
GDP	-0.0136	-0.0033	-0.0120	-0.0409*
INF	-0.0189	-0.0231	-0.0189	-0.0083
C	-0.0071	0.0081	-0.0072	-0.0206***
R^2	0.3955	0.3515	0.3951	-
Adjusted R^2	0.3702	0.3244	0.3698	-
Prob	0.0000	0.0000	0.0000	0.0000
Note: *Indepentdent variable is LLP, LLPB = LLP_{t-1}, CREDITGRB = $CREDITGR_{t-1}$ and *, **, *** represent the statistical significance level at 10%, 5% and 1%, respectively.*				

Source: Authors calculated and synthesized on Stata

- **Previous year's credit risk provisioning ratio (LLP_{t-1})**

  Regression results show that at the 1% significance level, the previous year's credit provision ratio positively impacts the current credit provision ratio. Specifically, if LLP_{t-1} increases to 16.22%, LLP will increase to 1%. It implies that the history of high provisioning for credit losses will increase the current-year credit risk provision ratio with a 1-year lag. This result supports the proposed hypothesis and is similar to Suluck and Supat (2012), Bikker and Metzemakers (2005).

- **Previous-year's credit growth rate ($CREDITGR_{t-1}$)**

  At the 5% significance level, the regression results show that the credit growth rate of the previous year has a negative effect on the current credit risk provision ratio. Specifically, when last year's credit grew by 0.33%, this year's credit risk provision ratio will decrease by 1%. Increased credit growth means an increase in total outstanding loans and assets. If the credit quality is still guaranteed, the bad debt will not increase or decrease due to the excellent handling of debt collection, thereby reducing the cost of provision for credit risks, leading to a decrease in LLP. This result is consistent with the study of Cavallo and Majnoni (2002), Laeven and Majnoni (2003).

➢ **Non-Performing loan ratio (NPL)**

Research results found a positive relationship between bad debt and credit risk provision ratios at the 1% significance level. Specifically, when the non-performing loan ratio increases by 9.02%, the LLP will also increase to 1%. As the bad debt ratio increases, the credit risk provision ratio must also increase to offset possible risks. This result is similar to the finding of Hasan and Wall (2004), Hien and Tuan (2014), Thuan and Ngoc (2015) when pointing out the positive impact of bad debt ratio on credit risk provision ratio.

➢ **Net interest margin (NIM)**

At the 1% significance level, the research results find evidence of a positive relationship between marginal net interest income and credit provision ratio. Specifically, if marginal net interest income increases by 29.67%, the LLP will increase by 1%. The more banks lend, the higher the credit risk, so they must make more provisions and seek higher profits to cover the expected risks. The research results support the proposed hypothesis and are similar to those of López-Espinosa et al (2011), Garza-Garcia (2010), Thuan and Ngoc (2015), Quynh and Tuan (2019).

➢ **Return on Assets (ROA)**

The ROA figure gives investors an idea of how effectively the company converts the money it invests into net income. The higher the ROA number, the better the company's performance because the company can earn more money with a smaller investment. The study found a negative correlation between return on assets _ROA and provision ratio for credit losses_LLP. According to the regression results, if ROA decreases by 16.56%, LLP will increase to 1% with 99% confidence. This result supports the proposed hypothesis and coincides with Misman and Ahmad (2011), Mustafa et al (2012), Thuan and Ngoc (2015), Quynh and Tuan (2019).

➢ **Loan-to-Deposit ratio (LDR)**

According to the regression results, at a 5% significance level, if the loan-to-deposit ratio increases by 0.53%, the credit risk provision ratio will decrease by 1%. In other words, the loan-to-deposit ratio negatively affects the credit risk provision ratio. When loans are higher than bank deposits, banks often tend to reduce their credit risk provisions to avoid showing their desire to attract outside capital. This result supports the research hypothesis; and is similar to Zoubi and Al-Khazali (2007), Ashour (2011).

➢ **Bank's size (SIZE)**

The results of Table 4.5 shows that there is a positive impact between bank size and credit risk provision ratio. Specifically, at a 1% significance level, when bank size increases by 0.36%, the credit risk provision ratio will increase to 1%. Scale expansion helps banks increase their total assets and outstanding loans. Due to the expansion of credit activities, increasing the possibility of bad debt arising, the bank will increase provisioning. The research results are consistent with the research hypothesis and are similar to the findings of Hien and Tuan (2014), Thuan and Ngoc (2015).

➢ **Economic growth (GDP)**

The results of the regression model show that there exists a negative correlation between GDP and the credit risk provision ratio. Specifically, at the 10% significance level, when GDP increases by 4.09%, LLP will decrease by 1%. As the economy grows, businesses operate more efficiently, increase their profits and improve solvency. Businesses can pay their debts on time, bad debts are low, so banks make inadequate provisions for credit risks. On the contrary, when the economy falls into recession, businesses do not work efficiently, and revenue decreases, reducing their ability to pay debts on time. From this, the non-performing loan ratio increases, and banks must make more credit risk provisions. Research results are consistent with the proposed hypothesis and similar to Bikker and Metzemakers (2005), Floro (2010).

5. CONCLUSION AND POLICY IMPLICATION

The study uses the feasible generalized least squares (FGLS) model to analyze the impact of the previous year's credit risk provisions (LLP_{t-1}), previous year's credit growth rate ($CREDITGR_{t-1}$), credit growth rate (CREDITGRt), non-performing loan ratio (NPL), net interest margin (NIM), return on assets (ROA), loan-to-deposits ratio (LDR), bank size (SIZE), economic growth (GDP) and inflation rate (INF) to the credit risk provision ratio (LLP) of Vietnamese commercial banks. Research results prove that LLP_{t-1}, NPL, NIM, and SIZE positively impact the credit risk provision ratio. In contrast, $CREDITGR_{t-1}$, ROA, LDR, and GDP have negative effects on the bank's credit risk provision ratio. Based on the research results, bank administrators and policymakers can assess the level of impact and the direction of factors on credit risk provision. To improve the effectiveness of credit risk management at commercial banks in particular and the Vietnamese banking system in general, we propose some policy implications as follows:

Improve the quality of credit appraisal

Banks need to follow the steps in the lending process strictly. That helps the bank reduce losses when facing risks and anticipate the risks that customers may encounter to offer contingency solutions. At the same time, it improves the quality of collateral assessment to accurately forecast the debt repayment ability of borrowers. In addition, banks need to strengthen supervision of the use of loans, ensuring that customers use loans for the proper purposes.

Improve internal control

In internal inspection, in addition to periodic checks, banks need to focus and increase the frequency of checking customers with low credit ratings. Also, regularly evaluate the implementation of problem debt management measures and the ability to collect debts. Well-implemented internal control will support credit risk control.

Exploit information effectively in credit activities

Before making a lending decision, banks need to collect enough information about their customers and the market for their products. After collecting information, it needs to be screened and analyzed to assess customers' financial and debt payment ability, thereby deciding to lend or refuse.

Strengthen risk financing measures

The Bank can use various risk financing methods such as the warehousing of mortgaged assets, registering secured transactions before disbursing, classifying debts and making provisions following regulations, and buying insurance for loans (fire and explosion insurance, Etc.). Moreover, banks need periodically check and re-evaluate the collateral; if there is a decrease, ask customers to add more.

Standardization of credit officers

The human factor is the most important when considering any activity in any field. In credit, the human factor is many times more important. People determine credit quality and credit efficiency. In terms of expertise, banks need to strengthen professional training and skills in using information technology for credit officers to improve the quality of human resources. Regarding professional ethics, building a team of credit officers with good moral qualities is necessary.

Although the study has shown the factors affecting the credit risk provision ratio at Vietnamese commercial banks, it has only been limited to 25/34 joint stock commercial banks without mentioning joint venture banks or 100% foreign capital. Therefore, in the following studies, the author will expand the observations and analyze the factors affecting the credit risk of these banking groups.

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EXPERIENCE IN RESTRUCTURING COMMERCIAL BANKS OF COUNTRIES AROUND THE WORLD AND LESSONS FOR VIETNAMESE COMMERCIAL BANKS

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Abstract: *Vietnam Bank for Agriculture and Rural Development (Agribank) is one of the largest state-owned commercial banks in Vietnam, its capital structure is different from that of joint stock commercial banks. Like many other banks, Agribank is actively promoting the financial restructuring process towards a sustainable and efficient operating model and accelerating the equitization process. In this article, the author studies and analyzes lessons learned in the financial restructuring of several commercial banks in the world and the country to draw appropriate lessons for the Agricultural Bank. and Rural Development of Vietnam. Research method used in the artical: literature review, statistics, information synthesis… Research scope: selected commercial banks. Research result: lessons for Vietnamese commercial banks and Agribank.*

Keywords: *Capital restructuring, bank equity, profitability, bank performance, capital structure.*

1. INTRODUCTION

Bank for Agriculture and Rural Development of Vietnam (Agribank) is one of the state-owned commercial banks that play a key role in leading the system of credit institutions to seriously and effectively implement the national monetary policy and other financial institutions. policies of the Party and State, especially credit policies for agricultural and rural development. Entering the restructuring process, Agribank is trying to accelerate the equitization process to help the bank make its business operations more transparent and restructure its operations more efficiently. In other words, Agribank is looking for an appropriate financial restructuring direction to contribute to ensuring the bank's business efficiency and achieving its capital adequacy goals. This article studies some restructuring experiences of some commercial banks in the world to draw appropriate lessons for Agribank. The research context is quite specific because Agribank is a state-owned commercial bank in the equitization phase. Therefore, the author has selected lessons that are appropriate for the research context.

2. THEORETICAL BASIS

Financial structure is the combination of capital sources that commercial banks use to finance their business activities. Building and maintaining an appropriate financial structure to help ensure capital adequacy and business performance of commercial banks is an important task for each bank. During the operation of commercial banks, due to subjective and objective factors, leading to an imbalance in the financial structure, which may affect the capital adequacy or business performance of the bank, requires commercial banks to carry out financial restructuring. Financial

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restructuring is the process of fundamentally changing the financial structure of commercial banks to establish a financial structure suitable to each stage of the bank's development as well as the change of the business environment to achieve the goal of ensuring capital adequacy and improving the business efficiency of the bank.

3. EXPERIENCE OF FINANCIAL RESTRUCTURING OF ANGLO IRISH BANK, IRELAND

Anglo Irish Bank has grown by leaps and bounds during the boom years in Ireland's property market. The bank focuses on the corporate lending segments, mainly real estate businesses and private investors in rental or speculative real estate. Total assets have quadrupled in just 5 years, reaching EUR 103 billion in 2008, making the bank the largest in the country. However, with the collapse of Lehman Brothers Group in September 2008, the bank began to face many difficulties when the Irish property market plunged. Due to losses, the bank had to restructure its finances to get out of the brink of bankruptcy. In January 2009, the bank was nationalized, becoming the first major European bank specializing in real estate to face this fate. The National Wealth Administration (NAMA), which specializes in dealing with loss-making banks, was established in 2010 to purchase real estate loans and is used as an initial means of determining loans. loans in the lender's portfolio and the lender's capital needs. As of December 2010, the bank's accumulated losses have hit EUR 27 billion, equal to 17% of Ireland's GDP. The financial restructuring of Anglo-Irish is carried out specifically as follows:

Raise equity to solve bankruptcy risk

Anglo Irish Bank has received additional capital reserves from the Irish government from 17 billion euros to 25.3 euros in 2010. The replenishment of capital for the bank is done through the issuance of promissory notes and borrowing by the government. These promissory notes and debt are guaranteed by the Central Bank of Ireland. In July 2011, the Irish government added EUR 2.7 billion to the Irish Nationwide, which then transferred both the government's assets and liabilities to the Anglo-Irish bank. Since then, the government established the Irish Bank Resolution Corporation (IBRC) by renaming the Anglo Irish bank, specializing in the management and operation of the merged banks. During this period, the Anglo-Irish bank was deeply broken up: its bonds were transferred to Allied Irish Banks along with deposits. The rest of the Anglo-Irish is operated by the IBRC, which mainly operates on short-term loans provided by the Central Bank of Ireland.

In October 2012, the Central Bank of Ireland charged a floating fee on all non-entangled assets on the IBRC balance sheet. The effect is to put assets out of reach of other creditors and shareholders of the IBRC. This means that economically, the government has given up its owner status for a much greater benefit than its super-senior creditor position. Since then, the IBRC was dissolved in February 2013 by performing a loan restructuring agreement with the European Central Bank (ECB) with fixed promissory notes. IBRC assets are not tied or transferred to NAMAs for a short period.

Handling unsecured and insured bonds

By the end of 2010, Anglo Irish's debt to the ECB had reached 64% of the total value of the bank's assets, equivalent to 46 billion euros, making it one of the largest debtors of the ECB. The pledged collateral includes EUR 25 billion of promissory notes injected by the Irish government as well as insured bonds. With the need to use ECB loans to finance after the nationalization of Anglo Irish, the issuance of insured bonds became a financing instrument during 2009 and 2010 for the bank.

By 2011 when the bonds came due, most of the debt was paid off by the Irish government. The entire premium unsecured debt inherited from Anglo Ireland and Ireland Nationwide in the meantime has been repaid. However, for a small amount, this does not happen during liquidation. Additionally, other unsecured creditors of the IBRC, including pension funds, and suppliers of goods and services, with individual small amounts may also be written off. The fate of these investors may be tied to the success of the underlying bond investor case.

All qualifying deposits up to EUR 100,000 are covered by the Deposit Guarantee Program in operation in the State and qualified deposits exceeding this limit are guaranteed under the Deposit Guarantee Scheme. Qualified Debt Guarantee. Most of IBRC's deposit accounts that were transferred to other banks in 2011 were not affected by the liquidation.

In general, the restructuring process of Anglo-Irish bank relies heavily on public capital from the government. Thereby, it can be seen that commercial banks are a special enterprise in the economy, the process of restructuring it will not be as simple and individual as ordinary companies. The financial restructuring of a commercial bank sometimes affects the financial situation of the country.

4. EXPERIENCE IN THE FINANCIAL RESTRUCTURING OF SHINHAN BANK, KOREA

Shinhan Bank is a subsidiary of Shinhan Financial Group Co. Ltd., Korea's largest financial group by total assets, restructured in 2017 to regain domestic market share and expand overseas. Shinhan Bank is headquartered in Seoul, has branches in 20 countries, and is an important domestic bank, also known as D-SIB. However, the bank faces stiff competition at home from local rivals. Especially at the beginning of 2017, Shinhan Financial Group Co. Ltd ceded the lead in market capitalization to KB Financial Group Inc.

In 2017, Shinhan Bank carried out financial restructuring by adding equity when merging companies under Shinhan Financial Group Co. Ltd into an investment bank. Companies merged into the bank include: Shinhan Bank Co., Ltd., Shinhan Capital Co., Ltd., Shinhan Investment Company, Shinhan Life Insurance Co., Ltd., and parent company Shinhan Financial. The bank after financial restructuring was led by Lee Dong-hwan, former CEO of Shinhan Data Systems, a unit of Shinhan Financial. The restructuring goal is to turn Shinhan into a global investment bank.

Shinhan Bank is ramping up its overseas business with a focus on Southeast Asia and the restructuring is expected to increase the group's net income contribution from its global business to 20% by 2020. from the current 10%. The bank has signed an agreement to acquire the retail business in Vietnam of Australia & New Zealand Banking Group to expand Shinhan Bank Vietnam's card and bancassurance business, becoming the largest foreign bank. in Viet Nam. Besides, Shinhan Bank also completed the acquisition of two banks in Indonesia in December 2016, merging them to create PT Bank Shinhan Indonesia. Shinhan Bank established a subsidiary in Indonesia in late 2016 after taking over PT Makinta Security, an Indonesian medium-sized brokerage, in late 2015.

5. EXPERIENCE IN THE FINANCIAL RESTRUCTURING OF VIETINBANK

Vietinbank is also one of the pioneer banks in the field of financial restructuring. Together with Vietcombank, Vietinbank is one of the major state-owned commercial banks selected for equitization in 2007. In July 2009, VietinBank was listed on the stock exchange with a foreign strategic shareholder, IFC. In December 2012, VietinBank had a foreign strategic shareholder, Mitsubishi UFJ Financial Group (MUFG), with Japan holding 20% of the shares. According to the policy of restructuring the credit institution system from 2011 to 2015 approved by the Government in March 2012 and guidelines and policies for developing banking activities from 2016 to 2020, the bank must reorganize its banking operations. Accordingly, the rate of The minimum capital adequacy ratio (CAR) according to Basel II standards is 8%. To meet this standard, a bank must, on the one hand, have good credit risk management, and on the other hand, increase its capital. Besides capital adequacy criteria, Vietnamese banks must meet liquidity regulations. The main business model of the bank is based on capital mobilization and lending. The main profit comes from the difference between deposit and lending rates, as well as the credit multiplier, an indicator of how much the bank's customers' initial deposits can increase the total amount of loans.

Implementing the policy of the State Bank in restructuring the system of credit institutions, on April 14, 2015, VietinBank's 2015 General Meeting of Shareholders approved the merger with Petrolimex Petroleum Commercial Joint Stock Bank (PG) Bank). Through this transaction, in addition to the charter capital increased by 3,000 billion VND, VietinBank also took advantage of PGBank's existing network of branches, transaction offices, and existing customers, creating favorable conditions for VietinBank to have more capabilities. expand and develop.

In the period 2015-2020, the capital structure is diversified with both capital sources from the economy, funds mobilized from interbank, issuance of valuable papers, etc. Besides, through the use of payment products. With a modern, competitive accounting system that can meet the needs of customers, VietinBank has increased its attraction of cheap capital sources and demand deposits to increase capital efficiency.

After nearly 5 years of efforts to implement the charter capital increase plan, in July 2021, the bank completed the increase of charter capital by VND 10,800 billion by paying dividends in shares from the remaining profit after tax, fund deduction, and cash dividend for the years 2017-2019. Since then, the charter capital has been increased from VND 37,234 billion to VND 48,058 billion, creating a premise to improve financial capacity and create growth momentum for VietinBank. Thanks to equitization, the bank has more ways to restructure its finances, improve business efficiency and ensure the bank's capital adequacy ratio.

6. LESSONS FOR AGRIBANK

From studying the process of financial restructuring in two commercial banks in foreign countries and Vietnam, lessons can be drawn for the process of financial restructuring in enterprises in Vietnam in the current conditions such as:

First, financial restructuring needs to be done simultaneously with strategic restructuring. When the bank faces problems of loss, risk, and lack of capital adequacy, the bank needs to reposition its business strategy. When a bank has a strategy to expand its business network and increase market share, it will need to have an appropriate financial structure capable of creating momentum for the innovation process. Therefore, when restructuring finances, it is extremely important to define specific business strategies.

Second, debt settlement is always a central issue in financial restructuring. In the context of economic difficulties due to the impact of the crisis and economic recession, banks will face great risks if they maintain a high debt ratio. Therefore, adjusting the debt ratio to a safe level helps the bank to reduce risks and maintain operations. To ensure resources for debt settlement, the participation of all economic sectors is required, in which foreign investment capital is an important financial resource that needs to be exploited to meet the capital demand for debt recovery. financial structure.

Third, banks need to be flexible in applying debt settlement methods. Based on actual conditions, banks need to choose the appropriate form of debt settlement through negotiations with creditors in extending debt, taking on new loans, converting debt into equity, or selling debt. debt to specialized debt settlement organizations.

Fourth, equitization is one of the suitable options for banks when carrying out financial restructuring. With a successful example in restructuring the debt and equity portfolio by equitization in the case of Vietinbank. After conducting equitization, these two banks have made great strides, gradually rising to become one of the banks that can be worthy of Vietnam's Asian region.

Fifth, the state plays an important role in the financial restructuring process of the bank because Agribank is still owned by the state. In particular, the state has a leading role in debt restructuring. To promote the process of restructuring banking and finance, the state needs to implement synchronous solutions:

(i) Select an appropriate debt settlement model. In dealing with overdue debt, most countries choose a centralized debt settlement model. Governments of all countries have established specialized debt settlement organizations and agencies to handle overdue debts. Debt settlement organizations in each country both handle debt according to the state's orientation and flexibly handle debt according to the market mechanism.

(ii) Continuously improve the legal framework for debt settlement. Governments of other countries have intervened with macroeconomic management policies and perfected the policy mechanism, which is strong enough to be able to solve the problem of overdue debt effectively and quickly.

(iii) Use appropriate debt settlement tools -specialized debt settlement organizations. Debt settlement organizations from other countries also enter into joint ventures with foreign debt settlement organizations to conduct debt settlements.

(iv) Formation and development of debt trading market. After applying the centralized debt settlement model with the debt settlement as designated by the Government, in the next stage, the debt settlement measures by the market mechanism were formed and implemented relatively popularly by the creditor's voluntariness through an agreement between the creditor and the specialized debt settlement organizations. Countries have quickly established and developed a debt trading market so that modern debt settlement methods can be applied such as debt trading, debt auction in batches or by each debt, and debt securitization., associated with foreign companies to handle debt.

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COORDINATION OF FINANCIAL POLICY AND MONEY POLICY IN VIETNAM

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Abstract: *Fiscal policy and monetary policy are two important macroeconomic policies of the country in order to achieve the common goals of the economy. The tools of these two policies are both independent and interactive, supporting each other in macroeconomic regulation. The good coordination and smooth operation of these two policies will help the Government to achieve the important goals of the economy: monetary stability, economic growth and job creation for the workers. On the contrary, if the coordination is not smooth and coherent, it will reduce the effectiveness of policy administration and may even destabilize socio-economic development. Therefore, finding a coordination mechanism between these two policies is always of interest to the Government and policy makers. This article refers to the problem of coordination between fiscal policy and monetary policy in Vietnam in the past time to propose appropriate solutions in the coming time.*

Keywords: *Fiscal policy, monetary policy, coordination of fiscal policy and monetary policy in Vietnam.*

1. LITERATURE REVIEW AND PREVIOUS STUDIES

In the world as well as in Vietnam, there have been studies on the coordination between fiscal policy and monetary policy: Research by Tinbergen (1952) and Theil (1964) suggests that the Government needs to operate two independent monetary and fiscal policy tools to stabilize and control inflation at a moderate level, but relying on A single policy tool is not enough to achieve many economic goals at the same time, but there must be a combination of policy tools in any conditions and circumstances. Research by Chadha and Nolan (2003) also confirms the importance of coordination in fiscal policy and monetary policy, however, there is a relative independence between these two policies, so it is still necessary to meet the requirements. certain institutional and operational conditions. According to the study of Lambertini and Rovelli (2004), these conditions include: There must be agreement between the objectives of the two policies; The policy body must reach mutual agreements from time to time; There must be a mechanism to share information in policy making. Tran Thi Van Anh; Monetary and fiscal policies in some countries during the Covid-19 pandemic; Journal of Exchange Research September 24, 2020; Assoc. Dr. Pham Ngoc Dung; Assoc. Prof. Dr. Dinh Xuan Hang; Textbook of monetary and financial finance - Academy of Finance, 2020 edition, Finance Publishing House 2020; Assoc. Dr. Dinh Xuan Hang; Textbook of Central Bank Monetary Management; Financial Publisher 2015; La Thi Lam (2021), Coordinating the administration of fiscal and monetary policies in the context of the decline in

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economic growth due to the impact of the Covid-19 epidemic, Grassroots level project 2021; Do Dinh Thu et al "Coordination of fiscal policy and monetary policy to stabilize the macro-economy in Vietnam", Grassroots level thesis in 2012.

2. RESEARCH METHODS

The content of the article will be presented based on a combination of research methods such as dialectical materialism method; historical materialism; Comparative statistical methods; Synthetic analysis method, logical thinking, expert method, independent thinking.

3. THEORETICAL BASIS

3.1. Fiscal policy

Fiscal policy is a system of fiscal policies according to the fiscal year (fiscal year) of each country. The main contents of fiscal policy include budget mobilization policy (mainly through taxes), state budget expenditure policy and state budget deficit policy.

3.2. Monetary Policy

Monetary policy is one of the most important macroeconomic management policies that the State assigns to the central bank to develop and operate. A central bank is a government agency (in some countries it acts as an independent government agency) that oversees the functioning of the banking system and is responsible for implementing direct monetary policy.

3.3. Coordinate fiscal and monetary policy

From the perspective of macroeconomic management, fiscal policy and monetary policy are two important policies in realizing macroeconomic objectives: stability, growth and social justice. Fiscal policy and monetary policy have a close relationship with each other, but in reality the coordination between these two policies is very poor. We can give three reasons for the inconsistency in the coordination of these two policies (in fact, the inconsistency between the two policies is a combination of these causes):

- Fiscal policy makers and monetary policy makers have different goals, different views on the optimal goal of society.
- Fiscal policy makers and monetary policy makers have different views on the future effects of these two policies on the economy due to the use of different economic theories.

Fiscal and monetary policymakers have different projections of the state of the economy in the absence of policy intervention due to the use of different economic theories or due to external variables. birth is determined to be different.

In each particular case, if the Government is sure which policy maker is the right one, then the problem of policy coordination can be identified. The government will choose the extent of the two policies with the right objectives, the right theory and the right guidance. In practice, it is very difficult to determine the exogenous variables in a particular case. Therefore, to study the combination of two policies, assuming the economy is perfect, we can generalize the goals of policy coordination:

- First, to strengthen the effectiveness of two policies:

On the basis of theory, fiscal policy and monetary policy are relatively independent: each policy has an impact on a specific market. Fiscal policy affects business decisions through the impact on aggregate demand in the commodity market, while monetary policy regulates the supply and demand of the money market, affecting investment decisions (especially in the market). especially consumer investment). In fact, the above two policies with a series of adjustment tools in which each adjustment tool not only adjusts one indicator on the economy but also affects the adjustment range of other instruments. Without policy coordination, the tools will have overlapping effects, resulting in low policy effectiveness. Fiscal policy, on the other hand, consists of only two policy tools, taxes and government spending, while monetary policy includes a series of direct and indirect tools. Combined fiscal and monetary policy will create a rich and powerful combination of tools to effectively regulate the economy.

- Second, overcome the delay and increase the flexibility of the policy:

Fiscal policy is a policy that plays an important role in regulating the economy due to its legal and coercive nature. Fiscal policy has a direct impact on aggregate demand, so the external lag is low. However, when implementing fiscal policy for the case of expansionary fiscal policy, it is easy (increasing spending, reducing taxes) but for tightening fiscal policy, it is difficult and many obstacles (due to tax increase). At the same time, fiscal policy has to follow complicated and time-consuming processes, so the lag is very long, so the total lag is much longer than monetary policy. Therefore, in practice, the impact of the policy is no longer relevant because the economy is constantly fluctuating. In addition, fiscal policy is essentially the management of budget resources, so capital must be calculated and allocated appropriately among objectives.

On the contrary, monetary policy is a variable and is easily adjusted to suit the economy, acting as a fine-tuning tool of the economy. Monetary policy can be adjusted continuously and can be reversed in the case of adverse circumstances thus having a short lag. However, monetary policy only indirectly affects the market through the means of transmission to realize operational goals, intermediate to realize the highest goal, so the external lag is large. On the other hand, monetary policy is essentially through changes in interest rates and the money supply affecting the behavior of businesses and households. If the policy response is not achieved as predicted by the policy maker, the policy implementation will not be effective (especially in the case of weak financial system, the policy forecast will have a large deviation).

- Third, to help stabilize the economy's expectations:

The market economy model is built on the principle of ensuring the relative independence between the two policy-making agencies, the Ministry of Finance and the Central Bank. These two policy-making agencies often have different views on the operation of the economy because different economic theories are used, resulting in different results on economic expectations. In the case of fiscal policy the expectation of a high level of output is expected while the monetary policy expectation of a low level of inflation. At that time, the two policies have no common signal:

the fiscal policy loosens the expectation of economic growth and also expects the corresponding money supply level of the Central Bank while the monetary policy tightens. to reduce inflation. At that time, the damage to economic growth will be higher due to high interest rates, hot economic growth causing investment downturn. Therefore, between the two policy-making agencies, it is necessary to have expectations about inflation, interest rates, output, etc. in both the short and long term that are suitable to the economy, creating a model of reasonable policy coordination.

Thus, the coordination between fiscal policy and monetary policy is essential. Between the Ministry of Finance and the Central Bank, there needs to be a policy model coordination, in which fiscal policy is the policy framework and monetary policy is flexibly adjusted to increase policy effectiveness, reduce lag and at the same time also flexible with the market.

4. ACTUAL SITUATION OF COORDINATION OF FISCAL AND MONETARY POLICY IN VIETNAM

4.1. Current developments of Vietnam's economy

Vietnam's economy continues to recover, GDP growth in the first six months of 2022 is 6.42% compared to the same period in 2021 (the first quarter is 5.05%; the second quarter is 7.72%), higher than the same period in 2020-2021 (2.04% and 5.74% respectively), equivalent to the average of the years before the epidemic 2016-2019 (6.38%). On the manufacturing side, the growth driver in the first 6 months of 2022 is mainly due to the fast recovery of the service sector (up 6.6% over the same period, 6 months of 2021: 3.92%); while the agriculture, forestry, fishery and industry - construction continued to maintain a good growth, respectively 2.78% and 7.7% but lower than the same period in 2021 (3.77% respectively). and 8.46%. On the demand side, GDP in the first 6 months of 2022, final consumption increased by 6.06% over the same period in 2021 (6 months of 2021: 5.52%); accumulated assets increased by 3.92% (6 months of 2021: 8.14%); exports of goods and services increased by 9.10% (6 months of 2021: 21.8%); imports of goods and services increased by 4.41% (6 months of 2021: 24.55%), the economy had a trade surplus of US$0.71 billion (6 months of 2021: US$ 1.86 billion). Realized FDI increased by 8.9%, the highest level compared to the first 6 months of the years 2018-2022.

Inflation is currently lower than the target but tends to increase rapidly, the pressure in the coming time is quite large: CPI inflation in June 2022 increased by 0.69% compared to May 2022, causing inflation compared to the same period in 2021. increased to 3.37% (May 2022: 2.86%; January 2022: 1.94%); the average of 6 months in 2022 is 2.44%. Over the same period, June core inflation increased to 1.98% (May 2022: 1.61%; January 2022: 0.66%); the average of 6 months in 2022 is 1.25%. Core inflation is significantly lower than general inflation, indicating that import inflation is the main cause; However, the trend of inflation and core inflation continuously increased, showing that there was a second round effect of world commodity prices on domestic inflation.

4.2. Actual situation of fiscal policy management in Vietnam in recent years

4.2.1. Tax support policy

In order to cope with the adverse effects of the Covid-19 epidemic on the production and business situation of enterprises as well as social security issues, a series of fiscal policy management solutions have been issued.

Decree No. 41/2020/ND-CP issued on April 8, 2020 on extending the deadline for paying value added tax, corporate income tax, personal income tax and land rent for businesses and household business. Accordingly, 05 groups of subjects are eligible for extension of time limit for payment of value added tax, corporate income tax, personal income tax and land rent.

Along with that, the Ministry of Finance has submitted to competent authorities for decision on exemption or reduction of a number of taxes, fees and charges with an estimated value of about 20 trillion VND. In which, import tax is exempted for medical supplies and equipment for the prevention of Covid-19 epidemic; Increase the family deduction of personal income tax for taxpayers and dependents; 30% reduction of corporate income tax payable in 2020 for enterprises, cooperatives, non-business units and other organizations with total taxable revenue in 2020 not exceeding VND 200 billion; 30% reduction of environmental protection tax on jet fuel with two reductions of environmental protection tax on jet fuel...

4.2.2. State budget spending policy

Regarding state budget expenditure, since the outbreak of the Covid-19 epidemic until now, the National Assembly Standing Committee has promptly issued resolutions to fully and promptly meet funding sources for epidemic prevention and control.

On April 9, 2020, the Government issued Resolution 42/NQ-CP and Resolution No. 154/NQ-CP dated October 19, 2020 amending a number of articles of Resolution 42 on measures to support people with disabilities. people are facing difficulties due to the pandemic. Resolution No. 37/NQ-CP dated March 29, 2020 of the Government on a number of specific regimes in the prevention and control of the Covid-19 epidemic has provided specific guidelines on support norms for people who are isolated from the public. medical cups, anti-epidemic allowances; regime for anti-epidemic allowance 24/24h, in order to ensure effective, timely and safe epidemic prevention and control. In addition, postponing the adjustment of the base salary for cadres, civil servants, public employees, armed forces and pensions from July 1, 2020 in order to share difficulties with the State and employees. movement in general. The Government issued Resolution No. 42/NQ-CP dated April 9, 2020 and Resolution No. 154/NQ-CP dated October 19, 2020 on measures to support people facing difficulties due to the Covid-19 pandemic. 19; additional support for some groups of subjects who are enjoying preferential and social protection policies during the epidemic period…

4.3. Actual situation of monetary policy management in Vietnam in recent years

4.3.1. Credit policy

Immediately after the outbreak of the epidemic seriously affected the production, business and service activities of enterprises, the banking industry had very timely response solutions. The Central Bank has issued and implemented Circular No. 01/2020/TT-NHNN dated March 13, 2020 and Circular 03/2021/TT-NHNN dated April 2, 2021 (amending a number of articles of Circular No. 01/2020/TT-NHNN) creating a legal framework for credit institutions to restructure debt repayment terms, exempt and reduce interest fees, maintain debt groups, and remove difficulties for affected borrowers. affected by the Covid-19 epidemic in all fields and industries, creating a legal corridor, a breakthrough mechanism for credit institutions to remove difficulties in loans for customers (restructuring principal and interest loans)., does not transfer debt groups, does not charge interest and penalties, exempts and reduces interest and fees), and continuously organizes conferences to connect Banks – Enterprises across the country, conducts field surveys, receives and promptly solves problems. difficult times, problems of people and businesses. Then, in line with the actual situation, on September 7, 2021, the Central Bank issued Circular 14/2021/TT-NHNN amending and supplementing a number of articles of Circular 01/2020/ TT-NHNN, which revised the time limits for the debt to be restructured, exempted, reduced interest and fees, and kept the same debt group to match the complicated developments of the ongoing epidemic, such as expanding the scope of debt with rescheduled repayment term arising before August 1, 2021, extending the application period for debts arising the obligation to repay principal and/or interest in the period from 23 January 1, 2020 to June 30, 2022. This document continues the efforts of the banking industry to assist in solving difficulties for customers and businesses affected by the Covid-19 pandemic.

4.3.2. Foreign exchange policy

Regarding exchange rate management, the Central Bank continues to operate a flexible exchange rate regime with state regulation, specifically, the Central Bank announces a flexible central exchange rate on a daily basis, in line with domestic and foreign markets, macroeconomic balance, currency and monetary policy objectives; contributing to limiting speculation, hoarding foreign currency and absorbing shocks to the economy. At the same time, combined with reasonable liquidity regulation solutions, proactively communicating and intervening to buy/sell foreign currencies with credit institutions to stabilize the market, stabilize the macro-economy, and contribute to the control of foreign currencies. inflationary. As a result, by the end of 2020, the central exchange rate was at 23,131 VND/USD, down -0.1% at the end of 2019; The average interbank exchange rate is about 23,090 VND/USD, down -0.35% compared to the end of 2019. In the context of a strong increase in the proportion of imported goods at the end of the year (in 2020, the total import-export value). Vietnam's goods reached 545.36 billion USD, of which the export value increased by 7% and the import value increased by 3.7%.The trade balance in December 2020 had a deficit of 252 million USD. In 2020, Vietnam's trade balance will reach a surplus of 19.95 billion USD). Market liquidity is good, legal foreign currency needs are fully and promptly met. The state's foreign exchange reserves increased to help increase financial potential and strengthen national prestige...

4.4. Achievements

The management of fiscal policy and monetary policy are operated synchronously, focusing on providing information exchange, planning and forecasting to policy implementation in order to achieve the common goal of anti-epidemic efforts and stability. macroeconomic, supporting sustainable economic growth: (i) The Ministry of Finance and the State Bank of Vietnam actively cooperate in providing information to have a more accurate basis when making operating decisions in the future. epidemic situation; (ii) Consistency in the implementation of fiscal policy and monetary policy; (iii) monetary policy is operated in the direction of actively and legally supporting the state budget during the epidemic situation.

The coordination of fiscal and monetary policy management in Vietnam in recent years has made an important contribution to disease prevention and macroeconomic stability: fiscal policy and monetary policy. Vietnam's economy is operated in 2020-2021, has helped the economy operate stably and maintain growth momentum, GDP in 2020 will increase by 2.91% (in the first quarter, it increased by 3.68%; in the second quarter, it increased by 0.39). %; the third quarter increased by 2.69%; the fourth quarter increased by 4.48%, although this is the lowest growth rate after more than a decade, but in the context of the complicated developments of the Covid-19 epidemic, negatively affecting all socio-economic fields, this is a great success of Vietnam. This shows the correctness in directing and administering economic recovery, epidemic prevention and control and the determination and consensus of the entire political system, the Government, the Prime Minister, the efforts and efforts of the whole political system. efforts of the people and business community to effectively implement the goal of "both disease prevention and socio-economic development".

Fiscal policy and monetary policy are managed flexibly based on the actual situation and specific characteristics of localities in response to the requirements of epidemic prevention and economic recovery: On the basis of the Government's directives and In fact, from the obstacles in policy implementation, the Ministry of Finance as well as the State Bank of Vietnam continuously issued regulations to correct the shortcomings and add more appropriate measures such as expanding the target audience, reduce procedures and conditions for disbursement that are too complicated and unrealistic for policy beneficiaries, and adjust the way in which support packages are disbursed from the budget as well as bank credit, especially is the disbursement of a welfare support package for people facing difficulties due to the impact of the epidemic situation.

4.5. Limitations

However, in fact, there are still some limitations, which are: (i) The operating solutions of fiscal and monetary policy are not really strong enough to promote economic growth before adverse effects of the epidemic; (ii) The speed of implementation of support solutions from fiscal and monetary policies to promote economic growth is still slow; (iii) Preferential solutions, support from fiscal and monetary policies for beneficiaries are still equal, lack of focus and do not cover the right subjects; (iv) Management solutions from fiscal and monetary policies to support economic growth and overcome the epidemic are mainly temporary, short-term response, lack of long-term strategy to economic recovery; (v) The effectiveness of monetary policy against economic growth is reduced due to the operational ability of fiscal policy; (vi) The objective of macroeconomic stability in the coordination of fiscal and monetary policy management is still unsustainable.

5. SOLUTION

In the current context, the combination of fiscal and monetary policy management will contribute to improving the effectiveness of policy implementation. The proposed solutions to improve the coordination of fiscal policy and monetary policy in Vietnam today are:

- Coordination between the development and administration of fiscal and monetary policies according to the "multi-target" strategy, consistency between the two policies for the selection and implementation of priorities in each period: Transfer of management The policy of pursuing the dual goals of fighting the epidemic and developing the economy to a multi-objective strategy, that is, both disease prevention and recovery, economic development, health care capacity, social security, etc. psychological and social security; capacity to withstand external shocks and resilience, take advantage of opportunities and overcome challenges during and after the pandemic.

- Strengthening the information sharing mechanism between the State Bank, the Ministry of Finance, the Ministry of Health as well as relevant ministries and branches to have a basis for coordination and administration between fiscal policy and monetary policy: Information sharing mechanism is necessary in coordinating the administration of fiscal policy and monetary policy, especially in the context that the epidemic develops abnormally and leaves unpredictable consequences. The exchange of information between the State Bank and the Ministry of Finance must be regular and continuous during the planning and implementation of fiscal and monetary policies. Develop a mechanism to provide information between the State Bank and other ministries and branches to accurately forecast the demand for available capital and control the money supply in the economy. State banks must be provided with accurate and timely information from the Ministry of Finance about the cash balance at the State Treasury in order to calculate the base amount, the volume of mobilized and loaned capital of the State Treasury funds. outside the budget, control the total means of payment of the economy.
- Administration of fiscal and monetary policies must be proactive, flexible and creative, and at the same time coordinate with other policies: Due to the evolution of the epidemic and its impact on the economy, Therefore, in policy administration, it is necessary to be very flexible, regularly review and evaluate the implementation of the policy as well as the epidemic situation, thereby capturing or promptly detecting errors. or unwanted effects to take timely corrective measures. If the disease outbreaks again strongly, it is necessary to increase timely liquidity support packages for businesses or welfare support packages for people. If the epidemic is under control, the support for recovery will be increased.

6. DISCUSSION AND CONCLUSION

Fiscal policy and monetary policy are two extremely important macroeconomic policies of any country. With the aim to systematize the theoretical basis for coordination of fiscal and monetary policies in macroeconomic management, to study the current situation of coordination between these two policies in Vietnam in recent years, thereby proposing a system of solutions to enhance the effective coordination between these two policies.

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RISK MANAGEMENT AT VIETNAM COMMERCIAL BANKS: CURRENT SITUATION AND RECOMMENDATIONS

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Abstract: *Credit is always the most important activity of commercial banks because this activity brings a large proportion of revenue and profit for most commercial banks. Therefore, the impact of this risk, if it occurs, will always bring long-term and very heavy consequences. Credit risk management is the best way that commercial banks need to do so as not to affect investment capital. Credit risk management includes all actions to control risks arising in the process of operation and scale development of commercial banks, related to prevention and control of various types of credit risk. The credit risk management of Vietnamese commercial banks is currently evaluated quite effectively, thanks to the appropriate organizational structure, credit risk management policies, the process of identification and assessment of credit risk good with flexible handling measures. However, besides the achieved results, the credit risk management of Vietnamese commercial banks still has certain limitations that affect the performance. This study was conducted to assess the current situation of risk management in Vietnamese commercial banks, thereby proposing solutions to improve the effectiveness of credit risk management in Vietnamese commercial banks.*

Keywords: *Credit risk, credit risk management, commercial banks, Vietnam.*

1. INTRODUCTION

Vietnam is in the process of deep integration into the world economy. With this strong trend of integration and globalization, banking business is considered as one of the very sensitive fields, which must open almost completely according to international commitments. In that general context, the Vietnamese commercial banking system must actively perceive to participate in the integration process, clearly identify the difficulties, challenges as well as opportunities, and how to turn these challenges into reality. into opportunities, turning difficulties into advantages of banks.

One of the international treaties of special interest to banking administrators is the international treaty on capital adequacy in banking operations, also known as the Basel Accord. Born more than 20 years ago, this treaty has been applied by many countries around the world as a standard to evaluate and supervise the operation of their banking system. This treaty now has a new version called The New Basel Capital Accord, which updates and innovates some more content than the previous first version. Particularly for Vietnam, the application of this Basel treaty in the supervision and management of bank credit risks still has many problems, so it still only stops at selecting a few

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simple criteria in the banking system. the first version is available for use and only a few banks are getting a lot of access to version two. This fact also makes it more or less difficult for the integration process in the banking sector of Vietnam.

Stemming from the reality of the application requirements of Basel II in credit risk management activities of banks as well as from the fact that the effectiveness of credit risk management is still limited according to the standards of the agreement. According to the Basel II Convention at Joint Stock Commercial Banks, this study assesses the current status of credit risk management of banks to make appropriate recommendations to improve this activity at Vietnamese commercial banks.

2. LITERATURE REVIEW

Credit risk is the most obvious risk that bank managers need to address as it is the cause of most bank failures (Fraser et al, 2001). Credit risk leads to the failure of many banks around the world (Greuning & Bratanovic, 2003). Credit risk is defined as the potential loss when a bank grants credit to a customer, i.e., the possibility that the expected income streams from a bank loan may not be fully realized in terms of credit risk. in terms of quantity and duration (Saunders, 1994).

According to the Basel Committee and Banking Supervision (1999), credit risk is defined as the possibility that the borrower or counterparty will not be able to fulfill its obligations under the agreed terms. According to this definition, the credit risk of the bank is that the borrower will not be able to meet the repayment obligations according to the terms stated in the credit contract.

Credit risk management is the transfer of risk to other parties, avoiding the risk, minimizing the negative effects of the risk, and accepting some or all the consequences of the risk (Afriyie & Akotey, 2012). Credit risk management is the selection of an appropriate risk assessment model method (Gestel & Baesens, 2008). Bagchi (2003) states that credit risk management includes risk assessment, risk measurement, risk monitoring, risk control, and risk audit. Hay Danielsson et al (2001) argue that the outcome of risk management depends on management policy, credit risk management framework, credit rating system, risk monitoring and control. Muninarayanappa (2004) argues that it is not only a combination of credit policy and strategy, but also maintaining an appropriate level of credit risk. Credit risk management is the entire process of identifying, measuring, evaluating, controlling, and reporting credit risk in order to maximize profits within an acceptable level of credit risk (Nguyen Van Tien, 2015).

According to the Basel Committee, credit risk management is the establishment of a mechanism to fully identify, measure, manage and control current and potential risks in credit activities, in order to maximize risk-adjusted returns by maintaining credit risk within an acceptable range.

International research

Denis et al (2007) in Germany have shown that to better manage credit risk and ensure capital adequacy, the use of data according to Basel II standards will be more effective with the data of the management model, internal management of the bank. However, the implementation of credit risk management and capital adequacy assurance according to Basel II standards is very costly, banks need to have certain conditions and to effectively manage credit risks, ensure capital safety and profit is optimal. This study indicates that banks need to integrate data usage according to

Basel II standards and the bank's internal management system.

Credit risk management according to Basel II is necessary for banks to be effective (Vasile & Roxana, 2010). Credit risk management applying internal assessment method (IRB) according to Basel II allows banks to determine capital requirements according to risk levels, specifying risk components: probability of failure debt (PD), capital loss due to default (LGD), default risk (EAD) and effective maturity (EM). Banks implementing credit risk management in accordance with Basel II will minimize losses and improve banking performance, but to do this is difficult for banks.

Jonathan (2012) with his research on credit risk management in the case of agricultural banks in Ghana, has shown that the application of Basel II in credit risk management is effective for banks. The study built a credit score model applying Basel II in credit risk management in Ghanaian banks using payment history data, demographic characteristics, and statistical techniques.

This is again confirmed in Fadun's (2013) study on the application of Basel II in risk management in Nigerian banks when arguing that Basel II is a useful tool for banks to strengthen and establish regulations on capital management, risk, and banking supervision. Nigerian banks that implement credit risk management under Basel II have certain limitations, to enhance the effectiveness of credit risk management under Basel II, Nigerian banks need to increase capital and enhance the level of credit risk management. supply, inventory, and internal control. To apply Basel II, banks in Nigeria need to improve their information technology systems, data models and business models, but the application of Basel II requires large costs because banks need to have preparation, careful consideration of costs.

Vietnam research

In Vietnam, there have also been some studies on credit risk management in commercial banks such as Nguyen Thi Kieu Minh (2015), Phan Thi Linh (2016).

Research by Nguyen Thi Kieu Minh (2015) by analysing collected data on credit activities, applying Basel II in Vietnamese commercial banks, the study shows that to continue to develop, commercial banks It is necessary to apply a reasonable risk management method, to balance profit and risk to achieve profit maximization with risk reduction, and to strengthen the supervisory role to increase operational efficiency. bank credit.

The implementation of Basel II for 10 banks selected for pilot by the State Bank of Vietnam encountered many difficulties and challenges such as implementation costs, information, and data (Nguyen Van Tho & Nguyen Ngoc Linh, 2015). The application of capital standards according to Basel II capital standards will create motivation and orientation in improving risk management capacity and capital management and allocation according to international standards.

Phan Thi Linh (2016) research on risk management based on BASEL II application in state-owned commercial banks. Research shows that the implementation of Basel II is a necessary and indispensable step to ensure the stability of the banking system and the financial market in general. However, state-owned commercial banks that deploy and implement Basel II application are facing certain difficulties such as the high cost of implementing and applying Basel II, the banks' bad debts tend to increase.

Different from the above studies on research methods, empirical research on the application of Basel II in credit risk management at Sacombank Dong Nai by Nguyen Quan Luat (2012) used a combination of both qualitative and quantitative research methods. The research results show that the factors affecting the applicability of the Basel II Treaty at Sacombank Dong Nai are supervision, human resources, information, internal banking, system, and content. From there, the research proposes solutions to improve the credit quality of banks.

Studies on credit risk management under Basel II have all shown that Basel II compliance in credit risk management is necessary for improving banking performance and stabilizing the banking system. row. The implementation and implementation of credit risk management according to Basel II banks face many difficulties and challenges and to apply Basel in risk management, banks need to have certain necessary conditions. However, research in general have not gone into depth analysis and assessment of the actual situation of Basel II application, implementation process, implementation content, and level of application of Basel II in credit risk management.

3. RESEARCH METHODOLOGY

Qualitative research method: Using direct interview method and internet survey method of commercial banks managers and staffs to determine the status in risk management under Basel II in commercial banks in Vietnam from 2020 to now.

4. RESEARCH RESULTS

Although credit risk management at Vietnamese commercial banks under the Basel II Agreement has achieved results, in general, Vietnamese commercial banks are currently facing many difficulties and challenges. Specifically:

First, the organizational structure, functions and tasks related to credit risk management; The inspection, control and information disclosure of commercial banks is not reasonable, leading to overlapping and not clearly delineating responsibilities. It is possible to evaluate the credit operation process at some commercial banks in general and at commercial banks that have not fully met the minimum requirements for risk management.

Second, the regulations and policies on credit risk management are not synchronized in the whole system of commercial banks. According to a project of the State Bank of Vietnam sponsored by the World Bank, Vietnamese commercial banks are required to develop credit manuals for use in lending, mortgage, and mortgage activities. However, these documents are in many places a formality and should not be considered the basis for all credit decisions. On the other hand, most of the following processes are incomplete or incomplete, not systematic.

Third, the bank staff's qualifications have not yet met the requirements of modern technology. This is a common fact not only of commercial banks but also of the entire banking industry. Most of the experience and knowledge about risk management in general and credit risk management are stubs. Almost all risk management methods such as statistics, quantification, tools such as modelling, forecasting... use econometric parameters (VAR, alpha, beta, convexity, etc.), linear...) has not been applied.

Fourth, the technology equipped at commercial banks has not yet met the credit risk management work according to Basel II standards. Many commercial banks operate and manage their operations on decentralized, decentralized systems. Data is not stored and processed to meet business administration requirements. Even the most technologically advanced banks, including commercial banks, still use independent systems to manage different operations.

Fifth, the credit risk assessment and measurement system has not met the standard requirements of Basel II.

The credit risk measurement and analysis support system are still lacking in synchronization. Currently, commercial banks only have an internal credit rating system to assess customer risk, but this system still has some limitations, namely:

- The current system of analytical indicators of commercial banks still does not reflect the specifics of the operation of each separate industry.
- Commercial banks do not have sets of standards for each industry, so they cannot give warnings and orientations for credit activities, to limit investment in inefficient sectors and economic sectors. affect the customer rating results because credit officers often incorrectly score the industry assessment criteria according to the internal credit rating system.
- The rating method is still subjective, the current evaluation method of commercial banks being applied is the rating method, in which the credit officer is the person who directly updates information and scores the customer. with each evaluation criterion according to the scoring instructions. This method requires credit rating officers to understand all the evaluation contents, collect full information of customers and make subjective evaluations with these criteria. This rating mechanism is mainly done manually by credit officers and approved by the credit leader, so the customer rating and scoring results are not guaranteed to be highly accurate, prone to interference by people. performed, and at the same time failed to create a cumulative database, serving the calculation of risk parameters in the Bank's risk management.
- The source of information used in credit rating work at commercial banks is still limited because at present, Vietnam still does not have information on the average financial indicators of the industry and industry groups, so the rating analysis is still limited. Credit loans for businesses also face certain difficulties.
- The customer scoring system being used at commercial banks does not include the risk components PD (probability of default), LGD (loss due to default), EAD (risk score). at default) and M (effective maturities). The credit risk quantification of this system is poor. Existing systems cannot provide, measure the predictability of each risk factor - expressed through the weights as well as the model - expressed in the probability of default of the customers (PD)
- Other qualitative factors that accurately reflect the loan's quality and ability to collect debts such as the customer's financial situation, business risks, non-financial risks, etc., have not been included. into the credit scoring system of commercial banks.

Thus, commercial banks are still not really well qualified for applying new approaches to credit risk under the Basel II Treaty and it may take time for commercial banks to the actual application of commercialization will be longer than the expected SBV's roadmap.

5. RECOMMENDATIONS & SUGGESTIONS

The International Monetary Fund (IMF) and the World Bank (WB) – the world's largest financial institutions emphasized that at the national level, Basel I is still a viable option for the foreseeable future, and that Basel II must be built on a solid foundation, ensure that accounting and governance standards, debt valuation and classification practices, and risk provisioning are feasible, regulatory framework, and supervisory resources are adequate. When the above factors are not fully converged, countries that want to apply the Basel II Treaty need to improve their financial infrastructure as part of the Basel II implementation roadmap. Thus, it is necessary to carry out a series of specific solutions with the participation of the following parties in the near future, include:

First, government needs to upgrade the banking infrastructure such as upgrading the legal system and standards on accounting and auditing to implement Basel II. Currently, the legal system related to the operation of credit institutions in Vietnam has not been updated compared to the new regulations in Basel. The banking accounting system also needs to be reformed according to international accounting standards, especially the issues of debt classification by quality, level of risk, provisioning for risks, income accounting cost. In addition, the SBV needs to create conditions for banks to apply modern banking management technology and create barriers against abuse and fraud.

Second, it is necessary to further improve the quality of credit information. The SBV needs to further improve the quality of credit information at the Credit Information Center (CIC) to meet the requirements of up-to-date and accurate information on credit client; It is necessary to have appropriate propaganda measures so that commercial banks can clearly see their rights and obligations in the provision and use of credit information.

Third, training and development of a new supervisory culture should be promoted. Basel II forces banking supervisors to learn new risk management and measurement techniques but, more importantly, will need to change the monitoring culture from compliance testing to risk assessment.

Fourth, it is necessary to improve the efficiency of banking inspection, control, and supervision. According to the Basel accord, the SBV plays the role of a banking supervisor, holding a particularly important position for the stability of the operation of the entire banking system, including the network of branches of foreign banks. as well as banks with 100% foreign capital. Therefore, SBV has the right to take great initiative, including taking the initiative in making detailed regulations for the whole system, granting, or stopping licensing for each bank when it wants to choose a method of risk assessment, at the same time has the right to make the ultimate judgment against the credit institution when detecting violations against the licensed content.

Fifth, it is necessary to develop a comprehensive and unified legal framework on the risk management system in Vietnamese commercial banks as a basis for commercial banks to build their own risk management system. At the same time, SBV needs to develop a specific roadmap on the time to apply Basel II based on the experience of the countries that have implemented it, with emphasis on the classification of banks in the implementation of Basel II.

Sixth, it is necessary to develop and issue the Basel II Handbook for Vietnamese commercial banks, which provides detailed instructions on processes, conditions, standards, etc. related to the development of the system, risk management in banks according to Basel II. At the same time, promulgate documents guiding the development of a credit rating system at each bank as well as the establishment and operation of independent credit rating agencies.

Seventh, to form a synchronous legal framework, to apply more fully international institutions and standards on business safety in Money-Banking; Building a legal environment in the field of currency, transparent and fair banking operations in order to promote competition and ensure the safety of the monetary and banking system.

Eighth, SVB as a supervisory agency should actively guide and urge commercial banks to soon issue regulations on standards and minimum requirements for the risk management system applied at the bank. including the control system, internal audit, asset and liability management system, credit risk management, operational risk, and market risk.

Ninth, the Banking Association, it is necessary to require commercial banks to be transparent about information, the transparency and publicization of the bank's activities will be a medicine to help the system be strong, it is necessary to restrict the listed commercial banks; providing random and arbitrary information, especially publishing information without going through official channels to limit redundant and out-of-the-way information.

Tenth, commercial banks need to come up with a plan to develop their credit risk management strategy in the next 5-10 years, especially:

Identifying and classifying risks: Carrying out strict loan appraisal and strictly complying with regulations in credit risk management is the most effective and least expensive prerequisite and risk barrier, especially for loan applications. capital, collateral property records, disbursement, and inspection records. Besides, building an early risk warning system and perfecting the risk warning system.

Risk assessment of internal credit rating system: Improve methods of credit risk identification, analysis and measurement applied at banking units but have not yet brought high efficiency. Rebuild Regulation on customer scoring and credit rating to match the current situation. Building a software program for customer scoring and credit rating on the system and online in the system to serve as a basis for exploiting customer information at the unit.

Risk prevention and prevention: Improve and apply credit risk prevention solutions at the unit, and at the same time, promote communication and training on credit risk management at the unit. Perform debt classification and provision for risks fully and accurately reflecting the debt status of each commercial bank. Improve the control system and improve the effectiveness of control and credit risk management.

Monitoring, evaluating, and adjusting risk prevention methods: Improving the credit granting apparatus according to the centralized credit granting model: Improving the organizational structure of commercial banks in the direction of focusing on risk management.

Credit risk is one of the biggest risks that banks face every day, it causes great losses for banks, for banking system and for the economy. Therefore, banks need to have a credit risk management strategy to limit losses.

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CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE IN LISTED COMPANIES IN VIETNAM: DISCLOSURE LEVEL COMPLIED WITH THE REGULATION'S REQUIREMENTS

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Abstract: *Corporate transparency and accountability build a socially responsible business, the action for sustainable development. This paper examines corporate social responsibility disclosure (CSRD) of listed companies in Vietnam. In particular, it explores whether CSR's information contents are complied with the regulation's requirements in the annual reports of Vietnam companies. The result showed the disclosure level in listed companies in Vietnam is low in term of quality and quantity of CSR information provided to their users as well as their stakeholders. The results are tested on data collected of 50 annual reports and sustainability reports of Vietnamese listed companies from 2019 to 2020.*

Keywords: *CSRD, Viet Nam, CSR.*

1. INTRODUCTION

Corporate Social Responsibility (CSR) is common in academic writing and the business field and is now an important focus area for most of the listed companies. Many worldwide companies strongly emphasize that they must not only impress on economic results but also take into consideration the social and environmental effects of their activities on their stakeholders, the action for sustainable development.

In developing countries, such as Vietnam, CSR and its disclosure however still relatively new concepts for many reasons. A lot of studies discover that CSRD may help firms to build their reputation through obtaining trust by some range of stakeholders (Woodward et al, 1996). This is a reason why Vietnamese companies have currently been more proactive in their social responsibility and it's reporting, especially for public listed companies.

This paper concentrates on the Vietnam context because there is few studies in Vietnam focusing on factors influencing level of CSRD by listed companies.

2. LITERATURE REVIEW

2.1. Theoretical Framework

There are a number of theories about CSR such as legitimacy, agency theory positive accounting however the most important theory for this study is the stakeholder theory (Freeman, 1984). This

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theory suggests that a wide range of stakeholders who have interest in the company should be treated equally. The term "stakeholders" has been understood that any group or individual who is impacted by the decision making of the firm.

The Freeman's theory is a basis to Baron (1995) had grouped the stakeholders into two categories, called market and non-market. Both these categories have different influenced levels on the social responsibility of the company. Thus a lot of action taken by the company is relevant to stakeholder's expectations (Friedman and Miles, 2002). On the other hand, if the interest of stakeholders is satisfied, it will improve corporate governance and accountability that includes stakeholder communication and CSR reporting.

To summarize, the company has obligation towards stakeholders and these obligations should be measured as economic, legal, and ethical responsibilities in Carroll's approach (Carroll 1979, 1991, 2004). This theory is a key knowledge for companies to deal their relationship with stakeholders through CSRD.

2.2. The empirical reviews

This section summarises several prior studies conducted by different authors in the same field. It helps researchers to develop hypothesis and to compare the findings of proposed research.

As mentioned above, CSR reporting is quite new concept among Vietnamese companies for the last few years (Ha, 2013). In the research of Hermawan (2011), a CSR disclosure practice in annual report of 19 listed Vietnamese companies examined over the year 2007 and 2008. The changes in practices reporting over 2 year of Vietnamese companies are analysed and compared against the GRI Guidelines.

The next study was Corporate Social Responsibility Reporting in Large Listed Vietnamese Companies by Trang, Le in 2011. She conducted a research for 33 large listed Vietnamese Companies annual reports of the year 2010 to evaluate the CSR reporting practices of them. However, the only research method applied in this study was the content analysis to analyse the 33 annual reports (2011, 47). No quantitative research method was used.

Furthermore, Corporate social responsibility: A Study on factors affecting CSR implementation and CSR disclosure in Vietnam of Giang Thi Yen (2011) shows that there is a contradiction practice between the highly positive attitude toward CSR of managers from Vietnamese companies and the low attitude of Vietnamese consumers towards CSR. The research also indicates that it seems to be a gap between what managers say and what they actually do.

3. RESEARCH METHODS

The objects of the study are large enterprises listed on the stock exchange of Vietnam. These businesses have gained great trust and expectations from investors. In order to achieve the objectives of the study, annual reports and social responsibility reports (sustainable development reports, if any) disclosed on stock exchanges (HOSE and HNX) are employed. The researchers study data of 50 leading listed companies on the Vietnam Stock Exchange in 2019 and 2020 by Forbes Vietnam magazine (Appendix 1). The 50 enterprises are classified in terms of industry as follows.

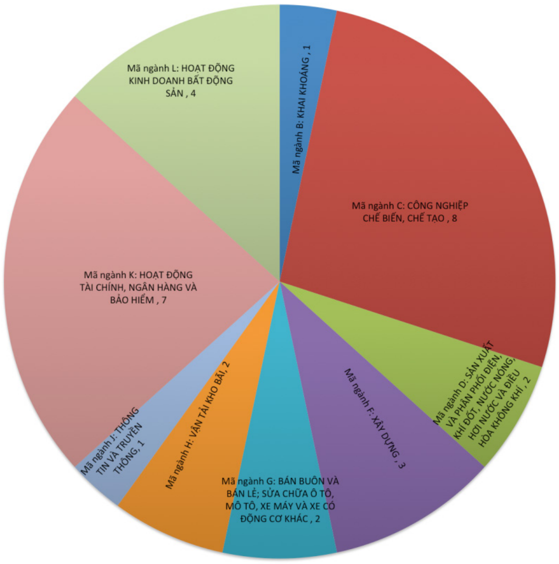

Figure 1. Classification of industries of listed companies

Source: Data provided by listed companies

The researchers selected these companies based on their credibility and transparency in information disclosure. They are leading companies in their industry in terms of scale and operations as well as pioneers in the implementation of social responsibility and disclosure of information on social responsibility. Branco and Rodriques (2006) suggested that companies with good reputation often actively carry out community activities or activities related to corporate social responsibility, in order to attract customers and social recognition.

According to the current CSR reporting standards applied in Vietnam, the GRI guidelines are the most influential guidelines for the disclosure of listed companies. Therefore, the researchers have evaluated the level of disclosure of social responsibility reports in their annual reports in terms of GRI as follows:

Table 1. List of items for examination based on their contents

Contents	**Detailed categories**
Economic information	- Economic efficiency - Market efficiency - Indirect economic impact
Environment information	Materials Energy Water supplies Biodiversity Exhausted gas, garbage and wastewater Products and services Compliance Transportation Summary

Contents	Detailed categories
Employee information	Employees Labor/management relationship Occupational health and safety Training Diversity and equal opportunity Salaries and other benefits for men and women
Information about social activities	Local agencies Corruption Public Policies Anti competition actions Compliance
Information about implementation of CSR	Consumer health and safety Labeling of goods and services Marketing community Customer privacy Compliance

Source: GRI G4

4. RESULTS OF THE ESEARCH

4.1. Economic efficiency

Economic performance is presented in most of the CSR reports, accounting for 63% of the total reports. Among the six contents for CSR implementation in the GRI guidelines, economic efficiency takes the greatest concern in annual reports as well as sustainable development reports. Aspects included in this performance presentation are economic performance assessment, financial conditions, employee benefits, market introduction policy, risk management, and indirect economic effects. .

The first content presented in the content of economic efficiency is the assessment of the relevant economic environment. The company's reports provide analysis of the global economic situation, the national economy based on GDP, inflation, CPI and development trends of the country's economy. The economic environment in which the companies operate gives readers a more comprehensive recognition of the influence of external factors on the company's operations. Besides that, companies also present their business performance in their annual financial reports, evaluating their targeted objectives.

Another content is to evaluate the financial efficiency of the company with the analysis related to capital structure, profit margin, solvency, especially overall analysis of the economic situation of the company throughout the year. All annual reports employed in this study include the above information and are presented in approximately 5 pages.

Besides business performance information, another important content presented is risk management, which are analyzed in the risk management policy. Specifically, the risks outlined in the reports can be economic risks, regulatory risks, operational risks, in particular, manufacturing companies often cope with material risks and occupational safety. In addition, the risks of natural disasters in Vietnam have become increasingly serious threats to life and the economy in recent years, surveyed companies, especially companies specializing in production of air conditioners, gas, and electricity should pay more attention to climate change risks.

Although the content of the economic performance are the most completely presented among other contents of the CSR presentation of selected companies, it revealed several shortcomings. Specifically, local policies and procedures for hiring local people are not addressed thoroughly, the lack of presentation of these aspects is considered to be the reason for reducing the prominence of the CSR presentation in the annual reports. As the information that is presented the most, the presentation of economic efficiency content is the most sufficient. Similarly, compliance with the GRI guidelines in this presentation is the best, as shown in the following table:

Table 2. Information on economic efficiency based on GRI guidelines

Categories		Indicators	Numbers of reports
Economic performance	EC1	Direct economic values: revenue, operating expenses, employee benefits, donations, community investments....	50
	EC2	Financial impact, risks and opportunities due to climate change	4
	EC3	Planned contributions of organizations	5
	EC4	Financial aid received from the government	0
Environment performance	EC5	Standardized wages by gender compared to regional minimum wages	8
	EC6	Local policies	1
	EC7	Procedures for hiring local workers and the rate of local senior managers	0
Indirect economic impact	EC8	Investing in infrastructure and services that create community benefits	1
	EC9	Indirect economic impact	0

Source: Annual reports of listed companies.

4.2. Presenting information on labor practices and decent work

The second most important information presented in the CSR content is labor practices and long-term employment. This type of information is presented in detail by the surveyed companies. However, shortcomings still exist in terms of the volume, transparency and reliability, especially the level of compliance of the GRI guidelines which is illustrated in the following table.

Table 3. Information on labor practices and long term employment based on GRI .guidelines

Categories		Indicators	Numbers of reports
Employment	LA1	Total number of people in each type of labor	50
	LA2	Number and rate of new hires with employee turnover rates by age, gender and region	20
	LA3	Benefits of full-time employees	
	LA15	Job bonus and retention rate	
Leadership/ employee relationship	LA4	Number of employees in the collective bargaining agreement	
	LA5	Minimum notice period for operational changes	
Occupational health and safety	LA6	Total workforce is shown in the official council of general health and safety managerment	1
	LA7	Rate of injury, illness, days off, absenteeism, total number of work-related facilities	1
	LA8	Training, education, counseling, risk management programs related to serious diseases	3
	LA9	Theme of safety and health	
Education and Training	LA10	Average hours of training	10
	LA11	Continuous learning programs and management skills	29
	LA12	Percentage of employees evaluated for performance development	17
Equal and diverse opportunities	LA13	Composition of state agencies and classification of employees by type	29
Equal welfare for men and women	LA14	Ratio of salary and bonus for women and men by type of employee	3

Source: Annual reports of listed companies.

4.3. Presenting information about contents of social activities

The content of social activities can be found in more than two thirds of the annual reports in the research paper. However, both companies and customers misinterpret social activities in Vietnam as social charity work, therefore, almost all of the CSR presentations surveyed were about charity and information related to charity activities. This content is presented in about 2 pages in 48 annual reports. Companies in the financial services, banking and insurance sectors, and media companies publish this aspect the most, between 2 and 4 pages. Meanwhile, companies in the transportation industry show this aspect at least, in about a third of the page.

In summary, the disclosure of information on the social activities of the companies in this study is still at a very basic level. Although companies carry out a variety of social related programs, companies do not report these activities appropriately, the programs mentioned are not detailed, there are no data on financial value, the sources of finance used, and a detailed description of the operation. In addition, other important aspects such as anti-corruption behaviour, contributions to public funds, anti-competitive activity and undisclosed levels of compliance with laws and regulations, were completely excluded from presenting CSR.

Table 4. Information on social activities based on GRI guidelines

Categories		Indicators	Numbers of reports
Local societies	SO1	Activities associated with local commitments	48
	S09	Operating with actual or potential negative impact on the local community	0
	S10	Immigration prevention or restriction is carried out in the activity	0
Corruption	S02	The business unit analyzed the risks associated with corruption	0
	S03	Employees have been trained in anti-corruption policies and procedures	0
	S04	Actions in response to corruption	0
Public policy	S05	Participation and position for public policy	0
	S06	The value of contributing to political parties	0
Anti-competitive attitude	S07	Legitimate actions for anti-competitive, antimonopoly action	0
Compliance	S08	Non-monetary fines and penalties for non-compliance with laws and regulations	0

Source: Annual reports of listed companies.

4.4. Presenting information on environmental performance content

Along with the presentation of social activities, information related to environmental performance is very limited in terms of quality and quantity. For the information presented related to this content can be divided into 5 aspects, including: raw material consumption; energy and water consumption; the level of waste to be reused; strategies to save raw materials, energy and water; products and services that have an impact on the environment and compliance with environmental regulations.

Despite the fact that the presentation of environmental performance has been conducted in a suitable manner with a wide range of information, there is a lack of some important issues such as biodiversity, waste, wastewater, transportation, and the total amount invested in these programs. In addition, the lack of financial information on environmental investments reduces the reliability of the CSR presentation in the annual report.

Table 5. Information on environmental performance based on GRI instructions

Categories		Indicators	Numbers of reports
Materials	EN1	Materials used	2
	EN2	Used materials are recycled as input materials	0
Energy	EN3	Direct energy consumption	0
	EN4	Indirect energy consumption	5
	EN5	Energy saved	5
	EN6	Initiatives to provide products and services based on energy efficiency or renewable energy and achievements	10
	EN7	Initiatives to reduce direct energy use and achievements	0
Water	EN8	Total amount of water used for the first time by source	0
	EN9	The water source is affected by the amount of water used for the first time	0
	EN10	Volume of recycled and reused water	2
Biodiversity	EN11	Conserved areas and areas of great biodiversity value outside the protected area	1
	EN12	Effects of activities, products and services on the biodiversity of these areas	0
	EN13	Habitat is preserved or regenerated	0
	EN14	Biodiversity affects management plans, actions and strategies	0
	EN15	Number of species in IUCN Red List with affected habitats	1
gas, wastewater, waste	EN16	Emissions, direct and indirect greenhouse gases	0
	EN17	Other related indirect greenhouse gas emissions	0
	EN18	Initiatives to reduce greenhouse gas emissions and achievements	0
	EN19	Emissions contain substances that deplete the ozone layer	0
	EN20	NO, SO and other emissions	0
	EN21	Total volume of wastewater discharged by quality and destination	0
	EN22	Total wastewater by type and treatment method	2
	EN23	Number and volume of critical flows	0
	EN24	Waste transported, imported, exported or disposed of as hazardous under Basel I, II, III, and VIII	0
	EN25	Identity, size, degree of protection, and biodiversity value of water and related affected habitats	0

Categories		Indicators	Numbers of reports
Products and services	EN26	Initiatives to mitigate the environmental impact of products and services	8
	EN27	Products sold and recycled box/package materials by type	1
Compliance	EN28	Fines and non-financial penalties for non-compliance with environmental laws and regulations	4
Transportation	EN29	Environmental impact of other transported products and goods, materials used for operations	0
Summary	EN30	Environmental protection spending and investment by type	0

Source: Annual reports of listed companies.

4.5. Actual situation of presenting information about the content of product liability performance

Vietnamese companies often do not pay due attention to product liability reporting as well as activities related to improving their operations. There are currently many scandals related to consumer health and safety and low compliance with regulations on product and service quality in Vietnam. Therefore, Vietnamese customers and shareholders are more concerned about omitted information.

Just as the low quality of the product liability presentation, the level of compliance with the GRI guidelines of this presentation is very low. Although the topic of consumer health and safety was covered in the CSR report, its presentation was very limited. The following table illustrates the GRI guidelines for employment presented in the CSR report.

Table 6. Presenting information about product liability performance under GRI guidelines

Categories		Indicators	Numbers of reports
Consumer health and safety	PR1	Product life cycle stages where the health and safety effects of products and services are assessed for improvement	0
	PR2	Cases of non-compliance with regulations and voluntary laws on consumer health and safety impacts	0
Labeling products and services	PR3	Product and service information required by the process	0
	PR4	Situations that do not comply with regulations and voluntary laws	0
	PR5	Practices related to customer satisfaction	0
Marketing relations	PR6	Programs are tied to standardization laws, and voluntary laws related to relationship marketing	0
	PR7	Cases of not complying with the law of marketing relationships	0

Categories		Indicators	Numbers of reports
Customer privacy	PR8	Complaints about invasion of customer privacy and disclosure of customer information	1
Compliance	PR9	Penalties for failure to comply with laws and regulations relating to the provision and use of products and services	0

Source: Annual reports of listed companies

4.6. Presenting information on the content of exercising human rights

A very distinctive feature that should be noted is that exercising human rights was completely ignored in all surveyed companies. This raises a concern as to whether Vietnamese companies are ignoring these important issues, or if they are unable to report on the topic. It is easy to see that Vietnamese workers are primarily concerned with their jobs, wages and benefits (Ha, 2013). Accordingly, companies tend to forget or ignore concerns about their management and the legal process. At the same time, the first and unique unit protecting for workers' rights is the Union (but not the Board of Directors and the government), has very little power. In Vietnam, companies and the government tend to take the right actions after any human rights violations, rather than empowering workers.

5. CONCLUSION

Disclosure of Corporate Social Responsibility is an essential requirement for the international integration due to its benefits for society. This research examines the present scenario of CSR disclosures made by listed companies in their annual reports and sustainability reports and shows an association between CSR disclosure and various corporate characteristics. To outline 11 disclosure items the reports of 50 listed companies for the financial year 2019 and 2020 are studied critically. The result showed the disclosure level in listed companies in Vietnam is low in term of quality and quantity of CSR information provided to their users as well as their stakeholders. The major limitation of this study is that it is two-year study of 50 companies listed with the Vietnam stock exchange. So, a longitudinal study can be done by examining more corporate characteristics of large number of sample firms in the avenue of further research in this area. However, from this study and other prior research, putting government agencies and listed companies themself to increase awareness of CSR information in order to upgrade quality of corporate reports.

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FINTECH'S IMPACT ON THE BANKING SECTOR IN VIETNAM

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Abstract: *Fintech is understood as the application of modern technology in the process of distributing and using financial services. Fintech applications are widely used in many financial services such as capital raising, lending, payment, insurance, investment, etc. However, banking services (or at least similar to other services). banking services) provided by Fintech businesses, which are not banks, may give rise to some potential risks such as loss of money, system security risks, risks in customer information security, the bad debt of peer-to-peer loan applications, and compatibility of the legal system. The article focuses on assessing the development status of Fintech, and its effects on the banking sector in Vietnam, thereby proposing solutions to help sustainably develop Vietnamese financial institutions.*

Keywords: *Fintech, banking, impact, risk management, Vietnam.*

1. INTRODUCTION

1.1. Fintech concept

Currently, through the author's research and research, there are many different interpretations and definitions of financial technology (Fintech - short for Financial Technology); however, there is no unified concept of Fintech term. Chen et al (2019) in the article "How valuable is Fintech innovation?" (How Valuable Fintech Innovations) define Fintech as "a collection of recently developed digital computing technologies that have been adopted- or are likely to be adopted in the future - for financial services" (page 2066). Schueffel (2016) said that Fintech is "a new financial industry that applies technology to improve financial operations". Regarding the theoretical issues of Fintech, Dariusz Wójcik (2020) in the article Exploring Fintech- Maps and concepts|| systematized the concepts as well as the approaches theory of financial technology. The work examined Fintech definitions, origins, classifications, and the most common approaches to Fintech; including the financial ecosystem, the digital economy, and the platform economy. The author examines theoretical approaches to the formation of the Fintech concept and studies the impact on Fintech on the financial sector, traditional financial institutions, governance, and stability. financial system and the economy in general. The work has shown multi-dimensional approaches to understanding Fintech terminology as well as the role of Fintech. Accordingly, Wojcik defined Fintech as a set of innovations and an economic sector focused on the application of recently developed digital technologies to financial services.

According to the American Chamber of Commerce, Fintech is a term used to describe any technology that provides financial services through software, such as online banking, mobile payment applications, or even electronic money. Fintech is a broad category that includes many different technologies, but the main goal changes the way consumers and businesses access their

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financial services and compete with traditional financial services (The US Chamber of Commerce, 2020). The People's Bank of China in the Financial Technology Development Plan (Fintech) (2019-2021) also gave a preliminary definition of financial technology as a financial innovation based on transformative technology or innovative financial products, processes, or business models using modern scientific and technological achievements, promoting the quality and efficiency of financial development.

Through the process of reviewing nearly 150 studies and articles, the author found that the most agreed-upon concept is: Fintech is the application of new, innovative, and current technologies to the financial sector. to provide customers with transparent, efficient, and convenient financial solutions/services at a lower cost than traditional financial services (Patrick, 2016). Fintech products, services, and solutions including and related to digital payment, digital lending, digital investment, digital currency, digital insurance (insurtech), and other digital banking and financial services. These products, services, and solutions are developed in the Fintech ecosystem with actors including Governments, traditional financial institutions, customers using financial services, technology development companies, and Fintech startups (Lee & Shin, 2018).

1.2. Fintech Classification

Many studies have suggested different ways of classifying Fintech. Gomber et al (2017) suggest three main aspects to classify Fintech, namely: function, technology, and organization. Fintech functions cover the full spectrum of financial needs: payments, savings, borrowing, risk management, and financial advice. The main technologies of Fintech include artificial intelligence – AI, big data- big data, machine learning- machine learning, blockchain- blockchain (including electronic assets and cryptocurrencies), and the Internet of things- Iodine. The main institutions are financial services companies, technology companies, and Fintech companies (Gomber et al, 2017).

According to the research organization Market & Research, based on many different criteria, the global Fintech market can be segmented in many ways, such as by technology sector, service, application area, or region. Based on technology, the Fintech market can be divided into segments such as Application Programming Interface (API), Artificial Intelligence – AI (Artificial Intelligence), blockchain technology – Blockchain, Distributed Computing, and other technologies, including big data, robotic process automation, etc. Based on services, the Fintech market can be divided into segments such as payments, money transfer, personal finance, lending, insurance, and others such as wealth management, etc. Based on the final consumer industry, the Fintech market can be divided into segments: banking, insurance, securities, and other fields like e-commerce, etc. By region, the global Fintech market can be divided into various regions including Asia-Pacific, Europe, North America, South America, Middle East & Africa.

1.3. The impact of Fintech on the banking market structure

Fintech competitors are encroaching on the traditional business of banks, although banks are adapting to the digital world. New competitors can use hard (codifiable) information to erode the traditional relationship between bank and customer, based on soft information (the knowledge gained from bank and customer relationships). However, most new competitors stay clear of asking for a banking license to avoid compliance costs and try to skim profitable business from banks. A potential advantage of the new entrants lies in exploiting the mistrust towards banks that millennials have developed at the same time that they offer digital services with which the younger generation is at ease.

Banks have traditionally focused on products, while new entrants are more focused on customers. Fintech competitors are putting pressure on the traditional business model of banks. Two competitive advantages of retail banks which may be eroded by the new entrants are that (1) banks can borrow cheaply with their access to cheap deposits and explicit or implicit insurance by the government, and (2) they enjoy privileged access to a stable customer base that can be sold a range of products. The presence of deposit insurance may facilitate the entry of new competitors as banks, but in this case, the entrants will have to pay the cost of the banking license and compliance expenditures. In the mortgage market in the US, Buchak et al (2017) find that traditional banks have a somewhat lower shadow cost of funding and that provide higher quality products than shadow banks (but still they lose market share because of their increased regulatory burden). Fintech outlets profit from the situation but rely on both explicit and implicit government guarantees. This fact points out that entry into the intermediation business with new technologies will depend very much on how regulation and government guarantees are applied.

True disruption may come from the full-scale entry of top digital internet companies. Indeed, companies such as Amazon, Apple, and Google are already active in fintech but have not firmly entered the market. Their potential is very large, however, because they have access to massive amounts of customer data and they may control the interface with them when it comes to financial services. They are growing quickly in payment services, with close to 150 million users in the first semester of 2017. Amazon lending has been growing steadily since its launch in 2011. Even social media platforms may cross-sell financial services profiting on their knowledge of the characteristics of their users.

2. LITERATURE REVIEW

Regarding this research direction, Liu Yong (2020) in the article: "*The current situation and development trend of the financial technology industry*" has studied and analyzed the current situation of financial technology applications in China, the challenges facing, and the development trends of the Fintech industry in the country. The article points out that, from an international perspective, the growing Fintech industry is flourishing in North America and Asia, with the United States and China becoming the leaders in the global Fintech sector. In China, the size of the Fintech industry has grown rapidly, becoming the key to the country's high-quality financial and economic development. China's total investment in the financial technology sector in 2018 was about US$47,361 billion, ranking first in the world, and the overall strength of Fintech enterprises in China over the years has increased significantly. However, the development of Fintech also poses many challenges such as new technology brings new financial risks; New technologies have changed the way traditional financial markets operate and, at the same time, pose challenges to the current regulatory system.

Regarding the experience of developing Fintech in China, Osborn (2018) must be mentioned in the article: "Eight things we learned in China driving Fintech fortune". The article summarizes the important lessons of the Fintech boom in China through the understanding and experience of digital life in China by 26 African digital finance industry leaders. In particular, the main points identified by the author are: The Chinese government plays an important role in providing a favorable environment for Fintech development, business model innovation, the power of AI, trust and partnership…

In addition, World Bank Blog (2018) with the article "Key lessons for policymakers from China's financial inclusion experience". The article states that over the past 15 years, China has emerged as one of the world's financial inclusion success stories; in which one of the three key areas of fundamental success is Fintech and digital financial services. From there, the article gives some analysis of the country's Fintech development experience.

In Vietnam, Nguyen Thi Hoai Le and Ngo Thi Hang (2019) in: *"The development of Fintech in China, Hong Kong, and India: experiences and lessons for Vietnam"* also mentioned the development of Fintech fast and strong in China. The article summarizes some experiences in the Fintech development of some countries and regions that are considered to be having the fastest Fintech development in the world, including China, Hong Kong, and India. The article shows that, in the context of increasingly diverse, complex, and popular financial products, China's regulators are forced to reconsider their operating methods and legal system to avoid promoting To promote Fintech development, it is still necessary to ensure financial safety and a stable environment for banking and financial institutions. Therefore, the Government of this country has sought to establish a legal framework to both encourage, promote, and control Fintech companies, creating a balance mechanism in the competitive environment between Fintech companies and other companies. banks, and at the same time force banks to actively change to increase their competitiveness. However, the article only summarizes a few basic features related to the Fintech industry in China without going into the actual situation to consider opportunities as well as challenges, and development trends, as well as analyze the mechanisms driving this market development to provide the necessary lessons learned.

Besides, Ngoc Quang (2018) in the article *"Fintech development and lessons from China"* also shows the birth and rapid development of the Fintech community in China with great contributions from experts. Chinese policymaking. However, the author just stopped at extracting the perspective of two Fintech researchers, Anton Ruddenklau and Ian Pollari, from consulting firm KPMG; it outlines how the Chinese government has enabled the Fintech boom, how China's Fintech companies have created an increasingly Fintech ecosystem. grow and mature. However, the article does not delve into the specifics of the issue.

3. METHODOLOGY AND PROPOSED MODEL

To achieve the research objective, the author used following methods: analysis, synthesis, classification and systematization to clarify theoretical and practical issues. In addition, the study uses qualitative research methods to make conclusion on the influence of policy on innovative start-ups based on the nature, characteristics and the role of Fintech.

The results of the qualitative research aim to achieve two main objectives:

- The impact of Fintech on the banking sector.
- Provide appropriate solutions on developing Fintech in Vietnam.

4. RESULTS AND DISCUSSION

4.1. Fintech development situation in Vietnam

In Vietnam, recent years have also witnessed the strong and extensive development of the Fintech field. The number of startups in the financial technology sector (Fintech Startups). Fintech Startups in Vietnam in 2015 were 39 companies, in 2017 increased to 44 companies and in 2019 continued to increase to 124 companies. This number has a slight decrease to 115 companies in 2020 (Figure 1).

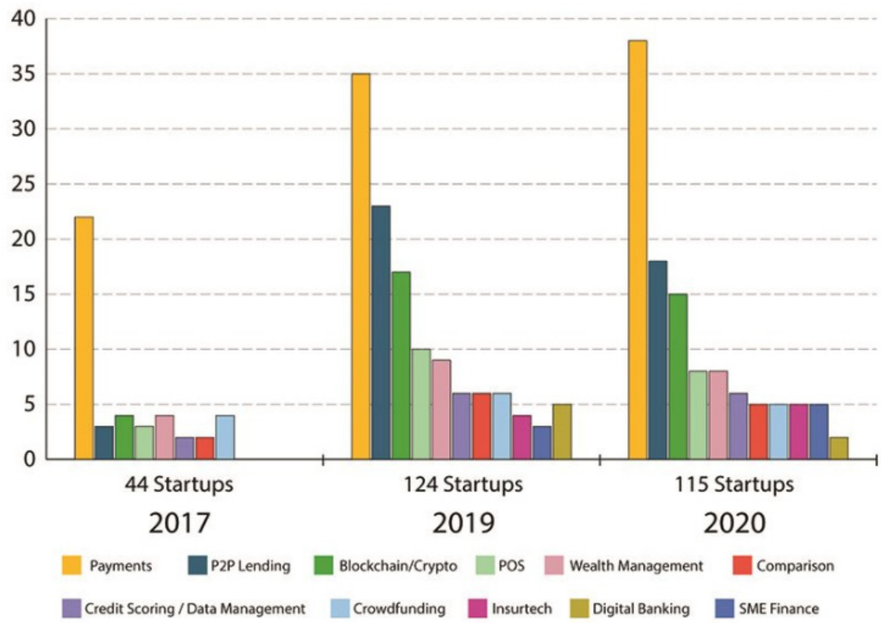

Figure 1. Statistics of Vietnamese Fintech startups over the years

The complicated developments of the Covid-19 pandemic have greatly affected the economies of countries around the world and in Vietnam, changing consumption and payment habits, and creating opportunities for application service sectors. technology like Fintech in payment. With those fluctuations, from 2019, Fintech Startups in the field of payment and insurance continued to be born, and some companies in the field of lending and raising capital did not survive in the startup ecosystem. this. By the end of 2020, there are about 115 Fintech Startups in Vietnam operating mainly in the fields of non-cash payment, peer-to-peer lending, digital banking, asset management, blockchain and virtual currency, data management, and alternative financial credit scoring (Figure 2).

Figure 2. Vietnamese Fintech companies in 2020

The above information shows that Fintech companies in Vietnam mainly focus on the payment field with the largest number and fastest growth rate. The Covid-19 epidemic and the government's social distancing guidelines have contributed to changing the consumption and shopping behavior of Vietnamese people. Cashless payments are booming: transactions through mobile banking have increased by nearly 150% annually over the past 5 years; payments via e-wallets and mobile devices increased by over 160% and over 125%, respectively. A report by Allied Market Research estimates that Vietnam's mobile payment market could reach $70.9 million by 2025. According to statistics by December 31, 2021, the total number of cashless payment transactions in The processing aspect through the system of Vietnam National Payment Joint Stock Company (Napas) increased by 76% compared to 2019, and the total transaction value increased by 124% compared to 2019.

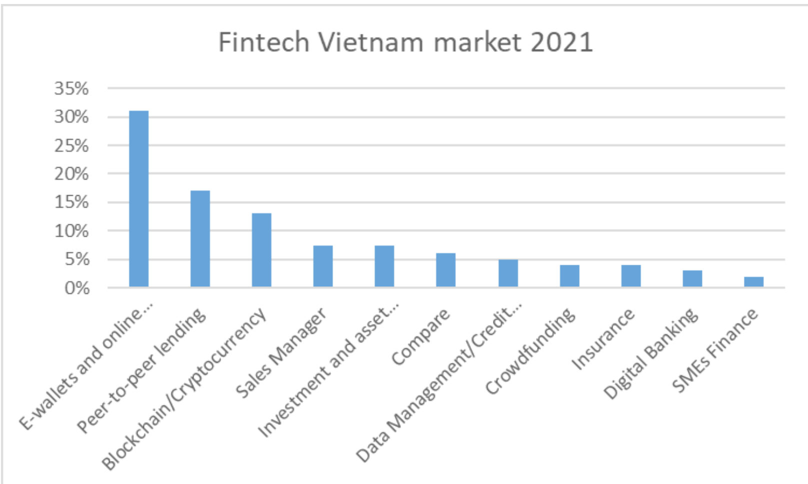

Figure 3. Vietnam Fintech Market 2021

Source: State Bank of Vietnam

In the context of the industrial revolution 4.0 and the impact of the Covid-19 pandemic, positive actions from the government and functional agencies in researching to promulgate appropriate legal regulations. brought many positive changes to the Fintech sector in Vietnam. Fintech is present in many aspects of life and will increasingly influence the development of the financial and banking market in Vietnam.

Despite considerable efforts and developments, Vietnam's Fintech sector is still young when compared to other countries in the region. The number of 160 Fintech companies is still very modest compared to Singapore (more than 1,150 companies), Indonesia (more than 510 companies), Malaysia (more than 370 companies)... and even further away from tens of thousands of Fintech companies. in China. In addition, many segments still have no established businesses such as data management/credit/scoring and crowdfunding (Innotech, 2022).

At both the micro and macro level, other areas such as financial investment technology solutions, automated financial investment advice (Robo-advisor), asset management, online insurance, etc. It is still in its infancy, has not yet developed commensurate with its potential, and promises to be a fertile land explored by many Fintech startups soon.

4.2. Fintech's impact on Vietnam's banking sector

4.2.1. Positive impact

Fintech's diverse applications are affecting almost all areas of the banking and financial system. Although it has only been established for more than 10 years, Fintech's products have completely changed the appearance, system, and methods of traditional financial transactions.

Firstly, Fintech creates new business models that change the distribution channels and traditional financial products and services, especially banking services, for example, Internet banking, Mobile banking, QR code, banking digital goods, e-wallets…

Second, the development and application of new technologies such as Big data, blockchain, biometric personal identification systems, electronic customer identification, etc. will help financial institutions collect data, simply streamline the customer behavior analysis process, improve service quality, reduce technical infrastructure costs, enhance transparency, but still ensure safety, speed and efficiency, especially in transactions. banks bring added value as well as more satisfaction to customers.

Third, Fintech has attracted a lot of startups in the past decade because it is developed based on information technology and telecommunications systems, so it does not require large capital and does not need as many branch networks. traditional banking.

Fourth, Fintech creates financial solutions for customers in remote areas or those who have difficulty accessing financial services due to procedural or geographical barriers. In particular, Fintech better supports individual customers, small and medium enterprises, and micro. These customers are often rejected by banks because they do not meet capital and asset requirements.

Fifth, Fintech helps provide a diverse portfolio of financial products to customers thanks to the development of technology, helping to ensure 24/7 service delivery in both space and time.

Example: Currently P2P lending companies (directly connecting borrowers with lenders on the Internet) have been operating quite effectively, helping to shorten the loan approval time from a few weeks in banks. down to just a few hours.

Along with the development of Industry 4.0, more and more consumers are using Fintech products and services. Through Fintech, access to financial and banking services is enhanced, adding value to customers using the service. Also because of the advantage of developing on an information technology platform without the need for a network of transaction offices like a bank, the products and services provided by Fintech enterprises have been attracting a large number of customers; especially those who have difficulty accessing banking services.

In general, the whole world welcomes the Fintech wave because it makes financial transactions easier, more transparent, and lower costs.

4.2.2. Negative impact

Currently, the majority of Fintech companies are not banks and therefore the provision of products and services similar to banking services of Fintech companies poses certain risks to the market. Finances are as follows:

Firstly, for deposit services, at commercial banks, customers' deposits are relatively safe because: (1) customers are insured for their deposits; (2) the safety of the deposit depends on the overall solvency of the depository bank. Meanwhile, when investing in peer-to-peer lending applications, the safety of customer deposits depends on the borrower's ability to repay. In this case, the intermediary role of the Fintech company is not clear, leading to a much higher risk to investors.

Secondly, for the credit sector, traditional banks spend a lot of resources on the appraisal of borrowers and thereby can ensure the quality of loans, contributing to ensuring the safety of capital sources. used to lend (ie protect people's money). Meanwhile, at peer-to-peer (P2P) lending applications, Fintech companies only connect people with idle money and people with capital needs. Therefore, the role of Fintech in quality assessment and loan portfolio monitoring is untested. This increases the risk of bad debt arising, causing a loss of capital for depositors.

On the other hand, information transparency for insolvent loans can also be one of the concerns for depositors in peer-to-peer lending applications. In P2P applications, for example, a depositor's likelihood of capital loss depends on the quality of the loan portfolio at that application (i.e. the percentage of borrowers defaulting on debt). Suppose after depositing, the depositor receives a notice that 5% of the borrowers at that application fail to repay the loan, so the depositor will lose the capital corresponding to 5% of his deposit. In this case, it will be difficult for depositors to verify the actual NPL ratio of the above application due to the lack of information about the entire loan portfolio. Therefore, if this information transparency issue is not regulated and detailed, it will easily lead to risks for Fintech application users due to the phenomenon of information asymmetry.

Third, for payment services, relying on technology sometimes exposes Fintech companies to risks of system failure; stability of the payment system, and network security issues. Most applications today require customers to transfer money into the application before making payments, so when this system has problems, the customer balance data in the application can be damaged, affecting the payment. affect the interests of customers. Imagine thousands of customers suddenly having money stolen from their accounts at Fintech applications. This will be a disaster for the financial industry because after all, the shock resistance of Fintech businesses, due to their size, will be much less than the resilience of banks.

- **Risks of privacy of users' personal information**

One of the other concerns for Fintech applications is that they operate on large customer databases. Therefore, the possibility of customers' personal information and data being stolen and disclosed to other objects is completely present. This has happened even with the leading technology enterprises in the world like Facebook, it is also likely to happen to any other Fintech enterprises in the market.

- **Threats from the legal system's failure to keep up with the Fintech sector**

The rapid development of technology in the past decades is a great achievement of mankind, and many of these inventions have contributed significantly to the development of the banking and financial sector in particular. However, in Vietnam, where the legal system is still relatively unsynchronized, slow to keep up with socio-economic development, and some legal documents are outdated before being put into application, the problem The question here is whether our legal system is compatible with and keeping up with the continuous innovation and rapid growth of Fintech? From the above analysis, it is thought that regulators need to issue regulations to regulate the operation of Fintech in the direction of ensuring safety for the financial market.

5. CONCLUSION AND IMPLICATIONS

Fintech has been and will be a new development trend in the banking sector in Vietnam in the future, because of its innovative and potential applications. However, to maximize Fintech's contributions, it is necessary to have policies to control the potential risks of Fintech. Therefore, according to the author, besides the technology factor, management agencies need to focus on the following two groups of solutions:

Firstly, it is necessary to develop a full legal framework to regulate and orient the activities of Fintech companies by the development level of the Vietnamese financial market. Some specific policy suggestions are as follows:

(1) It is necessary to have detailed regulations on business conditions such as charter capital, personnel, and risk management model, for areas that are likely to cause great damage to people such as the mining sector. industry and peer-to-peer lending. The lesson of the current crisis in China in the field of P2P is an alarm bell for regulators in other countries.

(2) The strength of Fintech companies is breakthrough new technology and ideas, while the strength of traditional banks is the proven ability to control risks and be strictly regulated in the agreements. international agreement. Therefore, cooperation between Fintech and traditional banks will bring great added value to customers. Therefore, with Vietnam's current development level, regulators should have policies to encourage cooperation between Fintech companies and commercial banks to exploit the strengths of the parties.

(3) Develop regulations on the operation monitoring mechanism of Fintech companies. This supervision should be carried out independently by third parties such as credit rating agencies, independent auditing companies, commercial banks (for payment activities); investment banks, and securities companies (for fundraising)

(4) Issue-oriented risk management standards or models for Fintech applications providing services similar to those of commercial banks

(5) Regulations on the responsibility to disclose information, especially information about bad debt, and product characteristics to make information transparent, enabling users to properly assess the risks of the products they own. intended to use

The second is to improve people's knowledge about Fintech: Being able to make an online deposit transaction at Fintech applications does not mean that we have fully understood the risks that may be encountered from the transaction. translate that. Unlike the risk of depositing money at a bank, deposit activities at Fintech applications often require a higher level of risk tolerance. Therefore, the work of providing knowledge about Fintech, when this service is increasingly popular, should be focused on to help users make trading decisions on their risk tolerance.

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FACTORS AFFECTING THE CAPITAL STRUCTURE: EVIDENCE FROM CONSTRUCTION ENTERPRISES LISTED ON THE VIETNAMESE STOCK MARKET

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Nguyen Ha Linh[1], Nguyen Lam Anh[1]

Abstract: *In recent years, the construction industry has affirmed its position as a spearhead economic sector in the cause of industrialization and modernization of the country. However, besides the achievements of Vietnam's construction industry, enterprises in this industry have also faced many difficulties such as new production technology, product digitization process, digitalization of sales channels, etc. This requires construction enterprises in general and listed construction enterprises in particular to restructure, in which it is necessary to determine an optimal capital structure in order to help these businesses minimize the cost of capital and maximize the asset value of corporate shareholders. This research will delve into the factors affecting the capital structure of construction enterprises listed on the Vietnamese stock market. According to the model's results, business size, solvency, and profitability have a strong impact on the capital structure of listed construction companies in the period 2015-2021. On this basis, the authors have proposed 4 solutions to improve capital structure for construction enterprises in the coming time.*

Keywords: *Capital structure, construction enterprises, influencing factors, listing.*

1. INTRODUCTION

In Vietnam, in recent years, the construction industry has made a great contribution to the completion of the socioeconomic of the country, while step-by-step renewing, and developing international integration. In addition, the construction industry has mobilized all capital sources for the investment and development of new urban areas in order to create a breakthrough in solving the urgent need for housing for urban people. The number of urban housing development projects has increased rapidly with more than 1,500 projects already being implemented. According to data from the Ministry of Construction (2021), the country currently has over 890 million m2 of housing, of which the urban area is about 260 million m^2, an average annual increase of 58 million m^2 in recent years. In the field of urban infrastructure development, with various capital sources, the industry has invested about 2.2 billion USD for the water supply and drainage system. Currently, more than 300 water supply and drainage projects have been implemented with a designed capacity of 4.2 million m^3/day, ensuring that 70% of the urban population is supplied with clean water. The achievements have increasingly confirmed the role of the construction industry in the cause of industrialization and modernization of the country. However, Vietnam's construction industry is at the end of the growth phase, entering the restructuring phase. This means that construction growth is expected to slow down, leading to increased competitive pressure in the industry. In addition, the negative effects of fluctuations in interest rates and inflation as well as the State's

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management policies have directly affected the construction industry in recent years, especially from the Covid-19 pandemic. Therefore, studying the factors affecting the capital structure of listed construction companies in Vietnam is still a very important issue for the development of these enterprises. In the context of the ongoing Covid-19 epidemic, there are still complicated developments, significantly affecting the production and business of enterprises as well as the capital structure for enterprises. Therefore, building a reasonable capital structure is still a very important issue for the development of listed construction companies in Vietnam, especially in the context of enterprises continuously increasing their capital, revenue growth but unsustainable profits are issues that need to be studied.

2. AN OVERVIEW OF EMPIRICAL STUDIES

So far, there have been many studies on the influence of factors on the capital structure of enterprises. Some can be mentioned such as Wald (1999) studied the factors affecting the capital structure of enterprises in 5 developed countries which are France, Germany, Japan, the UK, and America. This research's results showed that firm size, asset structure, growth opportunities, and profitability have impacts on the enterprises' capital structure. In addition, the author also found the difference in capital structure between countries due to differences in tax policies, corporate governance, bankruptcy costs, etc.

Another research by Jean. J. Chen (2003) performed on 77 large listed Chinese companies. The author identified 5 factors affecting the capital structure of listed companies including profitability, growth ability, tangible fixed assets, financial distress costs, and tax shields affect the capital structure of firms based on the trade-off theory and pecking order theory. Chen's research results showed that profitability and firm size are inversely related to capital structure, while growth rate and tangible fixed assets have a positive relationship with debt ratio.

Frank and Goyal (2009) studied the factors affecting the capital structure of non-financial companies in the US stock market in the period 1950-2000. The research results show that the most reliable factors affecting capital structure including: median industry leverage, tangibility, log of assets, and expected inflation have a positive relationship with the leverage. Meanwhile, the ratio of market value to book value, profit has a negative relationship with the debt ratio. However, for book leverage, the impact of firm size, the market-to-book ratio, and the effect of inflation are not reliable. The empirical evidence appears to agree with some of the predictions of the trade-off theory.

In Vietnam, there have been many studies on the factors affecting the capital structure. Specifically, Dang Thi Quynh Anh and Quach Thi Hai Yen's research (2014) studied the impact of several factors on the capital structure of 180 non-financial companies listed on HOSE in the period 2010 - 2013. The method was estimating non-random factors (FEM - Fixed Effect Model) with many factors included in the model, including enterprise size, enterprise profitability, business growth, characteristics of assets, tangible fixed assets, liquidity of assets, stock market conditions, taxes, and debt market conditions. The results showed that there are three factors that strongly affect the capital structure of enterprises in this period, namely: Enterprise size, profitability, and tax. In which, firm size and profitability are positively related, and tax is negatively related to capital structure.

Research by Le Dat Chi (2013) was conducted to test the factors that play important roles in deciding the capital structure of companies listed on the Vietnam stock market in the period 2007-2010. The study was based on traditional theories of capital structure (trade-offs, pecking order and market timing), and examined the issue within the framework of behavioral finance theory. Research results showed 6 factors that really play important roles. In which, tax factor, industry leverage, and manager behavior are positively correlated. Inflation factor, market value to book ratio and ROA are negatively related. The research results also showed that the capital structure planning of companies in the above period is not significantly correlated with the trade-off theory but strongly correlated with the pecking order theory.

Research by Nguyen Thi Thuy Hanh (2019) analyzed the factors affecting the capital structure of Vietnamese commercial manufacturing enterprises. The research used secondary data from the annual financial statements from 2009 to 2016 of 38 trading companies in 2 stock exchanges in Vietnam, HOSE and HNX. The results showed that size and fixed assets have positive influences on capital structure while liquidity and state ownership negatively affect capital structure.

Although there are many studies on the factors affecting the capital structure of enterprises so far, there has been no research on the factors affecting the capital structure of construction enterprises listed on the Vietnam stock market in the period 2015-2021.

3. METHODOLOGY AND PROPOSED MODEL

3.1. Research model

There are many factors that affect the capital structure of a business. Therefore, for listed construction companies to have an optimal capital structure, it is necessary to consider the impact of factors and adjust these factors in accordance with the actual situation of the business. The research model is built as follows:

a. Dependent variable

The authors choose the dependent variable as the total leverage ratio (LEV), which is the variable that represents the capital structure of the enterprise. This variable is defined as follows: LEV = Total Liabilities/Total Assets.

b. Independent variables

- **Firm size**

Normally, enterprises with large capital scales often have a low risk of bankruptcy. Accessing capital markets as well as raising capital at low cost will be easier for companies with large capital scales because credit providers trust the business' ability to repay debt. As a result, these companies may not need to use their own internal capital and easily exploit the advantages of scale to obtain large amounts of capital to help the company perform well, improve equipment, and expand investment for the company. This is proven in the research of Huang and Song (2006).

H1: There is a positive relationship between firm size and the capital structure.

- **Liquidity**

The business environment is increasingly fierce, and businesses that want to survive need a large capital. Therefore, borrowing is also an optimal solution for businesses when they do not have enough capital from their equity. The question is whether businesses have the trust of credit institutions to lend with the desired amount of capital. These organizations will based on the businesses' past situation determine the appropriate loan level. One of the criteria to evaluate includes liquidity. Liquidity indicates the ability of a business to convert its resources into cash to pay its debts. A company with good solvency means that it has abundant resources, so it may not need to raise a lot of debt.

H2: There is a negative relationship between liquidity and capital structure.

- **Profitability**

Theories of capital structure have different explanations for the relationship between profitability to capital structure. According to the trade-off theory, when businesses have high profitability, they prefer to use debt because other factors remain constant, they will take advantage of the tax shield more. However, according to the pecking order theory, corporate financial managers prefer to finance projects with internal capital than external capital. This also means that businesses with high profitability will have low debt ratios.

H3: There is a negative/positive relationship between profitability and capital structure.

- **Tangible asset structure**

Assets play a very important role in every business. In business, tangible fixed assets are not only one of the basic parts that make up the material and technical basis, but also an important part of the production and business process. Fixed assets characterize a company's willingness to collateralize loans. Therefore, businesses that own a lot of fixed assets can help businesses get loans more easily because they have collateral. Many studies in the world such as Titman and Wessels (1988), Chen (2004), etc show that tangible asset structure has a positive relationship with the capital structure of the enterprise.

H4: There is a positive relationship between tangible asset structure and capital structure.

Table 1. List of independent variables.

Variable	Code	Measure
Firm size	SIZE	SIZE = Log of total assets
Liquidity	LIQ	LIQ = Current Assets/ Current Liabilities
Profitability	BEP	BEP = EBIT/Interest expenses
Tangibility of assets	TANG	TANG = Tangible Assets/Total Assets

Source: Compilation Authors

From the above hypotheses and based on previous theoretical and experimental studies and also adjust to suit the actual situation, unique characteristics of each industry and construction companies listed on Vietnam's stock market, the authors choose independent variables in the model to study the factors affecting the capital structure of construction enterprises listed on the stock market in Vietnam (Table 1). The research model of the impact of factors on the capital structure of listed construction companies is as follows:

$$LEV_{it} = \beta_0 + \beta_1 * SIZE_{it} + \beta_2 * KNTT_{it} + \beta_3 * BEP_{it} + \beta_4 * TANG_{it} + \varepsilon_1$$

3.2. Research Methods

The study examines the influence of factors on the capital structure of 30 construction companies listed on the Vietnamese stock market in the period 2015-2021 by estimating a regression model based on panel data. The pooled OLS, fixed effects, and random effects models are compared to find the best fit model. However, the OLS model considers businesses to be homogeneous, which often does not reflect reality, because each enterprise is a separate entity, with entirely different characteristics, so the model is used. OLS models can lead to certain biases in the estimation because these differences are not considered.

To minimize these deviations, the study uses regression analysis of panel data according to the FEM model and REM model. Through the Hausman test to choose the appropriate model.

4. RESULTS AND DISCUSSIONS

4.1. Descriptive statistics

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lev	210	.6878852	.1730621	.1727	.9924
size	210	6.144637	.3875734	5.5213	7.2493
liq	210	1.356243	.4902456	.5715	3.8699
bep	210	4.298472	6.236902	-9.1521	71.5215
tang	210	.057449	.0590105	.002	.428

Source: Data analysis results from Stata 12.0 software

a. Dependent variable

The average debt ratio of listed construction companies is 0.688. This shows that the majority of listed construction companies prioritize using debt over equity in their financing activities. Besides, there are businesses that use a significant level of financial leverage when this coefficient is highest at 0.9924 times (VC9 in 2021). However, there are also businesses that use financial leverage at a low level and this coefficient is only about 0.1727 times (TIP in 2017).

b. Independent variables

- Firm size (SIZE): The average size of enterprises is 6.1446, the smallest value is 7.2493 and the largest value is 5.5213.

- Liquidity (LIQ): LIQ of construction companies listed on average is 1.35 times. This shows that the majority of listed construction companies have enough short-term assets to pay their short-term debts. The highest LIQ is 3.86 times and the lowest is 0.57 times.
- Profitability (BEP): The average BEP of listed construction companies is 4,298%, and the highest is 71.52%. The lowest BEP is –9.15% because, in some years, there are some businesses operating inefficiently, making profit before interest and tax negative. For example, PXI (Ebit in 2019 is -31 billion dongs, in 2020 is -47 billion dongs); VCG (Ebit in 2020 is -1,136 billion dongs); etc.
- Tangibility of assets (TANG): The average tangibility of assets of listed construction companies is at 0.057 times (5.7%), the maximum value is 0.428 times (42.8%) and the minimum value is 0.002 times (0.2%). This shows that there is a certain difference in the level of investment in the tangibility of assets between listed construction companies, there are companies that focus on investing in the tangibility of assets such as SD9, VMC, etc. Many businesses have not focused much on the tangibility of assets such as CDC, VC2, etc.

4.2. Research Results

- **Result of Hausman test:**

Table 3. Hausman test for fixed effects and random effects models

	Coefficients (b) fe	(B) re	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
size	.2028972	.1049998	.0978974	.0204613
liq	-.1921987	-.205212	.0130133	.
bep	.0016732	.0018007	-.0001275	.
tang	-.0973514	-.0947655	-.0025858	.0058441

```
                 b = consistent under Ho and Ha; obtained from xtreg
  B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test:  Ho:  difference in coefficients not systematic

              chi2(4) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                      =       29.57
            Prob>chi2 =      0.0000
            (V_b-V_B is not positive definite)
```

Hausman test evidently that FEM is the most suitable among these (Prob (chi – square) = 0,0000 < 0,05).

Source: Data analysis results from Stata 12.0 software

- **Result of FEM:**

Table 4. Fixed Effects Model

```
Fixed-effects (within) regression               Number of obs      =       210
Group variable: mct                             Number of groups   =        30

R-sq:  within  = 0.5937                         Obs per group: min =         7
       between = 0.1993                                        avg =       7.0
       overall = 0.2666                                        max =         7

                                                F(4,176)           =     64.29
corr(u_i, Xb)  = -0.2246                        Prob > F           =    0.0000

------------------------------------------------------------------------------
         lev |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
        size |   .2028972   .0370995     5.47   0.000     .1296801    .2761143
         liq |  -.1921987   .0133733   -14.37   0.000    -.2185913   -.1658061
         bep |   .0016732   .0008312     2.01   0.046     .0000328    .0033136
        tang |  -.0973514   .1218084    -0.80   0.425    -.3377444    .1430416
       _cons |  -.2997758    .230838    -1.30   0.196    -.7553425     .155791
-------------+----------------------------------------------------------------
     sigma_u |  .14561553
     sigma_e |  .05350118
         rho |  .88106267   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(29, 176) =    24.37             Prob > F = 0.0000
```

Source: Data analysis results from Stata 12.0 software

Regression results are presented in Table 4 for 30 listed construction companies in Vietnam. The model results show that SIZE and LIQ are significantly correlated at the 1% level. BEP is significantly correlated with LEV at the 5% level. TANG is not statistically significant with LEV. Besides, in the model, 59.37% of the change in capital structure is explained by the variables included in the model. Specifically:

- Firm size (SIZE): According to the results of the model, firm size (SIZE) has a significant impact on the capital structure of listed construction firms at the significance level of 1%. The positive correlation coefficient shows that firm size has a positive effect on LEV. This result implies that firms in the sample with larger sizes tend to use more debt. In contrast, SMEs continue to find it difficult to access bank capital (H. Huong (2016))[10]. This result is completely consistent with the pecking order theory and some previous studies such as Jean. J. Chen (2003), Frank and Goyal (2009), Dang Thi Quynh Anh and Quach Thi Hai Yen (2014), …

- Liquidity (LIQ): The correlation coefficient of LIQ is -0.1921, which shows the negative relationship between liquidity and capital structure at the 1% significance level. The results show that when the liquidity increases by 1 time, the total leverage ratio of the enterprise decreases by 0.1921 times. This result is consistent with the theory of pecking order and the research results of Wahab and Ramli (2014), and Nguyen Thi Thuy Hanh (2019).

- Profitability (BEP): This variable affects LEV significantly at a 5% significance level. In which, the correlation coefficient of BEP (0.0167) shows a positive relationship between BEP and the capital structure. This result is consistent with the pecking order theory, enterprises do not need to mobilize much debt when enterprises have good profitability and abundant accumulated profits. This result is similar to the research result of Le Chi Dat (2013).

In addition, TANG is not significantly correlated with the capital structure of listed construction companies in Vietnam.

4. CONCLUSION

Determining the capital structure of the enterprise has an important influence on the value of the enterprise. Based on the identification of factors affecting capital structure in the research, listed construction companies should consider:

Firstly, listed construction companies need to improve their profitability. According to the pecking order theory, when businesses operate effectively and have high profitability, they can take advantage of internal capital from retained earnings instead of mobilizing debt and issuing new shares. Corporate financial managers need to consider the dividend payout ratio as well as retained earnings to ensure harmony between the interests of shareholders as well as efficiency in capital utilization. Besides, when having business efficiency, enterprises will be more appreciated by creditors as well as more trusted by investors in the financial market, thereby, enterprises can mobilize capital from creditors., investors in the market at a cheaper cost.

Secondly, listed construction enterprises take advantage of scale when mobilizing loans. According to the research results, it can be seen that there is a positive relationship between the factor of enterprise size and the debt coefficient. The larger the size of the assets, the easier it is to borrow from the creditors than the small and medium-sized enterprises. Therefore, when using debt, businesses should consider the advantage of asset size to be able to borrow at a low cost of capital.

Thirdly, diversify forms of debt. If enterprises use loans effectively, it will help enterprises improve the efficiency of using equity due to the positive impact of financial leverage. To maximize the benefits of debt, listed construction enterprises should flexibly use different forms of debt instead of relying heavily on commercial banks. For the group of short-term assets, businesses can apply the form of credit trading to take advantage of this capital source. To invest in fixed assets, enterprises can apply medium and long-term capital financing such as financial leasing, issuing bonds or convertible bonds on the stock market, etc. The raising of the standard of bond issuance to the public in recent times (from VND 10 billion to VND 30 billion) has contributed to providing a signal of information transparency, making it easier for businesses with strong financial resources to access capital in the stock market. The flexible diversification of forms of debt mobilization will help businesses reasonably balance costs and capital sources as well as exploit the benefits of the tax shield.

Fourthly, it is necessary to continue to study the influence of external factors such as the financial environment, legal environment, etc. on the capital structure of construction enterprises listed on Vietnam's stock market. Simultaneously, the research model of tax, liquidity, and behavioral finance variables is included in the research model to create a database suitable for each research objective with each specific research object group.

In summary, it can be seen that the research results on the impact of factors on the capital structure of construction enterprises listed on the stock market in Vietnam are similar to studies around the world. In which, company size, solvency, and profitability have a strong impact on the capital structure of construction enterprises listed on Vietnam's stock market. However, in addition to the above factors, there are still many other factors that also affect the capital structure of the enterprise that have not been mentioned in the model such as ownership structure, tax policy, interest rate, etc. However, the results of the model have also contributed to providing the basis to help construction enterprises listed on Vietnam's stock market research and come up with solutions suitable to the actual conditions of the business to build the optimal capital structure.

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Appendix

Table 1: Construction enterprises listed on the Vietnamese stock market in the sample as of December 31, 2021

STT	Stock code	Company name	Listing year
1	BCE	CTCP xây dựng và giao thông Bình Dương	2010
2	CDC	CTCP Chương Dương	2010
3	HBC	CTCP Tấn đoàn xây dựng Hòa Bình	2006
4	PHC	CTCP Xây dựng Phục Hưng Holdings	2009
5	S55	CTCP Sông Đà 505	2006
6	SD2	CTCP Sông Đà 2	2007
7	SD4	CTCP Sông Đà 4	2008
8	L14	CTCP Licogi 14	2011
9	L18	CTCP Đầu tư và xây dựng số 18	2008
10	PXI	CTCP Xây dựng Công nghiệp và Dân dụng Dầu khí	2010
11	SC5	CTCP Xây dựng số 5	2007
12	SD5	CTCP Sông Đà 5	2006
13	SD9	CTCP Sông Đà 9	2006
14	TIP	CTCP phát triển khu công nghiệp Tín Nghĩa	2008
15	VCG	CTCP xuất nhập khẩu và xây dựng Việt Nam	2008
16	CTD	CTCP Xây dựng Coteccons	2010
17	V12	CTCP Xây dựng số 12	2010
18	VC1	CTCP xây dựng số 1	2009
19	VC2	CTCP Đầu tư và xây dựng Vina2	2006
20	VC3	CTCP tập đoàn Nam Mê Kông	2007
21	VC6	CTCP Xây dựng và đầu tư Visicons	2008
22	VC9	CTCP Xây dựng số 9	2009
23	VCC	CTCP Vinaconex 25	2009
24	HUT	CTCP Tasco	2008
25	LIG	CTCP Licogi 13	2010
26	LUT	CTCP Đầu tư xây dựng Lượng Tài	2008
27	SD6	CTCP Sông Đà 6	2006
28	SDT	CTCP Sông Đà 10	2006
29	TA9	CTCP Xây lắp Thành An 96	2015
30	VMC	CTCP Vimeco	2006

THE OPPORTUNITIES FOR VIETNAMESE BANKS TO BENEFIT FROM THE GREEN BONDS

PhD Ngo Duc Tien[1]

Abstract: *Green bonds are instruments used to finance projects that benefit the environment or combat climate change in areas such as energy, transportation, waste management, building construction, use of water and land resources. With the announcement of its commitment to achieve the emission balance target by 2050 at the United Nations Climate Change Summit in 2021 (COP26), Vietnam is now one of the countries in Southeast Asia focusing on green bond market development. Green bonds are expected to promote green and sustainable development in Vietnam. Banks in Vietnam, as investors, will have many opportunities to profit when accessing the green bond market. By applying the qualitative research method, the author focuses on analyzing the benefits that green bonds can bring to banks, as well as recommendations to help banks participate in the green bond market most effectively.*

Keywords: *Green bonds, Vietnamese banks, green bond market, green bond opportunity.*

1. INTRODUCTION

In Vietnam, the consequences of climate change have increased the frequency of natural disasters such as drought, flood, sea level rise, etc. These phenomena have seriously affected the economic development and the people's lives. Besides, industries will also be influenced due to the shortage of raw materials and energy, leading to high production costs. In that context, Vietnam identifies green growth as an important strategy towards sustainable development, developing green finance to mobilize investment capital for projects in order to minimize the impact of caused by extreme natural phenomena. Currently, the Government of Vietnam has issued legal documents to build an overall orientation for green finance development, which defines the general adjustment orientation of the methods for implementing, allocating and using financial resources towards promoting green growth. In particular, the Ministry of Finance has reviewed and completed the financial policy framework to develop the green capital market and green financial products such as green bonds (bonds of green enterprises for green projects or green products issued to foreign investors), government bonds and local government bonds for green goals, programs and projects; green index, sustainability index, carbon index; certificates, green investment certificates issued by investment funds.

Green bonds constitute the largest segment of the sustainable finance market: global issuance of green bonds reached approximately $620 billion in 2021, double that of the previous year, and the market has grown at a compound annual growth rate of approximately 60 percent over the past five years (Figure 1). The Institute of International Finance projects that by 2025, annual issuance may reach $1.2 trillion. Southeast Asia has actively contributed to this growth, with Indonesian,

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Malaysian, and Thai banks issuing over $43 billion in green bonds over the past five years. Vietnam appears to be an exception to this trend, as its banks have only issued $216 million in green bonds over the past five years despite environmental, social, and governance (ESG) projects seeking financing and investors seeking opportunities (see sidebar "What makes a bond green?").

Vietnam's financial institutions are estimated to be able to generate approximately $1.7 billion in revenue by 2025 through the issuance of bonds to finance ESG projects, with $1.5 billion coming from transition finance and green bonds to fund the transition from carbon-intensive to green industries (McKinsey, 2022). What then are the remaining obstacles between Vietnamese banks and this prize? How can banks overcome these obstacles? Vietnamese banks can catch up to their regional counterparts with a renewed sense of urgency and enhanced regulatory guidance. In this paper, the author would like to analyze the opportunities that Vietnamese banks will be able to reap the rewards from the transition to green bonds. And several core business points should be addressed by the Vietnam's banks to attain the highest benefits from the development of green bonds.

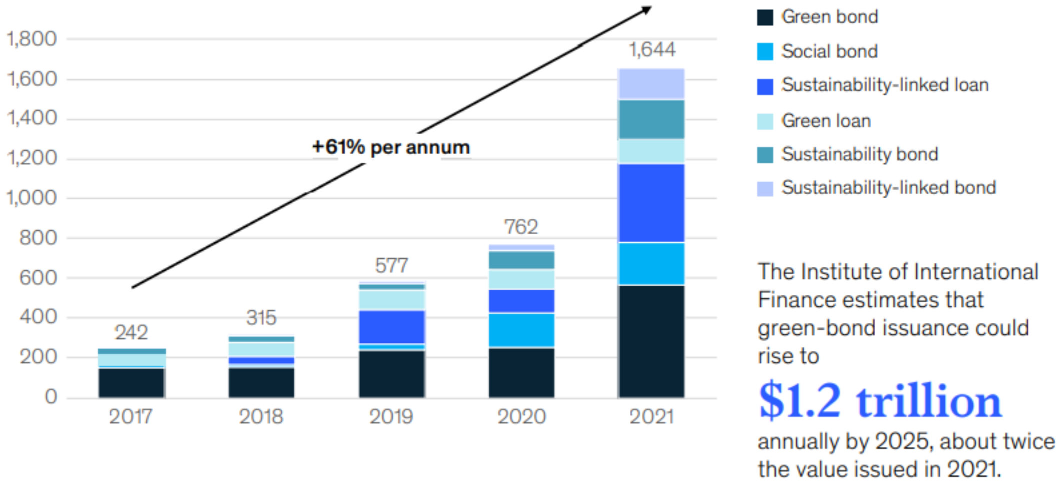

Figure 1. Growth in sustainable instruments

Source: McKinsey, 2022

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

What is a green bond?

A green bond is a debt security issued specifically to finance climate- or environment-related projects (The World Bank, 2015). This specific use of the funds raised to finance specific projects differentiates green bonds from conventional bonds. Green bonds were developed to finance projects with favorable environmental and/or climate impacts. The vast majority of green bonds are "use of proceeds" or asset-linked bonds. The proceeds from these bonds are designated for green projects, but are backed by the entire issuer's balance sheet. Additionally, there have been green "use of proceeds" revenue bonds (link is external), green project bonds, and green securitized bonds. In addition to the standard financial characteristics (such as maturity, coupon, price, and credit quality of the issuer), investors evaluate the specific environmental purpose of the projects that the bonds intend to support. Green bonds enable issuers to connect with a variety of investors and promote their environmental credentials.

A "green bond" is distinguished from a conventional bond by its label, which signifies an obligation to use the funds raised exclusively to finance or re-finance "green" projects, assets, or business activities (ICMA, 2015). While the OECD has not defined what constitutes a green investment or green bond, it has discussed in its work definitions for "green infrastructure" and "green investments" (Inderst et al, 2012) and provided a general quantitative basis for determining the extent to which infrastructure systems can be considered "low-carbon and climate-resilient (LCR)" (Kennedy and Corfee-Morlot, 2012). In this analysis, the OECD's upcoming bond modeling scenarios and annual investment requirements are restricted to the renewable energy, energy efficiency, and low-emissions vehicle sectors, as estimated by the IEA (2014) to be consistent with a 2°C emissions path.

Similar to other bonds, green bonds are fixed-income financial instruments issued on the debt capital market to attract capital from investors. Typically, the bond issuer raises a fixed amount of capital from investors over a predetermined period of time (the "maturity"), repaying the capital (the "principal") when the bond matures and paying a predetermined amount of interest ("coupons") along the way. A green bond is distinguished from a conventional bond by being "labelled," i.e. designated as "green" by the issuer or another entity, whereby a commitment is made to use the proceeds of green bonds (i.e. the principal) exclusively to finance or refinance "green" projects, assets, or business activities with an environmental benefit. A green label can also be assigned to a bond by a third party through its inclusion in a green bond index or via a "tag" on widely used financial market analytical tools such as the Bloomberg Terminal. There are several types of green bonds with details as following:

Table 1. The types of green bonds

Type	Proceeds raised by bond sale are	Debt recourse	Example
"Use of Proceeds" Bond	Earmarked for green projects	Recourse to the issuer: same credit rating applies as issuer's other bonds	EIB "Climate Awareness Bond" (backed by EIB); Barclays Green Bond
"Use of Proceeds" Revenue Bond or ABS	Earmarked for or refinances green projects	Revenue streams from the issuers though fees, taxes etc are collateral for the debt	Hawaii State (backed by fee on electricity bills of the state utilities)
Project Bond	Ring-fenced for the specific underlying green project(s)	Recourse is only to the project's assets and balance sheet	Invenergy Wind Farm (backed by Invenergy Campo Palomas wind farm)
Securitisation (ABS) Bond	Refinance portfolios of green projects or proceeds are earmarked for green projects	Recourse is to a group of projects that have been grouped together (e.g. solar leases or green mortgages)	Tesla Energy (backed by residential solar leases); Obvion (backed by green mortgages)

Type	Proceeds raised by bond sale are	Debt recourse	Example
Covered Bond	Earmarked for eligible projects included in the covered pool	Recourse to the issuer and, if the issuer is unable to repay the bond, to the covered pool	Berlin Hyp green Pfandbrief; Sparebank 1 Bolligkredit green covered bond
Loan	Earmarked for eligible projects or secured on eligible assets	Full recourse to the borrower(s) in the case of unsecured loans. Recourse to the collateral in the case of secured loans, but may also feature limited recourse to the borrower(s).	MEP Werke, Ivanhoe Cambridge and Natixis Assurances (DUO), OVG
Other debt instruments	Earmarked for eligible projects		Convertible Bonds or Notes, Schuldschein, Commercial Paper, Sukuk, Debentures

Source: https://www.climatebonds.net/market/explaining-green-bonds

Green bond principles

The Green Bond Principles (GBP) are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the development of the Green Bond market by elucidating the procedure for issuing a Green Bond. The Green Bond Principles (GBP) are intended for widespread use by the market: they provide issuers with guidance on the key elements involved in launching a credible Green Bond; they aid investors by promoting the availability of information necessary to evaluate the environmental impact of their Green Bond investments; and they aid underwriters by providing vital steps that will facilitate transactions that preserve the market's integrity. The Green Bond Principles recommend a transparent process and disclosure for issuers, which investors, banks, underwriters, arrangers, placement agents, and others can use to comprehend the characteristics of a specific Green Bond. Through its core components and key recommendations, the GBP emphasizes the required transparency, accuracy, and integrity of the information that issuers will disclose and report to stakeholders. The four crucial elements for GBP orientation are: (1) Use of Proceeds; (2) Process for Project Evaluation and Selection; (3) Management of Proceeds and (4) Reporting. The details of these elements will be listed below.

Use of Proceeds

The foundation of a Green Bond is the use of the bond's proceeds for qualified Green Projects, which should be appropriately mentioned in the security's legal documentation. All marked qualified Green Projects must provide pretty obvious environmental advantages, which will be evaluated and measured by the issuer where possible. In the event that all or a portion of the proceeds are or will be used for refinancing, it is recommended that issuers provide an estimate of the proportion of financing versus re-financing, and, where applicable, clarify which investments or project portfolios may be refinanced, as well as, if applicable, the expected look-back period for refinanced eligible Green Projects.

The GBP recognizes explicitly numerous broad eligibility categories for Green Projects, which help achieve environmental goals such as climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control. The following list of project categories, while indicative, represents the most frequently supported or anticipated supported projects by the Green Bond market. Green Projects consist of assets, investments, and other related and supporting expenditures, such as research and development, that may relate to more than one category and/or environmental objective. Three of the aforementioned sustainability goals (pollution prevention and control, biodiversity conservation, and climate change adaptation) are also listed as project categories. Consequently, they refer to projects that are designed more specifically to achieve these environmental objectives. The eligible Green Projects categories, listed in no specific order, include, but are not limited to:

- Renewable energy (including production, transmission, appliances and products);
- Energy efficiency (such as in new and refurbished buildings, energy storage, district heating, smart grids, appliances and products);
- Pollution prevention and control (including reduction of air emissions, greenhouse gas control, soil remediation, waste prevention, waste reduction, waste recycling and energy/ emission-efficient waste to energy);
- Environmentally sustainable management of living natural resources and land use (including environmentally sustainable agriculture; environmentally sustainable animal husbandry; climate smart farm inputs such as biological crop protection or drip-irrigation; environmentally sustainable fishery and aquaculture; environmentally sustainable forestry, including afforestation or reforestation, and preservation or restoration of natural landscapes);
- Terrestrial and aquatic biodiversity conservation (including the protection of coastal, marine and watershed environments);
- Clean transportation (such as electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions);
- Sustainable water and wastewater management (including sustainable infrastructure for clean and/or drinking water, wastewater treatment, sustainable urban drainage systems and river training and other forms of flooding mitigation);
- Climate change adaptation (including efforts to make infrastructure more resilient to impacts of climate change, as well as information support systems, such as climate observation and early warning systems);
- Circular economy adapted products, production technologies and processes (such as the design and introduction of reusable, recyclable and refurbished materials, components and products; circular tools and services); and/or certified eco-efficient products;
- Green buildings that meet regional, national or internationally recognized standards or certifications for environmental performance.

Process for Project Evaluation and Selection

Firstly, the Green Bond issuers have to explain clearly with investors the following main points, such as the environmental sustainability objectives of the projects, the method by which the issuer determines how well the projects fit within the categories of eligible Green Projects and additional information on how the issuer identifies and manages perceived social and environmental risks associated with the project (s).

Secondly, the issuers should situate the aforementioned information within the context of the issuer's overarching environmental objectives, strategy, policy, and/or processes. Then, they can provide information, if applicable, on the alignment of projects with official or market-based taxonomies, related eligibility criteria, and, if applicable, exclusion criteria; and disclose any green standards or certifications cited in project selection. In addition, the issuers have a procedure in place to identify mitigating factors for identified material risks of negative social and/or environmental impacts from the relevant project (s). When the issuer deems the potential risks to be significant, mitigating measures may include a clear and relevant analysis of trade-offs and monitoring requirements.

Management of Proceeds

The net proceeds of the Green Bond, or an amount equal to these net proceeds, must be credited to a sub-account, transferred to a sub-portfolio, or otherwise tracked by the issuer in a suitable manner, and attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for eligible Green Projects.

As long as the Green Bond remains outstanding, the balance of the tracked net proceeds should be periodically adjusted to reflect the allocations made to eligible Green Projects during that period. The issuer should inform investors of the intended temporary placement types for the remaining unallocated net proceeds. Green Bond proceeds can be managed per bond (bond-by-bond approach) or aggregated across multiple green bonds (portfolio approach).

The Green Bond Principles encourage a high level of transparency and recommend that an issuer's management of proceeds be supplemented by the use of an external auditor or other third party to verify the internal tracking method and the allocation of Green Bond proceeds.

Reporting

Issuers must provide and maintain readily accessible, up-to-date information on the use of proceeds to be renewed annually until full allocation, as well as in a timely manner in the event of material developments. The annual report should contain a list of the projects to which Green Bond proceeds were allocated, along with a brief description of the projects, the amounts allocated, and their anticipated impact. Where confidentiality agreements, competitive considerations, or a large number of underlying projects limit the level of detail that can be disclosed, the GBP recommends that information be presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to specific project categories).

Transparency is especially important when communicating the anticipated and/or actual impact of projects. The GBP advises the use of qualitative performance indicators and, when feasible, quantitative performance measures, as well as the disclosure of the key underlying methodology and/or assumptions used for quantitative determinations.

3. METHODOLOGY AND PROPOSED MODEL

In this paper, the author employs a qualitative research approach to investigate the current situation of the development of the green bond market in Vietnam as well as inspect the optimistic opportunities for Vietnam's banks to attain their benefits from the green bond issuance. The authors of this article employed both theoretical and practical research methods. A literature review is conducted to collect data from previous studies pertaining to the definition of green bond and green bond principles. Then, specific methods such as the analytical method and theoretical synthesis, as well as classification and systematization techniques, are used to emphasize the paper's key concepts. Then, based on the data on the growth of Vietnamese banks' potential benefits from the green bond in Vietnam, the author employs practical research methods to analyze the situation and describe the advantages of the growth of the Vietnamese green bond market, as well as recommendations supporting the banks to seize the green bond opportunities.

4. RESEARCH RESULTS

4.1. The opportunities for Vietnamese banks to benefit from the green bonds

Following McKinsey (2022), Vietnam's banks will be estimated to earn a total of $1.7 billion from ESG financing by 2025, with approximately 90 percent coming from transition financing and green bonds (see figure below). This pool consists of earnings from green-project financing (such as funding renewable-energy projects) and environmentally linked loans, with the remainder largely concentrated in ESG-linked capital markets, mergers and acquisitions, and trade finance.

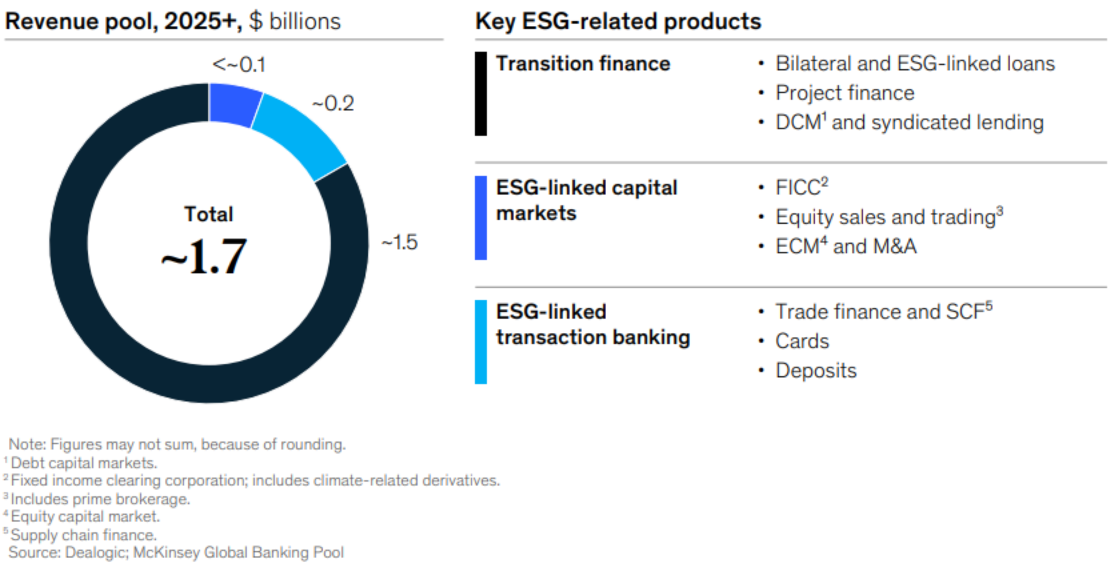

Figure 2. Annual Vietnamese banking revenues related to environmental, social, and governance (ESG) opportunities

Source: McKinsey, 2022

However, the timing of this opportunity requires some dimension. In the first years of another Southeast Asian market, sustainable finance grew rapidly as investors rushed to seize the most valuable and straightforward opportunities. This growth is now anticipated to slow since the remaining opportunities are more difficult to implement. The market for sustainable finance in Vietnam may follow a similar pattern: initial explosive growth while opportunities are simple, followed by a more gradual expansion as opportunities become more complex. Therefore, in the beginning period of the development of Vietnamese green bond market, Vietnamese banks will have more chances to attain their benefits if they participate in this market as soon as possible. The opportunities for Vietnamese banks to reap the rewards from green bonds are formed from the legal framework to the establishment of green bond market as well as the structure of it.

The legal framework for Vietnamese banks operating in the green bond sector

In 2015, the government of Vietnam tasked the state bank with advancing green financing tools, enacted a supportive green finance regulation, and in 2018 mandated that all banks take internal steps to consider environmental risk by 2025. The Green Financial Policy Framework, for instance, charged the Ministry of Finance with developing incentives for green capital. In its most recent National Strategy for Climate Change2, the Vietnamese government urged a review of "policies to create favorable conditions to attract investment capital flows to address climate change." This analysis aims to "attract... green financial flows of financial institutions." It is not recommended that banks do this alone. Rather, the collaborative creation of this market by multiple institutions or industry players is conducive to market growth. Banks must initiate a dialogue with regulators to determine where additional regulatory guidance may be beneficial. They can start by issuing green financial products to determine where regulations are adequate and where they need to be clarified.

The position of Vietnamese banks in the green bond market

Borrowers and investors are hoping to leverage green financing—or are, at least, increasingly attracted to it. Yet local Vietnamese commercial banks are only in the early stages of developing green-bond products and projects. Vietnam based banks now have an opportunity to take full ownership of their role. Today, the number of green financial instruments and the level of sophistication is low; a recent survey suggests 40 percent of Vietnamese banks had no green investment projects in their portfolio3. Yet it is still possible to move quickly to grasp this opportunity. Vietnamese banks should act as an intermediary between green bond issuers and private investors (as figure below).

[2] Decision No: 896/QD-TTg," National Strategy for Climate Change, July 26, 2022.
[3] Potential of Green Bond in Viet Nam, Global Green Growth Institute (GGGI), September 2020.

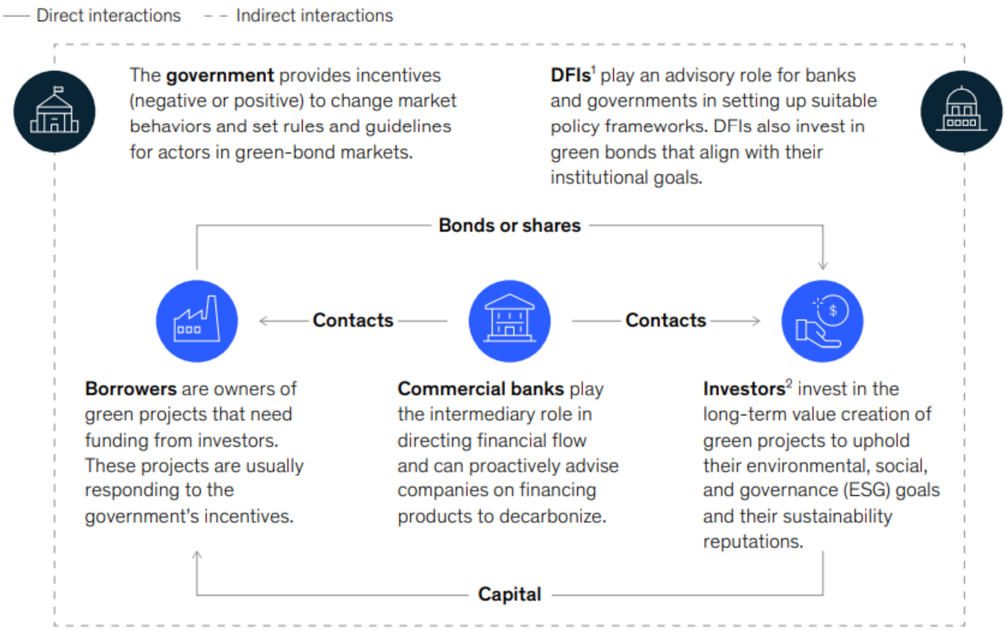

Figure 3. Vietnamese banks in the green bond market

Source: McKinsey, 2022

4.2. The recommendations for Vietnamese banks to take advantages from the development of the green bond market

To obtain a chance to take a decisive position in the green-bond market, Vietnamese banks should concentrate on not only defining their level of ambition but also addressing the areas of their business that will support them to be market leaders. Based on their level of ambition, each bank can choose one of three strategies as mentioned below:

Strategy number 1: Follow the trend retrospectively by establishing the abilities to operate and meet the bare minimum of required regulatory requirements. This minimum viable engagement strategy ensures regulatory compliance but does not capture a significant portion of the available market.

Strategy number 2: Participate in the market by adopting new standards and best practices regarding climate risk. Banks can develop specific products and services based on the green-financing needs of their clients, thereby establishing substantial business goals for green products.

Strategy number 3: Lead the market, rather than follow it, and compete for a substantial share of the market opportunity for transition finance and green bonds. This requires the proactive reallocation of capital based on science-based environmental targets, the estimation of the potential of specific markets and business opportunities in targeted sectors (such as renewable developments, green manufacturing assets, and electric-vehicle infrastructure), and the provision of specialized products and customer support within those markets.

Regardless of the chosen path, Vietnamese banks can learn from a recent example of how a bank in a mature European market addressed six business areas in order to seize the ESG banking opportunity in its home country. For a bank to achieve best practices and become the market leader in ESG financing, each of these steps must be taken. To begin, banks in Vietnam can consider the following initial actions:

Table 2. The steps to support the bank achieve the best practice in the green bond market

No.	Content
Step 1	Consider all potential ESG business opportunities, from transition financing to ESG products for corporations. A bank must determine which green-banking offers are most relevant to its customers.
Step 2	Rearrange portfolios in order to meet specific emission reduction goals, while measuring their financed emission levels.
Step 3	Examine the comprehensive risk management processes, including risk identification, materiality assessments, and stress testing.
Step 4	Reevaluate the credit operating model and, in particular, the credit risk management strategy, including the scoring of banks' counterparties based on their climate risk.
Step 5	Incorporate Task Force on Climate-Related Financial Disclosures (TCFD) recommendations regarding the release of climate-related financial information.
Step 6	Data foundations and systems, such as credit scoring models, should support the changes. These may require external data providers or an internal data source for ESG dimensions. There are additional adjustments, such as training employees on new tools and products, aligning the board with new sustainable goals, and engaging in external branding, but these are enablers rather than fundamental business shifts.

5. DISCUSSION AND CONCLUSION

The green bond market has the potential to become one of the vibrant emerging investment sectors in Vietnam. As a monetary intermediary of the economy, Vietnamese banks need to seize opportunities to access and expand their market share in the green bond market because green bond development is an inevitable trend of the world. in the context of environmental problems becoming hotter and hotter. The experience of some countries in the world, especially Southeast Asian countries such as Indonesia or Singapore, has shown that the green bond market can bring great benefits to banks during the initialization of the market. Therefore, seizing opportunities in the development of the green bond market will help Vietnamese commercial banks to break through and achieve great success.

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TAX POLICY FOR ATTRACTING FOREIGN DIRECT INVESTMENT IN VIETNAM

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Abstract: *Attracting foreign direct investment (FDI) in Vietnam has been a major policy of our Party and State during more than 30 years of renovation. Along with other policies, tax policy has had a positive impact on attracting FDI into Vietnam and is adjusted depending on specific socio-economic conditions. The positive impact of tax policy on attracting FDI in Vietnam in recent years, such as: contributing to creating a favorable investment environment to attract foreign investment capital, positively affecting the attraction structure. FDI by region, ensuring the goal of international economic integration, in line with development trends, in line with international commitments; contributing to the mobilization of FDI capital, boosting exports and promoting fast and stable economic growth…. The article points out the limitations of tax policy in attracting FDI into Vietnam and proposes recommendations to improve tax policy in order to effectively attract FDI into Vietnam in the new context. Proposals include: Completing the CIT incentive policy towards focusing on key areas and areas with attractive incentives; Apply incentives that are more efficient and easier to monitor and manage; Tax incentives should be based on clear criteria; Completing preferential policies for export and import tax, land rent... and applying synchronous solutions in tax management to effectively attract FDI into Vietnam in the coming time.*

Keywords: *Tax policy; foreign direct investment; attracting foreign direct investment.*

1. INTRODUCTION

All countries use tax policies as an important tool to attract foreign direct investment, but in the context of trade integration and liberalization, all countries must reconsider their tax policies to meet the requirements of attracting foreign direct investment, in accordance with integration requirements. This is a complex issue and there are many different opinions. Therefore, it is an urgent requirement to implement an appropriate and scientifically based tax policy to attract foreign direct investment, in line with the commitments that Vietnam made during the process of deep integration in the new context.

The objectives of tax incentives are to attract FDI, contribute to economic growth, upgrade technology, create jobs, reduce inequality, and other social goals. Practice shows that the objectives of Vietnam's preferential policies to attract investment are still quite diverse and diverted, and sometimes the objectives of the policy are unclear and overlapping. A new-generation FDI strategy is being developed to meet the country's development requirements. This strategy is to overcome the disadvantages of FDI in recent years, promote advantages, and continue to attract FDI for

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the country's socio-economic development in the coming time. Current FDI incentive policies need to be reassessed in terms of objectives, impacts, costs, and benefits to improve and enhance the effectiveness of these policies. To make better use of FDI inflows for economic development, cooperate with domestic enterprises, have a more positive spillover impact, and improve the domestic economic sector, Vietnam needs to implement tax policies and preferential policies to attract FDI into Vietnam in the new context.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH

In recent years, there have been many research works related to tax policies for attracting foreign direct investment in Vietnam such as the research by Hoang Van Bang (2003) with the topic: "*Taxation and foreign direct investment in Vietnam*"; Research by Nguyen Thi Minh Hang and colleagues (2013) studying "*Tax policy for attracting foreign investment in Vietnam*"; Truong Ba Tuan, Le Quang Thuan (2018), Research report *on the assessment of tax incentive policies in Vietnam*, Oxfam. Vuong Thi Thu Hien (2018), Completing tax incentives in Vietnam; Study of the Tax Policy Department of the Ministry of Finance (2019) on tax policies and investment incentives in foreign investment in Vietnam (2019). The studies above are aimed directly or indirectly at tax policies for attracting foreign direct investment. However, due to the ever-changing reality, with the strategy of attracting new generation foreign investment in Vietnam in the coming time, it is necessary and highly practical to improve the current tax policy to effectively attract foreign direct investment.

3. METHODOLOGY AND MATERIALS

Some scientific methods such as observation, analysis, synthesis, generalization were used in this study. The data are collected from the sources of the General Department of Taxation, the Ministry of Finance, the Ministry of Planning and Investment and previous studies related to tax policy for attracting foreign direct investment in Vietnam.

4. RESULTS AND DISCUSSION

4.1. Current status of tax policies for attracting foreign direct investment in Vietnam

Results

Firstly, tax incentives have contributed to mobilizing FDI, boosting exports, and promoting fast and stable economic growth.

The reduction of tax obligations, the reduction of the basic tax rate and the increase of incentives for exemption and reduction of CIT and land rent for several fields and areas of operation following the orientation of the state has enabled organizations and individuals of all economic sectors to increase capital accumulation rapidly, to expand reproduction, and to promote economic growth at a high rate. After more than 30 years of opening up to attract foreign investment, foreign direct investment inflows into Vietnam have been constantly increasing. In 2010, the realized investment capital reached 11 billion USD, by 2015 it reached 14.5 billion USD, and by the end of 2020, Vietnam had attracted over 33,000 foreign direct investment projects with a total registered investment of more than 384 billion USD. Up to now, 129 countries/territories have invested in

Vietnam. FDI projects have been present in 63/63 localities, FDI has also been invested in 19/21 production and business lines of Vietnam. (Source: Ministry of Planning and Investment)

The above-mentioned tax incentives, in which the focus is on CIT incentives and land revenues, have made an important contribution to attracting FDI, increasing state budget revenues and socio-economic development.

Table 1. CIT contribution of FDI enterprises in Vietnam

Currency: billion VND

Year	Total number of foreign direct investment enterprises	Enterprises declare interest, pay CIT	CIT paid
2015	9.845	4.453	29.043
2016	10.661	4.898	33.327
2017	11.099	5.283	34.272
2018	11.141	5.472	38.292
2019	18.414	7.842	92.509

Source: General Department of Taxation

Tax incentives and exemptions for export and import activities has contributed to promoting the increase in export and import turnover continuously over the years, specifically:

In 2020, the country's export and import turnover reached more than 370 billion USD. Specifically, export turnover reached 202 billion USD, up 10.9% compared to 2019. Import turnover in 2020 reached 167 billion USD, up 11.2% compared to 2019 (Source: Ministry of Planning and Investment).

Secondly, reducing the tax burden and diversifying forms of tax incentives have contributed to creating a favorable investment environment to attract foreign investment capital.

The current tax incentives apply uniformly to all economic sectors, in accordance with international practices. Criteria for applying current tax incentives based on the sectors and areas where the government attracts investment, to operate effectively in these fields and areas requires enterprises to have large investment capital. With the characteristics of Vietnamese enterprises today, most FDI enterprises, with the strength of capital, can afford to invest in areas attracting investment from the Government. That has led to the beneficiaries of tax incentives in Vietnam over the past time, mainly FDI enterprises. This is reflected in the following two aspects: (i) (i) The proportion of CIT exempted and reduced by FDI enterprises to the total amount of CIT exempted and reduced by enterprises nationwide is up to 76%; (ii) The ratio of preferential CIT exemptions and reductions of FDI enterprises to the total amount of CIT payable at the general tax rate is 48%, while this rate of SOEs is 4.6% and that of non-state enterprises is 14%. (Source: General Department of Taxation)

Thirdly, tax incentives have contributed to a positive impact on the FDI attraction structure by region.

With local tax incentives, the regional investment structure has also changed positively in recent years. The proportion of FDI tends to increase in the northern mountainous, north-central, and central coastal areas among the poorest regions in the country. Some of the least developed provinces have begun to attract large-scale investment projects, for example, in 2014, Samsung Group decided to invest US$3.2 billion in Thai Nguyen province. Poor coastal provinces such as Thanh Hoa, Ha Tinh, Phu Yen, and Kien Giang have increased the proportion of FDI in the local economic structure [11].

Fourth, clear tax policies and uniform provisions in legal documents are synchronous with the relevant legal system, contributing to ensuring the interests and creating favorable conditions for taxpayers.

Firstly, the implementation of the mechanism of self-declaration and self-payment of taxes has reduced the number of administrative formalities needed, creating conditions for enterprises to be proactive in declaring and fulfilling tax payment obligations.

Secondly, the provisions on tax incentives have been focused on tax legal documents to ensure the transparency of policies, minimize duplication of incentives, and facilitate businesses in monitoring and applying.

Thirdly, assign autonomy to enterprises in the self-determination of conditions to claim CIT incentives without the need to grant investment licenses.

Fourthly, the taxpayer: (i) is made aware of the refund settlement period, the amount of non-refundable tax, and the legal basis for the non-refundable tax amount; (ii) is able to view and print all electronic documents sent by taxpayers to the portal of tax administration agencies in accordance with the provisions of this new Law and the law on electronic transactions; (iii) can use electronic documents in transactions with tax administration agencies and relevant agencies and organizations; (iv) is not confronted for tax violations, is not charged late payment in case of payment by taxpayers in accordance with the written instructions and handling decisions of tax authorities and competent state agencies related to the content of determining tax obligations of taxpayers.

Finally, in order to prevent tax evasion through transfer pricing, the Law prohibits: collusion, hook-up, and cover-up between taxpayers and tax administration officials, tax administration agencies to transfer prices or evade tax.

Fourth, tax incentive policies ensure the goal of international economic integration, in line with development trends and in accordance with international commitments.

The CIT policy has been prescribed in accordance with the general international practices and development progress of the country. The current tax incentives in Vietnam apply uniformly to both domestic and foreign-invested enterprises while creating equality for all investors and creating a favorable and transparent business environment for enterprises of all economic sectors.

Limitations and causes

Firstly, the impact of tax incentives on FDI attraction has not fully achieved the desired effect.

Tax incentives are one of the important contents of Vietnam's tax policy. Most of Vietnam's taxes have provisions on tax incentives, including direct taxes (CIT, PIT) and indirect taxes (export tax, import tax, VAT, SST). The objective of the tax incentive policy is to encourage investment in the area or field in which the Government orients investment activities. However, economists have concluded that the effectiveness of tax incentives on investment is unclear because the decision to invest in a country depends on many factors, of which tax incentives only play a small role. Tax incentives are only meant to complement other factors that investors choose to invest in for the sake of profit.

Secondly, the tax policy also stipulates high tax incentives, the preferential area is still quite wide and diverted, reducing state budget revenues.

As analyzed above, tax incentives in Vietnam are quite high, high tax incentives also mean high opportunity costs of budget revenue loss. For example, according to current regulations, CIT incentives for subjects include tax rate incentives and tax exemption and reduction incentives, the maximum preferential rate: 10% tax rate for 15 years, tax exemption for 4 years, and 50% reduction in the amount of tax payable for the next 9 years. Thus, the preferential level is quite high: both tax rate incentives and tax exemption and reduction incentives are not reasonable.

In addition, the preferential area is still wide and diverted, according to research by Oxfam (2016), Vietnam's tax incentives are relatively complicated because the scope of incentives (incentives by field and incentives by area, capital size) specified in the Law on Investment is quite wide. Accordingly, there are 30 areas of investment incentives and 27 areas of special investment incentives entitled to investment incentives, including tax incentives. Regarding geographical areas, tax incentive policies are applied to investment incentive areas, including districts and towns of 53 provinces out of 63 provinces and cities in the country. In addition, high-tech parks, economic zones, industrial parks, and export processing zones established under the decision of the Prime Minister are also subject to tax incentives. Currently, there are more than 300 types of such zones that enjoy tax incentives in different forms [.

Besides, there are many other forms of indirect tax incentives such as export tax incentives, and import taxes. The pursuit of social goals has led to widespread tax exemptions and reductions that have complicated tax policies, losing tax neutrality as well as reducing state budget revenues.

The widespread regulation of CIT incentives will unnecessarily reduce state budget revenues (while the state budget is very short of financial resources to meet the needs of investment in socio-economic development), sometimes reducing the effectiveness, efficiency, and impact of CIT incentives for enterprises compared to more selective regulations. The introduction of various, complex and overlapping incentives can make the business environment less transparent and become counterproductive, creating opportunities for businesses to circumvent the law to profit, making the risk of negativity increase.

Third, the *impact of tax incentives on the allocation of investment resources in fields and areas encouraged by the State is limited.*

According to statistics on foreign investment, FDI enterprises often focus on places with favorable infrastructure such as Hanoi, Ho Chi Minh City, Binh Duong, Ba Ria - Vung Tau, Dong Nai, Bac Ninh, Hai Phong, Hai Duong, Long An, Da Nang... accounting for 83% of projects and 67% of total registered investment capital nationwide. Meanwhile, mountainous, remote provinces such as the Central Highlands, Midlands, and Northern Mountainous areas accounted for only 4% of the projects and 5% of the total registered investment capital [11]. The new investment capital is mainly focused on industries with high-profit margins such as processing, manufacturing, retail wholesale, science and technology, information and communication; while other sectors that need to encourage development but have low-profit margins and high risks such as the agricultural sector, forestry and fisheries, and socialization fields (health, education,..), the number of investment projects is quite limited.

Regarding the areas entitled to tax incentives, according to the provisions of the CIT Law, up to 30 groups of fields and industries are entitled to incentives. Table 2.3 of statistics of preferential industries shows that the number of enterprises operating in the field of software production accounts for a large proportion (39.1% of the total number of preferential cases by sector across the country), but the average amount of tax incentives for one case is not high. Vietnam is currently applying highly preferential policies, attracting investment projects in several fields such as agriculture, agricultural product processing, fisheries, software production, and renewable energy. However, up to now, the proportion of FDI attraction to the agricultural sector is still quite low. Agriculture accounts for about 15.34% of the country's GDP (in 2017), but the proportion of investment in the agriculture sector accounts for only nearly 6% of the total investment capital of the whole society (General Statistics Office, 2019). The proportion of FDI invested in the agriculture sector is still limited, accounting for only nearly 1.1% of the total registered FDI in 2017. Most FDI is concentrated in the field of processing, manufacturing, and real estate business. In 2017, these two sectors attracted 75% of registered FDI.[11]

In order to attract investment in underdeveloped areas, high tax incentives are being applied to businesses in these areas. Actual data shows that the efficiency of attracting investment in these areas is very low. Underdeveloped areas face many difficulties in attracting investment due to limitations on geographical location, infrastructure, and quality of human resources. In contrast, the localities that attract many investment projects are mainly provinces and cities with good infrastructure systems, geographical locations near big cities, convenient for transportation, near seaports or highways, and have a higher rate of trained labor than the national average.

Meanwhile, many economic zones and industrial parks in underdeveloped areas have a high vacancy rate and attract little capital, despite enjoying high tax incentives. Specifically, the occupancy rate of industrial parks that have come into operation in our country by the end of 2018 is about 73%. However, this rate in many northern mountainous provinces and the Central Highlands is much lower than the national average (about 30%). [8]

Regions with good infrastructure and a high proportion of trained workers continue to attract the highest proportion of FDI in Vietnam. Specifically, there were about 27.7% of FDI registered in 2017 in the Red River Delta region, attracting 42.4% of the total registered FDI. [5]

Fourth, current tax incentives tend to attract short-term investment projects instead of long-term investments.

Incentives for tax exemption and reduction periods tend to attract short-term investment projects, instead of long-term investment projects. With preferential policies on tax exemption and reduction period, after the end of the tax incentive period, enterprises will tend to change investment projects to benefit from new preferential periods and maximize profits. Time-limited tax exemptions and reductions will also encourage investors to use a variety of tactics (e.g. transfer pricing) to transfer profits from where there are no tax incentives to where tax incentives are available (World Bank, 2014).

Fifth, the implementation of tax incentive policies is still quite complicated, involving many administrative procedures.

The implementation of tax incentive policies in some cases requires the participation of many different departments and organizations. For example, to implement preferential policies on import tax specified in the Law on Import Tax and Import Tax in 2016, in addition to the Ministry of Finance, there are 11 departments and other Government agencies that must also issue guidance documents. According to the provisions of the current CIT Law, the income of enterprises from investment in the products will enjoy quite high CIT incentives if the products of that project have not been produced domestically as of January 1, 2015 or can be domestically manufactured but must meet European Union technical standards or equivalent. Thus, the implementation of this regulation requires the participation of relevant ministries. Therefore, it is very important to strengthen the coordination among relevant agencies to implement tax incentives because once the tax incentive policy has been issued, it is very difficult to abolish it, even if the tax incentive policy causes budget revenue loss and is ineffective for investment attraction.

Sixth, there are still some provisions in tax policies that are not in line with international practices, affecting the efficiency of FDI attraction.

- *Instability of tax policy*

The current tax policy system in Vietnam is promulgated under the provisions of the Tax Laws, but there are some unstable regulations, always having to issue additional and amended guidance documents in a short time. The contents of the guidance in the Tax Law and guiding documents have not covered all economic activities, and have not fully anticipated problems arising in the practice of production and business activities. Therefore, for each problem arising, enterprises must rely on specific guidance documents from the Ministry of Finance.

- *The scope of application does not cover all taxpayers and all income incurred*

In the context of international economic integration, in the current CIT policy, there are no specific regulations on standards and taxpayers being local and non-local enterprises, which will cause difficulties in the implementation process.

A number of new industries and fields have arisen but have not yet been specified in the CIT Law and guiding documents such as multi-level sales, tax management in the digital economy, etc... leading to businesses operating in this field being confused in the implementation process.

- *Inadequacies of interest expense deduction limits: That is, (i)* Some businesses believe that this interest rate/EBITDA ceiling is too low compared to Vietnam's "characteristics" when they rely heavily on debt; (ii) Total interest expense is understood to mean the total interest expense incurred during a tax period of an affiliated business, but it is not specified whether it includes interest expense payable to a non-affiliated (independent) third party; (iii) Many companies in the early stages of incorporation often suffer losses, but are not entitled to deduct interest expense due to their EBITDA calculated under Decree 20 being zero or negative; (iv) Businesses also believe that Vietnam's current regulations may result in double taxation on the same income. The lender collects interest and is subject to CIT. Meanwhile, borrowers must also pay CIT on interest expense if the control threshold is exceeded.

- *About export and import tariffs*

First, maintaining export tariff barriers in the context of international economic integration will not bring much revenue to the state budget, and also not encourage export activities. This regulation is not in line with international practice.

Secondly, the effectiveness of protection through taxation is not high, there is no selection, and specific determination of the duration and roadmap of protection for enterprises to actively improve their competitiveness and promote their available advantages.

Thirdly, the import tax rate has frequently changed, causing many difficulties in the implementation process. Enterprises will be passive in calculating the efficiency of production, business activities, building business strategies, product brands, etc... to stand firm in the international market.

*Fourth***,** the import tariff is too complicated

The regulation of tax rates is based on both the classification of goods and the products' origin, thus making the tariff too complicated and making the application process difficult to ensure clarity and transparency.

Seventh, the race to the bottom of corporate income tax rates among ASEAN countries to attract FDI is ineffective.

Competition to reduce taxes to attract FDI in the past 10 years has been fierce, causing the average corporate income tax rate in ASEAN from over 25% in 2010 to 21.7% in 2020. This tax rate of ASEAN is currently 1.7 percentage points lower than the average in the East Asia-Pacific region.[3]

Eighth, tax administration also has limitations affecting management efficiency for FDI enterprises.

Many regulations on tax administration are no longer in line with new practices and management requirements such as: receiving tax obligations in cross-border transactions, regulations on transfer pricing activities; strengthening the management of transfer pricing transactions, preventing revenue degradation under the BEPS Program.

Although the revenue and profit before tax of FDI enterprises have increased steadily over the years, the rate of enterprises reporting losses, accumulated losses, and capital losses over the years has increased and has not shown any signs of decreasing. The growth rate in the number of enterprises reporting losses and accumulated losses has been high, but the growth rate of investment scale and operation of enterprises reporting losses and having accumulated losses is also high. That shows that the transfer pricing situation of the FDI sector is increasing and complicated. The rate of enterprises declaring losses in FDI enterprises being higher than the national average is also a matter of great concern.

Table 2. Loss reporting situation of FDI enterprises in Vietnam

Currency: Billion VND

Year	General enterprise	Number of businesses reporting losses	Loss rate of the enterprise	Accumulated losses
2015	9.845	5.231	53,13%	- 61.531
2016	10.661	5.575	52,29%	- 74.047
2017	11.099	5.545	49,96%	- 62.896
2018	11.141	5.413	48,59%	- 75.705
2019	22.603	12.455	55%	- 131.300
2020	25.171	14.108	56%	- 151.064
	Succession	**16.100**	**64%**	**- 623.000**

Source: Author compiled from CIT finalization declarations

Recently, there has also been the phenomenon of transfer pricing, "reverse" profit transfer from abroad into Vietnam of a part of domestic FDI enterprises enjoying great incentives on tax rates as well as the period of CIT exemption/reduction. Each year, the total amount of state budget incentives for enterprises accounts for about 5.5% – 6% of total budget revenue, of which tax incentives account for over 80%. Compared to other types of enterprises, FDI enterprises enjoy more incentives. The ratio of exempted and reduced CIT of FDI enterprises to the total exempted CIT of all enterprises nationwide is 76%. The ratio of exempted and reduced CIT of FDI enterprises to the total CIT payable at the general tax rate is 48%, while this rate of SOEs is 4.6% and that of state-owned enterprises is 14%. [3]

4.2. Completing tax policies to attract foreign direct investment in Vietnam in the near future

Completing CIT preferential policies

Firstly, tax incentive policies should focus on key areas and attracting investment with attractive enough incentives.

Tax incentives should focus on areas where investment incentives will create positive externalities and spillover effects on the entire economy. Tax incentives must be associated with the development priorities of the country or industries in which Vietnam can promote its comparative advantages.

Tax incentives only apply selectively to: (i) investment projects in the field of high technology as well as new technologies and products with high added value; (ii) investment projects in the field of agriculture and fisheries applying high technologies, applying new scientific and technological measures for production and processing; (iii) investment projects in particularly disadvantaged areas in remote, border and island areas in order to promote investment restructuring towards efficiency.

Secondly, it is necessary to eliminate tax incentives through tax exemptions and reductions and switch to other more effective forms of incentives.

Vietnam should consider limiting the application of tax exemption and tax reduction incentives and applying new tax incentives that have been applied by many other countries such as tax deductions by investment, investment subsidies, such as deductible costs at a higher rate than enterprises' actual investment on research, development, and environmental protection, and determining tax incentives for the operation of investment funds.

Third, consider limiting social policy-related CIT incentives in tax policy and applying only to cases that are easy to monitor and manage.

These social incentives can be implemented through state budget to ensure fairness, transparency, and ease of management. When beneficiaries are directly supported by the state budget, transparency will also be higher and it will also be easier for the Government to manage and monitor these policies.

Fourth, tax incentives should be based on clear criteria.

Accordingly, the criteria to develop Vietnam's tax incentive policies in the current period are:

- Based on the field of investment attraction, this field must be associated with high technology and environmental protection in current conditions.
- Reduce and move towards the elimination of local incentives, which can be implemented through state budget expenditures.
- Include more criteria on localization rate and technology transfer in the development of preferential policies to promote the development of supporting industries.
- Based on the size of the enterprise to offer different forms of incentives to support Vietnamese small and medium enterprises. However, this norm should only be maintained for a certain period of time.

Fifth, implement more tax incentives for small and medium-sized enterprises and supporting enterprises in Vietnam.

Tax incentives should be designed to encourage small and medium-sized enterprises and supporting industry enterprises to develop. These are: (i)Preferential CIT rates for small and medium-sized enterprises, supporting industry enterprises; (ii) Applying tax exemption and reduction incentives for small-scale start-up enterprises, eligible business households to convert into enterprises and supporting industry enterprises; (iii) Provide additional incentives for the development of supporting industries.

Sixth, stabilize tax incentives for a certain period.

Tax policy needs to be stable for investors to be proactive in developing business plans. If it is necessary to amend, it is necessary to notify widely, to consult the business so that the business has time to prepare, redirect investment or avoid damage to the business.

Seventh, anti-competition on CIT in ASEAN to attract FDI.

ASEAN should apply a tax rate framework with a fairly wide margin, from 12.5% to 20%. Accordingly, ASEAN countries must legislate this tax rate framework, and agree on investment incentive policies such as tax exemption and reduction period; exemption and reduction of land rent, land lease period, etc... and there must be accountability with other ASEAN members about non-tax preferential policies to avoid arbitrariness.[3]

Completing preferential import and export tax policies

Import tax exemption is only for imported goods of investment nature of some areas on the list of investment incentives in order to implement focused incentives according to the economic development line of the Party and the State.

Gradually shift the form of import tax exemption of investment goods to the application of corporate income tax incentives through the application of investment subsidies to reduce the rampant import tax exemption for imported goods of foreign-invested enterprises.

For land revenues

Review land incentives to ensure uniformity between land law, investment law, and other State policies. Clearly identify the beneficiaries of land incentives so that the State's incentives can reach the beneficiaries directly. The incentives must be substantive and should only be implemented for investment projects in the fields of economic, technical, social infrastructure development, environmental protection, and investment in difficult or extremely difficult socio-economic areas.

Tax policies need to be developed in sync with other legal policies to ensure conformity with international practices and deal with the phenomenon of transfer pricing

- Ensure the consistency and synchronization of the legal system and improve the effectiveness of legal documents on taxation. Complete export and import tariffs in accordance with international commitments, selective and time-bound protection for a number of important domestic production industries. Raise the contractor tax rate for foreign enterprises in Vietnam to be on par with the corporate income tax rate. The study used a few consolidated taxes between personal income tax and corporate income tax.
- Consider amending the regulation on the control of the interest rate accordingly: (i) The interest expense ceiling should be applied to all businesses; (ii) Allow businesses to transfer undiscovered interest expense to a subsequent (limited) number of years.

Use flexible tax policies to control foreign investment flows

Corporate income tax incentives need to include more criteria on environmental protection and technology when attracting investment. Corporate income tax refund is applied when enterprises use profits to reinvest in projects that are highly encouraged for investment. Tax income on short-term foreign indirect investment gains (less than 1 year) at different tax rates depending on the term and tax exemption for long-term investments.

- Limit transfer pricing. Vietnam's tax incentives policy must be developed in accordance with international practices and in close cooperation with relevant legal provisions, ensuring consistent and transparent application in accordance with international standards and practices.

5. DISCUSSION AND CONCLUSIONS

The Industrial Revolution 4.0 brings new opportunities and challenges to the entire economy, including FDI. Restructuring the economy, which sets high development goals, and by 2035 Vietnam will become a high-middle-income country and by 2045 a high-income country. The middle-income trap poses many challenges for Vietnam; in particular, the task is to move the country from the current low-middle-income country to the upper middle-income country and become a high-income country as set by 2045. In particular, attracting FDI in line with the country's development needs is considered an important way to avoid the middle-income trap. Vietnam participates in more and more FTAs and international economic treaties, so the opportunity to receive FDI capital also increases stronger. Therefore, the issue of how to attract and select foreign investors in accordance with Vietnam's economic development orientation in the coming time is very important.

The key contents that need to complete the tax policy to attract foreign direct investment in the coming time are: Completing the preferential corporate income tax, export and import tax and land policy in the direction of selective, not rampant and effective incentives for attracting foreign direct investment. At the same time, tax policies need to be developed in sync with other legal policies to ensure conformity with international practices and deal with the phenomenon of transfer pricing.

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FACTORS AFFECTING FIRMS' FINANCIAL PERFORMANCE – EVIDENCE FROM STEEL FIRMS LISTED ON VIETNAMESE STOCK MARKET

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Abstract: *The study aims to identify the impact of a number of internal and external factors on the financial performance of listed steel firms in Vietnam. The study used Return on Assets and Return on Equity to measure financial performance. The factors include liquidity, financial leverage, level of investment in fixed assets, working capital management efficiency (days sales outstanding and days sales in inventory), sales growth, firm size, firm age and inflation rate. This study is based on a data of 25 listed steel firms in Hanoi and Ho Chi Minh Stoct Exchange over the period of 2016-2021. The regression results indicated that sales growth have a positive significant impact on the firms' financial performance whereas other determinants such as the management of receivable, financial leverage, firm size, firm age and inflation rate have negative effect on the firms' performance. The findings guided to the firms' managers that they should increase sales, improve the working capital efficiency and reduce the use of debt in order to increase the firms' financial performance.*

Keywords: *Financial performance, profitability, return on assets, return on equity.*

1. INTRODUCTION

Financial performance is concerned by both firm managers and investors. In theory and practice, there are a number of factors affecting firms' financial performance. Research on the factors affecting the financial performance of enterprises has been carried out very early in developed economies and now the topic is studied in developing economies. In Vietnam, steel industry is important and this heavy industry has significant constributed to the development of Vietnamese economy. Studying the determinants of financial performance can help firms' managers understand the factors influencing financial performance and suggest solution for improving financial performance. This paper studies the determinants of the financial performance of listed steel firms in Vietnam to examine what factors affect their financial performance and how these factors affect the firms' financial performance. The findings are expected to support the firms' financial managers to improve the financial performance. The paper employs panel regression method to analyze the determinants of financial performance of 25 listed steel firms in Hanoi and Ho Chi Minh stock exchange in the period of 2016-2021.

2. LITERATURE REVIEW

Zeitun and Titan (2007) studied 167 enterprises in Jordan in the period 1989-2003. This study examined the influence of capital structure, firm size, business risk, tax and investment level in fixed asset on firms' performance. The study found that capital structure has a negative impact on firms' performance. Also, the study found a positive relationship of firm size, tax, and firms' performance where as the level of investment in fixed assets have negative impacts on firms' performance.

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Nousheen T. Bhutta and Arshad Hasan (2013) examined the factors influencing profitability of firms in food sectors in Pakistan in the period 2002-2006. The study found a negative relationship of firm size and profitability. However, the level of investment in fixed assets, growth rate and inflation have positive relationship with profitability of the firms. The study believed that the profitability of the food company in Pakistan is strongly affected by the intenal factors.

Adegboyega Afolabi et al (2019) study enterprises in Nigeria in the period 2007-2016, found that financial leverage, firm size, sales growth, GDP growth have positive relationship with financial performance of Nigerian firms.

Sanjay J Bhayani (2020) studied factors affecting profitability of Indian Cement companies in the period 2001-2008. The independent variables include fixed asset turnover, liquidity, firm age, days sales outstanding, sales growth, total assets, financial leverage, interest rate and inflation. The study found significant influences of liquidity, firm age, interest rate and inflation on the Indian Cement companies' profitability.

Dorina Kripa and Dorina Ajasllari (2016) studies the impact of growth rate, financial leverage, liquidity, firm size, the level of investment in fixed assets on performance of Insurance companies in Albania in the period 2008-2013. The research result shown that growth rate has a positive relationship with firm performace whereas liquity, levereage and the level of investment in fixed assets have negative impact on firm performance.

Ngo and Nguyen (2020) studies factors affecting return on assets and return on equity of 27 real estate firms listed on Ho Chi Minh stock exchange in the period 2010-2019. The result shown that asset structure has negative relationship with return on assets and return on equity of the firms whereas financial leverage, firm size and other factors have positive impact.

Doan (2010) studied 428 listed companies in Vietnam stocl market to examine the determinants of capital structure and financial performance. The factors under consideration include business efficiency, business risk, asset structure and firm size. The study also found out the significant relationship of capital structure and financial performance.

To sum up, there are many other studies on the factors affecting enterprises' performance and these papers are based on the basic theories of financial performance and are researched in different industries and economies. The empirical studies in Vietnam have only been conducted recently and the number of studies are small. The quantitative research involving the factors affecting Vietnameses steel firms' performance in the period 2016-2021 has not been done and it is necessary to carry out to contribute results for comparision and development quantitative research in Vietnam. With the specific characteristics of the regulated market economy in Vietnam and the development of steel enterprises in Vietnam, the study inherits previous research and provides suitable model to study the factors affecting performance of steel listed companies in Vietnam.

3. HYPOTHESIS

In order to measure the impact of different factors on the financial performance of listed steel companies in Vietnam, a number of hypotheses are provided:

Hypothesis $H_{1:}$ Liquidity negatively impacts the firms' financial performance.

In several previous studies, liquidity has negatively impact financial performance, however, some studies found a positive impact of liquidity on firnancial performance. If a firm' liquidity is too high, it will present that the firm is maintaining a large amount of capital in current assets, which may not be unnecessary, leading to high costs and reducing capital use efficiency. Thus, high liquidity can negatively affect financial performance.

Hypothesis H_2: Leverage positively impacts the firms' financial performance.

The higher the level of debt use, the lower the financial autonomy of the enterprise and the higher the financial risk of the enterprise. However, if firms use a lot of borrowed capital, firms also have certain advantage, for example, getting a tax shield form interest (Interest tax shield).

Hypothesis H_3: Level of investment in fixed assets positively impacts the firms' financial performance.

There are many studies that have shown that the ratio of fixed assets has an impact on the business performance of the business. Firms which has a large amount invested in fixed assets can create a good foundation for development.

Hypothesis H_4: Days sales out standing negatively impacts the firms' financial performance.

The shorter the average collection period, the shorter the period of time when customers misappropriating the company's capital, in other words, the business can quickly recover the money from the sale, improving the ability to secure the source of money for its operation. The short average collection period is associated with low risk, due to the ability to recover quickly and less bad debt, but at the same time has a negative effect on the size of the revenue (Karamath, 1989). This indicator reflects the management of receivables of enterprises, significantly affecting the efficiency of working capital management, thereby affecting the performance of enterprises.

Hypothesis H_5: Days sales in inventory negatively impacts the firms' financial performance.

Days sales in inventory is the average time it takes for raw materials and inputs to be turned into finished products and sold to customers. Shortening the inventory turnover cycle helps businesses accelerate production and business processes, increase revenue, and save costs related to inventory storage and preservation.

Hypothesis H_6: Sales growth positively impacts the firms' financial performance.

Many previous studies have also found the positive impact of revenue growth on business performance of enterprises. It is easy to understand that the higher the sales, the higher the profitability and thus positively affect the firms' financial performance. However, some studies found a negative relationship between revenue growth and profitability. Because to achieve great growth, businesses must increase costs. If the growth rate of this cost is too large, and larger than the growth rate of revenue, it will not increase profit, thereby negatively affecting operational efficiency.

Hypothesis H_7: Firm size positively impacts the firms' financial performance.

Normally, large-scale enterprises often have better business results than small-scale enterprises because large enterprises have the ability to carry out large projects and have high competitiveness. However, as businesses expand, the management becomes more difficult and costly. There will come a time when advantage of scale is no longer effective: when the increase of output exceeds the market demand, at this point firms cannot increase profits.

Hypothesis H_8: Firm age positively impacts the firms' financial performance.

In generatl, enterprises with older age, long history of operation, more experience in production and business activities, are able to reduce production and management costs, thereby generating more profits. Thus, it has a positive impact on financial performance. There have been many studies examining the impact of this factor on business performance of enterprises. However, some studies such as Agiomirgianakis, Voulgaris, and Papadogonas (2006), Yazdanfar (2013) find a negative relationship between operating time and firm profitability. This can be explained by the fact that young businesses are better able to adapt and change to fit the market, while older businesses with operating models may no longer be appropriate. With the market, it takes a long time to change the apparatus and production line.

Hypothesis H_9: Inflation negatively impacts the firms' financial performance.

High inflation has the impact of increasing the prices of goods and input materials, directly affecting the production and business costs of enterprises, affecting production costs and selling prices of enterprises' products and significant impact on the company's revenue. Many studies have shown a negative relationship between inflation and performance. However, according to Keynesian theory, moderate inflation has a favorable effect on production especially when unemployment is high. Rising prices increase business profit expectations and can have a positive effect when the rate of price increase is higher than the rate of increase in production costs.

4. METHODOLOGY

The quantitative method has been used. The regression methods on the panel data are used include FEM (fixed-effect model) and Driscoll and Kraay standard error approach. Factors affecting firms' performance include liquidity, financial leverage, level of investment in fixed assets, working capital management efficiency (days sales outstanding and days sales in inventory), sales growth, firm size, firm age and inflation.

Model 1 – Factors affecting ROA

$$ROA_{it} = \alpha + \beta_1 CR_{it} + \beta_2 LEV_{it} + \beta_3 FAR_{it} + \beta_4 DSO_{it} + \beta_5 DSI_{it} + \beta_6 SG_{it} + \beta_7 SIZE_{it} + \beta_8 Ln(AGE)_{it} + \beta_9 IR_{it} + \varepsilon_{it}$$

Model 2 – Factors affecting ROE

$$ROE_{it} = \alpha + \beta_1 CR_{it} + \beta_2 LEV_{it} + \beta_3 FAR_{it} + \beta_4 DSO_{it} + \beta_5 DSI_{it} + \beta_6 SG_{it} + \beta_7 SIZE_{it} + \beta_8 Ln(AGE)_{it} + \beta_9 IR_{it} + \varepsilon_{it}$$

Where:

i: Firm

t: Time period

ROA: Return on assets

ROE: Return on equity

CR: Liquidity (Current ratio)

LEV: Leverage (Debt ratio)

FAR: Level of investment in fixed assets

DSO: Days sales outstanding

DSI: Days sales in inventory

SG: Sales growth

SIZE: Firm size

$Ln(AGE)_{it}$: Ln(firm age)

IR: Inflation rate

ε: Errors

α: Intercept factor

β: Slope coefficient for independent variable

Table 1. Measurement of variables

Dependent variables	**Variables**	**Measurement**
Return on Assets	ROA	Net profit/Total assets
Return on Equity	ROE	Net profit/Equity
Independent variables	**Variables**	**Measurement**
Liquidity	CR	Current assets/Current liabilities
Leverage	LEV	Liabilities/Total assets
Level of investment in fixed assets	FAR	Fixed assets/Total assets
Days sales oustanding	DSO	360xAccount receivables/Sales
Days sales in inventory	DSI	360xInventory/Cost of good sold
Sales growth	SG	$(Sales_t - Sales_{t-1})/Sales_{t-1}$
Firm size	SIZE	Ln(Total assets)
Firm age	Ln(AGE)	Ln(Age)
Inflation	IR	Inflation rate

The data has been used by the study from the audited financial statements of Vietnamese steel firms that are listed on "Hanoi Stock Exchange and Ho Chi Minh Stock Exchange" in the period from 2016 to 2021. There are 25 firms are chosen with enough available information for the period 2016-2021. Table 2 presents statistic information of data including 150 observations of 25 listed steel firms over 6 years from 2016 to 2021. The ROA has .0286 mean value along with .1164 standard deviation, -.5794 minimum and .2545 maximum values. The ROE has .1189 mean value along with .3073 standard deviation, -1.2385 minimum and 1.8188 maximum values. It illustrates that a number of steel firms in the research sample have bad performance in comparision with other firms. It is clear that there are different performances among firms in the industry. In addition, the minimum, maximum, standard deviation and mean values of other variables are mentioned in Table 2.

Table 2. Data descriptive statistic

Variable	Obs	Mean Std.	Dev.	Min	Max
ROA	150	.0286642	.1164058	-.5794	.2545
ROE	150	.1189692	.3073733	-1.2385	1.8188
CR	150	1.607705	4.466258	.0321	55.5181
FAR	150	.253199	.1860674	.0247	.8624
LEV	150	.782637	.896962	.2108	7.637
DSO	149	153.1165	577.4704	4.253	4777.479
DSI	149	76.48307	66.74214	.7865	369.0178
SG	150	.1108947	.3486005	-1	1.4372
SIZE	150	14.147	1.768742	10.5108	18.8581
IR	150	.0293	.0059342	.0183	.0354
Ln(AGE)	150	2.979219	.473442	2.0794	4.1271

Based on Table 3, it can be seen that CR, SG, SIZE and Ln(AGE) have positive impacts on ROA, whereas LEV, FAR, DSO, DSI and IR have negative impacts on ROA. On the other hand, DSO, DSI, SIZE and Ln(AGE) have positive impacts on ROE, whereas CR, LEV, FAR, SG and IR have negative impacts on ROE.

Table 3. Correlation Coefficient

	ROA	ROE	CR	FAR	LEV	DSO	DSI	SG	SIZE	Ln(AGE)	IR
ROA	1.0000										
ROE	0.1773*	1.0000									
	0.0299										
CR	0.0481	-0.0155	1.0000								
	0.5588	0.8508									
FAR	-0.1173	-0.1162	-0.0442	1.0000							
	0.1529	0.1569	0.5915								
LEV	-0.7131*	-0.0102	-0.0794	0.2098*	1.0000						
	0.0000	0.9010	0.3341	0.0100							
DSO	-0.7967*	0.2152*	-0.0602	0.0918	0.8076*	1.0000					
	0.0000	0.0084	0.4655	0.2657	0.0000						
DSI	-0.2634*	0.0049	-0.0518	-0.0877	0.2827*	0.2891*	1.0000				
	0.0012	0.9528	0.5308	0.2876	0.0005	0.0003					
SG	0.4250*	0.1396	-0.0275	0.2036*	-0.1606*	-0.3093*	-0.3071*	1.0000			
	0.0000	0.0883	0.7382	0.0125	0.0496	0.0001	0.0001				
SIZE	0.2068*	0.1253	-0.0961	-0.0119	-0.1096	-0.1397	0.0171	0.2405*	1.0000		
	0.0111	0.1267	0.2422	0.8850	0.1820	0.0892	0.8356	0.0030			
Ln(AGE)	0.0743	0.0393	-0.0457	-0.4713*	-0.0467	-0.0484	-0.0366	-0.1033	0.2111*	1.0000	
	0.3661	0.6329	0.5790	0.0000	0.5700	0.5579	0.6579	0.2086	0.0095		

IR	-0.0383	-0.1276	-0.1515	0.0184	-0.0471	-0.0788	-0.0723	0.0120	-0.0065	-0.0904	1.0000
	0.6417	0.1198	0.0642	0.8230	0.5674	0.3397	0.3809	0.8843	0.9367	0.2713	

** Significance at 5%.*

Source: Peason Correlation Coefficents from data using STATA

5. RESULT

The results show that the variance inflation factor (VIF) values are less than 5 of all the variables that mean no issue of multicollinearity problem in the data. These values are mentioned in Table 4.

Table 4. Variance Inflation Factor

Variable	VIF	1/VIF
LEV	3.21	0.311207
DSO	3.21	0.311874
FAR	1.56	0.640009
Ln(AGE)	1.46	0.685019
SG	1.37	0.728923
SDI	1.23	0.810503
SIZE	1.16	0.859235
IR	1.06	0.944100
CR	1.05	0.948162
Mean VIF	**1.70**	

To check the appropriate model among the fixed and random models, Hausman test has been used and the results indicated that the value of probability is less than 0.05. Thus, reject the null hypothesis that describes the random effect is appropriate. The fixed-effect model is appropriate in this study. These values are shown in Table 5.

Table 5. Hausman test

Model 1:	
Chi-square test value	19.18
P-value	0.0139
Model 2:	
Chi-square test value	12.97
P-value	0.01127

To deal with the heteroskedasticity and auto corelation in the models, the Driscoll and Kraay standard error approach is used. The result is shown in the following table:

Table 6. The regression with Driscoll and Kraay standard error

	Model 1 (ROA)			
	Beta	**S.D.**	**t**	**P>t**
CR	-.0001347	.0005934	-0.23	0.822

FAR	.0170423	.0506229	0.34	0.739
LEV	-.0291511**	.0099995	-2.92	0.008
DSO	-.0000733***	.0000141	-5.21	0.000
DSI	-.0000323	.0001604	-0.20	0.842
SG	.0447946**	.0159897	2.80	0.010
SIZE	-.0384385**	.0130042	-2.96	0.007
LnAGE	-.0943359*	.0546847	-1.73	0.097
IR	-3.176959***	.3746674	-8.48	0.000
_cons	.9772556***	.2797975	3.49	0.002
Prob > F	0.0000			
R-squared	0.3098			
	Model 2 (ROE)			
	Beta	**S.D.**	**t**	**P>t**
CR	-.0030872**	.0011066	-2.79	0.010
FAR	-.4039849	.4855584	-0.83	0.414
LEV	-.2960114***	.0596728	-4.96	0.000
DSO	.0001785***	.0000403	4.43	0.000
DSI	-.0006562	.000696	-0.94	0.355
SG	.1851713	.1123689	1.65	0.112
SIZE	-.2603386**	.0856597	-3.04	0.006
LnAGE	.2145741	.524744	0.41	0.686
IR	-9.029804	5.401232	-1.67	0.108
_cons	3.777727***	.7913398	4.77	0.000
Prob > F	0.0000			
R-squared	0.2622			
**** p<.01, ** p<.05, * p<.1*				

6. DISCUSSION AND CONCLUSION

Both models have Prob>F is 0.0000, proving that the model is suitable and has good explanations. Based on the result from Table 6, the firms' sales growth (SG) have positive effect on firms' performance while the other variables: liquidity (CR), financial leverage (LEV), firm size (SIZE), firm age (AGE) and inflation have negative impact on firms' performance.

The regression shows that there is a negative impact of liquidity (CR) on ROE at 5% significant level, however, there is no significant impact of liquidity on ROA. This result suggests that increasing liquidity ratio have negative impact on the firm profitability (ROA). The finding of the study is not in line with the result of Afolabi et al (2019) and Bhayani (2020) who concluded that the liquidity had positive significant relationship with ROA and ROE. However, it is in agreement with Sanjay J Bhayani who also found as negative significant effect of liquidity on firms' performance.

The study does not find a significant impact of the level of investment in fixed assets on the firms' performance.

The regression result presents that the impact of financial leverage on both ROA and ROE is negative at the significant level of 5% and 1% respectively. The negative relationship can be understood that if the enterprise uses a lot of debt, it will have a negative impact, reducing operational efficiency.

The more debt is used, the lower the ROA and ROE. This is consistent with the previous studies, especially with studies in developing countries, such as the study of Ong Tze San (2011), Abor (2005), Zeitun and Tian (2007), Margaritis and Psillaki (2007), Kipesha and Moshi (2014), Doan Ngoc Phuc (2014). This result is reasonable and unstandable because currently, the debt ratio of many listed steel companies is very high, and the excessive use of loans creates great pressure on debt repayment obligations. At the same time, obstacles in market factors and demand for output products make it difficult for the main businesses of listed steel companies, so the use of high financial leverage does not create benefits for businesses.

According to the theory of capital structure, when businesses use a lot of debt, they will benefit from tax shields. However, the use of financial leverage is often likened to a double-edged sword, it can help businesses increase profits, but at the same time, it also creates pressure to pay due debts and can bring businesses to the bankruptcy status. Many enterprises are too dependent on debt, especially short-term debt. Using too much debt presents the imbalance in capital structure, potentially leading to high level of financial risk relating to the possibility of financial distress and the risk of bankruptcy if the enterprise does not maintain effective business operations. Although there are many listed companies with high levels of financial leverage, they have not been able to promote the positive impact of debt use.

The result shows that there is a negative significant impact of receivable managemetn (DSO) on ROA, wherease there is a positive significant effect of DSO on ROE. This means that, reducing the average collection period can increase the firms' profitability (ROA). This result is consistent with the theory of corporate financial management and is similar to previous studies, such as the study of Dong and Su (2010), Mumtaz et al (2011), Ashraf (2012), Gull et al (2013), Bui Ngoc Toan et al (2016). The sooner businesses collect money from customers, the more money businesses have to reinvest, thereby increasing sales and improving profitability.

The regression results present that the inventory management (DSI) negatively impact firms' performance (ROA and ROE), however, there is not statistically significant. In theory, when a firm can reduce its days sales in inventory (DSI), it can positively impact its profitability. In business cycle, the working capital of enterprises is transformed through stages: from cash, to inventory capital including raw materials and input goods, through the production process to form finished products and goods; capital in the receivables when selling on credit and return to the original cash form when the sale proceeds. Thus, it can be seen that, in theory, the shorter the inventory turnover period, the higher the working management efficiency, profitability and business results.

According to the regression result, the effect of sales growth on ROA is positive significant, however, there is no significant impact of sales growth on ROE. This illustrates that increasing sales growth can help firms increase its profitability (ROA). This is in line with the theory of financial management and the practice of firms.

The study finds a negative significant impact of firm size on both ROA and ROE. The negative relationship is in line with the studies of Buhutta và Hasan (2013), A. K. Salman and D. Yazdanfar (2012), Farah Margaretha and Nina Supartika (2016). In fact, it is not true that large-scale enterprises always achieve high business result. Large-scale enterprises also have difficulties. Actually, the larger the entereprise, the more difficult to effectivelly manage its operation, organizational apparatus and resources.

The regression reveals that there is a negative significant impact of firm age (AGE) on ROA, however, there is no significant relationship between firm age and ROE. In fact, it is not always the case that older firms will have higher ROA or higher operating efficiency compared to younger enterprises. Newly operated enterprises or young firms may have more advantages than long-standing enterprises, for example, there are innovation and the application of new, advanced and modern technologies, young managers who are dynamic and creative with new business ideas and able to access more information and develop bolder and more flexible strategies.

The study finds a negative significant effect of inflation on ROA, whereas there is no significant impact of inflation on ROE. It is can understanded that, increasing inflation rate will negatively impact on the firms' ROA. It is in line with theory and practice.

In conclusion, the study examines the impact of internal and external factors on performance of Vietnamese listed steel firm. The regression results shown that there is positive significant effect of sale growth on the firms' performance while there are negative significant impacts of inflation rate, firm age, firm size, financial leverage and receivable management on the firms' performance. To increase the firms'performance, these firms should increase sales, focus on reveiveble management to reduce collection period, reduce the use of debt.

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SOLUTIONS TO STRENGTHEN WORKING CAPITAL MANAGEMENT AT TRUONG AN COMPANY

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Abstract: *Strengthening working capital management is a very difficult and complicated problem in both theory and practice that every business needs to solve to help its long-term and sustainable development. Through the process of studying the current situation of working capital efficiency at Truong An Company, the author has proposed some solutions to enhance working capital management at the company such as determining capital demands in cash, determining inventory demands so that businesses can plan to use capital effectively.*

Keyword: *Working capital management.*

1. INTRODUCTION

To conduct production and business, except for means of labor, enterprises need the subject of labor. Unlike means of labor, subjects of labor (such as raw materials, semi-finished products...) only participate in a manufacturing process and do not keep the original physical form, its value convert entirely, once into the product value. The above-mentioned subjects of labor, in terms of physical form, are called current assets, and in terms of value, they are called working capital of the enterprise. Thus it can be understood: Working capital is the total amount of advance payment that an enterprise spends to invest to form regular current assets which is necessary for production and business activities of the enterprise.

Current assets are short-term and permanent assets in the production and business process of the enterprise. In the balance sheet of a business, current assets are represented in the cash section, highly liquid securities, accounts receivable and inventory reserves, etc. Working capital always changes form continuously through each stage of production and business process. A normal business cycle is divided into two stages: production and circulation. In the production stage, there are two parts, which are storage and production, but there are two components that exist in the form of kind: raw materials, work-in-progress and finished goods ready for sale. In the stage of circulation, working capital exists in the form of receivables and capital in cash. In the process of participating in business activities, because it is governed by the characteristics of current assets, the working capital of the enterprise has the following characteristics:

- Working capital in the process of circulation always changes form of expression.

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- Working capital transfers the full value immediately into the product and is fully refunded after each business cycle.
- Working capital completes a cycle after a business cycle.

Therefore, in the process of production and business activities, good management of working capital will help enterprises effectively use this working capital.

2. CURRENT STATUS OF WORKING CAPITAL EFFICIENCY AND EFFECTIVENESS

The general goal of good management of each type of working capital above is also to improve the efficiency of using working capital in particular and business capital in general. To have an overall view, to evaluate the organization level and use of working capital more clearly, we use the performance indicators of working capital. These are always useful tools for businesses.

Table 1. Some indicators to evaluate working capital management

Indicator	Unit	31/12/2021	31/12/2020	Difference	
				Value	Ratio (%)
Net revenues in the period	VND	72,731,177,313	72,991,318,042	-260,140,729	-0.36
Earning before tax	VND	400,671,755	437,352,845	-36,681,090	-8.39
Earning after tax	VND	306,043,136	341,135,219	-35,092,083	-10.29
Average working capital	VND	21150071360	20683378467	466692893.5	2.26
1. Working capital turnover	Round	3.44	3.53	-0.09	-2.56
2. Day working capital	Day	104.69	102.01	2.67	2.62
3. Amount of working capital	VND	0.29	0.28	0.01	2.62
4. Ratio of earning before tax to working capital	%	1.89	2.11	-0.22	-10.41
5. Ratio of earning after tax to working capital	%	1.45	1.65	-0.20	-12.27
6. Working capital saving	VND	540408361.3			

Source: Accounting department - Truong An company

Working capital efficiency: In 2020, working capital turnover was 3.53 rounds, whereas it witnessed a decrease by 0.09 rounds in 2021, with a decline rate of 2.56%. Because of the decrease of net sales by 2.02% and the increase of average working capital by 2.26%, the working capital turnover period increased from 102.01 days to 104.69 days. The reason for the above phenomenon was that while the average amount of working capital used over the years tended to rise, the net revenue in the period went down. The slight reduction in the company's working capital turnover, causing the turnover period to increase, would lead to an upward trend in the cost of using working capital of the company.

The company's working capital in 2020 is 0.28 VND. This target increased by 2.62% in 2021 to 0.29 VND, which means that, to generate the same amount of net revenue, the company needs more working capital in 2021 than in 2020. That also shows the efficiency of the company's working capital tend to decrease. For a more specific consideration, let's calculate the amount of working capital that the company saved in the past year:

$$VTK = 72{,}731{,}177{,}313 \times (104.69 - 102.01) = 540408361.3 \text{ (VND)}$$

A positive savings level means that the company is not saving the working capital. This shows a waste of working capital, partly demonstrate the ineffective working capital management of the company.

In terms of using effectively working capital: The ratio of pre-tax profit to working capital as shown in Table 1. In 2020, on average, the company using 100 dong of working capital generated 2.11 VND of pre-tax profit. This amount decreased to 1.89 dong. Thus, compared to 2020, it decreased by 0.22 VND, meaning that 100 VND of working capital put into production and business activities in 2021 would earn 0.22 VND less in pre-tax profit compared to that of 2020.

The ratio of profit after tax to working capital according to Table 1, in 2020, for every 100 VND of working capital on average, 1.65 VND of profit after tax would be generated in 2020. By 2021, it would decrease by 12.27% to 1.45 VND.

Through the analysis of the above indicators, it is shown that the efficiency of using working capital at Truong An Company in 2021 compared to 2020 is still limited. The working capital management is not good, leading to the decrease in the profit after tax of the enterprise. The problem with the company is that it is necessary to have more radical specific plans to increase the efficiency of using working capital for the company. The company has built its own measures and used tools to manage the amount of goods in the warehouse which is similar with all purchases being approved by the board of directors, or conducted to check the quantity of actual inventory each month. The Company's storage costs are also significantly saved by taking advantage of the warehouse, which is the director's own property being put into service for business activities.

3. SOLUTIONS TO STRENGTHEN THE COMPANY'S WORKING CAPITAL MANAGEMENT

Truong An Company has not focused on forecasting working capital needs, especially and working capital in cash and inventory. This has led to an unstable working capital situation, the gradual increase in inventory year by year. Therefore, in many cases, the Company had to lose many of its benefits because it had to raise a shortage of working capital or deal with the outstanding working capital. Obviously, there isn't any one-size-fits-all framework for determining working capital needs. Therefore, the Company must determine for itself a method based on specific characteristics and situations to promote the effect of forecasting.

- Determining capital needs in cash

The statement of cash flows is used to forecast the amount of cash needed for the period. This is the type of general financial statement that most generally reflects the formation and use of money of the Company in the reporting period. Based on this report, the readers and users of the report can see the origin of the amount of money, the expenditure of the Company and assess the solvency as well as forecast the cash flow of the next period. Although the authorities have not considered cash flows as a required financial statement to be submitted at the end of each financial year of the Company, this report is an 'advisor' to management in making financial decisions.

At the Company, cash flows mainly come from operating and financial activities, so it is relatively easy to prepare and use a statement of cash flows. Specifically, cash flow into the treasury from operating activities is mainly proceeds from sales; cash outflows for business activities include money to buy goods and services, salaries for employees, money spent on sales and business management...; cash outflow for financial activities to pay interest on loans to banks. In conclusion, the Company can prepare a statement of cash flows using the direct method.

The general accounting department will record and summarize cash inflows and outflows of three business activities: operating, investing, and financing. Then presented by summarizing directly from the accounts according to each content of revenues and expenditures from the accounting books. After the report of this period has been prepared, the general accounting department will compile the calculated data into a hypothetical cash flow statement for the next period. If the closing balance is negative, the Company's expenses in the period are not guaranteed to be paid. If the closing balance is positive, it indicates that the Company still ensures solvency and has an amount of money to enter the next period's treasury. The cash flow statement will be submitted and disclosed by the accounting department to the Board of Directors at the end of each quarter and the end of the financial year of the Company so that information about the Company's solvency is fully and promptly captured by the Board of Directors. Based on the cash flow statement, the Company has also gradually shifted from short-term to long-term cash demand forecasting, with a plan.

The cash flow statement and other financial statements play an important role in providing information on assessing the Company's financial position. This report is not only useful for managers but also essential for banks and investors. Through the report, the Company's Board of Directors can know how current money is generated and spent, which activities bring the most benefits, and forecast future cash flows. The cash flow statement helps the bank assess the Company's ability to repay its debts, and whether the Company's cash-generating activities are really sustainable. Hence, the preparation and use of cash flow statements helps the Company to forecast future cash flows to make more accurate decisions in mobilizing, and replenishing funds in the long term or looking for investment solutions to increase the budget surplus. Additionally, it is also a big turning point, marking that the Company has moved from the stage of only preparing and filing the types of reports required by state agencies to establish and use those types of financial statements that are beneficial to the Company.

- Estimating the inventory demand

To forecast the optimal inventory level, a company must consider both past period sales data as well as customer and market demand. The sales of previous periods are aggregated by the general accounting department on the input-output-inventory balance sheet. This balance sheet contains information about the names of the products being sold, as well as the quantity and value of goods received, issued, or currently in-stock for each item. The accounting department derives this information via vouchers such as goods delivery notes, goods receipts, and warehouse reports.

At the end of each month, quarter, or whenever a purchasing decision needs to be made, the accounting department will provide the board of directors and the sales department with sales figures compiled from the balance sheet.

Furthermore, in order to gather market demand information, a market research department can be sent on delivery trucks when delivering to nearby provinces, asking customers for information on their sales as well as their quantity of unsold in-stock goods. Companies can even request customers to send emails regarding their sales at the end of each quarter in order to save time and make data collection easier. Then, based on the information gathered, the directors and the sales department will make decisions about the optimal amount of goods to stock.

To be able to forecast working capital demand using the aforementioned methods, especially in terms of cash and inventory demand, departments must cooperate closely and smoothly with one another. To be more specific, the accounting department must promptly provide the necessary information on cash flow statements as well as data on received, issued, or in-stock goods so that the sales department and board of directors can immediately make decisions regarding working capital. Collaboration between departments is the most essential element in achieving the company's common goals.

In addition, the board of directors also needs to adopt a more modern business mindset, place greater emphasis on planning and forecasting. Besides, the company needs a market division which operates actively and effectively. These market employees must possess the necessary knowledge and skills required for the job to be able to present accurate sources of information to the board of directors for their decision making.

- Simplifying inventory management

The Company can simplify their inventory management by using barcode scanners. Up to now, they have continued to manage imported, exported, and inventory goods by manual techniques that significantly rely on the care and accuracy of the warehouse keeper without the use of technology in management. In fact, the traditional methods still lead the Company to lose goods. Although the cause has been found, in order to resolve these cases, in the long run, the Company still needs a solution to manage the loss of goods and make the management of inventories easier and less dependent on people.

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COVID-19 AND FACTORS IMPACT ON VOLATILITY ENERGY STOCK PRICE: CASE OF OIL AND GAS COMPANIES

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Abstract: *The objective of this paper is to study the factors that affect the stock price volatility of the energy industry, especially the oil and gas industry, in the context of Covid19. Macro data, oil prices and quarterly financial statements from 2017-2021 of oil and gas companies trading on HOSE and HNX (including Upcom) of Vietnam stock market are used in this study. Two estimation methods, GLS and GMM, are used for the regression equation. The research results show that asset size, world crude oil price, economic growth rate and Covid19 are important factors affecting stock price volatility in both estimation methods. Higher economic growth and larger companies have lower volatility in oil and gas share prices. In contrast, higher world crude oil prices and the covid19 pandemic have had the effect of increasing the share price volatility of this sector. The implication from the study confirms the foresight of Vietnamese managers in early launching and well implementing the dual goal of maintaining economic growth and controlling the epidemic in recent years.*

Keywords: *Total assets, return on equity, economic growth rate, inflation, oil price, Covid-19.*

1. INTRODUCTION

The oil and gas industry has played an important role in the economic development of Vietnam in recent years (Phuong, 2021). According to the General Statistics of Vietnam, the cost of petroleum accounts for about 3.52% of the total production cost of the whole economy, especially in some industries, this ratio can account for 30%-40% (GSO, 2017- 2021). Besides, the oil and gas industry is one of the industries with the largest contribution to Vietnam's state budget in the period 2018-2020 (Vietnam Report, 2020).

The Covid-19 pandemic first appeared in Vietnam in the first quarter of 2020 but the first major lockdown was implemented in the second quarter of 2020 and two quarters in mid-2021. Measures to prevent the outbreak of Covid-19 in Vietnam have impacted the entire economy and sectors (Phuong, 2022). Restricting the movement of people and businesses during the pandemic has caused a sharp drop in demand for oil and gas commodities (IEA, 2020) and caused volatility in the share price of this industry. Therefore, in the context of Covid-19, understanding the factors affecting stock price movements of the oil and gas industry plays an important role.

Researches around the world related to the factors affecting stock price volatility are mainly carried out in areas such as banking in the Mediterranean (Camilleri et al, 2018), industrial production in Bursa Malaysia (Zainudin et al, 2018), non-financial companies in Pakistan (Shah & Noreen, 2016) and Muslim companies and listed companies in the United States (Suwanhirunkul & Masih, 2018). In Vietnam, research on this topic mainly focuses on the whole market in different periods (Vinh, 2014; Hung et al, 2019) but there have been no published studies on the factors affecting the volatility of energy or oil and gas stock prices. Therefore, this article will study Covid-19 and the factors affecting the volatility of energy stock prices, specifically Vietnam's oil and gas industry.

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The contribution of this study to the literature is expressed through four aspects. Firstly, the study provides insights into factors including the impact of Covid19 on volatility of stock prices of oil and gas companies in Vietnam. Second, previous studies mainly used financial factors affecting the volatility of stock prices of the oil and gas industry, but this study adds the role of market factors (world crude oil price) and macro factors. Third, this study provides empirical evidence of oil and gas stock price volatility in a marginal stock market in the context of Covid19. Finally, the implication from the study confirms the foresight of Vietnamese managers in setting out and well implementing the dual goals of maintaining economic growth and controlling the epidemic in recent years.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

Literature Review

Portfolio theory suggests that the selection of a portfolio should be based on the relationship between risk and return (Markowitz, 1952). In fact, the risk and return relationship in Markowitz's theory is often used by investors when selecting individual stocks when valuing assets (Hens & Naebi, 2021). Usually risk is measured through the price movement of stocks (Phuong, 2021), therefore, stock price volatility is an important component of asset pricing because it plays an important role in the risk allocation of financial assets (Rupande et al, 2019).

Fisher's interest theory (1930) shows that interest rates and inflation are closely related. Therefore, the management of macroeconomics, the expected inflation variable is very important to make decisions on interest rates and monetary policy, especially in a recession (Fisher, 1933; Dimand, 2019).

Previous Research Studies

Researches around the world related to the factors affecting stock price volatility are mainly carried out in areas such as banking (Camilleri et al, 2018), industrial production (Zainudin et al, 2018), non-financial firms (Shah & Noreen, 2016) and stocks of Islamic companies (Suwanhirunkul & Masih, 2018).

Studying 16 banks in the Mediterranean (Mediterranean) from 2001-2016, Camilleri et al (2018) showed that dividend yield is more significant than dividend payout ratio in explaining the volatility of banking stock prices. In addition, the model results from the subsample of Camilleri et al (2018) indicate that bank size and stock price volatility are negatively related. The ratio of change in total assets at the end of the year compared to the beginning of the year and the stock price volatility has a positive relationship. However, Camilleri et al (2018) did not find the impact of long-term debt to total assets and the volatility of earnings before tax and interest on the stock price volatility of the banking industry.

Shah and Noreen (2016) studied 50 non-financial companies in Pakistan during the period 2005-2012 and found that dividend policy, firm size and long-term debt negatively affect stock price volatility. In contrast, asset growth, earnings volatility, and earnings per share positively influence stock price volatility. The regression method used by Shah and Noreen (2016) is EGLS for panel data. However, these two authors have not used macro variables in the research model.

Suwanhirunkul and Masih (2018) use research GMM estimates for two samples of companies listed in the Dow Jones U.S. Index and Islamic stocks based on the Dow Jones Islamic U.S. Index. Research results of Suwanhirunkul and Masih (2018) in both samples show that dividend policy contributes only a small part in explaining stock price volatility. For stocks listed on the Dow Jones U.S. Index, two variables firm size and earnings have a negative impact on stock price volatility, while the ratio of long-term debt to total assets positively affects this group of stocks. For Islamic stocks listed on the Dow Jones Islamic U.S. Index, Suwanhirunkul and Masih (2018) show that dividend yield and stock price volatility have a positive relationship, on the contrary, firm size has a negative impact on the price movement of this group of stocks.

Zainudin et al (2018) studies industrial manufacturing companies listed on Bursa Malaysia in the period 2003-2012. The results show that dividend yield, payout ratio and firm size have a negative relationship with stock price volatility in the entire sample. In contrast, earnings volatility and growth in assets have a positive relationship with stock price volatility in full sample. For the sub-samples, earnings volatility has a positive effect and payout ratio has a negative effect on stock price volatility of the manufacturing industry.

Using the time series model in the GARCH-MIDAS model, Wang et al (2020) indicates that extreme shocks have a significant impact on stock volatility. In addition, stock price movements may be affected more by asymmetric effects than by extreme volatility effects in both the long and short term.

Studying 37 US banks in the period 2013-2017, Tasnia et al (2020) shows that tax payments and stock price volatility have a positive relationship. This implies that a socially responsible bank through paying taxes can affect the stock price movements of these banks.

In Vietnam, research on this topic is mainly focused on the whole market without focusing on a specific industry (Vinh, 2014; Hung et al, 2019).

Using the POLS, REM and FEM estimates on panel data models, Vinh (2014) shows that the stock price movement on the Hochiminh Stock Exchange in the period 2008-2012, the FEM estimate is consistent with consistent with research data. In which, long-term debt ratio and stock price volatility have a positive relationship. The remaining factors that negatively affect stock price volatility include operating efficiency, company size, asset growth, dividend payout ratio and dividend yield. The limitation in Vinh's study (2014) is that macro factors have not been used in the research model.

Hung et al (2019) using OLS regression for 248 companies listed on the Vietnam stock market in the period 2014-2017 showed that long-term debt and growth have a positive relationship with stock price change but they have not found the effect of firm size on stock price change.

Recently, Phuong's research (2021) has published the impact of the Covid19 pandemic on the extraordinary returns and cumulative abnormal returns of Vietnam's oil and gas stocks. Phuong (2021) found that the Covid19 pandemic had a negative impact on extraordinary profits, but this impact tends to diminish over outbreaks of this pandemic.

Based on a review of foreign studies and studies in the Vietnam stock market on the factors affecting the volatility of stock prices, the studies on this topic for the oil and gas sector in covid19 context is very few. Therefore, this article will study Covid-19 and the factors affecting the stock volatility of oil and gas companies in Vietnam.

3. PROPOSED MODEL AND METHODOLOGY

Proposed Model

Based on the model of previous publications including: Vinh (2014), Shah and Noreen (2016), Camilleri et al (2018), Suwanhirunkul and Masih (2018), Zainudin et al (2018), this article adds macro factors to the research model. The proposed research model has the form:

$$\text{volprice}_{i,t} = \beta_0 + \beta_1\text{profit}_{i,t} + \beta_2\text{size}_{i,t} + \beta_3\text{oilprice}_t + \beta_4\text{inflation}_t + \beta_5\text{gdpgr}_t + \beta_6\text{debtlev}_{i,t} + \text{D}_{\text{Covid19}} + \text{u}_{i,t} \quad (1)$$

Where:

Stock price volatility is based on the calculation of Baskin (1989), Camilleri et al (2018).

$$\text{volprice}_{i,t} = \sqrt{\frac{PH_{i,t} - PL_{i,t}}{\left(\frac{PH_{i,t} + PL_{i,t}}{2}\right)^2}}$$

- $PH_{i,t}$ và $PL_{i,t}$ are the highest and lowest prices of stock i in quarter t.
- $\text{profit}_{i,t}$ is the return on equity of stock i in quarter t.
- $\text{size}_{i,t}$ is the natural logarithm of the total assets of stock i in quarter t.
- $\text{debtlev}_{i,t}$ is the debt-to-equity ratio of stock i in quarter t.
- oilprice_t is the price of crude oil in USD/barrel at the end of quarter t.
- inflation_t is the inflation rate in quarter t.
- gdpgr_t is the growth rate of gross domestic product in quarter t.
- D_{Covid19} is a dummy variable, receiving the value 1 in 3 quarters (including 2020Q2, 2021Q2 and 2021Q3), the remaining quarters receive the value 0.

Research data of all variables are collected from the first quarter of 2017 to the fourth quarter of 2021. In which, variables including inflation rate and gross domestic product growth rate are collected from the General Statistics Office of Vietnam (https://www.gso.gov.vn/); crude oil prices are collected quarterly from the website https://www.investing.com/, the company's financial indicators are collected from the websites of oil and gas companies trading on the Vietnam stock market.

Methodology

Previous studies used panel data regression models including pooled ordinary least square (POLS), fixed effects model (FEM) and random effects model (REM) to study the impact of dividend policy on stock price volatility (Shah & Noreen, 2016; Camilleri et al, 2018). The difference of this study compared with previous studies is the addition of macro factors and Covid19 variables to the research model. The two estimation methods used in this study are GLS and GMM. Compared with the POLS, REM and FEM estimates, the advantage of the GLS method is that it can overcome the problem of variable variance (Breusch-Pagan, 1979; Cook & Weisberg, 1982; White, 1980) and autocorrelation (Wooldridge, 2013). Besides, the GMM estimation proposed by Arellano & Bond (1991) can overcome the endogenous phenomenon in the research model. The tests in the GMM model include Arellano & Bond (1991) test for AR (2) to ensure that there is no second order autocorrelation for error; Hansen-J-test for over-identifying restrictions (Hansen 1982).

4. RESEARCH RESULTS

Table 1. Statistical results and VIF

Variable	Obs	Mean	Std. Dev.	Min	Max	VIF	1/VIF
volaprice	300	36.430	20.981	1.464	145.455		
profit	300	0.041	0.117	-0.515	0.293	1.54	0.649
size	300	28.963	1.883	25.010	32	1.48	0.676
oilprice	300	60.744	11.972	35.310	78.230	1.21	0.824
inflation	300	0.634	0.826	-0.920	2.980	1.32	0.760
gdpgr	300	5.244	2.014	1.420	7.380	1.82	0.550
debtlev	300	0.540	0.143	0.202	0.810	1.04	0.963
Covid-19	300	0.250	0.434	0	1		
Mean VIF						1.4	

Source: Author's calculations

The descriptive statistical results in Table 1 show that the highest and lowest return on equity ratios during the research period were GAS in the third quarter of 2019 and PXS in the first quarter of 2020. GAS and APP are the companies with the largest and smallest total assets at the end of 2021 and the end of 2018. PXL and GAS were the companies with the largest debt-to-equity ratio in the second quarter of 2018 and the smallest in the fourth quarter of 2019. During the research period, oil price reached the highest value of 78.23 USD/barrel in the third quarter of 2018 and the lowest value of 35.1 USD/barrel in the second quarter of 2020. The quarterly inflation rate reached the highest value of 2.98 in the fourth quarter of 2019 and the lowest at -0.92 in the second quarter of 2020. The highest GDP growth during this period was 7.38 in the first quarter of 2018 and the lowest at 1.42 in the third quarter of 2021.

Table 2. Correlation analysis

	volaprice	profit	size	oilprice	inflation	gdpgr	debtlev	covid19
volaprice	1							
profit	-0.294	1						
size	-0.278	0.562	1					
oilprice	-0.008	0.070	0.005	1				
inflation	-0.173	0.033	0.003	0.291	1			
gdpgr	-0.292	0.108	0.011	0.398	0.476	1		
debtlev	-0.155	-0.153	-0.021	0.039	0.008	0.052	1	
covid19	0.243	-0.095	-0.010	-0.175	-0.265	-0.520	-0.037	1

Source: Author's calculations

The results of the correlation analysis between the pairs of variables in the research model in Table 2 show that the correlation coefficients are in the range [-0.57; 0.57]. It shows that the variables do not have high correlation problems. Besides, the VIF results in Table 1 show that the VIF values of each variable are all less than 2, which is low, so there is no multicollinearity between the variables. From the results of Table 1 and Table 2, the variables are suitable to be included in the research model.

Table 3. Regression results and tests

Variable	**GLS**	**GMM**
profit	-30.613**	-105.572
size	-2.361***	-25.553*
oilprice	0.178*	0.679**
inflation	-2.112*	-3.098
gdpgr	-1.705***	-2.502***
debtlev	-31.294***	202.474
covid19	9.340***	5.673**
_cons	119.388***	641.977**
N	300	300
Breusch-Pagan / Cook-Weisberg test	chi2(1) = 27.35; Prob > chi2 = 0.000	
White test	chi2(34) = 72.26 Prob > chi2 =0.0001	
Wooldridge test	F(1, 14) = 13.401; Prob > F = 0.0026	
AR(1)		0.005
AR(2)		0.093
Hansen test		0.999

Note: **, **, *** are the 10%, 5% and 1% statistical significance levels, respectively.*

Source: Author's calculations

Breusch-Pagan test (1979), Cook & Weisberg. (1982), and White's test (1980) shows that the model suffers from heteroskedasticity. The results from the Wooldridge test (2013) indicate that the model suffers from autocorrelation in panel data. Therefore, GLS estimation is used to overcome the problem of autocorrelation and heteroskedasticity. Because the model includes both macro and financial factors of the business, it is possible to have endogenous problems. However, GLS estimation cannot handle the endogeneity problem, so GMM estimation is used. The results of AR(2) show that the model is not autocorrelated, Hansen test shows that the instrumental variables are consistent with the research model and solve the endogenous problem in the model. Therefore, the analysis of the results will be based on the GMM estimate.

The results from the GLS and GMM estimates both show that macro, oil prices, business size and the Covid-19 pandemic are important factors affecting the volatility of oil and gas stock prices. In addition, the GLS estimate finds that return on equity, debt ratio and inflation also affect the stock price volatility of this industry.

Size: The variable asset size is statistically significant for both GLS and GMM estimates, showing the role of this variable in stock price volatility of oil and gas companies. A negative coefficient indicates a negative relationship between asset size and stock price volatility. In other words, oil and gas companies with a higher total asset value have lower stock price volatility. This result is similar to previous studies (Vinh, 2014; Shah & Noreen, 2016; Camilleri et al, 2018; Suwanhirunkul & Masih, 2018; Zainudin et al, 2018). This implies that large firms are more resilient to adverse economic developments, so the risk of price volatility of these stocks is also lower than for smaller companies.

Crude oil prices: The models for both estimation methods show the important role of world oil prices in the volatility of stock prices in the oil and gas industry. The world crude oil price and stock price volatility have a positive relationship as shown by the positive regression coefficient of the variable oilprice. The higher the world crude oil price, the higher the stock price volatility of oil and gas companies and vice versa. This result makes perfect sense because the price of oil is an important input material in many production sectors of the economy. Under normal conditions, the increase in world oil prices shows that the demand for energy to serve the economy is increasing. Therefore, companies in the oil and gas industry have the opportunity to increase profits, contributing to the increase in stock price volatility of these companies. Besides, the retail price of gasoline in Vietnam is under the control of the Ministry of Industry and Trade, so when the world oil price is adjusted, the change in domestic gasoline price is also adjusted, which can increase stock price volatility of oil and gas companies.

GDP growth: With statistical significance of 1% in both GLS and GMM estimation models, it has shown that economic growth is an important factor affecting the stock price volatility of the oil and gas industry. The higher the economic growth, the lower the volatility of oil and gas stock prices, other things being equal. It implies that when Vietnam's economy is a small economy compared to the world, maintaining high economic growth will contribute to stabilizing the performance of oil and gas enterprises in a positive direction. As a result, the stock price volatility of these companies will be reduced.

Profit of the firm (Profit): The results from the GLS estimate show that return on equity has an impact on stock volatility at the 5% level of significance. The regression coefficient of the profit variable is negative indicating that net return on equity has a negative relationship with stock price volatility. It shows that the higher the ratio, the lower the stock price volatility. This implies that firms with higher operating results contribute to a lower risk of stock price volatility. This result supports the study of Suwanhirunkul and Masih (2018) on the US stock market but has the opposite sign with the study of Shah and Noreen (2016) on the Pakistani stock market.

Debt-to-total assets ratio (Debtlev): The 1% significant Debtlev variable in the GLS estimation model showed that the debt-to-total asset ratio has a significant impact on stock price volatility. Companies with higher debt-to-assets ratios have lower stock price volatility. It supports the study of Shah and Noreen (2016) on the Pakistani stock market, but does not support Vinh (2014); Suwanhirunkul and Masih (2018); Hung et al (2019). This result can be explained by the average debt-to-total assets ratio of the firms already at 54% (Table 1), so companies with higher-than-average debt ratios are already reflected in their stock prices. Businesses that have the potential to increase debt ratios are more likely to have lower-than-average debt ratios. Therefore, increasing the debt ratio of companies that have this ratio at a lower level will contribute to reducing this stock price volatility.

Inflation: At the 10% significance level in the GLS estimate, the inflation rate has a significant impact on stock price volatility. The regression coefficient of the negative inflation variable indicates that a higher inflation rate helps lower stock price volatility. However, this coefficient is not statistically significant in the GMM model.

The regression coefficients of the Covid19 variable are all positive and statistically significant in both the GLS and GMM models. It shows that the large-scale lockdowns in Vietnam to limit the spread of Covid19 have the effect of increasing stock price volatility in the oil and gas industry. The large-scale lockdown causes socio-economic activities in the economy to be minimized. Both businesses and people have increased online transactions, restricting means of transportation and movement activities, causing a decrease in demand for gasoline. This directly affects the business results of enterprises in general and enterprises in the oil and gas industry in particular. As a result, the pandemic has increased volatility in the share prices of companies in the oil and gas industry. This result adds to the impact of Covid-19 on stock price volatility of Vietnamese oil and gas companies compared to Phuong's study (2021). In addition, it provides more empirical evidence on the impact of covid19 on stock price volatility in a developing country such as Vietnam compared to the study by Wang et al (2020).

5. CONCLUSION

This article studies Covid-19 and identifies the factors affecting the stock price volatility of the oil and gas industry. Quarterly data for the period 2017-2021 is collected including covid19 variables, macro factors, world crude oil prices and financial statements of companies being traded on HOSE and HNX on Vietnam's stock market. Regression of panel data by two estimation methods including GLS and GMM has shown that the volatility of stock prices of companies are affected by the Covid-19 pandemic, economic growth, company size and world crude oil prices. In addition, estimates from the GLS model also show that return on equity, inflation rate and debt-to-total asset ratio have an impact on the stock price volatility of this industry. Based on the results from the research models, the article provides some implications for investors and managers.

For investors: To be able to better control risks when investing in oil and gas businesses, investors, especially individual investors, need to update, monitor movements of world crude oil prices, macro factors, non-financial factors that are detrimental to the economy such as the Covid-19 pandemic and internal factors of each company to make appropriate decisions. A better economy and/or larger companies have lower stock price volatility. Adverse factors to the economy such as the covid19 pandemic and rising oil prices often increase the volatility of stocks in this industry.

For regulators: The factors affecting the stock price volatility of the energy industry, specifically oil and gas companies, are important indicators for managers to refer to when operating policies. Research results show that policies aimed at stabilizing the macro-economy, maintaining economic growth, and taking early measures to control epidemics such as Covid19 are important factors contributing to reducing stock price volatility in the oil and gas industry. It implies that Vietnam's policymakers had the right intentions when they were made early and achieved the dual goal of maintaining economic growth and controlling the Covid19 pandemic well.

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FACTOR AFFECTING THE PROFITABILITY OF LISTED SECURITIES COMPANIES

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Abstract: *This article studies the factors affecting the profitability of securities companies listed on the Hanoi and Ho Chi Minh Stock Exchanges (HNX and HOSE) in the period 2017-2021. The sample includes 24 firms for 5 years, so there are 120 observations in total, and the firm's profitability is represented by the return on equity (ROE). Research results show that: the level of debt use, revenue growth rate and inflation rate have a positive effect, while the ratio of long-term asset investment and the ratio of expenses to revenue have the negative effect to the profitability of securities companies. These findings may reveal that listed securities companies should focus on sale growth and minimize CIR, take advantage of the inflation context to increase ROE.*

Keywords: *Profitability, securities companies, factor affecting.*

1. INTRODUCTION

Vietnam's stock market has undergone a process of formation and development for more than 20 years, so there has been a growth in both quantity and quality. The transformation of Vietnam's economy in the context of deeper and broader integration into the world economy poses challenges to the Vietnamese economy in terms of the efficiency of the stock market. is a member of the market and plays an important role in the operation and development of the stock market: contributing to price stabilization, market regulation and increasing liquidity for securities. Therefore, improving the business performance of securities companies is a fundamental condition and a requirement for the development of the stock market.

Profitability is one of the measures of business performance of enterprises in general and securities companies in particular. In addition, profitability or profitability is the ultimate operational goal of companies. Therefore, the study of factors affecting the profitability of securities companies has important implications for economic entities interested in the financial situation of securities companies. It is the basis for company administrators to have solutions to increase profitability and is the basis for other entities such as state management agencies and investors to make decisions related to the company. securities company. In recent years, the Covid-19 pandemic has had a significant impact on the macro- and micro-economic situation, thereby affecting the stock market, including the activities of securities companies. It can be said that the impact of factors on the profitability of enterprises in general and securities companies in particular in the period 2017-2021 is different from the previous periods.

Based on previous studies combined with objective reality, the article studies the influence of factors on return on equity (ROE) at listed securities companies, in the period of 2017-2021.

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The structure of the article consists of 5 parts: part 1 gives a general introduction, part 2 provides an overview of previous studies, part 3 presents data sets and research methods; section 4 presents experimental results and discussion; Part 5 is the conclusion of the article.

2. LITERATURE REVIEW

There have been many studies in Vietnam and around the world on the factors affecting the profitability of enterprises in different business fields.

Salman and Yazdanfar (2012) study the profitability of Swedish micro firms in the healthcare, transport, trade and metals industries including approximately 87,000 observations of 12,530 micro enterprises from five years, 2006 to 2007. The SUR regression method is applied. The results show that there is a close relationship between the theoretical significance of microeconomics and the profitability of microenterprises of all micro enterprises except the metal industry. Firm growth factors and total productivity are significantly positive for micro firm profitability, while size is inversely related to profitability.

Gashaw (2012) studied the factors affecting the profitability of Ethiopian insurance companies in the period 2003-2011. The results of the regression analysis showed that growth, leverage, capital, size and liquidity were identified as the most important determinants of profitability. In which, per capita growth, size and quantity are proportional to each other. In contrast, liquidity ratio and leverage ratio were negatively correlated, but significantly correlated with profitability. Finally, the age of the company and the value of its tangible assets are not significantly related to profitability.

Nawaz Ahmad (2015) conducted research on 18 Cement companies in Pakistan in the period 2015-2010. The FGLS model is introduced to the data to establish a cause-and-effect relationship between the variables. Research shows that financial leverage has the opposite direction with profitability in the 99% confidence interval.

In order to find out the factors affecting the performance quality of 474 companies listed on HOSE and HNX in the period 2010-2015, research by Trang and Phuong (2018) shows that payment term, financial leverage capital and capital intensity positively affect the profitability of enterprises. In contrast, revenue growth has a negative impact on corporate earnings.

Hang and Linh (2020) research for 27 typical real estate companies listed on HOSE from 2010 to 2019. The obtained results show that asset structure has a negative impact on the profitability of enterprises. On the contrary, many factors such as financial leverage, business size have a positive impact on the profitability of real estate companies.

From the above studies, it is shown that the profitability of enterprises is influenced by the following factors: asset size, financial leverage, asset structure, liquidity, payment term... However, the direction and level of impact of the factors have differences between business fields, regions and research periods.

3. DATA AND METHODOLOGY

3.1. Data

The article uses panel data of 24 securities companies listed on HOSE and HNX in the period 2017-2021. The data source of the enterprise's financial statements is taken from website of the companies to measure the company's profitability, such as net profit per equity (ROE) and indicators affecting the profitability of enterprises such as: Enterprise size (SIZE), sale growth (DT), cost-to-revenue ratio (CPDT), financial leverage (HSN), asset investment fixed (TSDH). A number of macro variables that affect the profits of enterprises such as: inflation rate (INF), economic growth rate (GDP), are collected from https://www.gso.gov.vn/.

3.2. Methodology

We used a package of STATA software version 15 to estimate the regression equation. Three methods were used in this study: POLS, FEM, and REM. The authors conduct F-test to select POLS and FEM models; Hausman (1978) test to choose between FEM and REM. After selecting a suitable model, to test the phenomenon of variance using Breusch and Pagan Lagrangian performed by Greene (2000); to test the phenomenon of autocorrelation given by Wooldridge (2002). The FGLS model is used to correct the defects of the model if autocorrelation or variance changes in the model results.

3.3. Variables

Dependent variable: In this study, author used ratio return on equity (ROE) as dependent variable to identify the profitability of companies.

Independent variable:

Table 1. Independent variables list

No	Independent variable	Symbol	Formula
1	Asset	Size	Ln(Asset)
2	Financial leverage	HSN	$\frac{\text{Total liabilities}}{\text{Total assets}}$
3	Asset structure	TSDH	$\frac{\text{Fixed assets}}{\text{Total assets}}$
4	Sales growth	DT	$\frac{Sales_1 - Sales_0}{Sales_0}$
5	Cost to income rate	CFDT	$\frac{\text{Total cost}}{\text{Total sales}}$
6	economic growth rate	GDP	National statistics
7	Inflation	INF	National statistics

4. RESEARCH RESULTS

4.1. Descriptive statistics on the variables

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROE	120	8.706333	11.20051	-37.01	52.06
Size	120	3004.755	4686.197	141.048	31054.75
HSN	120	.300611	.2483557	.002584	.7456279
TSDH	120	.1408373	.2721379	.0054612	1.62585
DT	120	.4056718	1.014372	-.8461538	7.125
CPDT	120	.5673653	.9577878	-3.439394	7.2
INF	120	.0315	.0036831	.0266	.0354
GDP	120	.0488642	.0266278	.006211	.07076

Resource: Author's evaluation

From the table above, it can be seen that the total number of observations in the model is 120 (corresponding to the research period of 5 years (2017-2021) and the number of companies studied is 24. The statistical table shows profitability. Equity has a value range from -37.01 to 52.06 indicating that the companies in the sample have a fairly diverse ROE, both profitable and loss-making companies, which is a good factor for running results. regression because the firms in the sample are highly representative.

In terms of asset size, the average total assets of securities companies is VND 3,004.76 billion, showing that listed securities companies have a fairly large scale. The range of total assets of securities companies in the sample is quite wide from 141 billion VND to 31,054 billion VND.

Regarding the debt ratio HSN has an average value of 0.3, the highest value is 0.75 and the lowest value is 0.0025, showing that there are quite a lot of companies using debt capital, showing the level of financial independence. not high, but take advantage of financial leverage to increase profits. However, the median value of 0.25 indicates that the number of observations with low debt is still in the majority.

Regarding the rate of investment in long-term assets, TSDH has an average value of 0.14, the highest value of 1.63 and the lowest value of 0.005. This shows that the majority of securities companies do not invest in long-term assets much, but rather invest in short-term assets, in line with the business characteristics of the industry.

Sale growth rate (DT) has an average value of 0.41, the highest value is 7.1 and the lowest value is -0.85 indicating that there are quite a few companies with negative growth rates, however Median value of 1.01 shows that the majority of companies have a positive growth rate, showing that the company's efforts in increasing sales.

The ratio of expenses to revenue (CPDT), the average value is 0.57, the maximum value is 7.2 and the lowest value is -3.43, reflecting the cost management of other securities companies. stable during 2016-2020, however, there are still some observed samples with high cost-to-revenue ratio.

The INF inflation rate has an average value of 0.03, showing that in the period 2016-2020, Vietnam's inflation rate is always at a stable level. The growth rate of gross national product (GDP) has an average value of 0.0488, the highest value is 0.071 and the lowest value is 0.0062.

Table 3. Correlation matrix

	ROE	Size	HSN	TSDH	DT	CPDT	INF	GDP
ROE	1.0000							
Size	0.2587	1.0000						
HSN	0.4537	0.5764	1.0000					
TSDH	-0.2352	-0.1050	-0.3458	1.0000				
DT	0.2936	-0.0760	-0.0539	0.1924	1.0000			
CPDT	-0.5406	-0.1042	-0.1696	-0.0226	-0.1513	1.0000		
INF	0.3223	0.0262	0.0214	-0.0788	0.1231	-0.2731	1.0000	
GDP	0.1634	0.0313	0.0205	-0.0333	0.0541	-0.1938	0.5656	1.0000

(Resource: Author's evaluation)

In general, most of the variables in the model have low correlation with each other (less than 0.5). According to the table above, there are Size and HSN; INF and GDP are correlated. Therefore, to correct the defect, remove Size and GDP from the model and test for multi collinearity through the variance exaggeration factor VIF.

4.2. REGRESSION MODELS

Table 4. OLS model regression results

Source	SS	df	MS			
				Number of obs	=	120
				F(5, 114)	=	26.69
Model	8051.09082	5	1610.21816	Prob > F	=	0.0000
Residual	6877.62197	114	60.3300172	R-squared	=	0.5393
				Adj R-squared	=	0.5191
Total	14928.7128	119	125.451368	Root MSE	=	7.7672

ROE	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
HSN	15.28547	3.11765	4.90	0.000	9.109435	21.46151
TSDH	-6.795243	2.863799	-2.37	0.019	-12.46841	-1.122078
DT	2.903984	.7275181	3.99	0.000	1.462777	4.345192
CPDT	-4.718245	.7946597	-5.94	0.000	-6.29246	-3.14403
INF	484.8589	203.2501	2.39	0.019	82.22193	887.4959
_cons	-8.705776	6.766061	-1.29	0.201	-22.10929	4.697739

Resource: Author's evaluation

From the table 4, we can see that there are 5 statistically significant variables, including: HSN, TSDH, DT, CPDT, and INF that are significant at the α=5% level. In which, Debt Ratio (HSN), Revenue Growth Rate (DT), Inflation Rate (INF) have a positive impact on ROE; Specifically, when the variables HSN, DT, INF increase by 1%, the ROE increases by 15.28%, 2.91%, 484.85%

and vice versa. Variables Investment ratio of assets DH (TSDH), Ratio of expenses to operating revenue (CPDT) have a negative impact on ROE. The remaining two variables, Asset Size (Size), National Growth Rate (GDP) are not statistically significant. The adjustment coefficient R2 of the regression model with ROE is 51.91%, meaning that 51.91% of the variation of ROE is explained through the independent variables of the model, the remaining 48.09% is explained. through out-of-model variables. With the F-statistic = 26.69, corresponding to the p-value = 0.0000, the model is statistically significant.

Table 5. FEM model regression results

```
Fixed-effects (within) regression               Number of obs     =        120
Group variable: NAME1                           Number of groups  =         24

R-sq:                                           Obs per group:
     within  = 0.4966                                         min =          5
     between = 0.3583                                         avg =        5.0
     overall = 0.4292                                         max =          5

                                                F(5,91)           =      17.96
corr(u_i, Xb)  = 0.0902                         Prob > F          =     0.0000
```

ROE	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
HSN	-.7762901	7.432501	-0.10	0.917	-15.54004	13.98746
TSDH	-11.31941	4.2217	-2.68	0.009	-19.7053	-2.933517
DT	2.664769	.7335863	3.63	0.000	1.20759	4.121948
CPDT	-4.711669	.7905716	-5.96	0.000	-6.282042	-3.141296
INF	490.317	184.38	2.66	0.009	124.0688	856.5653
_cons	-3.318882	6.368698	-0.52	0.604	-15.96952	9.331755
sigma_u	6.1090521					
sigma_e	6.8459481					
rho	.44330224	(fraction of variance due to u_i)				

```
F test that all u_i=0: F(23, 91) = 2.42                      Prob > F = 0.0016
```

Resource: Author's evaluation

The results show that, the FEM model has 4/5 variables with statistical significance at 5% significance level, including: TSDH, DT, CPDT, INF.

Table 6. REM model regression results

```
Random-effects GLS regression                   Number of obs     =        120
Group variable: NAME1                           Number of groups  =         24

R-sq:                                           Obs per group:
     within  = 0.4766                                         min =          5
     between = 0.6219                                         avg =        5.0
     overall = 0.5358                                         max =          5

                                                Wald chi2(5)      =     119.33
corr(u_i, X)   = 0 (assumed)                    Prob > chi2       =     0.0000

------------------------------------------------------------------------------
         ROE |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         HSN |   12.68007   3.759007     3.37   0.001     5.312549    20.04758
        TSDH |  -8.588875   3.180817    -2.70   0.007    -14.82316   -2.354588
          DT |   2.692937   .6967569     3.86   0.000     1.327319    4.058555
        CPDT |  -4.789768   .7548748    -6.35   0.000    -6.269296   -3.310241
         INF |   480.2581   184.6312     2.60   0.009     118.3876    842.1286
       _cons |  -7.398831   6.264399    -1.18   0.238    -19.67683    4.879166
-------------+----------------------------------------------------------------
     sigma_u |  3.3281497
     sigma_e |  6.8459481
         rho |  .19116146   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

Resource: Author's evaluation

The results show that the Rem model has 5/5 statistically significant variables with the highest significance level of 1%.

Table 7. Hausman regression results

```
                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |      fe           re         Difference          S.E.
-------------+----------------------------------------------------------------
         HSN |   -.7762901     12.68007       -13.45636        6.411859
        TSDH |   -11.31941    -8.588875       -2.730531        2.775816
          DT |    2.664769     2.692937        -.028168        .2295185
        CPDT |   -4.711669    -4.789768        .0780992        .2348776
         INF |     490.317     480.2581        10.05894               .
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                  chi2(5) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =       28.10
                Prob>chi2 =      0.0000
                (V_b-V_B is not positive definite)
```

Resource: Author's evaluation

Through the test results, it shows that P-value =0 < 0.05, so we reject hypothesis H0 and accept hypothesis H1, that is, there is a correlation between explanatory variables and random components. The FEM model is suitable.

Table 8. FEM model variance test results

```
Modified Wald test for groupwise heteroskedasticity
in fixed effect regression model

H0: sigma(i)^2 = sigma^2 for all i

chi2 (24)  =   31875.42
Prob>chi2 =      0.0000
```

Resource: Author's evaluation

It can be seen that P-value = 0 < 0.05, the FEM model has variable variance. The tested FEM model has variable variance, no autocorrelation. Therefore, the authors fix the model

Table 9. FGLS model estimation results

```
Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   no autocorrelation

Estimated covariances      =        24          Number of obs      =        120
Estimated autocorrelations =         0          Number of groups   =         24
Estimated coefficients     =         6          Time periods       =          5
                                                Wald chi2(5)       =     343.94
                                                Prob > chi2        =     0.0000
```

ROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
HSN	16.04367	1.760863	9.11	0.000	12.59244	19.49489
TSDH	-3.741659	1.830722	-2.04	0.041	-7.329809	-.1535095
DT	3.431804	.6494267	5.28	0.000	2.158951	4.704657
CPDT	-5.51986	.713798	-7.73	0.000	-6.918879	-4.120842
INF	313.4674	115.7155	2.71	0.007	86.66912	540.2656
_cons	-4.326673	3.876672	-1.12	0.264	-11.92481	3.271464

Resource: Author's evaluation

The results show that the variables HSN, TSDH, DT, CPDT, INF have an impact on the profitability of equity, the variables Size and GDP have no impact on the profitability of equity.

From the estimation results, the regression model measures the level of dynamics of the factors to the return on equity (ROE)b of securities companies as follows:

ROE = -4,33 + 16,04*HSN – 3,74*TSDH + 3,43*DT – 5,52*CPDT + 313,46*INF + e

5. DISCUSSION AND CONCLUSION

For leverage: The estimation results show that the debt coefficient has beta=17.65 (with 1% significance level), showing that HSN has a positive relationship with ROE. This result supports the group's hypothesis. Specifically, when HSN increases by 1 unit, it will increase ROE value by 17.65. When HSN increases, it shows that enterprises increase the use of loans, limit equity, and use high financial resources. Enterprises make good use of financial leverage to increase revenue, leading to increased profitability on equity. Through descriptive statistical analysis, it can be seen that the level of debt use of listed securities companies is quite low (average HSN 0.3), showing that many enterprises are still using equity mainly. This prevents businesses from taking advantage of financial leverage to amplify ROE.

For asset structure: The estimated result has beta = -3.74, showing that the ratio of investing in long-term assets has a negative relationship with ROE. This result is contrary to the proposed hypothesis. 2020 is a "sublimation" year for the financial market. In 2020, domestic investors opened 393,659 securities trading accounts, setting a record over the past 20 years. Because of the large number of registered investors, it is imperative that securities companies upgrade their software and websites so that they can be stable when the number of visitors is too large during the trading session. From here, it shows that securities companies investing in long-term assets will be one of the premise to increase revenue.

For sales growth: the estimated result has beta = 3.43, showing that net sales growth has a positive relationship with ROE, this result is similar to the hypothesis proposed by the authors. . Specifically, when net revenue growth rate increases by 1 unit, ROE will increase by 3.43 units, respectively.

The ratio of operating expenses to operating revenue CPDT: the coefficient of regression on the CPDT variable is -5.5, the same direction as the author's hypothesis, i.e. the ratio of operating expenses to operating revenue is opposite. with ROE. That is, when the ratio of operating expenses to sales increases by 1 unit, ROE will decrease by 5.5. This shows that, when businesses control costs well, they will be motivated to increase profits, thereby increasing the profitability of equity. Through statistical analysis, it can be seen that the level of use of costs of securities companies is quite high (average CPDT 0.5), showing that enterprises have not managed well their costs.

Inflation rate: the regression results show that INF is in the same direction as ROE, similar to the hypothesis. That is, when INF increases by 1 unit, ROE increases by 313.46

In summary, after analyzing the results of the regression model of factors affecting the profitability of equity of securities enterprises, it can be seen that there are five main factors affecting ROE as follows: leverage ratio (HSN), Asset structure Ratio (TSDH), Sale Growth Rate (DT), Cost to Operating Revenue Ratio (CPDT), Inflation Rate (INF). The factors of asset size and national growth rate do not affect the profitability of equity of securities enterprises.

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SPAC - THE NEW FINANCIAL TREND OF THE PRIVATE COMPANY

Dr. Tran Duc Trung[1]

Abstract: *Nowadays, businesses are always facing many opportunities and many challenges. The economic growth of each country is always associated with the growth of businesses. Two of the key factors that drive growth for businesses are capital and technology. Therefore, offering securities to the public will help private companies access the above factors. Article has the main contents: (1) Review of studies on SPAC; (2) Contemporary theories of SPAC; (3) Practice of SPAC and some suggestions for private enterprises in Vietnam have deciphered both theoretical and practical aspects of this new financial trend. With practical benefits, if studied and applied, it can become a valuable solution to the capital problem of enterprises, especially businesses with great potential and prospects.*

Keywords: *Finance, SPAC, enterprise, private company, IPO, consolidation.*

1. INTRODUCTION

Fast and sustainable private economic development is an important requirement and motivation of many countries, especially developing countries. For businesses, raising capital is always a top priority in financial policies, because the capital demand is always present and increasing along with the increasingly fierce competition in the market. Therefore, the concentrated listing on the stock exchange to have the opportunity to access more capital is an objective necessity of private enterprises. A company that wants to offer securities to the public must be listed on an exchange. To be listed on the exchanges, the company must meet the conditions of initial public offering (IPO) in accordance with the provisions of the current securities law.

Recently, in addition to various forms of organizations accessing capital from investors such as IPOs, there is also a new trend of financing (SPAC) towards private companies, especially companies. has prospects, has diverse links and is attractive to potential investors. It can be said that this is an alternative to the traditional IPO and is receiving attention from investors, startups and regulators. Has SPAC changed the future of IPOs? So what is SPAC, what are the theoretical and practical problems? Is SPAC the opposite of an IPO, but more efficient than this? What are the benefits and limitations of using SPAC? What is an overview of how SPAC works? Articles with the following main contents: (1) Overview of SPAC studies; (2) Contemporary theories of SPAC; (3) SPAC practice in the world; (4) Some suggestions for private enterprises in Vietnam, will give the results of research, exchange and learn around this new financial issue, as well as conditions and some suggestions for these new financial issues enterprises in Vietnam in the near future.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

A number of international studies on SPAC over the past time, such as: Vatsal Garg with the work "*SPAC: Special Purpose Acquisition Company*", in 2021 has provided insights for those who are

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retail investors in technology. investment techniques in SPAC IPOs. This field is normally only for those with ample financial resources, but readers can understand different aspects of how SPACs work, the advantages and disadvantages of investing in this special form. The book also covers takeovers, private equity, and hedge fund operations for the originators and operations managers of SPACs. The overarching implication of the book is that if we grasp the financial world at a high level, we can easily understand how to invest in new financial vehicles like SPACs.

In the book "*Special Purpose Acquisition Companies (SPAC): An European Destination?*" published by Lap Lambert Academic Publishing, in 2021, two authors Amel Fnaiech and Vahagn Hovsepyan have in-depth analysis of SPACs listed on European stock exchanges; compare their institutional characteristics, risks, and returns with those of US SPACs. SPAC has become the specialty that most investors are looking for. However, there are only a few deals in Europe, unlike the US market where they are widespread. Therefore, the authors aim to find out the reasons, analyze the advantages and applications to show the development angle for the merger markets of Europe.

For the purpose of delving deeper into SPAC's investment programs in Italy, clarifying some of the main features of SPAC, from a financial and economic point of view and from a legal perspective compared to some investment models As an alternative as a private equity fund, the authors Gimede Gigante, Andrea Conso, Enrico Maria Bocchino with the article: "*SPAC from the US to Italy: An evolving phenomenon*" have conducted research on SPAC in Italy and this proves to be a suitable trend for the capital market of this country. From 2011 to 2019, SPAC actively contributed to the development of the Italian financial market, helping to promote a more modern and developed financial culture. As of 2019, 29 SPACs have been formed, with a total funding of over €3.8 billion, and 22 of them have completed business combinations. 2017 was the most popular year in Italy with 10 SPACs listed and over €1.7 billion raised, thanks to high liquidity available to institutional investors, as well as an encouraging regulatory framework for the growth of this market.

Daniele D'Alvia with outstanding work: "*Mergers, Acquisitions and International Financial Regulation. Analysing Special Purpose Acquisition Companies*" can be said to be the first book to analyze the use of SPAC from a theoretical and practical perspective. By the end of 2020, more than 240 SPACs were listed in the US (on NASDAQ or NYSE), raising a record $83 billion. The SPAC craze has rocked America for months, mainly because of its simplicity: a series of investors decided to buy stock at a fixed price in a company that initially had no assets. So can this trend be maintained? Are SPACs the New Legitimate Path to Traditional IPOs? This book helps address those questions and more, the author provides a thorough analysis of SPACs, including the regulatory framework and how these businesses are used as a risk mitigation tool., to restructure financial transactions. The main aim of the book is to find a definition for SPACs and to theorize their origin and development; The author also describes real-world examples of SPACs through a comparative study, outlining all the major capital markets in which SPACs are listed for the first time, in order to define a relevant international regulatory standard. Feasibility.

Two works: "*Spacs Investing 101: The Original Beginner's Guide to all the Pros and Cons of Special Purpose Acquisition Companies: Make the right investment today*" by Oscar Williams, Robert Hamilton and "*Ipo Your Spac: The Step-By" -Step Guide to Finance Your Special Purpose Acquisition Company*" by Marc Deschenaux has provides specific guidance on financial transactions related to SPAC such as: Different stages, costs and durations of a SPAC agreement, advantages and risks of SPACs, how to distinguish SPACs positive with a potentially underperforming SPAC, practical guidelines for IPOing a SPAC on Wall Street. This book shares important information on why companies are choosing to participate in the SPAC boom. Companies often pursue IPOs to raise capital, provide liquidity to shareholders, create brand awareness, and acquire resources to further expand their businesses. Increasingly, companies across all sectors are looking at mergers with SPACs instead of traditional IPOs to achieve these goals.

SPAC issues are mainly studied in the US and some European countries with developed financial and financial markets, but the number of studies is also very limited. In Vietnam, this issue is still very new and there are only a few articles written by writers of some electronic newspapaers. Therefore, this issue needs to be studied systematically in both theory and practice.

3. RESEARCH CONTENT AND RESULTS

3.1. Contemporary theories of SPAC

There are many different conceptions and opinions about SPAC in the world. SPAC (Specified Purpose Acquisition Company, or Special Purpose Acquisition Company) is a form of reverse merger. This can be understood as a company established for the purpose of acquiring. SPACs are companies that are in the growth or start-up stage, without specific business plans or goals, formed for the purpose of entering into acquisitions and mergers with an unspecified company. other determination. SPAC companies are allowed to conduct IPOs and sell their securities under the regulations of the US Securities and Exchange Commission (SEC). An IPO is simply a company looking for money and a SPAC is a money finding a company. SPAC is aimed at startups that are at the maturity stage with a breakthrough idea and a promising future - needing to raise capital by becoming a public company but do not want to be entangled in complicated, potentially risky procedures and high cost of traditional IPO. When a suitable candidate is found, all SPAC shareholders must approve the agreement, which is often structured in the form of a reverse merger. This means that the private company will either become a subsidiary of SPAC or merge with SPAC. After the deal, SPAC shareholders can choose to buy back or exchange shares in SPAC into shares in a private company. After becoming a public company, SPAC then merges or acquires, but usually amalgamates with an existing private company, taking it public. At the same time it will list shares under the code of the newly incorporated company. SPAC usually operates for 2 years, and if no investment opportunities are found, the money and contributed capital will be returned to investors. Prior to the completion of a merger or acquisition, many SPACs do not provide investors with information about the type of company they intend to merge.

SPACs have been around since the 1990s, when small companies were looking for ways to avoid traditional IPO processes with many strict requirements. Currently, SPAC is a strong growing financial trend in the world in recent years. When a company wants to go from private to public, it has two options: apply for an IPO or find a SPAC if it's not large enough to participate in an IPO. When SPAC went through with its IPO, it was still a shell company that started looking for another company to merge, within a time frame of about two years. The stock price when IPO of SPACs usually fluctuates around 10 USD/share. Investors in an SPAC will receive a guarantee to buy a large number of shares at a fixed price, after they acquire a potential business. According to SPAC's security rules, until the target company is found, all funds are stored in a trust account. Later, the SPAC system became a small industry in which legal firms, auditors and commercial banks invested. They tend to focus on struggling companies or niche industries. But that has changed in the last 2 years, as more serious investors started launching SPACs in significant numbers. Established funds, private and venture firms, and senior executives are all attracted to SPACs by a confluence of factors: cash availability, proliferation of companies looking for liquidity or capital for growth, or standardized regulatory changes.

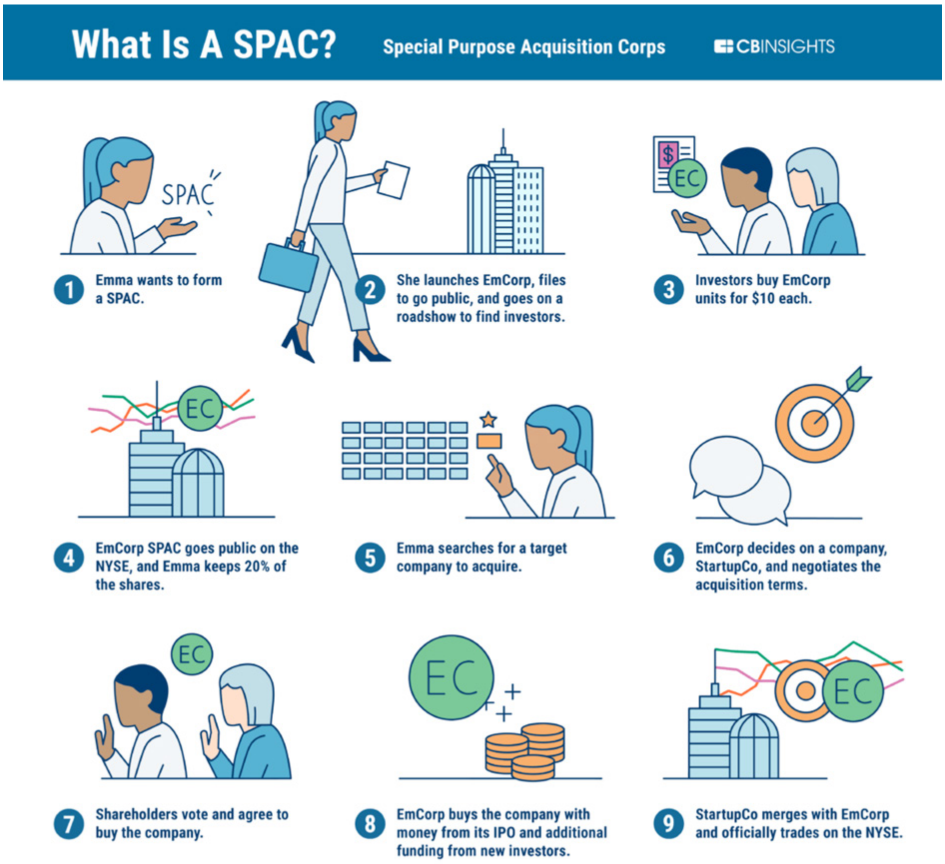

Figure 1. Formation of a typical SPAC

Source: CB Insights

There are different names for SPAC such as: Shell company, empty company, blank check company, blank check company, etc. This is a type of company that is nominally listed on the stock exchange with purpose of acquiring a private company, thus the SPAC goes public without going through the traditional IPO process. Normally in an IPO, a company announces it wants to go public, while also revealing many details about its business. Investors then put money into the company in exchange for shares. But SPAC reverses that process. Investors pool their money together first, but don't know which companies they're investing in. SPAC is publicly listed. Then SPAC goes out and looks for a company that really wants to list shares to merge. Thus, it can be said that this is a shortcut for businesses, especially those with a small financial scale, to be listed soon, thereby having the opportunity to develop quickly in the general trend of the economy.

economy. Therefore, SPACs are created in a very special way to pool funds to fund an acquisition or merger opportunity within a certain time frame. The opportunities are often unidentified, but the prospects are well-founded.

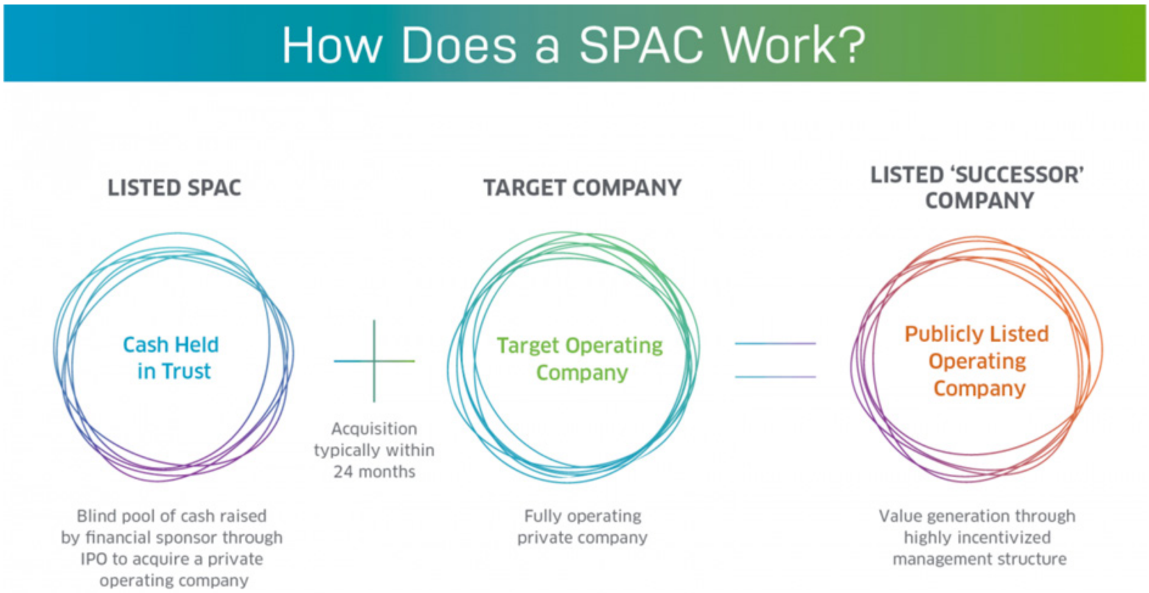

Figure 2. Overview of SPAC activities

Source: NASDAQ

One of the main reasons for the existence of SPACs is to make it easy and fast for another company to list on the stock exchange. Their lifecycle begins when a group of investors list a shell company on the public market, generating cash that can be used to invest in a real business looking to raise money. capital and listed on the stock exchange. In the next phase, the shell company will look for an unlisted target company and propose to merge with it. The target is usually mature private companies whose owners and early venture capitalists want to sell off their shares to cash out. The chosen professions are often associated with innovative or breakthrough technologies, new sustainable trends such as aviation, renewable energy, circular economy, health education, and the environment. From the outset, SPAC sponsors may already know the industries in which they will invest.

3.2. SPAC practices in regions and countries around the world

According to statistics, there are currently about 560 SPAC companies operating in the world. Of which, there are 432 SPACs with a scale of nearly 140 billion USD and are yet to find investment opportunities. Another 128 SPACs have been merged with a size of about 40 billion USD. If in 2016 there were only about 13 IPOs of SPACs with less than $3.5 billion in proceeds, by 2019 there were 59 companies established, with an investment of $13 billion. In 2020, there are 247 SPACs established with an investment capital of 80 billion USD; and in the first 3 months of 2021 alone, 295 SPACs were created with $96 billion in investments. This is more than the whole of 2020 (in terms of the number of SPACs that have IPOs and the amount of money raised). In 2020 alone, SPACs account for more than 50% of new U.S. publicly listed companies.

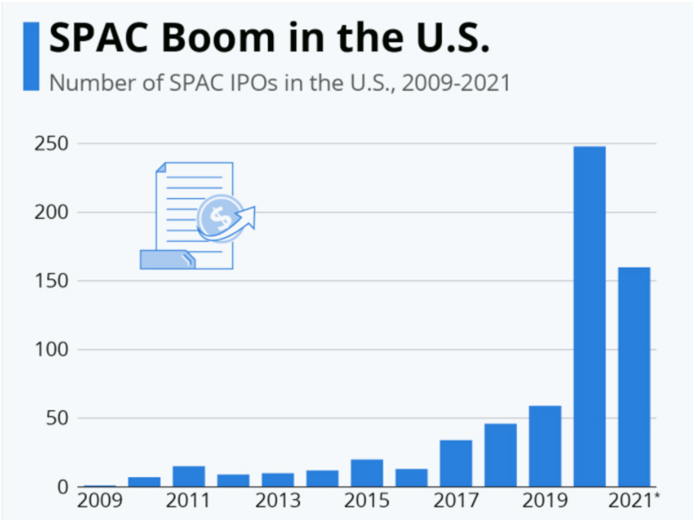

Figure 3. The spike in SPACs in the US in 2020-2021

Source: Statista.com

SPAC can help businesses IPO and list quickly, shorten the listing procedures and complete in a short time. The merger with SPAC will make the company public, allow it to raise capital faster than a conventional IPO. A SPAC merger can be completed in just a few months, shorter than the half-year-long process of registering an IPO with the SEC. Some of the company names that have merged or been acquired by SPAC are publicly traded include DraftKings, Utz Brands, Fisker, and Virgin Galactic. One of the first high-profile SPAC deals featured Richard Branson's space tourism startup Virgin Galactic (NYSE: SPCE). At the end of 2019, venture capitalist Chamath Palihapitiya established a SPAC called Social Capital Hedosophia Holdings. SPAC has merged with Virgin Galactic, taking it public. Shareholders of Social Capital Hedosophia Holdings received a 49 percent stake in the combined company, while Virgin Galactic received about $800 million in cash.

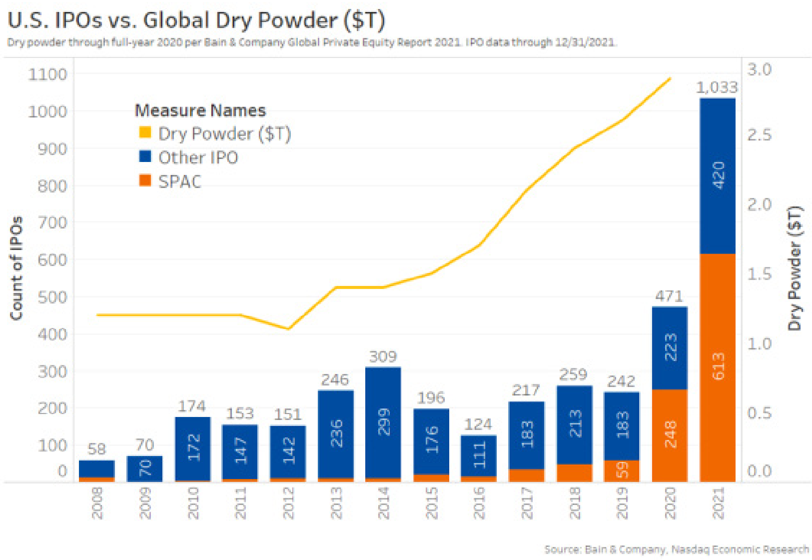

Figure 4. 2021 was a record year for SPACs

Source: Bain & Company, Nasdaq Economic Research

The recent health crises and signs of economic recession have had a great impact on businesses globally, which has led to the idea of SPAC for many businesses. In the US, SPACs are registered with the SEC and are considered publicly traded companies. The public can buy their shares before any merger or acquisition takes place. The majority of companies that pursue SPACs do so on the Nasdaq or New York Stock Exchange. Target companies are common in healthcare, financial technology and self-driving cars. The alternative and renewable energy sector is also gradually embracing this trend, but few private renewable energy companies are large enough to be an ideal target for SPAC companies. Although the target company only needs to raise more than $200 million, the average company value must reach more than $1 billion to attract the attention of a SPAC, thus making it difficult for SPACs to find company to disburse.

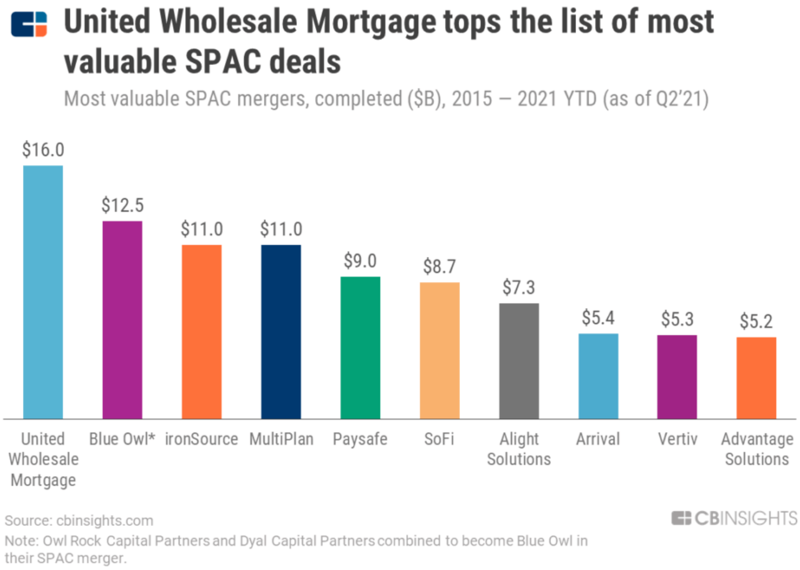

Figure 5. Most valuable SPAC mergers 2015-2021

Source: CB Insights

Merging into SPAC allows private companies to make forecasts about future revenue growth. As an example, in mid-2021, Southeast Asian online real estate company PropertyGuru agreed to list shares through a merger with a SPAC backed by billionaires Richard Li and Peter Thiel, bringing giving the company an equity value of approximately $1.78 billion. The deal with Bridgetown 2 Holdings, a well-known SPAC, is expected to raise $431 million, including a $100 million private investment from Baillie Gifford, Naya, REA Group, Akaris Global Partners and one of the property managers. Or like DNEG - a world leading company in the field of cinematic effects when holding 6 prestigious Oscars in the last 10 years, with more than 7,000 employees in Canada, Los Angeles and India. DNEG has agreed to a deal with a SPAC called Sports Ventures Acquisition Corp. This allows DNEG to become a public company without the need for a regular IPO. The transaction is expected to have a combined value of approximately $1.7 billion and be completed in 2022. DNEG is expected to raise approximately $400 million from the transaction, including $168 million in common stock at the purchase price. $10/share from top investors, including Novator Capital Limited, affiliates of Sports Ventures, Fairfax Financial and Arbor Financial.

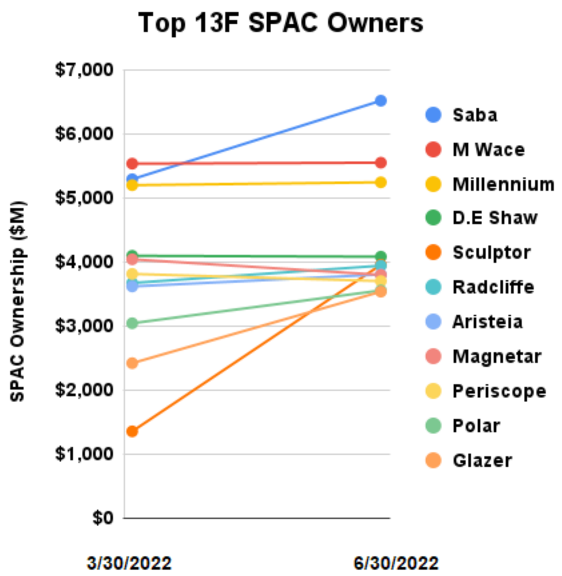

Figure 6. Top value SPAC holders in the world

Source: SPAC Research

Notable SPAC deals in Asia

The trend of merging with SPAC is increasingly popular with emerging technology companies in Asia, because they need financial resources to promote growth and keep up with the fast and highly competitive development trend. Besides, the merger with SPAC is also a way for businesses to access the US market faster. In Asia, Singapore is the first stock exchange to support SPAC. That provides much-needed support to Singapore's IPO market, which has yet to attract much interest from even domestic firms.

For example, Grab, a particularly large player in the transportation services industry with headquarters in Singapore, was listed on Nasdaq when the merger of SPAC with Altimeter Growth Corp was completed. Grab is valued at nearly $40 billion in the biggest merger ever. Under the agreement, Grab will receive about $4.5 billion in cash. This is also the largest merger with SPAC in the world to date. On December 2, 2021, Grab officially IPO on Nasdaq of the US. Grab ranked 16th on the list of CNBC Disruptor 50 in 2021. Starting from a ride-hailing service, Grab is expanding into super apps with diverse services: delivery, transportation and digital finance in more than 400 cities in 8 countries in Southeast Asia including Cambodia, Indonesia, Malaysia, Myanmar, Singapore, Philippines, Thailand and Vietnam. Every day, Grab helps millions of users reach out to driver and store partners to order food, go grocery shopping, send goods, book a car or taxi, pay online, or access online shopping. lending, insurance, asset management and telemedicine services, all through a single app.

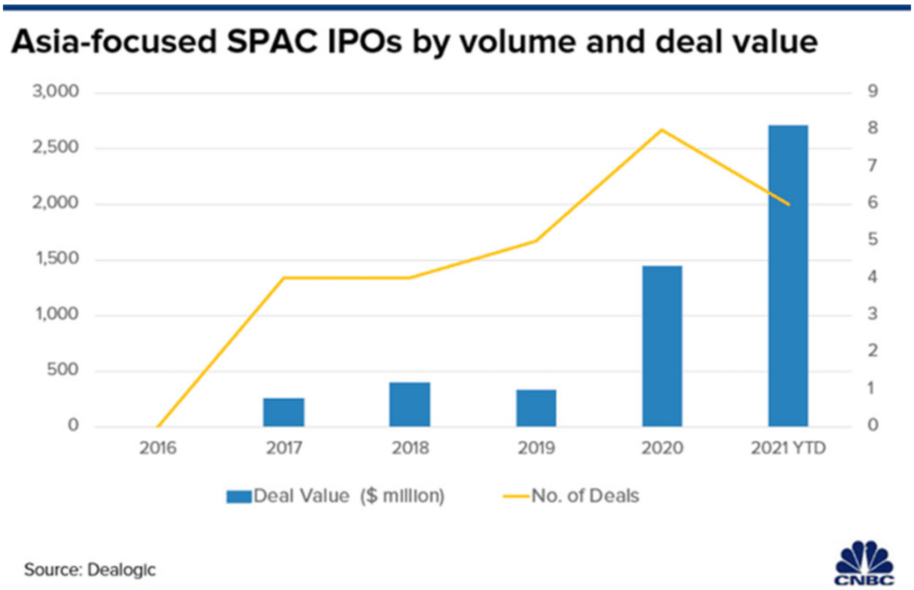

Figure 7. Notable SPAC IPOs in Asia by deal volume and value

Source: Dealogic.com

VNG Group (formerly Vinagame) - the owner of the Zalo messaging application, is considering a plan to list shares in the US through a merger with another company. VNG is considered the first startup with a valuation of 1 billion USD in Southeast Asia. Currently, the company has 11 offices in 5 countries. The company is working with financial advisors to discuss with the SPACs to find a reasonable and potential deal. This deal can value VNG at 2 - 3 billion USD. Founded in 2004 as a game development company, VNG products reach more than 80 million users. The gaming sector grows and publishes its own titles as well as local versions of major world titles like PUBG Mobile. VNG is also operating both the Zalo messaging application and the ZaloPay e-wallet, as well as cloud computing and other communication services. VNG is investing in 20 member companies and is planning to list on Nasdaq by the end of 2022. VNG may offer up to 12.5% shares in this listing. Before the IPO, VNG was also looking for opportunities to raise between $200 million and $300 million from both new and existing investors.

SPAC named Aquila Acquisition Corporation is the first SPAC to undertake such a listing on the Hong Kong stock exchange since the new regulations came into force in early 2022. In the registration filing, Aquila said it aims to acquire a public support company in new economic sectors such as green energy, life sciences and advanced technology, manufacturing in Asia and with a focus on China. A large Vietnamese enterprise, the car company VinFast, also plans to list on the US stock market. The IPO file submitted to the SEC published on April 7 could put Vingroup's VinFast on the list of shares by the end of 2022. It is expected that VinFast can raise about 3 billion USD through this IPO.

3.3. Some suggestions for private businesses in Vietnam

SPAC has advantages over traditional IPOs, so many businesses want to go this way. The main benefits of SPAC for businesses can be mentioned as: (i) Faster, usually 4-5 months compared with 12-24 months to IPO; (ii) More flexibility in capital mobilization. Consolidated enterprises will have access to diversified and large-scale capital sources from large capital markets; (iii) Expand and develop relationships among stakeholders; (iv) Promote innovation of thinking as well as the way of managing systems and resources of enterprises, etc…

Recently, a number of Vietnamese companies are studying the establishment of SPACs to list in the US market. However, listing on the US stock exchange is only the beginning with a long process and significant fees along with strict supervision by the SEC and other authorities. The regulatory authorities have facilitated, but the terms are still very strict, requiring Vietnamese businesses to develop a detailed and comprehensive plan with the goal of becoming a public company listed in the US. The current trend is that many SPACs focus on technology and innovation sector companies. Some of these companies are speculative in nature, have large capital requirements and can only provide limited guarantees on revenue and short-term viability, such as electric vehicle companies. SPACs have enabled such companies to raise more capital than alternatives, driving innovation across many industries. Thus, it can be said that with SPAC, businesses can access a lot of capital and technology.

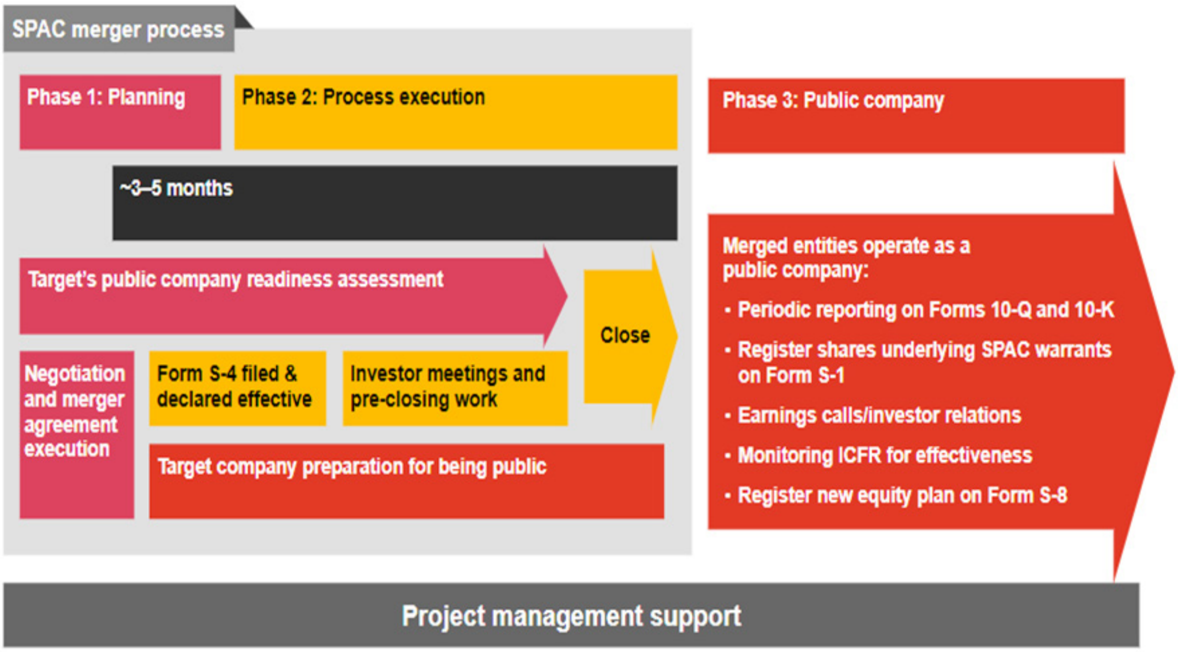

Figure 8. Overview of the public issue of securities using SPAC

Source: PwC

Besides the advantages, the use of SPAC also has certain limitations such as having to pay underwriting fees, the short time in finding the target company which can lead to inaccurate assessments of the company's development. expectations and profitability from the company's target area. Investors are often not fully aware of the risks associated with SPAC companies and therefore may not be fully aware of what happens next after SPAC listing. Therefore, SPAC companies will be strictly controlled immediately after listing, thereby limiting the risks and increasing the benefits of this method.

4. CONCLUSION

In the present and in the future, the capital needs of enterprises are increasing to expand their scope and invest in new fields such as biotechnology, renewable energy, digital transformation, etc. Currently in Vietnam, attrative sectors can be mentioned as logistics, education, renewable energy, fintech and biomedical technology. It can be said that, from any angle, SPAC is still an alternative way to access the capital market, becoming more and more important and necessary in the trend of globalization and the strong development of the economic private sector. In corporate financial policies, this is also an option for businesses to refer to and apply in accordance with actual conditions and needs. To convince international investors, Vietnamese companies must present attractive numbers in terms of corporate value, profitability and growth prospects.

Vietnam is in the process of economic growth with many new factors and motivations such as exports, foreign direct investment, technology and more than 56 million young workers with great potential. After S&P upgraded, in early October 2022, Moody's also upgraded Vietnam's credit rating. Fitch previously upgraded and now Vietnam is rated BB on positive outlook. Vietnam currently has many advantages such as a developed economy and a stable macro foundation, so good businesses will have the opportunity to attract more foreign capital. According to estimates, the top 60 enterprises in Vietnam can grow by 20 - 25% in 2022. To achieve the expected growth, SPAC is one of the priority choices of businesses.

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PREVENTING TAX BASE EROSION FROM TAX TREATY ABUSE IN VIETNAM

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Abstract: *Tax base, tax base erosion and tax base erosion prevention are topics that have received a lot of attention recently in Vietnam. The research focuses on tax base erosion from tax treaty abuse. By analyzing the current status of Vietnam's double taxation agreements (DTAs), the authors assessed the current situation and identifying risks of tax base erosion from abusing Vietnam's DTAs. The authors found that there are loopholes creating conditions for abuses of the terms of the agreements and causing tax base erosion in Vietnam. The research also makes some recommendations for Vietnam to prevent tax base erosion from tax treaty abuse by reviewing and considering negotiating to update the content of the bilateral tax agreements, promoting participation in multilateral tax agreement and improving efficiency of tax audit.*

Key words: *Tax base erosion, tax treaty abuse, BEPS.*

1. INTRODUCTION

Tax treaties represent an important aspect of the international tax rules of many countries, especially in globalizing era. The taxing rights of the states is one of the biggest issues in cross border transactions because it decides the budget revenue deriving from tax. DTA, which is concluded by nearly every jurisdiction in the world, have served to prevent harmful double taxation and remove obstacles to cross-border trade in goods and services, and movements of capital, technology and persons. However, the accelerated network of tax agreements has also given rise to treaty abuse (Hearson M., 2016). Via exploiting loopholes in tax treaty provisions, organizations and individuals are able to reduce their tax liability, therefore it harm tax base of contracting countries. Treaty abuse shows the attempt of a person to indirectly access the benefits of a tax agreement between two jurisdictions without being a resident of one of those jurisdictions. There are a wide number of arrangements through which a person who is not a resident of a jurisdiction that is a party to a tax agreement may attempt to obtain benefits that a tax agreement grants to a resident of that jurisdiction.

Taxpayers engaged in treaty abuse strategies undermine tax sovereignty by claiming treaty benefits in situations where these benefits were not intended to be granted, thereby depriving jurisdictions of tax revenues. Because of these reasons, treaty abuse is one of the most important sources of countries in the world, including Vietnam.

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2. THEORETICAL BASIS AND METHODOLOGY

2.1. Theoretical basis

2.1.1. The concept of tax base erosion

According to Uluatam (1997), tax base erosion is the narrowing of the tax base by taxpayers in order to reduce the amount of tax payable. From another angle, according to Akdogan (2005), tax base erosion is an act of reducing the state budget, which is mainly caused by acts of tax avoidance, tax evasion and loss of tax revenue due to incentives.

According to Le Xuan Truong (2017), tax base erosion is the fact that the tax base is actually reduced compared with the expectations of the people who develop and promulgate tax legislation. Erosion of the tax base is understood as the act of reducing the tax base, thereby reducing the amount of tax payable.

According to Nguyen Dinh Chien (2021), tax base erosion is the activities that reduce the tax base of one or more taxes in the national tax system. Tax base erosion is understood in the most general sense that the current tax base of a national tax system does not guarantee full coverage of all economic bases, the current tax payment possibilities in the country's economy.

It can be seen that there is not a unified definition of tax base erosion and there are differences between views on the definition of tax base erosion.

Based on the study of related concepts, the authors derive the concept of "tax base erosion" as follows: Tax base erosion is the act of reducing the tax base.

2.1.2. Tax base erosion from tax treaty abuse

A tax agreement is an agreement made by two or more countries to deal with issues related to the avoidance of double taxation on the income of the nationals of the contracting states.

According to Garcia Prats (2006), abuse of tax agreements does not necessarily violate any provisions of the agreements, but goes against the aim and purpose of the tax agreements (United Nations, 2006).

According to Cooper (2014), treaty abuse is the improper access by residents of a third country to a tax agreement to obtain its benefits, and includes structures or transactions that are used by residents of the Contracting States in the hope of defeating anti-abuse measures. Agreement partners can upset the balance in the division of taxing powers, through changes in their domestic law and policy frameworks, to allow the agreement to benefit those who are not originally intended and so resulting in substantial tax losses for the treaty partner (United Nations, 2006).

In a nutshell, tax treaty abuse is a concept that refers to the fact that residents of a third country or residents of a Contracting State engage in strategies aimed at weakening a country's taxing power by demanding benefits of the agreement in situations where these benefits are not intended.

Types of tax treaty abuse include:

- Treaty shopping

  Treaty shopping is an improper use of tax treaties. These are arrangements through which those who are not entitled to the benefits of the tax agreement use the beneficiaries of the benefits to indirectly access these benefits.

- Using a permanent establishment in a country with a low tax rate (triangle model)

  The triangle model refers to the application of tax treaties in situations where three countries are involved. Typically: Dividends, interest or royalties derived from country S by a resident of country R, which is an exempt country, allocated to a permanent establishment incorporated in country R. P at which this income will not be taxed. Under the tax agreement between countries R and S, country S is required to apply the benefits of the agreement to dividends, interest or royalties because these are derived by a resident of country R, even though they are not taxed in country P due to country P's tax exemption system.

- Thin capitalization

  In most countries, interest is a deductible expense while dividends, which are a distribution of profits, are not deductible. Therefore, a foreign company that wants to finance a wholly owned subsidiary finds that it is more profitable to finance the subsidiary through debt rather than equity being subject to the tax on the interest paid. Thus, a subsidiary can be financed largely in the form of debt rather than equity, a practice known as "thin capitalization".

- Allocation of profits to a government or tax-exempt organization

  During bilateral negotiations, countries may agree to include in their agreement immunity from certain interest payments. Where a tax agreement includes one or more of these provisions, a party entitled to an immunity may enter into arrangements with other parties (the party not entitled to the immunity or, in the case of a supply contract, grants for the payment of interest and other income shall not be exempted) to distribute the bulk of the interest. Such an arrangement would constitute an improper use of these exemptions.

- Carrying out transactions aimed at modifying the nature of income according to the classification of the agreement

  Agreements allocate taxing rights differently depending on the nature of the income. The classification of a particular income is based on a combination of treaty definitions and domestic law. Since taxpayers determine the content of a contract based on classification for the purposes of domestic law and the provisions of the agreement, they may in some cases attempt to influence that classification. to obtain unintended benefits from the agreement.

- Avoid forming a permanent establishment

  Action 7 in the OECD Action Plan on Base Erosion and Profit Shiffting (BEPS Actions) and the United Nations Handbook (2017) outline a number of ways in which taxpayers can exploit the definition permanent establishment under the Model United Nations and the OECD Model Agreements to avoid tax obligations, specifically:

  + Avoiding permanent establishment through commission agreements.
  + Avoiding permanent establishment through specific exceptions: "Preparatory or auxiliary" activity exception; Exception for "shipping" function, Exception for purchasing office.

- Avoid forming a permanent establishment through electronic transactions.

2.2. Research methodology and data

The study uses qualitative research method based on ActionAid's available database to assess the content of DTAs that Vietnam has signed up to the time of study. The two sections below summarize the research methodology and database used in the study.

2.2.1. Research methodology

The qualitative research method used in this study is the comparative research method. The study focuses on analyzing the indicators to assess the content of DTAs. By comparing the mean value of the Source Index (SI), Permanent Establishment Index (PEI) and Withholding Tax Index (WHT) of Vietnam's DTAs with the ones of groups of countries, the study makes an assessment of the content of DTAs which Vietnam has signed.

2.2.2. Data

This study bases on ActionAid Tax Treaties Dataset (2016) which has been developed by Hearson. The dataset includes information on 26 aspects of 519 tax treaties concluded by developing countries in sub-Saharan Africa and Asia as of 2015. In which, there are index of 64 DTAs in the total of 71 DTAs which Vietnam had signed as of 20142. Therefore, by following Hearson M.'s method which uses the models of United Nations and OECD as standardized variations this study updates data for 07 Vietnam's DTAs which has not been in the dataset yet and 09 DTAs which Vietnam has signed recently from 2015 to 20213.

3. RESULT AND DISCUSSION

3.1. The current situation of tax base erosion from tax treaty abuse in Vietnam

With these outstanding socio-economic characteristics, Vietnam is considered as an ideal destination for foreign direct investment, which is reflected in the amount of registered foreign direct investment capital and the amount of foreign direct investment has increased over the years.

As of July 2022, a total of 140 countries/territories has foreign direct investment capital into Vietnam with a total registered capital of more than 400 billion USD.

There are 22 countries/territories with the largest amount of foreign direct investment in Vietnam (with a registered capital of 1 billion USD or more) as of July 2022. Accordingly, the country with a remarkable increase in both the number of projects and the registered capital by the end of 2021 compared to 2018 is Seychelles with an increase in the number of projects of 211.69% and an increase in the number of projects. registered capital is 146.42%; and China with an increase in the number of projects of 100.84% and an increase in the registered capital of 75.44%. In the period 2016-2021, Korea, Japan, Singapore, Taiwan, Hong Kong and British Virgin Islands have always maintained their positions as countries/regions with the largest number of projects and capital

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[2] Excluding seven DTAs between Vietnam and following countries/territories: Algeria (signed in 1999), North Korea (signed in 2002), Venezuela (signed in 2008), Mozambique (signed in 2010), Kazakhstan (signed in 2011), Palestine (signed in 2013) and Iran (signed in 2014).

[3] Including nine DTAs between Vietnam and following countries/territories: Portugal (signed in 2015), United State (signed in 2015), Estonia (signed in 2015), Manta (signed in 2016), Panama (signed in 2016), Latvia (signed in 2017), Macao (signed in 2018), Croatia (signed in 2018) and Cambodia (signed in 2018).

amount.

The authors base on the following criteria to identify countries/territories that have direct investment in Vietnam that enterprises with investment capital from these countries/territories will have the opportunity and motivation in carrying out profit shifting activities, which means that there is a high risk of eroding the tax base in Vietnam, the criteria are: **(1) Country/territory with a statutory CIT rate lower than 20%4 (Average rate in 2016-2021), (2) Countries/territories with effective CIT rates or marginal effective CIT rates lower than 20% (Average rate in 2016-2021), (3) Country/region is a tax haven5**.

According to this criterion, out of a total of 140 countries/territories investing in Vietnam:

- There are 48 out of 122 countries/territories6 where the average statutory tax rate for the period 2016-2021 is less than 20%. In which, there are especially 09 countries/territories with a statutory tax rate of 0%7;
- There are 29 out of 58 countries/territories8 where the average marginal effective tax rate for the period 2017-2020 is lower than 20%. Of which, there are 08 countries/territories with a statutory tax rate of 20% or more but with a marginal effective tax rate lower than 20%9;
- There are 43 countries/territories that are tax havens (accounting for 31.71%). Thus, with 66 countries/territories tax havens, there are 43 countries/territories investing in Vietnam. In which the ty: British Virgin Islands, Netherlands, Cayman Islands, Luxembourg and Bermuda are rated by 4/4 organizations/researchers as tax havens; Singapore, Hong Kong, Marshall, Cook Islands, Antigua and Barbuda, Anguilla, Bahamas, Ireland and Barbados were rated by three-quarters of organizations/researchers as tax havens.

3.1.1. Current status of Vietnam's DTAs

Vietnam started signing DTAs in 1992. As of December 2021, Vietnam has signed DTAs with 80 countries/territories around the world. Vietnam has signed DTAs with 27 out of 35 OECD members (accounting for 33.75% of Vietnam's total DTAs). In addition, if the classification is based on whether the treaty partner is a G20 member or not, the number of treaty partners who are G20 members is 14 countries (accounting for 17.5% of the total number of DTAs of Vietnam).

Chart 3.1 shows the Source Index (SI) of the DTAs that Vietnam has signed up to 2021. The dotted line represents the overall trend of the SI of the DTAs of Vietnam. This line tends to go up to the right, showing that as Vietnam's DTAs become more source-based over time, the more recent agreements have broadened the cases which Vietnam may levy taxes on the profits of foreign companies in Vietnam.

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[4] The period is from 2016 to 2021. According to Circular 78/2014/TT-BTC: From January 1, 2016, the cases subject to the tax rate of 22% will switch to the application of the tax rate of 20%. It means that the common CIT rate is reduced from 22% to 20%.

[5] Evaluated by OECD, IMF, Desai, M. A., Foley, C. F., & Hines, J. R., Jr. (2006a) and Dharmapala, D., & Hines, J. R., Jr. (2009)

[6] Number of countries where the authors have data

[7] Including: British Virgin Islands, Cayman Islands, Bermuda, Anguilla, Bahamas, United Arab Emirates, Isle of Man, Guatemala and Turks and Caicos Islands

[8] Number of countries where the authors have data

[9] Including: Thailand, Russia, Denmark, Israel, Iceland, Saudi Arabia, Estonia and Portugal

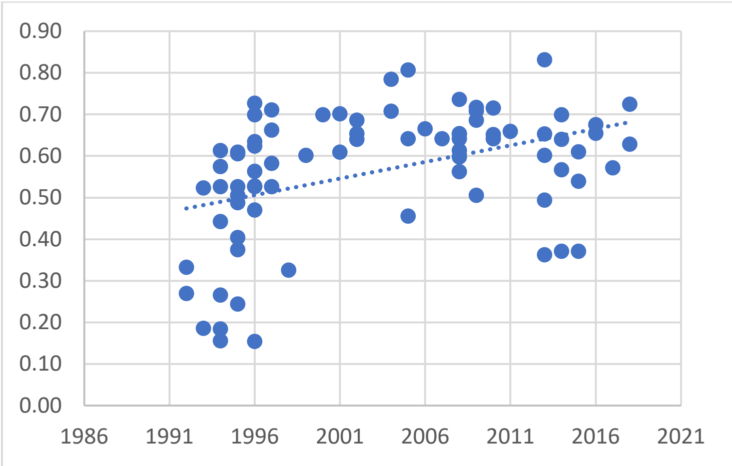

Chart 3.1. Source index of DTAs signed by Vietnam as of 2021

Source: The authors calculate

The average SI of Vietnam's DTAs is 0.56, which is 21.74% higher than the average SI of the agreements of developing countries in the world (0.46). However, the average SI of the DTAs of Vietnam with the group of OECD countries is 0.5 (10.7% lower than the average SI of the entire DTAs of Vietnam and 18% lower than the average SI of the DTAs that Vietnam has signed with non-OECD and G20 countries). Especially, the average SI of Vietnam's DTAs with the group of G20 countries is 0.4 (28.57% lower than the average SI of Vietnam, 34.32% lower than the average SI of DTAs that Vietnam has signed with non-OECD and non-G20 countries and 13% lower than the average SI of the DTAs of developing countries).

Considering within 22 countries with the largest amount of foreign direct investment capital in Vietnam with a capital of 1 billion USD or more (of which Vietnam has signed agreements to avoid double taxation with 19 countries). The average SI of this group of agreements is only 0.41 (26.79% lower than the average SI of Vietnam and 10.87% lower than the average SI of agreements on the avoidance of double taxation of developing countries). In particular, the agreements with the lowest SI are in these 22 countries, specifically the agreement between Vietnam and the UK (0.16), Singapore (0.18), France (0.19), Germany (0.24) and Korea (0.27).

Table 3.1. Comparison of the average SI of the DTA of Vietnam with groups of countries

	OECD member	G20 member	Non-OECD and G20 member
Average SI	0,5	0,4	0,61
Average SI of Vietnam's DTAs	0.56		
The average SI of the DTA of developing countries	0,46		

Source: The authors calculate

3.1.2. Assessing the current situation and identifying risks of tax base erosion from abusing Vietnam's DTAs

1) Assessment of the current regulations on determining permanent establishment status in Vietnam's DTAs

Chart 3.2 shows the Permanent Establishment Index (PEI) of the DTAs that Vietnam has signed up to 2021. The dotted line represents the overall trend. of the PEI of Vietnam's DTAs. This line tends to go up to the right, showing that the later on, the permanent establishment provisions in Vietnam's double taxation treaties are more source-based over time.

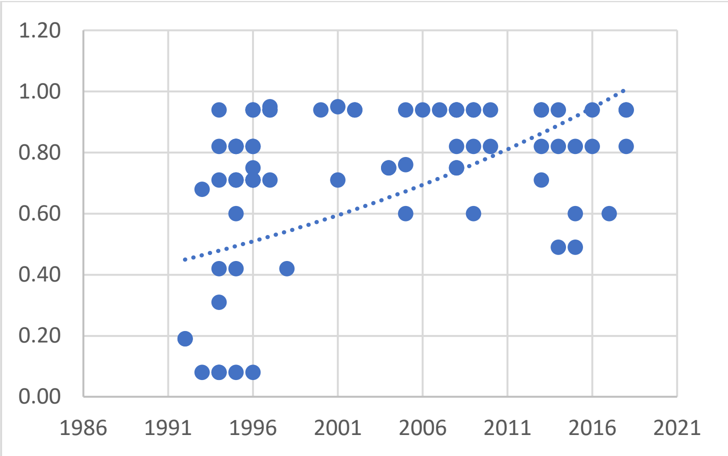

Chart 3.2. Indicator assessing the definition of permanent establishment in DTAs signed by Vietnam as of 2021

Source: The authors calculate

The average PEI of Vietnam's DTAs is 0.72, which is 33.33% higher than the average PEI of the agreements of developing countries in the world (0.54). However, the average PEI of Vietnam's DTAs with the group of OECD countries is 0.68 (5.56% lower than the average PEI of the entire DTAs of Vietnam and 15% lower than the average PEI of the DTAs that Vietnam has signed with non-OECD and non-G20 countries). Especially, the average PEI of Vietnam's DTAs with the G20 group of countries is 0.49 (31.94% lower than the average PEI of the DTAs of Vietnam, 38.75% lower than the average PEI of the DTAs that Vietnam has signed with non-OECD and non-G20 countries and 9.46% lower than the average PEI of developing countries' DTAs).

Considering within 22 countries with the largest amount of foreign direct investment capital in Vietnam with a capital of 1 billion USD or more, the average PEI of this group of agreements is only 0.43 (46.25% lower than the average PEI of Vietnam and 20.37% lower than the average PEI of the DTAs of developing countries). In particular, the agreements with the lowest PEI are in these 22 countries, specifically those between Vietnam and Singapore, the United Kingdom, France, Germany (0.08), Australia and Thailand (0.19), United Kingdom (0.29), and South Korea (0.31).

Table 3.2. Comparison of the average PEI of Vietnam's DTA with groups of countries

	OECD member	G20 member	Non-OECD and G20 member
Average PEI	0,68	0,49	0,8
Average PEI of DTAs of Vietnam		0,72	
Average PEI of DTAs of developing countries		0,54	

Source: The authors calculate

2) Assessment of the current regulations on determination of taxable income and tax rates in Vietnam's DTAs

Chart 3.3 shows the index evaluating regulations in determining taxable income and tax rates (Withholding Tax Index - WHT) of Vietnam's DTAs. The dotted line represents the overall WHT trend of Vietnam's DTAs. This line tends to be flat, showing that the provisions on determining taxable income and tax rates in Vietnam's double taxation treaties have not changed much over time. DTAs with the lowest WHT are those between Vietnam and Hungary (0.28), while those with the highest WHT are those between Vietnam and Kuwait (0.75).

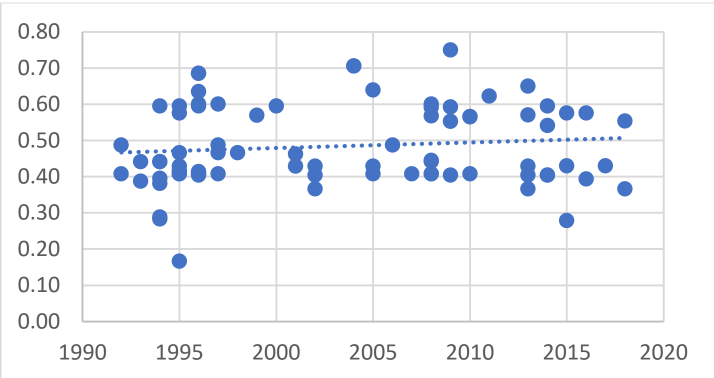

Chart 3.3. Indicator assessing regulations in determining taxable income and tax rates in DTAs signed by Vietnam by 2021

Source: The authors calculate

The average WHT of Vietnam's DTAs is 0.48, which is 6.67% higher than the average WHT of the agreements of developing countries in the world (0.45). However, the average WHT of Vietnam's DTAs with the group of OECD countries is 0.44 (8.33% lower than the average WHT of the DTAs of Vietnam, 13.73% lower than the average WHT of DTAs that Vietnam has signed with non-OECD and non-G20 countries and 2.22% lower than the average WHT of developing countries' DTAs). The average WHT of Vietnam's DTAs with the group of G20 countries is 0.45 (6.25% lower than the average WHT of the entire DTAs of Vietnam and 11.76% lower than the average WHT of the DTAs that Vietnam has signed with non-OECD and non-G20 countries).

Considering that among the 22 countries with the largest amount of foreign direct investment capital into Vietnam with an amount of 1 billion USD or more, the average WHT of this group of agreements is only 0.43 (10.42% lower than the average WHT of Vietnam and 4.44% lower than the average WHT of the developing countries' DTAs). In particular, the agreements with the lowest WHT are in these 22 countries, specifically the agreement between Vietnam and the Netherlands (0.17), the United States (0.28), the United Kingdom (0.29), Singapore (0.38) and France (0.39).

Table 3.3. Comparison the average WHT of the DTAs of Vietnam with groups of countries

	OECD member	G20 member	Non-OECD and G20 member
Average WHT	0,44	0,45	0,51
Average WHT of DTAs of Vietnam		0,48	
Average WHT of DTAs of developing countries		0,45	

Source: The authors calculate

From the above analysis, it can be seen that the bilateral tax agreements of Vietnam exist many loopholes for enterprises to carry out abusive acts that erode the tax base in Vietnam.

Firstly, there are still many countries/territories with a large amount of investment capital in Vietnam, but between Vietnam and these countries/territories have not yet signed an agreement to avoid double taxation, including Virgin Island. British, Samoa and Cayman Islands are the three countries/territories in the group of 22 countries/territories with the largest investment capital in Vietnam.

Secondly, compared to the average level of developing countries, the DTA system of Vietnam is higher, however, the biggest limitation and the biggest risk from the system of DTAs are these agreements are agreements signed by Vietnam with the countries/territories that have the lowest scores and are in the group of countries/territories with the largest amount of investment capital in Vietnam. This means that Vietnam is limited in its right to tax income of entities from these countries/territories and the content of the agreements that Vietnam has signed with these countries/territories. There are loopholes creating conditions for abuses of the terms of the agreement and causing erosion of the tax base in Vietnam.

The terms with exceptionally low scores, high risk of abuse of these provisions to implement tax avoidance acts, causing tax base erosion in Vietnam are:

- 5iii-c: Length of time period in which the activity to determine permanent resident status for services is often long or without a provision.
- 5iv: Determine if the establishment only performs the delivery function, it does not form a permanent establishment.
- 5v: Determine if the establishment only performs the delivery function, it does not form a permanent establishment.
- 5vi: There is no regulation on permanent establishment for securities dealers.

- 5vii: There is no provision on permanent establishment for insurance agents.
- 5viii: There is no extensive regulation on independent agents to determine the agent's residency status.
- 10i: Low dividend tax rate.
- 11i: Low interest rate tax.
- 12i: Low royalties tax rate.
- 12iv-b: No tax on management fees and technical fees.
- 12iv-c: Low tax rates for management fees and technical fees.

4. CONCLUSION AND RECOMMENDATIONS

There are still many countries/territories with a large amount of investment capital in Vietnam, but between Vietnam and these countries/territories have not yet signed an agreement to avoid double taxation. Moreover, these agreements which are signed by Vietnam with the countries/territories having the lowest scores are in the group of countries/territories with the largest amount of investment capital in Vietnam. This means that there are loopholes creating conditions for abuses of the terms of the agreement and causing erosion of the tax base in Vietnam. In order to prevent tax base erosion from tax treaty abuse, the authors recommend these three following solutions including:

(1) Reviewing and considering negotiating to update the content of DTAs

Whether to enter into a tax agreement with another country is up to each country to decide on the basis of various factors, including tax and non-tax considerations which will play an important role. It is proposed that when considering whether to enter into a tax agreement or amend an existing tax agreement with a certain country, Vietnam needs to carefully consider and consider following issues related to tax policy:

Firstly, Vietnam should carefully consider whether there really exist risks of double taxation for its residents and the signatory country to need to conclude a tax agreement. Since the main objective of tax agreements is to avoid double taxation in order to reduce tax obstacles to cross-border services, trade and investment, the existence of double taxation risk due to the interaction of the tax systems of the two signatories will be a major concern in terms of tax policy. Double taxation risks are generally more significant when current or projected levels of cross-border trade and investment between two countries are frequent and substantial. Most tax treaty provisions seek to reduce double taxation by allocating taxing power between two countries and assuming that when a country accepts the terms of the agreement limiting in respect of income, it understands that such income is taxable in the other country.

Secondly, consider whether there is a risk of being overtaxed due to the high CIT rates levied on residents of Vietnam in a Contracting State or on residents of a Contracting State. in Vietnam or not. Because normally, the tax exemption or deduction mechanism for foreign income usually only allows the maximum deduction according to the applicable tax rate of the country of residence. In cases where the CIT levied in the source country is much higher than the CIT levied on profits in the country of residence, which could be detrimental to cross-border trade and investment between the two countries, then consideration should be given. to enter into a tax treaty.

Thirdly, it is necessary to consider the possibility of administrative support of the Contracting State. An important objective of tax agreements is to prevent tax avoidance and evasion, Vietnam should also consider whether its partners are willing and able to effectively implement the provisions of the relevant tax agreements. When it comes to administrative support, such as the ability to exchange tax information, this is an important aspect to take into account when deciding whether or not to join a tax agreement.

Fourthly, the ability and willingness of the Contracting State to assist in tax collection will also be a factor to take into account. In the absence of any real risk of double taxation, these administrative supports can be secured through alternative arrangements such as tax information exchange multilateral agreement on mutual administrative assistance without the need to conclude a tax agreement.

When signing a new tax agreement as well as reviewing the existing tax agreement, it is important to pay attention to the following contents, these are provisions that still have loopholes and are easily abused to cause erosion of the tax base. That is:

- Provisions relating to the length of the activity period to determine the permanent status for the service;
- A provision for determining whether an establishment that performs only the delivery function forms a permanent establishment;
- Regulations on permanent establishment for securities dealers;
- Regulations on permanent establishment for insurance agents;
- Extended regulations on independent agents to determine the agent's residency status;
- Regulations on tax rates for dividends, interest, and royalties;
- Regulations on taxation (whether or not and at what rate) for management fees and technical fees.

(2) Promoting participation in multilateral tax agreement

The BEPS Actions (OECD) proposes a multilateral instrument that can address treaty-based tax base erosion problems while respecting national autonomy in tax matters. As tax base erosion is the result of interactions between the laws and treaties of many countries, governments need to cooperate more deeply through a multilateral instrument to prevent the tax treaty network from enabling to erode their tax base and to protect their tax sovereignty. A multilateral tool that facilitates rapid action and innovation. A multilateral instrument would implement the agreed treaty measures within a reasonably short time and at the same time it would preserve the bilateral nature of the tax treaties.

Therefore, Vietnam's participation in the multilateral tax agreement is necessary and reflects the trend of the tax integration process and the need for reform of Vietnam's tax system to 2030. The content of Vietnam's participation in the multilateral tax agreement should be built on the basis of the principle of ensuring national interests, implementing minimum standards of BEPS Actions and should be appropriate to the level of development of country.

To ensure that the roadmap and steps are suitable for Vietnam's conditions, it is necessary to develop a plan to participate in the multilateral tax agreement, specifically:

- The signing and participation in the multilateral tax agreement will become an international treaty for Vietnam because it rises, changes or terminates Vietnam's rights and obligations under international law. Therefore, it is necessary to develop a draft of the Government's guiding document on the implementation of the multilateral tax agreement with respect to the contents of Vietnam's commitments, such as regulations on avoiding the formation of permanent establishments, the definition of people having relationships with other associations, provisions on settlement of disputes related to the agreement; and strengthen propaganda and guidance on the application of multilateral tax agreement to support tax authorities as well as taxpayers to conveniently apply the agreement on avoidance of double taxation.
- Need to add arbitration mechanism to settle disputes over the application of provisions of the Tax Agreement; Continue to evaluate the contents of Vietnam's reservation in the multilateral tax agreement to propose and recommend implementation when the conditions of human resources and management level allow. In addition, it is necessary to study and amend the Law on Corporate Income Tax in line with the recommendations of the BEPS Actions on tax incentives in the direction of limiting tax practices that are harmful to the tax base, the principle of determining permanent establishment according to Vietnamese law, the related parties…
- In the immediate future, priority should be given to multilateral negotiations to re-sign tax agreements with countries in the ASEAN region and a number of countries with strategic partnerships with ASEAN such as China, Japan, and South Korea. It is possible to orient contact with partner countries so that in the next 3 years, the tax agreements of ASEAN + 3 can be signed. Although priority is given to negotiating multilateral tax agreement, partners who do not have suitable conditions or economic relationships are not too complicated, it should continue to negotiate and sign bilateral tax agreement. In the future, bilateral tax agreements will be the basis for combining and expanding and upgrading to form multilateral tax agreement with partners who have a close relationship and can share benefits.

(3) Improving efficiency of tax audit

Checking tax returns of enterprises is a regular job of the audit department of the tax authority. Through the detailed analysis of information, it is possible to arrange and assess the level of risk of acts that cause tax base erosion of enterprises. This is a job that requires tax officials to properly and accurately evaluate as well as have convincing analytical grounds for businesses in the process of asking for explanation of questionable contents in their tax returns. By analyzing risk assessment information and asking businesses to explain to the management agency, businesses will have positive changes in their sense of compliance with tax laws. Good implementation of this solution will reduce the organization of inspections and examinations at enterprises and vice versa, enterprises will also reduce time and costs in the process of working with tax authority.

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THE IMPACT OF CAPITAL STRUCTURE ON PERFORMANCE OF COMPANIES LISTED ON THE VIETNAM'S STOCK EXCHANGE

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Abstract: *This study investigates the impact of capital structure on firm performance of companies listed on the Vietnam's Stock Exchange. Simultaneously, outline the findings of past empirical studies on the influence of capital structure on enterprise value. Create a model and assess the impact of capital structure elements and the link between capital structure and firm performance on 317 Vietnamese companies listed on the stock exchange from the years 2010 to 2019. The paper indicates that capital structure has a negative impact on firm performance. Moreover, the study points that Fixed asset ratio, GDP, and Interest coverage rate have a positive influence on ROA and Firm Size has a positive influence on ROE while Asset turnover ratio, Inflation rate, and GDP have a positive influence on both ROA and ROE.*

Keywords: *Capital structure, firm performance, listed companies, Vietnam's stock exchange.*

1. INTRODUCTION

Although, today's economic trend not only integration but also connectivity in the area, as well as economic globalization, is increasing, providing new possibilities and formulas for companies in Vietnam. Before such councils and algorithms, firms must make critical production and commercial decisions to grow. To ensure the business's long-term success, the management must design a suitable financial strategy, which includes the substance of the capital structure. Finding the optimal point for the capital structure to maximize the firm value required equity and debt proportion should be reasonable. Even so, the rising debt structure has benefited in tax shield, but it could also raise the financial risk to investors, and reduces the return on equity. Therefore, it is necessary, to investigate the impact of the capital s from which solution is suited.

Maximizing the business value and shareholder wealth has become the main goal of establishing the company. Since many public enterprises tend to follow those achievements to satisfy the shareholders' stability. Therefore, if the value of the business rise, then shareholders' wealth might increase. Setting a capital structure is a critical choice. If the company constructs an unsuitable capital structure, it might be facing financial troubles and perhaps insolvency. When a firm utilized the asset to generate revenue, after deducting relevant costs, the tax payable, and interest payments, the remained income would highly likely be utilized for reinvestment. If the firm is entirely funded by equity, the full post-tax cash flow operational relates to the owner's advantage each month (by dividends or retained earnings). If the firm has utilized capital proportion, it must set aside

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its income for the debt. Furthermore, debtors have the first claim to enterprise income; investors merely have a residual interest. The capital structure chosen by the organization impacts how much operational cash flow is allocated to debt holders and shareholders each period. Since the discussion about the relevance of a firm's financial structure is complex, therefore, should be considered the influence of separating cash flow into a loan component and an earn equity component on firm value. Many economists believed that the debt structure rise would raise entity value. However, additional rises in leverage could raise the firm's overall cost of capital and reduce firm profitability.

The capital structure indicates a business's loan capital to equity property ratio. In company activities, suggesting a reasonable capital structure is critical. Because adequate capital structure will assist firms in lowering their WACC and increasing their owners' assets. Furthermore, capital structure influences the firm's potential to profit and the firm risks it confronts (Frank & Goyal, 2009). In actuality, capital structure may change based on the features of each business situation, the area in which the firm works, and the consequences of changes in macroeconomic dynamics of the economy, cultural and religious aspects. The same link between these influencing elements and capital structure allows us to evaluate if the business's use of debt or equity capital is fair or not, and what deficiencies and hazards arise from which to provide ways to increase efficiency. Since there are still few studies in Vietnam that are interested in the topic influence of capital structure on firm performance. Entity value is influenced by the cost of capital, liquidity, growth of the business, and size of the company. To maximize the value of the firm, management must be able to identify and address the organization's vulnerabilities. The capital structure with an enterprise value of businesses is inextricably linked. If a company adopts a suitable capital structure, it could maximize the value and vice versa.

This study would emphasize examining how the impact of Capital Structure on the firm performance of companies listed on the Vietnam Stock Exchange in the context of effects of the economic downturn (2010-2019). The findings of this study may provide some insights to management in steering the corporate structure of firms.

The rest of this paper is organized as follows: Section 2 reviews the prior literatures and develop the hypothesis. Section 3 presents the data and methodology, while Section 4 shows the empirical findings and discussion. Finally, conclusions are presented in Section 5.

2. LITERATURE REVIEW AND HYPOTHESIS

Zeitun et al (2007) studied the impact of capital structure on the performance of 167 companies in Jordan in the period 1989-2003. Variables representing the firm's performance are ROA and Tobin's Q. Research results show that capital structure has a negative impact on the performance of firm in the sample.

Lin (2007) investigated the impact of capital structure on firm vale of 272 companies listed on the Taiwan stock exchange in the period 1997-2005. Tobin's Q is used as proxy for firm value. The debt ratio is measured by total debt to total assets as a proxy for capital structure. The study shows that there are two thresholds between debt ratio and firm value of 48.92% and 49.55%. In order to improve firm value, the paper concludes that the optimal range of debt ratio is between 48.92% and 49.55%.

Ahmad and Abdullah (2013) used the threhold regression method to study the effect of capital structure on the firm value of 467 companies listed on the Malaysian stock exchange in the period 2005-2009. The ROE variable is used as a proxy for firm value. The study shows that in order to improve the firm value, the debt ratio of companies listed on the Malaysian stock exchange should be below 64.33%.

In Vietnam, many researches investigated the relationship between capital structure and firm performance. Do Van Thang and Trinh Quang Thieu (2010) analyzed the empirical relationship between firm and the capital structure of listed companies listed on Ho Chi Minh Stock Exchange. The authors used multivariable OLS regression with dummy variables and evaluate the influence of 159 listed companies from 2006 to 2009. The regression results show that there is a close relationship and there is a ternary relationship between capital structure and firm value, represented by capital structure as the debt-to-equity ratio (including short-term debt and long-term debt). When the debt to equity ratio increases and is less than 105%, the opposite result will be obtained. The capital structure will be optimal at a debt to equity ratio of 105%. Research by Nguyen Thanh Cuong (2015) suggested the influence of optimal capital structure on business value. The results show that capital structure has an impact on firm value (represented by ROE and BVE), the proxy of capital structure is the debt ratio affecting the firm value of 57.39%. In addition, factors such as the size of total assets and interest burden also have a positive effect on the value of the enterprise, tangible fixed assets, and liquidity has negative impact the value of the business while growth does not affect the firm value. In from the period 2008–2011, Le Thi et al (2013) investigated the relationship between foreign ownership ratio, capital structure, and corporate value of 203 non-financial enterprises listed on the Vietnamese stock exchange. Financial leverage has a negative connection with business value. Dependent variables, on the other hand, such as profitability, short-term solvency, and business size, have a positive impact on company value. Mai (2020) examined data from 35 plastics and packaging firms listed on the stock exchange from 2012 to 2018, and the findings revealed that capital structure (DA, SDA) had the negative impace on company value (Tobin's Q). Business performance (ROA) and asset size are two control factors that have a favourable influence on company value.

Based on the theories and empirical studies, this study investigate the influence of the capital structure on the performance of the firms listed on the Vietnamese stock exchange in the period 2010-2019. Therefore, the hypothesis is that capital structure has a relationship with the performance of firms listed on Vietnam's stock exchange.

H1: Capital structure has an impact on firm performance.

To analyze the impact of capital structure to firm value, the model is built as follows:

Model 1: ROA = β0 + β1.TDTAit +β2.GROWTHit + β3.CURit + β4. ICRit + β5.TANGit + β6.ATRit + β7.GDPit+ β8.INFit+ β9.SZit + uit

Model 2: ROE = β0 + β1.TDTAit +β2.GROWTHit + β3.CURit + β4.ICRit + β5.TANGit + β6.ATRit + β7.GDPit+ β8.INFit+ β9.SZit + β10.ITit +β9.ARRit + uit

Table 1. Variable definition and Proxies

Variable name	Definition	Proxies
Dependent variables		
ROA	Return on Asset	Net income/Total Asset
ROE	Return on Equity	Net income/Shareholders' Equity
Independent variables		
TDTA	Debt ratio	Total Debt/Total Asset
Control variables		
CUR	Current ratio	Current Assets/Current Liabilities
ICR	Interest Coverage Ratio	EBIT/Interest expense
GROWTH	Enterprise Revenue Growth rate	Increase in the total Revenues/Total Revenues from the prior year's
SZ	Enterprise size	The Logarithm of Total Assets
TANG	Fixed asset ratio	Fixed Asset/Total Asset
ATR	Asset turnover ratio	Net Sales/Average Total Sales
IT	Inventory turnover ratio	COGS/Average Inventory
ARR	Receivable Turnover Ratio	Net sales on credit/ Average accounts receivable
GDP	Gross domestic product	Growth in gross domestic in 2010-2019
INF	Inflation rate	The annual inflation rate in 2010-2019

Source: Compiled by the author

3. DATA AND METHODOLOGY

3.1. Data collection

For our study, we will focus on the impact of capital structure on firm performance in Vietnam context. This study would cover the data of 317 companies listed on the Vietnam Stock Exchange over the period of 10 years (from 2010 to 2019) which was gathered mostly from company financial statements, corporate associate announcements, reports, and yearbooks from the Stock Exchange and Fin's Pro Exchange computer system. Furthermore, only companies which were active during the examined period were considered. In addition, companies in our dataset are required to have reported a full annual account. The final sample consits 317 firms with 3170 observations.

3.2 Data analysis

We used a package of STATA software version 13 to estimate the regression equations that we proposed above. First off, bivarate relations among variables were explored via examining correlation. Next, we used ordinary least square (OLS) to examine the effect of leverage to business performance. Then, Hausman's test was employed to discover which models are more suitable for the data set between Fixed Effects Model (FEM) and Random Effects Model (REM). The result suggests that FEM is suitable for the character of data in this research. The research also examined some necessary test for regressive assumption to ensure the result of regression is blue such as autocorrelation, multicollinearity and hetoroskedasticity.

Finally, to validate our research results, FGLS regression was performed to recalculate standard errors in case the models violate regressive assumptions.

4. RESULTS AND DISCUSSION

4.1. Descriptive Statistics

Table 2. Descriptive statistics

Variable	N	Mean	SD	Min	Max
ROA	3170	0.0687734	0.1092803	-0.6245849	4.201369
ROE	3170	0.1330534	0.1950572	-6.081074	2.93092
TDTA	3170	0.4940394	0.2173385	0.0109895	1.763201
CUR	3170	2.297288	3.420812	0.14	105.7035
ATR	3170	1.164833	1.11782	-0.0032087	14.50128
INF	3170	0.06081	0.049704	0.0063	0.1868
SZ	3170	11.91704	0.6938279	10.12417	14.6061
TANG	3170	0.0648177	0.8793785	-7.337697	48.13833
GROWTH	3170	0.3449815	3.935065	-1.039212	176.1942
GDP	3170	0.06311	0.0059469	0.0525	0.0708
ICR	3170	11.14928	46.18568	-106.0244	743.5007
ARR	3170	31.31731	416.5027	-.04	14816.87
IT	3170	18.6847	107.0571	-2	4147.777

Source: Compiled by the author.

As shown in Table 2, it is clear to see that the dependent variable ROA reached the average at 0.0687 and the minimum at -0.6245, and the highest amount at 4.2013 indicating high variability in performance among Vietnam's listed firms. The GROWTH variable reached the maximum of 176.1942 and for ICR was 743.5007 during the period of 10 years. Generally, from 2010 to 2019, these statistical results of firm performance might suggest that Vietnam's listed firms posted strong performance. This consists of the fact that during 2017, the Vietnam stock market hit the record, nearly 48 percent up from the same category in 2016. With the significant performance of numerous businesses, leading enterprises like Petrolimex, Vietjet, etc. and optimistic economic growth, the stock market reached almost 73 percent of the Gross domestic product (GDP).

There is a significant difference in ARR; the range of the variable is between -0.04 to 14816.87. This might be due to the characteristic tic of various ty industries on the Vietnamese stock market, such as Hospitality and Agriculture has the lowest ARR while Industrial Chemicals and Mining are highly likely to require a long ARR.

The capital structure variable TDTA has an average value of 0.4940, the highest value is at 1.7632 and the lowest is at 0.0109. The gap between the maximum value and the minimum value is quite large. It can be seen that enterprises listed on Vietnam's stock market mostly use debt.

Meanwhile, the dependent variable ROE reached the average at 0.1330 and the minimum at -6.081 and the highest amount at 2.9309 indicating high variability in performance among Vietnam's listed firms. Since the gap between the minimum value and maximum value showed that during the period, the company is more effective at generating profit from its existing assets.

For IT, there is a significant difference between the range of -2 and 4147.777. Since the Inventory ratio supports the manager in planning and demonstrates how fast the firm trades its services and stocks for the money. The higher the ratio the higher the liquidity of the business, because it indicated the firm has sold stock in large amounts and generates profit.

For two Macro variables, GDP and INF, overall, the mean of the two variables is not significantly different, but the maximum is quite large. This might due to there is a bias in capital allocation (market sector) in the corporate sector. Since state-owned firms and certain huge private enterprises with a lot of connections are getting a lot of funding.

Table 3. Correlation matrix

	ROA	ROE	TDTA	CUR	ATR	SZ	TANG
ROA	1.0000						
ROE	0.4573*	1.0000					
	0.0000						
TDTA	-0.2166*	-0.0617*	1.0000				
	0.0000	0.0005					
CUR	0.1019*	0.0207	-0.4160*	1.0000			
	0.0000	0.2429	0.0000				
ATR	0.1360*	0.1641*	0.0276	-0.0692*	1.0000		
	0.0000	0.0000	0.1197	0.0001			
SZ	-0.0596*	0.0244	0.3011*	-0.1623*	-0.2491*	1.0000	
	0.0008	0.1696	0.0000	0.0000	0.0000		
TANG	0.6581*	-0.0081	0.0942*	-0.0194	-0.0126	-0.0067	1.0000
	0.0000	0.6480	0.0000	0.2752	0.4791	0.7069	
INF	0.0393*	0.0484*	0.0315	-0.0471*	0.0309	-0.1094*	-0.0031
	0.0268	0.0065	0.0760	0.0080	0.0820	0.0000	0.8604
GROWTH	0.0011	0.0090	-0.0243	0.0438*	-0.0000	0.0097	0.0042
	0.9510	0.6121	0.1710	0.0136	0.9983	0.5833	0.8134
GDP	0.0334	0.0446*	-0.0265	0.0544*	-0.0130	0.1051*	0.0176
	0.0603	0.0120	0.1357	0.0022	0.4627	0.0000	0.3211
ARR	0.0286	0.0259	-0.0090	0.0048	0.1066*	-0.0409*	-0.0008
	0.1075	0.1444	0.6111	0.7887	0.0000	0.0212	0.9659
IT	0.0225	0.0087	-0.1097*	0.0330	0.0375*	-0.0590*	-0.0020
	0.2047	0.6261	0.0000	0.0631	0.0347	0.0009	0.9121
ICR	0.1431*	0.1322*	-0.0244	-0.0188	-0.0087	0.4366*	-0.0008
	0.0000	0.0000	0.1696	0.2892	0.6230	0.0000	0.9652

	INF	GROWTH	GDP	ARR	IT	ICR
INF	1.0000					
GROWTH	0.0297	1.0000				
	0.0942					
GDP	-0.3642*	0.0005	1.0000			
	0.0000	0.9779				
ARR	-0.0109	-0.0025	-0.0176	1.0000		
	0.5391	0.8880	0.3230			
IT	-0.0174	0.0461*	0.0118	0.0791*	1.0000	
	0.3278	0.0094	0.5072	0.0000		
ICR	-0.0418*	-0.0058	0.0462*	-0.0012	-0.0126	1.0000
	0.0185	0.7441	0.0093	0.9441	0.4785	

Source: Compiled by the author.

The results of pairwise correlation analysis in Table 3 showed the correlation between Size and CUR, ATR has a significantly negative effect followed by - 0.1623, -0.2491. This means the SMEs tend to have mostly higher solvency, asset structure, and working capital turnover than larger enterprises listed on the Vietnam Stock Exchange.

SIZE has a low negative correlation with ROA (r=-0.0596) while TDTA had significant and negative correlations with ROA (r= -0.2166). Variables such as INF, TANG, GROWTH, and ICR, have a positive correlation with ROA, especially TANG (r=0.6581), However, ROA has a low positive correlation with INF(r= 0.0393). Although, SZ has a low positive influence on ROE with (r= 0.0244). This means when the business tends to expand its size, possible bankruptcy costs are a lower percentage of a larger company than they are for a smaller one. Furthermore, larger organizations gain many benefits for transaction expenses, as well as long-term debt, which is not possible for smaller firms.

Panel unit root test

The Levin–Lin–Chu test was employed in this study (LLC Test - 2002). One of the earliest unit root tests for tabular data was by Levin, Lin, and Chu (2002). At the 1% significance level, the test findings on the sample data reveal that all variables are stationary. Therefore, the regression model's projected findings on the variables are trustworthy.

Table 4. Levin-Chu Panel root test

Variable	P-value	Result
ROA	0.0000	Stationary
ROE	0.0000	Stationary
TDTA	0.0000	Stationary
CUR	0.0000	Stationary
ATR	0.0000	Stationary
SZ	0.0000	Stationary
TANG	0.0000	Stationary
INF	0.0000	Stationary
GROWTH	0.0000	Stationary
GDP	0.0065	Stationary
ARR	0.0000	Stationary
IT	0.0000	Stationary
ICR	0.0000	Stationary
ARR	0.0000	Stationary

Source: Compiled by the author

4.2. Findings and discussion

For the sample of our research, the fixed effects method is more appropriate than the random effects. This assumption was also formally tested. Breusch-Pagan Lagrange multiplier test is based on verification and selection an appropriate model between Ordinary Least Squares (OLS) or random model. The null hypothesis is when is the variance between the entities (in this case firms) zero, i.e., what implies that there is no panel effects, what allows us to conclude that the usual OLS is suitable method. However, the test result suggests rejection of the null hypothesis with on all levels of reliability, what implies that random model is more appropriate. Further, Hausman test helps us in making decision about better model between fixed and random. Main point is about whether the errors are correlated with regression. The null hypothesis presupposes that they are not, what goes in favour of random model, but if results are opposite, more appropriate is fixed model. The result of Hausman's test indicates rejection of the null hypothesis at all levels of significance, and fixed effects is better model than random effects. As the result, we have concluded that the fixed effects method should be applied in this case. The result is given as the model has the hetoroskedasticity and autocorrelation but does not contain the multicollinearity. To validate our research results, FGLS was performed to recalculate standard errors in case the models violate regressive assumptions.

Model 1: ROA = β0 + β1.TDTAit +β2.GROWTHit + β3.CURit + β4. ICRit + β5.TANGit + β6.ATRit + β7.GDPit+ β8.INFit+ β9.SZit + uit.

Table 5. Regression model 1

```
Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   common AR(1) coefficient for all panels  (0.5953)

Estimated covariances      =       317          Number of obs     =      3,170
Estimated autocorrelations =         1          Number of groups  =        317
Estimated coefficients     =        12          Time periods      =         10
                                                Wald chi2(11)     =    3938.53
                                                Prob > chi2       =     0.0000
```

ROA	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
TDTA	-.1255711	.004115	-30.52	0.000	-.1336363	-.1175059
CUR	-.000507	.0004087	-1.24	0.215	-.0013081	.000294
ATR	.0126329	.0009314	13.56	0.000	.0108074	.0144584
INF	.0209149	.0092506	2.26	0.024	.0027841	.0390457
SZ	-.0025897	.0013938	-1.86	0.063	-.0053215	.0001421
TANG	.0871137	.0018837	46.25	0.000	.0834217	.0908056
GROWTH	-.0000714	.000151	-0.47	0.636	-.0003673	.0002245
GDP	.2173001	.0821569	2.64	0.008	.0562756	.3783247
ICR	.0004352	.0000323	13.45	0.000	.0003718	.0004987
IT	-.0000127	9.80e-06	-1.30	0.195	-.0000319	6.52e-06
ARR	-1.24e-06	3.10e-06	-0.40	0.689	-7.32e-06	4.84e-06
_cons	.1215608	.0166732	7.29	0.000	.0888819	.1542397

Source: Compiled by the author.

With Prob > chi2 = 0.0000, the model FGLS can be utilized to analyze the impact of capital structure on firm performance.

Model 2: ROE = β0 + β1.TDTAit +β2.GROWTHit + β3.CURit + β4. ICRit + β5.TANGit + β6.ATRit + β7.GDPit+ β8.INFit+ β9.SZit + uit.

Table 6. Regression model 2

```
Cross-sectional time-series FGLS regression

Coefficients:  generalized least squares
Panels:        heteroskedastic
Correlation:   no autocorrelation

Estimated covariances      =       317          Number of obs     =      3,170
Estimated autocorrelations =         0          Number of groups  =        317
Estimated coefficients     =        12          Time periods      =         10
                                                Wald chi2(11)     =     759.00
                                                Prob > chi2       =     0.0000
```

ROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
TDTA	-.0613323	.0068848	-8.91	0.000	-.0748262	-.0478384
CUR	-.0009246	.0006403	-1.44	0.149	-.0021796	.0003304
ATR	.0323983	.0016891	19.18	0.000	.0290877	.035709
INF	.2300174	.0271986	8.46	0.000	.176709	.2833258
SZ	.0132392	.0024331	5.44	0.000	.0084704	.018008
TANG	.0008501	.0008826	0.96	0.335	-.0008798	.0025801
GROWTH	-.0001044	.000309	-0.34	0.735	-.0007101	.0005012
GDP	.7288241	.2275008	3.20	0.001	.2829307	1.174717
ICR	.000567	.000046	12.34	0.000	.000477	.0006571
IT	-5.47e-06	.0000171	-0.32	0.749	-.000039	.0000281
ARR	1.58e-06	7.99e-06	0.20	0.843	-.0000141	.0000172
_cons	-.1010051	.0317793	-3.18	0.001	-.1632913	-.0387189

Source: Compiled by the author.

With Prob > chi2 = 0.0000, the model FGLS can be utilized in analyzing the impact of capital structure on firm performance The Model 2 final multiple regression model is given below:

TDTA has a significant negative influence on firm performance (ROA, ROE). This result consists of the study by Le Thi et al (2013), and Mai (2020). Because when the debt structure increase, the firm might lose liquidity, which leads to bankruptcy and go down in value. That seems to be, that the greater loans a company has, the worse its performance is, and vice versa. Even though these results contradict the trade-off theory, they are in line with Myers and Majluf's Pecking Order Theory (1984). Some studies such as Booth et al (2001) and Manawaduge et al (2011) also suggest that the is a negative influence between capital structure and firm performance.

ATR has a positive influence on ROA and ROE. This means the effective use of all assets in generating revenue, the higher this ratio, the more effectively all assets possessed by the organization are managed. The better ratio the higher the profit gain. This means firms tend to have strong performance, generated more value, and became attractive during the period. the greater the ratio, the less financial difficulty.

TANG has a positive influence on ROA. This means that when the ratio rises, the company becomes more efficient and productive in managing its fixed assets to create profits. Which consists of the study of Ali Saleh Alarussi (2018).

ICR has a positive influence on ROA and ROE, consistent with Assad Naim Nasimi's (2016) study. This indicates that profitability is positively connected to the interest coverage ratio and that increasing debt will raise the risk of default. As a result, a high-interest coverage ratio indicates a low risk of liquidity. This means that the firm's financial health is strong during this period, and the corporation is more capable of satisfying interest payments.

INF has a positive influence on ROA and ROE. As the inflation rate, increase leads to a go up in general prices. Since most firms during the period tend to raise resources from issued debt, therefore, their loans might be less valuable than the money borrowed. Revell (1980) established the link between profits and inflation. The impact of inflation on profitability is determined by whether operating costs rise faster than inflation or vice versa. Therefore, the increase in cost might lead to a go-up in the price per sale (consumer prices tend to increase). High inflation is related to both increased expenses and higher revenue. Inflation is considered to have a positive influence on profitability if an entity's income grows faster than its costs.

GDP has a significant positive influence on ROA and ROE, which is consistent with much previous research by Vong & Chan (2009). Higher economic growth may result in an increased market for both interest and non-interest operations, enhancing banking performance. Since the higher GDP, the better the purchasing power of the consumer, so this leads to an increase in demand for goods, productions, and services.

The firm size (SZ) has a positive influence on the ROE. This could be indicative that large corporations can be more effective than smaller corporations when they take advantage of scale efficiencies. Alternatively, since a company's size might be a positive influence on lending capability, prospective bankruptcy costs can become a lower share of value for larger firms than for enterprises, and financial distress costs may be reduced. Furthermore, larger companies can benefit from economies of scale in transaction expenses as well as long-term loans, which are not available to smaller companies.

5. CONCLUSIONS

This study investigated the impact of capital structure on performance on the sample of 317 Vietnamese listed companies in the period 2010-2019. The study reveals that capital structure measured by total debt to total asset has strong negative effect on firm performance. Moreover, the results showed that TANG has a positive influence on ROA and Firm Size has a positive influence on ROE while Asset turnover ratio, Inflation rate, and GDP have a positive influence on both ROA and ROE.

Some limitations of this paper should be commented, as follows: the dataset used in this analysis are not sufficient to generalise the results over the all Vietnamese firms; different performance ratios and capital strucuture variables may be used to confirm these findings; time lags are not mentioned. This study does not research the impact of Covid-19 on the capital structure and firm's value. Since the Covid-19 pandemic first appeared in Vietnam in early 2020, it is still highly problematic.

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COMPLETING ECONOMIC, FINANCIAL, LEGAL FACTORS PROMOTING SUSTAINABLE DEVELOPMENT OF VIETNAM STOCK MARKET

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Abstract: *Over the past 22 years, Vietnam's stock market has grown strongly in both size and quality, efficiency; become an important medium and long-term capital mobilization channel for the economy. The market changes rapidly in terms of structure, diversifying products and services. Management and supervision capacity is methodical; market operations are increasingly transparent and modern, towards international standards and practices. The system of legal documents is developed synchronously, in accordance with the practical context of Vietnam as well as international practices. However, the Vietnamese market needs to continue to improve and develop, first of all, to achieve the goal of becoming an emerging market in the regional and international stock market system. To do so, it is necessary to continue to improve the basic factors to promote market development, in which the focus is on economic, financial and legal factors, contributing to the stable development of the market. lasting.*

Keywords: *Economy, finance, solid development, stock market, Vietnam.*

PREFACE

In the market economy, capital is the premise and an important factor of the production and business process. Continuous production growth and cooperation and economic exchange expansion lead to the enormous increase in the demand for the capital for development investment, production and business expansion. The birth and development of the stock market along with the development of the national financial market have created an important capital supply channel for actors in need of capital in the economy as well as for the entire economy. The stock market creates another very important way to mobilize medium and long-term investment capital directly from the public, provides actors in need of long-term capital in the economy with an important capital channel to promote rapid, strong and sustainable development. At the same time, thanks to the smooth operation of the secondary stock market, investors can easily and conveniently convert securities into money when in need, speed up capital turnover, and improve capital efficiency.

During more than 22 years of establishment and improvement, the market has made strong development steps. The size of the market has grown tremendously and has become an important capital mobilization channel for businesses and the Government. The listed stock market by the end of 2021 has a market capitalization of over VND 6 million billion, equivalent to over 100% of GDP

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in 2020. The Government bond market has only been officially established for more than 10 years but has quickly confirmed role as an effective capital mobilization channel for the Government. Although the derivatives market has been established for nearly 4 years, it has grown rapidly with an average transaction growth rate of 3.5 times per year, and has been providing more investment and risk management tools which are effective for public investors.

However, Vietnam's stock market is currently still considered as a marginal market, with its development bases, development levels, etc, is being evaluated that it is still in its infancy, not really approaching to the market. international level of development. Therefore, it is necessary to continue to research and evaluate to improve more strongly the fundamental factors to promote strong and steady development of the Vietnamese stock market and upgrade the Vietnamese market as soon as possible.

VIETNAM STOCK MARKET SITUATION AND ECONOMIC, FINANCIAL AND LEGAL FACTORS FOR MARKET DEVELOPMENT

Overview of the process of setting up and perfecting the Vietnamese stock market

- **The structure of the stock market**

Vietnam's stock market was officially established with the event that the Ho Chi Minh City Stock Exchange - the predecessor of the Ho Chi Minh City Stock Exchange (HoSE) - is a trading market. Vietnam's first centralized securities market was opened on July 20, 2000 and held its first trading session on July 28, 2000. The Vietnam stock market came into operation in an organized manner with the goal of building an effective medium and long-term capital mobilization and allocation channel, serving the country's economic development with many outstanding achievements of the stock market in the past 22 years.

During that process, the stock market parts were gradually put into operation and development, with directly the trading activities of government bonds and corporate bonds carried out since 2002; The specialized government bond market was officially launched on the Hanoi Stock Exchange in September 2009. Derivative securities market is also promoted to form and develop; with the first type of derivative, the VN30 Index Futures Contract, was officially traded on the Hanoi Stock Exchange on August 10, 2017, marking the beginning of the formation of a full derivative stock market. in Vietnam. After that, in 2019, Vietnam's derivatives market continued to have new products such as 5-year government bond futures contracts, 10-year government bond futures contracts, etc. The structure of Vietnam's stock market has basically been completed and operated more continuously and smoothly, on the basis of a more and more unified process of market organization and supervision, closely following regional and international standards, especially when the Vietnam Stock Exchange is officially established according to the model. Parent company - subsidiaries (including HoSE and HNX), in February 2022.

- **Market size**

The size of the Stock Market has grown tremendously and has become an important capital mobilization channel for businesses and the Government. The size of the stock market maintains its growth momentum: at the end of 2015, the market capitalization of Vietnam's stock market reached about VND 1,420 trillion, the whole Vietnamese market achieved a capitalization-to-GDP ratio above 52%, by the end of 2021, there have been over 1,600 enterprises listed and registered for transactions with a market capitalization of nearly 7.7 million billion VND, equivalent to 127.28% of GDP. The bond market, including government bonds and corporate bonds, has quickly affirmed its role as an effective capital mobilization channel for the Government and businesses; support for the mobilization of Government bonds to be more and more active. The bond market at the end of 2019 had a listed scale of VND 1,189 trillion, up 1.4% compared to the end of 2018 with 593 listed bond codes. In which, government bonds accounted for 98% and corporate bonds only accounted for about 2% of the listed value. By the end of 2021, the bond market capitalization will reach about VND 2.5 million billion, equivalent to nearly 40% of GDP in 2020; and by the end of the third quarter of 2022, this capitalization has increased to approximately 44% of GDP in 2021.

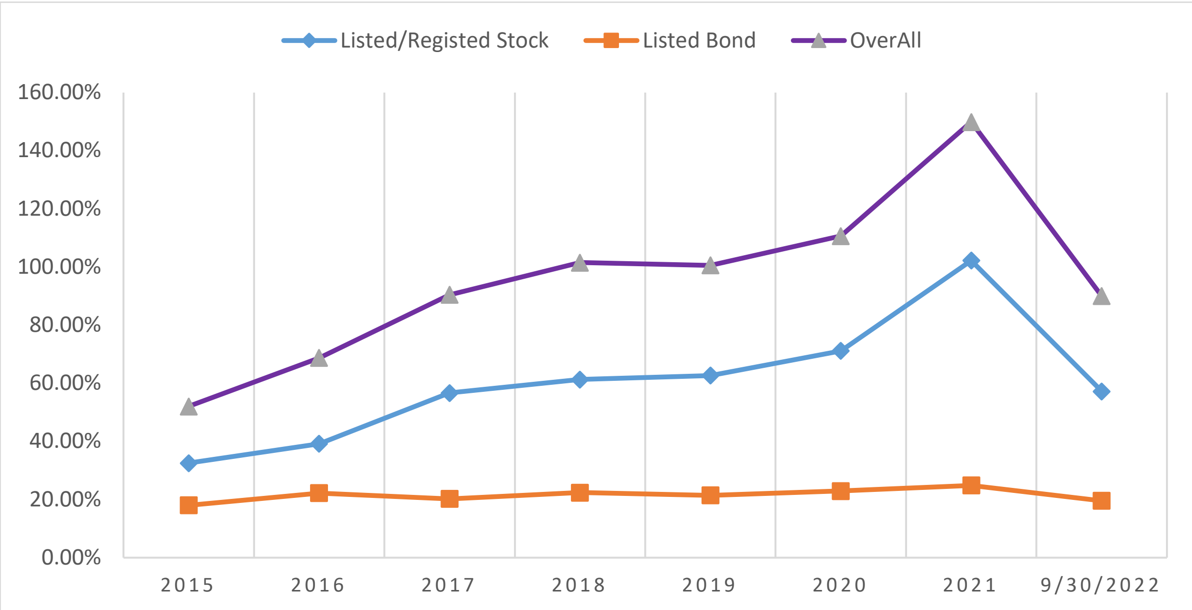

Chart 1. Market capitalization/GDP

Source: SSC and author's compilation

By the end of 2021, the VN-Index reached nearly 1,500 points, an increase of nearly 32% compared to the end of 2020. The market capitalization of Vietnam's stock market, which is centrally managed, reached more than 9,300 trillion VND, or more than 149. 7% of GDP, or about $410 billion. Although, by 2022, especially from the end of the second quarter of 2022, the market trend has turned to a downward state, in general, the threshold of 1,000 points for the VN-Index is quite solid, the market capitalization reached almost 90% of GDP.

The strong development of the stock market has helped to restructure Vietnam's financial system towards a more balanced and sustainable direction. It is estimated that at the end of 2021, the proportion of securities sector capitalization in total assets of the financial system is now at about 43.6%, not too far from 56.4% of the credit assets and much higher than the share of about 21% of the securities sector in 2010.

- **Capital mobilization capacity of the market**

The stock market has proven an increasingly important role in mobilizing capital and providing medium and long-term capital for economic development. In 2006, the stock market only mobilized 40 trillion dong for the economy, this figure reached 320 trillion dong in 2019, doubled compared to 2018 and increased 41.3% over the same period last year. and 8 times higher than 2006. In the first 6 months of 2020, despite being affected by the Covid-19 pandemic, the total capital mobilization for the economy through the stock market still reached about 107 trillion dong. It is estimated that the annual rate of social investment capital made through the Vietnam stock market channel is at an average rate of 16.5%/year in the period 2016-2019 *(According to Dr. Can Van Luc)*.

In the last 10 years, the total amount of capital mobilized through the stock market has reached over VND 2.4 million billion, equivalent to 14% of the total investment of the whole society, making an important contribution and sharing the task of raising capital with each other. banking credit system, helping the economy maintain the growth rate of total investment capital and economic growth. This is also a "launching pad" for many businesses in mobilizing resources for outstanding development in both scale and quality, making important contributions to economic development and gradually bringing regional and international stature such as: Vietcombank, Vinamilk, Vingroup and many other well-known enterprises.

Entering the 2020-2021 period, although the complicated Covid-19 pandemic has negatively affected the global socio-economic in general and the world stock market in particular, capital mobilization through the stock market still took place quite excitingly, continuing to affirm as an active capital mobilization channel for the economy with the total mobilization on the stock market in 2020 estimated at 414 trillion dong, up 30% over the same period last year. Thus, in the 2016-2020 period, the scale of capital mobilization through the stock market is estimated at more than VND 1.5 million billion, nearly 1.3 times higher than in the 2011-2015 period, making an increasingly larger contribution to the total investment. social private. In 2021, the total scale of capital mobilized through the stock market has reached VND 1,120 trillion, but the proportion is focused on the capital mobilization channel by bonds, with government bonds accounting for 28.4%, corporate bonds accounting for 28.4%. 56.9% of total mobilized capital.

- **Transaction size**

20 years ago, the first trading session of the Vietnamese stock market was on July 28, 2000 with two stock codes, REE and SAM, marking a historic milestone in the Vietnamese stock market. Up to now, Vietnam's stock market has grown strongly, the number of companies listed and registered for trading on two stock exchanges is 1,647 companies, with a listed/registered trading value of 1,428. trillion. In 2019, foreign investors net bought nearly VND 7,983 billion of stocks and fund certificates and net bought more than VND 13,738 billion of bonds, bringing the total portfolio value of foreign investors to about USD 36.4 billion, up 11. 6% compared to the end of 2018 net indirect capital inflow was estimated at $2.7 billion.

The bond trading market developed stably, recording growth in both size and liquidity. The scale of bond listing on 2 stock exchanges, at the end of 2020 reached nearly VND 1,388 trillion, an increase of 16.8% compared to 2019 (equivalent to 23% of GDP), the average trading value of a session reached VND 10,393 billion/ session, up 13% over the previous year.

On the derivatives market, the average trading volume reached nearly 160,000 contracts/session, an average annual increase of about 80%, the open volume of open interest in the whole market achieved an annual growth rate of about 140%. It can be seen that Vietnam's derivatives market, although only born for 3 years, has operated stably, has strong growth, and has a relatively good growth rate, contributing to stabilizing investor sentiment, especially when the market is volatile. the underlying market fluctuates strongly, is a hedging tool for the underlying securities portfolio and an effective solution to keep capital flows in the market when the underlying market plummets.

In the past year 2021, despite being affected by the Covid-19 pandemic, Vietnam's stock market continued to make strong breakthroughs, continuously set new records in both index and transaction value.

The size of the market's listing and registered transactions by the end of 2021 reached VND 1,685 trillion, an increase of 20.2% compared to the end of 2020 with 755 shares, CCQ listed on 2 Stock Exchanges and 896 shares. transaction registration form on UPCoM. Despite being affected by the Covid-19 epidemic, the market's liquidity increased sharply, with some sessions reaching a record high, above 1 billion USD. The average trading value on the stock market reached VND 24,042 billion/session, up 224% compared to the average in 2020; The average trading value on the bond market reached VND 10,948 billion/session, up 5.3%.

The number of securities companies on the Vietnamese market at one point reached more than 100, before many mergers and dissolutions took place and the number of securities companies on the market is still very large with 74 companies. Many securities companies have a charter capital of over VND 1,000 billion and relatively good business performance, contributing positively to the development of Vietnam's stock market such as SSI, VNDirect, MBS, BSC, CTS, VDS, etc.

- **The freedom degree of capital flow**

In order to attract foreign investment capital into the market, the Government has issued Decree 60/2015/ND-CP amending and supplementing a number of articles of Decree 58/2012/ND-CP, Circular 123/ 2015/TT-BTC dated August 19, 2015 of the Ministry of Finance guiding foreign investment activities on Vietnam's stock market. Accordingly, "the percentage of foreign investors' ownership in Vietnam's stock market" continues to be expanded in accordance with integration commitments and international practices. The new "room" policy for foreign investors has had a positive impact on the stock market, meeting the expectations of the market, businesses and investors, demonstrating the diversity in mobilization channels. capital and the free flow of capital in the market.

On April 2, 2001 (the 102nd trading session), the Vietnamese stock market recorded the participation of foreign investors for the first time when a British individual investor matched an order to buy 100 TMS shares. In July 2003, the first fund management company in Vietnam, VFM, was founded, marking the participation of the first professional institutional investor in the country, also opening a new form of collective investment in Vietnamese market.

The situation of basic economic, financial and legal factors for the development of Vietnam's stock market

- **The system of securities investors**

Aggregate data from the Vietnam Securities Depository (VSD) shows that the number of securities trading accounts of foreign investors increased from 436 accounts in 2005 to 2,100 accounts in 2006, equivalent to an increase of 382%. and in 2007 continued to increase to 8,441 accounts, an increase of 302%.

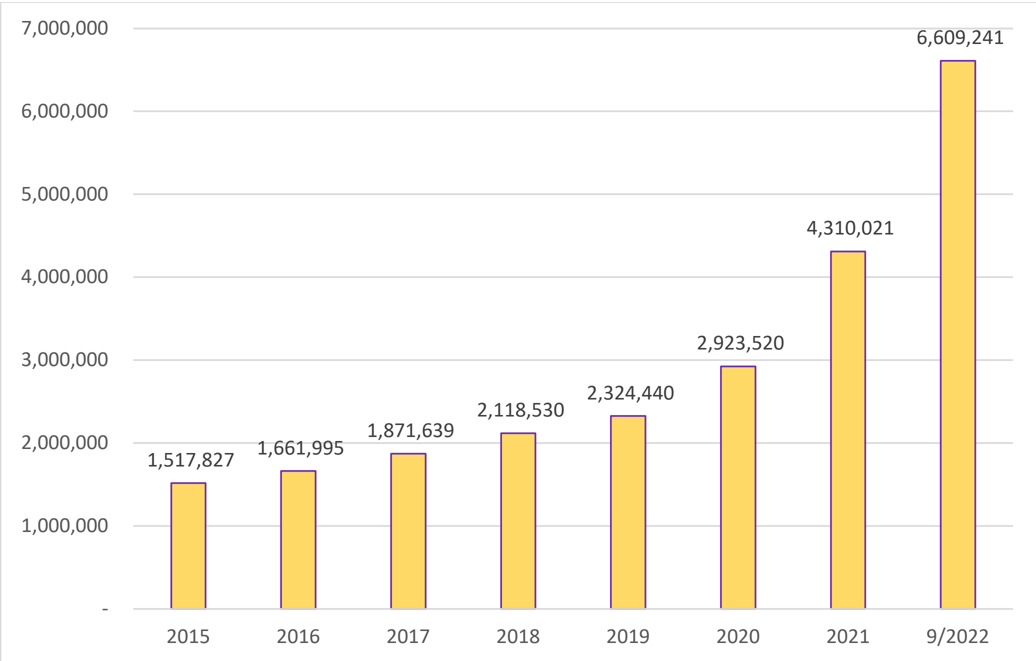

Chart 2. Number of investor accounts in the market

Source: SSC and author's compilation

The number of official securities trading accounts exceeded 1 million accounts at the end of 2010. Total investor accounts grew in the period 2006 - 2019 at an average of 10% per year, of which the number of accounts of foreign investors and institutional investors always grew steadily and reached 15%, larger than the overall growth of the total accounts. The development of investors in the Vietnamese stock market at this stage is not only reflected in the impressive growth in trading liquidity on the stock exchanges but also in the success of the successful trading sessions. raise capital in the market.

In the recent period of 2019, the participation of the investment public, including foreign investors, in Vietnam's stock market has increased sharply, with a particularly high speed occurring from the second half of 2020 until now.

- The market upgrade target

Looking back over 22 years of operation and development, one of the important tasks of Vietnam's stock market is continuously implementing solutions to upgrade from a frontier market to an emerging market.) on the MSCI and FTSE Russell rankings. The market upgrade will help attract a significant amount of capital from passive investment funds, especially as this form of investment becomes more and more popular around the world.

New capital inflows estimated at billions of USD can be a new thrust for Vietnam's stock market. On the other hand, the upgrade process will help improve many conditions in terms of investment environment, bring Vietnam's stock market to develop in quality and move closer to international standards, which will benefit all investors in the long run. and listed companies. It is necessary to continue to improve the quality of the information exchange system, to ensure equal rights in accessing information of foreign investors. Completing and regularly updating information in English on the information pages of the State Securities Commission and the Stock Exchanges. Public companies are encouraged to disclose information in English;... Currently, the Vietnam stock market has met 7/9 criteria, with the desire to continue to improve the stronger development bases in order that the market is soon upgraded.

- **Legal framework for the operation and development of the stock market**

The process of perfecting the legal system, the specific developments of the legal framework in the field of securities and the stock market can be identified in the following aspects:

(1) ***Law on commodities of the stock market***

Decree 144/2003/ND-CP	SECURITIES LAW 2006	SECURITIES LAW AMENDMENT 2010	SECURITIES LAW 2019
Securities are certificates or entries in the book, certifying the lawful rights and interests of securities owners with respect to the assets or capital of the issuing organization, including: a) Shares; b) Bonds; c) Securities investment fund certificates; d) Other types of securities as prescribed by law. More clarification on Warrants; Rights	Securities are evidence confirming the owner's legitimate rights and interests in the assets or capital portion of the issuing organization. Securities expressed in the form of certificates, journal entries or electronic data, including the following types: a) Stocks, bonds, fund certificates; b) Rights, warrants, call options, put options, futures contracts, groups of securities or stock indices.	Securities are evidence confirming the owner's legitimate rights and interests in the assets or capital portion of the issuing organization. Securities expressed in the form of certificates, journal entries or electronic data, including the following types: a) Stocks, bonds, fund certificates; b) Rights, warrants, call options, put options, futures contracts, groups of securities or stock indices; c) Investment capital contribution contract; d) Other types of securities prescribed by the Ministry of Finance.	Securities are assets, including the following types: a) Stocks, bonds, fund certificates; b) Warrants, covered warrants, rights, depository certificates; c) Derivative securities; d) Other types of securities prescribed by the Government.

Thus, the concept of securities - goods of the stock market has been gradually improved and standardized with each issuance of new legal documents. The Securities Law 2019 has created a new development in securities, eliminated the contract of investment capital contribution in the list of securities; added a number of new securities applied on the market, such as covered warrants, depository certificates.

These new developments in commodity identification of the market create the basis for the subjects needing capital to widely choose the type of securities used to issue and raise capital. It is also a condition for the investment public to effectively implement the principle of diversification in investment, seeking profits in accordance with investment objectives and capacity.

(2) ***About investment activities and investor system***

Decree 48/1998/ND-CP	**Decree 144/2003/ ND-CP**	**SECURITIES LAW 2006**	**SECURITIES LAW 2019**
Investors means a person who owns securities, buys or intends to buy securities for himself; Securities holders are individuals or organizations that are controlling securities.	Not clearly defined about securities investment and securities investors.	Investors being Vietnamese organizations and individuals and foreign organizations and individuals investing in the stock market;	Securities investment is the buying, selling and holding of securities by investors on the stock market. Investor means an organization or individual that invests in the stock market.

The Securities Law 2019 clearly defines a very important investor, affecting the company's corporate governance, potential and development ability, that is professional investors. Accordingly, a strategic investor is an investor selected by the General Meeting of Shareholders according to the criteria of financial capacity, technology level and commitment to cooperate with the company for at least 3 years. .

One of the typical professional investors in the market are investment funds, which are always defined in the laws on securities and the stock market and are improving day by day. As follows:

Decree 144/2003/ND-CP	**SECURITIES LAW 2006**	**Securities Law Amendment 2010**	**SECURITIES LAW 2019**
Securities investment fund is a fund formed from the contributed capital of an investor entrusting to a fund management company to manage and invest at least	Securities investment fund is a fund formed from the contributed capital of an investor with the aim of earning profits from investing in securities or other forms of investment assets, including real estate,	Addition: Real estate investment fund is a securities investment fund invested mainly in real estate.	Securities investment fund is a fund formed from the contributed capital of an investor with the purpose of earning profits from investing in securities or other assets, including real estate, in which the investor has no right to

Decree 144/2003/ND-CP	SECURITIES LAW 2006	Securities Law Amendment 2010	SECURITIES LAW 2019
60% of the fund's asset value in securities.	in which the investor does not has day-to-day control over the fund's investment decision-making.		invest in securities. day-to-day control over the fund's investment decision-making.

The provisions of the law on investors, especially professional investors, and investment funds have created quite specific bases to serve the management of securities issuance activities, the development of the housing base. investment, improving the capacity and qualifications of the system of securities investors.

(3) ***Laws on issuers and securities issuance activities***

The Government and locals are the biggest issuers of securities in the market. The legal system has specified and established a system of conditions, procedures, etc. to use securities issuance methods, such as the method of public offering of securities or the method of issuance. single. Regarding the issuer of securities: has been regulated more and more comprehensively. The Securities Law 2019 has most universally defined this object, including those who offer securities to the public, private placement of securities and other securities issuance activities.

Regarding the method of issuing securities, current regulations clearly define the method of public offering of securities and private offering of securities. The Securities Law 2019 affirms that the private placement of securities by an issuer that is not a public company or a securities company or a securities investment fund management company shall comply with the provisions of the Law on Enterprises. and other relevant provisions of law.

(4) ***Law on securities trading organizations***

Securities trading organizations in Vietnam have always been one of the subjects of special interest when building a legal system for the operation and development of Vietnam's stock market.

From the initial regulations in Decree 48/1998/ND-CP, to Decree 144/2003/ND-CP to specific and detailed regulations and now the Securities Law 2019 officially takes effect, regulations on the establishment, organization, operation and management of securities trading organizations are becoming more and more detailed, specific and strict, typically regulations on establishment conditions, conditions on shareholders. is a legal entity required to participate in the establishment of securities trading organizations; regulations on ensuring financial safety, on risk management thresholds in operations of securities companies, investment management companies;... gradually approaching regional and world standards;...

Therefore, the quality of activities of securities trading organizations in the market has had many positive changes. The number of securities companies operating normally at the moment is only 74 companies, down nearly 30% compared to the boom period. Most of the weak securities companies with inefficient business activities have ceased to exist in the market through the merger or dissolution mechanism. The role of securities companies and investment fund management companies is increasingly affirmed in the Vietnamese market, promoting the improvement of investors' qualifications and capacity, contributing to the formation of new investment tools in the market.

(5) *Law on management and supervision of market activities*

Securities market supervision is usually done with two main angles:

+ Transaction monitoring:

The Stock Exchange is the first line of supervision: Identifying signs of abnormal transactions (transactions that meet the supervision criteria of the Stock Exchange developed and put into practice after being approved by the State Securities Commission) .

The SSC is the second line of supervision: Collecting data, information and documents to analyze and evaluate unusual transactions to clarify the nature of those transactions and whether they violate the provisions of the law on securities. securities and the stock market or not.

+ Compliance monitoring activities:

The State Securities Commission supervises the compliance with the provisions of the law on securities and the stock market in the implementation of professional activities of the Stock Exchange and the Securities Depository.

The legal framework has gradually improved and standardized the regulations and processes related to the management and supervision of the securities market. The supervisory role of the State Securities Commission and the Stock Exchange has been confirmed, and at the same time, it has strengthened the responsibility and position of the SSC to supervise securities transactions, especially for derivatives transactions. VSD is an organization that regulates margin ratios, sets and manages position limits of investors when participating in derivatives trading; is a central clearing partner;...

The roles and responsibilities of securities companies in supervising transactions for employees and customers of the company participating in securities trading are highlighted. Along with that is the strengthening of supervision on the implementation of information disclosure obligations, supervision of business activities in the securities sector of securities trading institutions through financial and investment indicators, etc.

In addition, for public companies and investors, supervision activities are mainly carried out on the basis of requirements on the performance of information disclosure obligations under the Circular on disclosure of information.

ASSESSMENTS AND RECOMMENDATIONS

The economic, financial and legal factors have been continuously improved and made a very important contribution to the process of completing and developing Vietnam's stock market in the past period.

Typically, goods on the market serve the needs of issuing and raising capital of entities that need capital, on that basis, meeting the needs of the investment public more and more diversified; The types of goods on the market are gradually established to approach regional and world standards. Derivative securities have been initially formed and the investment public is quite interested in investing. The investment participation of foreign investors based on the indirect investment method (FPI) has been having a positive impact on the development of the market, promoting the improvement of the capacity of the banking system. investors in general. The birth of the derivatives market with a well-established legal basis system has been laying an important foundation, creating momentum for further consolidating and perfecting the legal basis for the stock market. long-term derivatives. Most securities trading institutions after the restructuring process have quickly caught up with the principles and rules of business operations in a segment of the high-end financial market, namely the stock market, which is getting faster and more appropriate. The legal framework for the operation of the stock market has been established at a level quite similar to that of other markets in the region. The legal regulations are quite comprehensive and systematic, regulating most of the subjects and operating components of the Vietnamese stock market, ensuring the necessary conditions to promote the development of the Vietnamese stock market. fast and sustainable pursuit of goals.

Besides, there are still limitations, affecting the stability and solid development of Vietnam's stock market. These are:

Firstly, on the commodity base of the market, although there have been many positive changes in the past time, there is still a large portion of stocks of public companies that have not yet been registered. traded or listed on the managed secondary stock market. That affects the liquidity performance of such securities and shares, adversely affecting the interests of shareholders; making the investment public's opportunity to choose suitable investment objects from these stocks narrow, negatively affecting the overall development of the market.

Secondly, the listing standards between the HoSE and HNX still have a large gap while both are subsidiaries of the Vietnam Stock Exchange. That directly affects the evaluation of the market and the investment public for listed securities, especially those listed on two exchanges.

Thirdly, the derivative securities are not plenty and diverse yet. The main reason is the newly established derivatives market, which is in the process of gradually improving and growing.

Fourthly, in the system of financial investors, securities investment in Vietnam still maintains the absolute overwhelming dominance of individual investors. Professional investors, especially institutional investors, still account for a modest proportion, and investment funds in the Vietnamese market are still lacking in abundance, diversity, and attractiveness to the investment public. stock.

Fifthly, the development of the system of securities companies in the market is not uniform, the gap between the large securities companies and the rest of the securities companies is increasingly being widened. The business activities of most securities companies are still mainly based on the implementation of many business operations, the strengths in service provision of the company have not been established, and the specific and clear customers have not been identified. priority as well as the target market to focus on exploiting.

Sixthly, regarding the legal provisions to create goods for the stock market, private placement of the corporate sector will be governed by the Law on Enterprises. For implementation, there should continue to be specific regulations by the Government and relevant state management agencies. The legal system on the issuance of derivative securities, the organization and operation of the derivative securities market is still incomplete and comprehensive, there are still many points that need to be improved, such as new derivatives, can issue specific derivatives, specialized derivatives market, etc.

Seventhly, the regulations on professional investors in the current Law on Securities 2019 have not been concretized, and are heavily expanded in quantity without really paying attention to management capacity and quality of operations. investment activities, etc. of this object, although these characteristics are absolutely necessary to contribute to the development of the system of securities investors, financial investments, and promote the strong development of Vietnam's stock market.

Some recommendations to improve economic, financial and legal factors to promote the solid development of Vietnam's stock market

(1) Diversify and improve the quality of the market's commodities

Companies need to pay attention to research investors' needs so that they can use more types of preferred shares, with different properties and characteristics to further diversify the issued share instruments, in accordance with a part of investors are oriented to safety but want a higher return than debt securities.

For bond instruments, attention should be paid to developing both government and corporate bond instruments. The established regulations must have mechanisms and sanctions to ensure enforcement.

For listed securities, it is necessary to focus on promoting the transparency of regulations, processes and procedures for listing on the Stock Exchange. In order to support qualified securities issuers to actively register for listing on the Stock Exchanges in Vietnam, it is necessary to continue to detail the requirements of the Stock Exchange in the process of appraising listing documents. clarify the questions that the issuer must answer in order to complete the securities listing registration procedure. It is necessary to develop a manual on listing and management of securities listing and to widely disseminate it to the business community and investor community to understand and strictly comply with it.

(2) Promote the formation of diverse and rich derivatives to meet trading needs in the market

It is necessary to build a system of reliable indicators that closely reflect the supply and demand of the market, ready to be used as a base asset in derivative transactions. In addition to the VN30 index, the Hanoi Stock Exchange needs to study the VNX200 index, ensuring the index structure is large enough, minimizing the index's dependence on the price movement of certain stocks. This will be a good enough index for the new futures contract, completely in line with international practice. In addition, new products such as single stock futures, stock index options and single stock options can be developed.

Continue to diversify the underlying assets which are government bonds. Currently, with government bond futures contracts, the market is listing and trading 5-year government bond futures and 10-year government bond futures. In the specialized government bond market, there are many trading bond products with different characteristics. In the coming time, it is necessary to study and put more Government bonds with different maturities and local government bonds into basic assets for issuing futures. In the primary market, in addition to the basic product, which is a standard/long/short coupon bond, there are also bond products that do not pay periodic interest. Thereby, helping investors diversify risks, thereby increasing the liquidity of the derivatives market "government bond futures".

(3) Strongly develop professional investors, especially securities investment institutions

Focusing on developing investment organizations are investment funds and securities investment funds. Continuing to adhere to the viewpoint of promoting stable and sustainable development of the financial market, the stock market is based on one of the important pillars, which is a system of professional investors in the market. Professional investors who are interested at this stage must be investment funds and investment companies. Set up a warning system for QQ companies with a revenue ratio of less than 50% from the main business operations of investment fund management (fund management, portfolio management, investment consulting) total revenue of the company. If the warning is 2 consecutive years, it is necessary to have both economic and administrative sanctions to adjust the business activities of the violating QLQ company. With appropriate steps, apply an independent investment banking model on the Vietnamese stock market in the direction of separating securities brokerage activities from underwriting and securities trading activities.

Strongly promote the process of formation and development of pension insurance and voluntary pension funds. Around the world, there are many models of organization and operation of voluntary pension funds. One such model is the UK National Provident Fund (NEST) model.

Professional investors can also be individuals, as Vietnam's current regulations are in line with international practices. However, for the regulation of the value of a holding portfolio to be certified as a professional investor, it should be based on process data, an average, not a point in time value. At the same time, it is necessary to define more clearly the attachment of individuals with a taxable income of at least VND 01 billion to the operation of the stock market in general and securities trading activities in particular.

(4) Continue to promote the process of improving the quality of activities of securities trading institutions in the market

It is necessary to strengthen the comprehensive assessment of all aspects of the activities of the securities institutions, in addition to the assessment based on the standards of financial safety, on the basis of accelerating the evaluation of the securities institutions based on the CAMELS model. . Determining the standards of the CAMELS model as the main basis for evaluating, classifying and providing handling measures for securities trading organizations in the market, first of all, securities companies. Securities companies and management companies that do not meet the evaluation criteria, focusing on the CAMELS model must suspend operations for a certain period of time (preferably 6 months) so that the owners can take remedial measures. If it cannot be remedied, it must take measures to dissolve or merge or merge with other securities trading organizations.

There is an incentive mechanism, such as tax policy for securities trading organizations themselves as well as investors with accounts at the company, etc. Securities companies, especially those with small scale, narrow operating scope, market share small-scale operations to merge with large-scale securities companies (with total assets of over 1,000 billion dong) on the market or consolidate small-sized securities companies to continue providing services on the stock market.

Financial safety must be the top priority, debt activities, first of all short-term loans of securities companies, management companies must be strictly controlled and maintained at a low level, thereby contributing to improving financial capacity. main for securities trading institutions.

(5) Strengthening and perfecting the legal framework on securities market management and supervision

For compliance monitoring, it is necessary to promote the organization of systematization, automation and computerization according to the change of the reporting regime. At that time, monitoring and detecting violations will be easier because there are preset criteria, the management agency will mainly do the work of handling detected violations.

Regarding the role of transaction supervision at securities companies and the role of self-regulatory organizations, at present, the role of self-regulatory groups is still weak, partly because the power of self-regulatory organizations is allowed at the offices. Securities regulations are almost nonexistent. Therefore, securities market supervision should be carried out through a 3-level supervision system. The third level is usually the self-governing organizations that coordinate with the stock market management and supervision agencies to carry out transaction supervision. Upgrading the technology system, even buying a foreign surveillance system to apply to the market; strengthen the training of human resources for supervision, in which it is necessary to pay great attention to internal training. Innovating and enhancing the position of self-regulatory and self-regulatory organizations, especially the Association of Securities Traders, the Association of Financial Investors, etc.

In summary, the stock market is one of the market spaces that is becoming increasingly important in the financial market system, the markets of the economy operate and develop according to the market mechanism.

In order to promote the sustainable development of the stock market at an increasingly high rate, it is necessary to constantly improve the basic factors of market development, especially the economic, financial and legal framework as described above. The results of the study contribute to a comprehensive and in-depth summary as well as contribute to the practical and effective completion of the foundations for promoting the development of Vietnam's stock market, towards rapid and sustainable development, making a worthy contribution to the development of Vietnam's stock market. in the process of promoting financial market development, socio-economic development of Vietnam, becoming a developing country with high middle income in the near future.

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DEVELOPMENT OF DIGITAL BANK AT SAI GON THUONG TIN COMMERCIAL BANK

MA Nguyen Duc Thach Diem[1]

Abstract: *As an important sector in the economy, the banking industry is always at the forefront of trends and the industry's success is always associated with the application of technological advances. Examples include the use of computer systems in business operations in the 60s, the introduction of credit cards and ATM networks in the 70s, and the early transition to online banking in the 90s of the last century. In the 21st century, the banking industry is also actively promoting major reforms and landmark programs focusing on the infrastructure system to develop new technologies and solutions to serve customers. products and reduce operating costs. Saigon Thuong Tin Commercial Joint Stock Bank, with its position as the leading private joint stock bank in Vietnam, has pioneered in information technology investment and digital banking development. The achievements that Sacombank has achieved in the process of developing digital banking are of great significance to the digital transformation of the banking industry.*

Keywords: *Development, digital banking, information technology, Sacombank...*

Invest in a modern information technology system

In 2010, Sacombank established an internet banking system. By 2013, the digital banking development platform at Sacombank reached a new milestone through a cooperation contract with Infosys, India's leading information technology corporation. A new version of internet banking and mobile banking with many modern and outstanding features has been formed. The IT infrastructure that Sacombank is operating enables the bank to perform tasks such as: (i) Multi-channel integration, supporting all internet-connected devices; (ii) Allow personalization of users; (iii) 24/7 operation; (iv) Focusing on high security solutions, applying modern transaction authentication methods; (iv) Having a professional customer support team; (v) More than 300 linked accounts of affiliates are being opened at Sacombank; (vi) Up to 80% of products at the counter are put on the digital transaction channel.

Enhancing customer experience and digital banking

The system of financial services being provided by Sacombank on the digital platform has been supplemented and upgraded to better serve consumers. In other words, the value that the digital bank created by Sacombank has been upgraded over time. The digital bank provided by Sacombank is aimed at two objects: individual customers and corporate customers.

To serve individual customers, Sacombank built Sacombank Pay application, which is convenient to install on smartphones. For businesses, Sacombank builds an eBanking system (Internet banking, Mobile banking and Alert). The new values that Sacombank's digital banking system brings to customers are listed below.

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Individual customers

Table 1. Services and utilities for individual customers of Sacombank digital bank

No.	Service Group	Details
1	Open an account online	Sacombank's e-banking applies eKYC technology so that customers can open an account at home, just need ID card, complete the system's facial recognition requirements.
2	Get a savings deposit	Customers can open and close their savings online, with various types of savings books, interest rates 0.5% higher than over-the-counter transactions.
3	Online loan	Two online lending services that Sacombank's e-banking is applying include: - Online mortgage loan - Consumer loans from salary online.
4	Payment Service	Contactless payments (NFC with Android OS). QR payment: Scan QR at acceptance point, scan QR to pay electricity bill. Bill payment: Electricity, water, telephone, Internet, cable; Tuition, insurance, finance; Traffic Fees and Port Service Fees. Top up mobile phone, recharge Sacombank Pay account.
5	Shopping	Buy air tickets, train tickets, movie tickets, order food, e-vouchers through Urbox gifts; Buy a phone card, top up the phone account; Buy Liberty travel insurance and K-care health insurance.
6	Other convenient services	Send money to relatives and friends with cards and meaningful messages. Kind heart (Transfer money to funds for the community: Fund for Covid prevention, Disabled children, Smile surgery,...); Make an appointment for a transaction at the counter; find the nearest ATM; QR withdrawal: at Sacombank ATMs nationwide; Remittance reminder.
7	Manage accounts	Manage accounts, cards, loans, savings Manage, look up, transaction statement, credit limit...

Source: Compiled by the author

Convenient services help individual customers have more interesting experiences when using Sacombank's digital banking. Customers can experience many different services on just one application platform of smartphones, saving time in transactions at the counter or connecting to internet banking through a computer system.

For corporate customers, Sacombank provides digital banking services on three main platforms: Internet banking, Mobile banking and Alert. With each platform, corporate customers can experience the following specific services:

Table 2. Services and utilities for corporate customers of Sacombank digital bank

No.	Foundation	Services
1	Internet Banking	Query demand deposit accounts, term deposits and loans; Transfer within/outside Sacombank; 24/7 interbank transfer; Selling foreign currencies: Selling foreign currencies to Sacombank at competitive rates; money transferred to VND account instantly; actively choose the amount of foreign currency to sell or the amount of dong to receive. Pay bills online quickly, safely and securely; control the payment of monthly consumer bills in a timely manner, avoiding delays; with notification of outstanding invoices pending payment and supplier registration - setting up all recurring invoices before payment makes it easy to manage recurring bill expenditures. Loan payment; travel fares, port service fees, Transfer money to securities account; international money transfer; Payroll in batches; Commercial finance.
2	Mobile Banking	Query demand deposit accounts, term deposits and loans; Transfer money inside/outside Sacombank; interbank money transfer; Pay bills online quickly, safely and securely; control the payment of monthly consumer bills in a timely manner, avoiding delays; with notification of outstanding invoices pending payment and supplier registration - setting up all recurring invoices before payment makes it easy to manage recurring bill expenditures. Transfer money to securities account. Save money.
3	Alert	Deposit account alert: receive transaction information messages (payment deposit account, unlimited savings account); receive messages informing information about events, new products and services, promotions, latest announcements... of Sacombank; SMS/ Email notifications (multiple SMS/Email); Vietnamese/English language. Loan account alert: Receive messages about loan payment due dates; register for debt reminder messages for one or more phone numbers for each loan; SMS/Email notifications (multiple SMS/Email); Vietnamese/English language.

Source: Compiled by the author

The digital bank provided by Sacombank has been upgraded and completed, creating many user-friendly utilities, optimizing the experience for customers. The digital banking platform that Sacombank is focusing on pursuing is formed based on Sacombank Pay software. In the period 2017-2021, Sacombank's e-banking sales continuously increased, the growth rate was 45.92% (2018/2017); 47.26% (2019/2018); 27.23% (2020/2019) and 53.53% (2021/2020). Sales of digital banking channel transactions have had a good growth rate over the years, except 2020 affected by the epidemic, the economy has many times of social distancing, causing trade to be affected, so the demand for payment is also affected. directly affected.

Unit: million VND

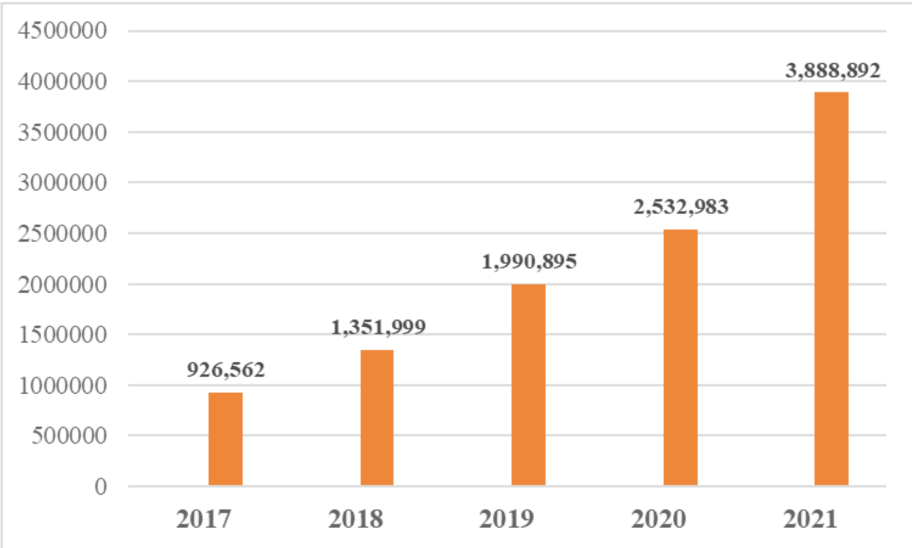

Figure 1. Sales of Sacombank's digital banks 2017-2021

The number of digital banking users of Sacombank also continuously increased from 2017 to 2021, as detailed in the table below:

Table 3. Number of e-banking users of Sacombank

Target	2017	2018	2019	2020	2021
Number of paying EB users	1.054.685	1.396.301	1.864.565	2.344.781	2.796.185
Number of people using Sacombank Pay	0	16.261	515.652	1.381.480	2.674.649
Total number of users	1.054.685	1.412.562	2.380.217	3.726.261	5.470.834
Growth rate in the number of users	-	33,93%	68,50%	56,55%	46,82%

Source: Compiled by the author

The number of Sacombank's digital banking users continuously increased in the period 2017-2021, showing that the development strategies of the leaders have initially taken effect. The growth rate of Sacombank's digital banking users during the research period was quite high, continuously over 30%.

Forming a digital banking ecosystem

For digital banks to develop sustainably, there needs to be a connection between the financial services that the bank provides and the transaction of goods and services in the market. Sacombank has been well aware of this problem and has stepped up cooperation with many businesses, e-commerce exchanges and telecommunications companies to promote the convenience of digital banking services. Currently, Sacombank's digital bank has connected with many leading networks of businesses, banks, insurance companies and securities companies in Vietnam. Sacombank's corporate customers have the ability to access ERP systems of corporate customers via API (P2P); functions such as queries, payment transactions, etc. can be performed; support collection system for corporate customers (on internet banking/mobile banking/Sacombank Pay or branches); With API connecting to Fintechs, customers can make payment transactions from Fintech channels.

Digital banking development solutions at Sacombank

Firstly, setting up an Omnichannel platform, in order to solve the problem of digital banking services that are established on different, discrete and difficult to manage platforms, Sacombank needs to establish an integrated platform. channel (Omichanel) for digital banking operations. Omnichannel means integrating all channels of customer service and acquisition (along with their data) improving the customer experience. Omnichannel gives individual, SME and corporate customers a complete and consistent buying experience with the brand across all channels and devices. Along with Omnichannel, the bank's information processing and data collection system will be developed, helping the bank to firmly grasp the wants and needs of customers in a complete and comprehensive way, avoiding annoying for customers to have to report their problem many times every time they transact.

Secondly, forming a digital banking platform To complete Sacombank's digital banking ecosystem both internally and externally, building a bank's digital platform is extremely important. The platform is a plug-and-play business model that allows multiple participants (producers and consumers) to connect, interact, and create value.

Thirdly, In order to complete the digital banking ecosystem from within, Sacombank needs to automate business processes (Business Process Automation). Comprehensive digitization of banking business includes the following aspects:

(1) All product and service contracts can be digitally signed on digital channels.

(2) Internal processes and transactions with customers are completely digitized, including the onboarding process. All these processes are monitored, analyzed and optimized on the BPM platform.

(3) The automation and monitoring of business processes is modeled from the very beginning, the entire Business Process Management (BPM) lifecycle management approach.

Fourthly, Improve the quality of human resources for digital banking development. To develop digital banking, Sacombank starts by improving the quality of human resources, with specific policies as follows:

Building a bank's vision and culture suitable for digital transformation such as building a digital bank model, a social engaged bank, a data-driven bank -driven bank)...

Structure the business apparatus and rearrange the divisions, departments/departments reasonably to facilitate the research, application, and deployment of new products and services flexibly and quickly; established and put into operation a specialized unit, the focal point for implementing tasks to promote digital transformation and technology application initiatives in the bank, this unit is formed by personnel from many different departments. (such as compliance, human resources, legal, technology, operations...) to develop digital transformation initiatives, operate innovation centers, and apply new working methods (Design Thinking), Scrum, Agile, Kanban…), creating an internal testing environment for research and development of new products and services, attracting the participation of technology companies, universities, institutes researchers, independent software developers or talented personnel within the bank itself. In addition, the bank should focus on developing the capacity of IT human resources at all levels through intensive training programs in banking, management, IT and updating new trends. in banking…

In the context of fierce competition in the financial-banking sector, the development of digital banking at Sacombank is of great significance to help maintain and strengthen the leading position in the market of Saigon Thuong Tin Commercial Joint Stock Bank. .

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Section 2
ACCOUNTING

STRENGTHENING THE APPLICATION OF MANAGEMENT ACCOUNTING IN SMALL AND MEDIUM ENTERPRISES IN VIETNAM

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Duong Thi Van Anh[2]

Abstract: *According to VCCI, the SMEs currently accounts for about 98% of the total number of enterprises operating in Vietnam, contributing up to 45% to GDP, 31% to total budget revenues and attracting more than 5 million workers, helping to mobilize social resources for development investment, but SMEs are also the hardest hit by the Covid-19 pandemic. Therefore, SMEs desperately need help to quickly return to the "new normal", develop plans to both fight the pandemic, be assured of production and business, be proactive in management, and proactive in making business policies and strategies. In particular, management accounting is a really effective management tool and a tool used by many businesses around the world. The management accounting is effective because of the flexibility and timeliness of accounting information to serve internal management requirements, helping managers plan, organize, check and make decisions. However, through the survey, it was shown that the situation of the application of management accounting in SMEs in Vietnam has not been focused, the proportion of enterprises applying management accounting is relatively low. On the basis of assessing the current situation, the research has made a number of recommendations to the parties to improve the feasibility of applying SME in Vietnam, helping SMEs improve and improve their management capacity to compete with larger enterprises in the trend of international integration.*

Keywords: *Management accounting, application of managerment accounting, small and medium enterprises, accounting standards, Vietnam.*

1. INTRODUCTION

In the current context of deep international economic integration, Vietnam has great opportunities to develop the domestic economy, but also faces many difficulties with the requirements of economic institutional renewal. and improve the competitiveness of the whole economy and each enterprise, especially small and medium-sized enterprises (SMEs). SMEs in Vietnam currently account for the majority and play a very important role in the economy. In order to enhance the strength of SMEs, these enterprises must have a new look in the way of management, towards methodical and proactive activities in planning strategies for businesses. To proactively make decisions, businesses must have good tools to help business executives grasp internal operating information quickly and accurately, then make the right and timely decisions. And the management accounting is one of the effective management tools because of the flexibility and timeliness of accounting information to serve internal management requirements, helping managers to plan and organize organization, control and decision-making.

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In the world, management accounting is widely applied in enterprises. According to IFAC (International Federation of Accountants), the role of management accounting is shown as an integral part of the corporate governance process. Management accounting is used to serve the planning, organizing - operating, controlling and decision-making functions of business managers. Management accounting has diversity and flexibility associated with the scale of ongoing activities. All management levels in the enterprise must rely on management accounting information to make decisions.

Although management accounting has a particularly important role in business management (Vo Van Nhi, 2007). However, the application of management accounting in Vietnam in general, as well as in SMEs in Vietnam in particular, is still in its infancy and has not been given due attention. This has had a significant impact on the governance efficiency of SMEs, as well as their competitiveness in the market.

On the basis of inheriting domestic and international research results, this paper analyzes and evaluates the current situation of applying management accounting in SMEs, thereby making some recommendations to help SMEs improve their application of management accounting in these enterprises.

2. LITERATURE REVIEW

The definition of management accounting by International Federation of Accountants (IFAC) - International Association of Accountants states that "…management accounting is concerned with technical and processing processes, focusing on the effective and efficient use of those resources. resources of the organization, helping to support managers in fulfilling their mission of adding value to customers and shareholders"

According to Institute of Management Accountants (IMA, 2008) – American Association of Management Accountants, management accounting is also defined as "…a profession concerned with participating in management decision-making, planning and management systems. performance, while providing professional financial reporting, assisting control managers in formulating and implementing an organization's strategies…".

Management accounting is defined by the Chartered Institute of Management Accountants (CIMA, 2005) as "…the application of accounting and financial management principles in order to create, protect, sustain and increase the value of shareholders and stakeholders in for-profit and not-for-profit enterprises, in the private or public sector. Management accounting is an integral part of management, including the identification, creation, presentation, interpretation and use of information related to: strategic decision making and enterprise strategy formulation; logistics plan; medium and short term activities; determine capital structure and capital financing structure; design bonus strategies for directors and shareholders; operational decision making; control operations and ensure efficient use of resources; measure and report financial and non-financial performance to management and stakeholders; protection of tangible and intangible assets; implementing corporate management, risk management and internal control...".

According to the Vietnam Accounting Law (2015), management accounting is defined as "…the collection, processing, analysis and provision of economic and financial information according to the requirements of management and economic and financial decisions within the application. accountant".

The definitions mentioned above, as well as many others, show that management accounting develops strongly over time. Traditional definitions gradually narrow, giving way to definitions that emphasize corporate governance at a higher level, showing that management accounting is an indispensable tool in management, a practical tool applied widely used in corporate management.

International researches

There have been quite a few international studies on the application of management accounting in SMEs, this is always one of the topics of interest to researchers around the world. For example: Research by Ahmad, K. (2012) examines the factors that explain the level of application of management accounting in SMEs in Malaysia; the study of the authors Sidra Shahzadi, Rizwan Khan and Maryam Toor (2018) on the impact of internal and external factors on the application of management accounting in enterprises in Pakistan; Research by Diah Agustina Prihastiwi, Mahfud Sholihin (2018) on the application of management accounting in SMEs in Indonesia…

Research by Ahmad, K. (2014) with the topic 'The application of management accounting practice in small and medium-sized enterprises (SMEs) in Malaysia' has provided empirical evidence on the application of a variety of management accounting activities in the Malaysia's SMEs are in the manufacturing sector. Data were collected from a postal survey by holding and collecting questionnaires of 160 surveyed managers and accountants for the study. Research results show that the system of traditional management accounting methods (MAPs) such as budget estimates, traditional costs and financial efficiency measures are widely used by enterprises in these countries. The results show that a significant number of enterprises have applied one or more financial and non-financial measures, but the dependence on financial measures is greater than non-financial measures.

Kamilah Ahmad, Shafie Mohamed Zabri (2015) with the topic 'Factors explaining the application of management accounting in Malaysian medium enterprises' studied the factors affecting the application of management accounting in Malaysian medium enterprises in the field of management accounting. manufacturing. The study was carried out using a quantitative method through which the author sent a survey questionnaire to 500 Malaysian medium enterprises in the manufacturing sector to investigate the influence of the main factors on MAP. The study collected 110 valid questionnaires and the results showed that the size of the enterprise, the level of market competition, the commitment of the owner/manager, and the advanced production technology had a significant influence on the application of management accounting in these enterprises. However, this study has the limitation that it only focuses on medium-sized enterprises in the manufacturing sector, so the results of empirical research may lack generalizability for all Malaysian medium enterprises. This study complements studies on factors affecting the application of management accounting and provides a deeper understanding of MAP in medium enterprises.

Kamisah Ismail, Che Ruhana Isa, Lokman Mia (2018) with the topic 'Market competition, lean production practices and the role of management accounting systems', said that the application of advanced production techniques is one of the strategies to help manufacturing enterprises maintain competitiveness and achieve desired results, including SMEs. This study argues that traditional management accounting systems (MAS) are no longer capable of providing the information needed to operate in an ever-changing business environment. Research results show that the level of competition in the market affects the application of lean production of enterprises. At the same time, the above results indicate that the level of market competition and the implementation of lean production affect the use of management information by managers.

It can be seen that the studies focus on the application of management accounting in enterprises to find out the causes, limitations and provide solutions to improve the management accounting system in enterprises. Some authors have built models of factors affecting the application of management accounting in SMEs, clarifying the necessary conditions for application. However, these studies also show that the application depends on each country because each country will have differences in the legal, political, economic system and the level of human resources as well as human resources. many other specific factors. More and more authors conduct research on the application of management accounting in SMEs as well as to determine the influence of factors affecting this process, and at the same time provide a reliable source of information, and effective support for the management and operation of enterprises.

Vietnam researches

In Vietnam, management accounting has appeared and developed in association with accounting policies and regimes applied in enterprises. However, management accounting was only mentioned systematically in the early 1990s and became urgent in building an accounting information system in the early 2000s, when enterprises needed to improve the quality of management. to increase competitiveness in the process of international economic integration.

Legally, management accounting has been officially recognized from the Vietnam Accounting Law 2003 and the amended Law on Accounting 2015. Accordingly, management accounting is considered as the collection, processing, analysis and provision of information. economic, financial according to management requirements and economic and financial decisions within the accounting unit.

Research on factors affecting the application of management accounting in Vietnamese enterprises in recent years has been a topic of interest to many authors. For example: Research by author Tran Ngoc Hung (2016) on the factors affecting the application of management accounting in SMEs in Vietnam; Research by author Thai Anh Tuan (2018) on some factors affecting the application of management accounting in enterprises or research by author Nguyen Tien Nhan et al (2019) on factors affecting the application of management accounting in enterprises. Management accounting in construction enterprises in Tien Giang province…

An overview of domestic studies shows that there are quite a few studies on the application of management accounting to operating enterprises in different business fields and different sizes. However, there have not been many in-depth studies with SMEs, so the proposed measures or directions are vague, lack of practicality and difficult to apply.

3. RESEARCH METHODOLOGY

Qualitative research method: Using direct interview method and internet survey method of business managers and accounting staff to determine the current status in application of management accounting in SMEs in Vietnam from 2017 to now.

4. RESEARCH RESULTS

Currently, the organization of management accounting in Vietnamese SMEs is still in its infancy or just at the self-constructed level, which has not yet met the information needs for business managers to make decisions. Specifically:

Firstly, the term 'international accounting' is recognized in the Law on Accounting issued on June 17, 2003 and Circular No. 53/2006/TT-BTC dated June 12, 2006 guiding the application of international accounting in enterprises with regulations. The Accounting Law (2015) stipulates: "Management accounting is the collection, processing, analysis and provision of economic and financial information according to management requirements and economic and financial decisions within an entity accountant'. But reality shows that management accounting activities are only internal in nature of enterprises. However, because it is not legally required and most businesses are mainly interested in profits, so far the application is still small or formal.

Second, corporate managers, especially small and medium-sized enterprises (SMEs) still mainly focus on day-to-day management and administration through the financial accounting data. Because they only care about profits, Vietnamese enterprises often value financial accounting more than management accounting. Most Vietnamese enterprises are not aware of the role of management accounting in planning and making the most accurate and optimal decisions in management.

Third, the application of management accounting in Vietnam is currently mainly in large enterprises with a modern management background; meanwhile, small and medium enterprises (SMEs) are less applied, although currently, SMEs account for nearly 98% of enterprises in the country. Enterprises that have applied management accounting are only beginning to apply it, even in a formal way when it is simply a combination of financial accounting and management accounting, management accounting is just a detailed data of financial accounting.

Fourth, SMEs only organize the financial accounting apparatus, while the management accounting apparatus has not been paid attention and invested in. Some enterprises, if applied, mainly use the management accounting model in combination with financial accounting to make the most of human resources and minimize costs to maintain and operate the accounting apparatus. The fact also shows that, in Vietnam, most accountants only have experience in financial accounting, knowledge about management accounting is limited, not properly trained, so it is difficult to perform this type of accounting work.

Fifth, SMEs make reports mostly for financial accounting to provide information to external parties, not focusing on making management accounting reports for business managers.

Sixth, estimating work at enterprises is made by the Financial Accounting Department and only makes some basic estimates for the preparation of financial estimates, while operational estimates and financial statement estimates are made... not mentioned yet. In addition, the classification of costs by cost elements, by cost items does not classify costs by behavior (separating costs into variable and fixed costs), leading to production estimation. business is not viable.

Seventh, In recent years, information technology has been interested and invested by enterprises in accounting activities of SMEs through the application of accounting software. However, for management accounting, because SMEs have not paid much attention, the investment of resources for the application of information technology in management accounting activities is often integrated with building a general accounting system.

5. RECOMMENDATIONS AND SUGGESTIONS

State authorities should continue to improve financial policies, accounting policies, and theoretically improve management accounting in SMEs, such as clearly defining the scope and content of management accounting; building a model of management accounting according to the characteristics for each type of SME of all economic sectors and sizes for enterprises to refer to.

At the same time, associations, ministries and agencies need to have specific mechanisms and programs to assist in training and fostering human resources for SMEs, opening advanced training courses on knowledge and skills. Management accounting training for owners/operators and corporate accountants at Vietnamese SMEs and with partial or full tuition support. In addition, connecting and inviting foreign experts or successful business managers with experience in the field of management accounting to impart their experience and practical knowledge about the lessons of applying management accounting in enterprises. international industry. From there, it can help managers in SMEs draw practical lessons to apply management accounting techniques as an effective management tool in business.

On the side of SMEs, enterprises can flexibly apply initially simple traditional management accounting technical tools to complex technical tools depending on the capacity of enterprises.

The implementation and application of management accounting technical tools is always an effective measure to increase the business efficiency of any SME, however, it is necessary to consider the appropriate level in terms of scale and business strategy, staff qualifications... with management accounting technical tools from which to choose the optimal solution.

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BUILDING COST MANAGEMENT ACCOUNTING MODEL AT HIGH-TECH AND DEVELOPMENT JOINT STOCK COMPANY

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Abstract: *Currently, the financial statements are used to submit to the authorities and to provide objects beside enterprises. Expense management reports are made to provide internal information for the Company to serve the planning, control and evaluation of the mandatory planning when calculating the balance to the Company's profits. These reports are not yet mandatory. Therefore, the goal of building a cost management accounting model is an urgently needed model. In order to build an appropriate management accounting model, it is necessary to ensure the requirements being consistent with the characteristics of business operations, meet the diverse information of managers and cost control goals of the enterprises, to provide efficiency and savings goals.*

Keywords: *model, accounting management.*

1. URGENCY OF THE RESEARCH

With the function of information and economic - financial activities operations of the unit to serve the management needs of objects inside and outside the organization, accounting work always plays an important role. directly affect the quality and effectiveness of management and administration of the organization to achieve the set objectives. And so, only when the Company has a complete accounting system can accountants maximize their functions. It is an accounting system that not only relies on information arising in the past but must look to future developments in order to help managers plan, organize, control, and make decisions. make the right decisions, consistent with the intended goals. That accounting system must include two modules: financial accounting and management accounting. Management accounting plays an important role in providing information for the management of production and business activities in enterprises.

Cost is defined as the resources that an organization uses to provide products or services, minimizing costs and controlling costs is an important content for business growth. lasting. equity, cost management accounting plays a big role in every business. Cost management accounting is a part of the management accounting system to provide necessary information about costs for each organization to perform the function of managing consumer resources, to build plans, check, evaluate and make appropriate decisions. Cost management accounting provides documents on production and business cost estimates and the implementation of business budget estimates to help managers evaluate business activities, thus making suitable strategies.

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Cost is an input factor for an enterprise to conduct investment, production and business activities, cost is understood as the total waste of living labor, animalized labor and other necessary expenses that the enterprise spends. produced in the course of investment, production and business activities, expressed in monetary terms and calculated for a certain period.

Besides the concept of financial accounting and management accounting, there is also the concept of cost accounting. According to the Institute of Management Accountants of America (IMA), cost accounting is defined as "a technique or method for determining the cost of a project, a process, or a product… determined by direct measurement, or by systematic and rational allocation. According to this definition, cost accounting is not an independent part, a third module of the accounting system, but cost accounting is both a part of financial accounting and a part of the accounting system. of management accounting.

From the perspective of financial accounting, the cost accounting department has the function of calculating and measuring the costs incurred in the organization in accordance with accounting principles to provide information about the cost of goods sold, other expenses. activities on the income statement and the inventory value on the balance sheet is to provide complete and complete information about the expenses incurred by the enterprise in the financial statements. From the perspective of management accounting, costs are the actual costs incurred in production and business activities that are aggregated by each department, each cost center. The cost accounting department has the function of measuring and analyzing the cost situation and profitability of products, services, activities and parts of the organization to improve efficiency and effectiveness. of the business process, in order to bring maximum profit for the business.

In addition to the view that cost accounting is both a part of financial accounting and a part of management accounting, there is also the view that cost accounting is identical with management accounting. from the objective fact that cost information for internal management purposes is increasingly important for organizational sustainability. An organization's managers need not simply determine the cost of goods sold or services purchased, but more importantly, they need to be able to control the costs of activities and processes. program in the short term as well as the long term.

According to the author, the view of identifying cost accounting with management accounting will lead to deviations when building a cost accounting system in organizations. The cost accounting system from this point of view will be too focused on providing information for internal management and will neglect to provide honest and objective information for the preparation of financial statements. For managers, cost is a top concern, because the profit that the business earns more or less is directly and firstly affected by the costs spent. Therefore, the problem is how to control costs, identifying and analyzing cost-generating activities is the key to being able to manage costs, thereby making the right decisions in the process. its business activities. Cost management accounting provides both historical and predictive information through planning and estimating on the basis of cost norms in order to control actual costs, and at the same time basis for making strategic decisions for the business.

Cost management accounting is concerned with the forecasting of information and the responsibilities of managers at all levels to associate their responsibilities with costs incurred through the cost center system provided by the cost centers. costs in the business. Cost management accounting will show how much the cost is, how it fluctuates when some factors change, who is responsible for explaining adverse fluctuations in costs and solutions to adjust. changes in a timely manner. Thus, cost management accounting is not completely aware of costs from the point of view of financial accounting, but it carries the essence of management accounting.

Thus, through studying the accounting system at the Company, the Company currently only focuses on financial accounting, the aim is to prepare financial statements to submit to the authorities, provide the non-business entities. Expense management reports to provide internal information for the Company for planning, control and evaluation of the planning that are required to be performed when calculating the balance to the Company's profits, but the report has not yet become a mandatory report, only reporting when requested by the Board of Directors, but not yet having a separate cost management accounting system that can provide information when needed at any time. The company has made an estimate of the capital construction investment cost of each project as well as the actual value of each arising item but has not yet evaluated and analyzed to find the minimum solution. To optimize costs and use costs effectively, the accounting system has not been built for cost management purposes.

2. ACTUAL SITUATION OF BUILDING COST MANAGEMENT ACCOUNTING MODELS AT ENTERPRISES

According to the Circular No. 53/2006/TT-BTC dated June 12, 2006, of the Ministry of Finance stipulating the content of cost management accounting is an integral part of the content of management accounting. The contents of cost management accounting in general and construction cost management accounting include:

- Classification of expenses;
- Setting standards and making cost estimates;
- Calculating implementation costs and product costing;
- Cost analysis to control costs and make decisions.

Classification of expenses according to their relationship to the period of business results

Classification in this way means that the costs of the business's accounting period are divided into product costs and periodical costs.

Product costs: are costs associated with the production of a product. For construction and installation activities, product costs include direct materials costs, direct labor costs, construction machine usage costs and manufacturing overheads. Direct materials cost includes the actual value of raw materials, principal, auxiliary or loose parts, materials that make up the construction product entity that facilitate the realization and completion of the quantity. build. Direct labor costs are wages and salaries paid to direct construction workers.

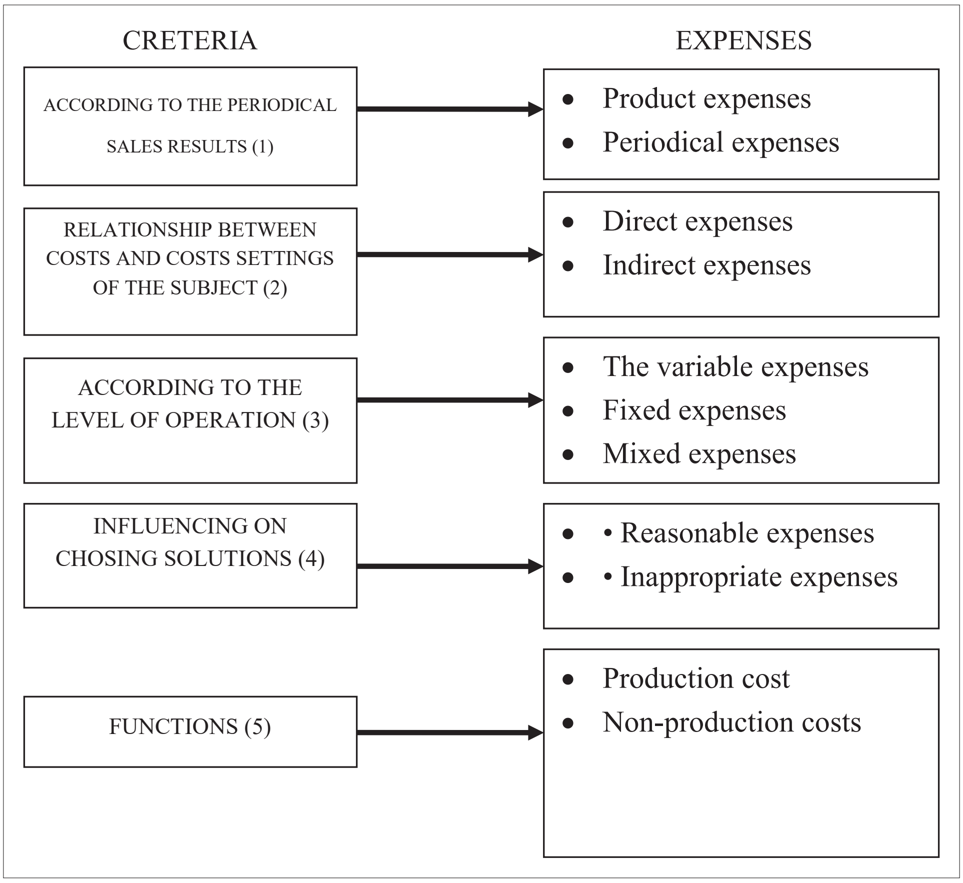


Figure 1. Expenses classification

The cost of using construction machines includes permanent costs and temporary costs. Recurring expenses for the operation of construction machines include main salary, extra salary of workers operating and servicing construction machines. Cost of raw materials, tools and equipment, depreciation of fixed assets, outsourcing costs and other cash expenses. Temporary costs include major repair costs for construction machines, temporary construction costs for construction machines, etc. General production costs are indirect production costs that have not been included in direct material costs. and direct labor costs, will be included in the products when allocating according to certain criteria, including costs such as: production costs of the team, construction site including salaries of team managers, types of insurance deducted from the salary of direct construction workers.

Product costs are included in the cost of construction products and will be converted to cost of goods sold (period costs) on the income statement when the products are sold. If products are still in the works or finished but have not been sold, these costs are considered assets of the business and are reflected under the inventory item of the Balance Sheet.

Period costs are expenses incurred outside the production process of the product, including selling and administrative expenses. Period costs directly reduce profits in the period in which they are incurred, in other words, period costs are transferred directly to the expense items on the income statement of the period in which they are incurred. In fact, in the construction industry, there are period costs that are difficult to identify because the business characteristics of the construction industry have a long production cycle. The cost of management, service, administration ... of the construction industry includes many different costs incurred from the time of construction until the end, which can last for many years. However, they are still period costs that directly affect the profit of the business during the income period.

Classification of costs according to the relationship between the cost and the cost object

According to this classification, production and business costs are divided into direct costs and indirect costs.

Direct costs are costs that are directly related to the production of a product, the performance of a service or an activity, a certain location and can be directly charged to those objects.

Indirect costs are costs that are related to many different products, services or activities and locations that cannot be directly accounted for. Indirect costs can only be determined for each object through the indirect method of allocation.

This classification makes sense in terms of accounting techniques. When incurring indirect costs that require the application of the allocation method, accountants need to choose a reasonable allocation criterion to provide reliable information about the costs of each type of product, service or service. each type of business activity. In addition, since direct costs are often avoidable and indirect costs are unavoidable when considering the existence or non-existence of the activities they serve, the This classification is very useful for managers when considering whether to maintain or remove business activities or divisions.

Categorize costs by relationship to operational level

According to this classification, costs are divided into two basic categories, variable costs and fixed costs.

Variable costs are costs that vary with production scale or sales such as labor, raw materials, or administrative costs. The concept of variable costs is very important for business profit goals, good control of variable costs will increase profits for businesses. Variable costs are expenses that have a proportional relationship with the fluctuation of the level of production and business activities of the enterprise. Variable production and business costs include the following items:

- The cost of materials directly.
- Direct labor costs.
- A part of the general production cost (auxiliary materials, fuel, motivation, small tools, indirect labor...).

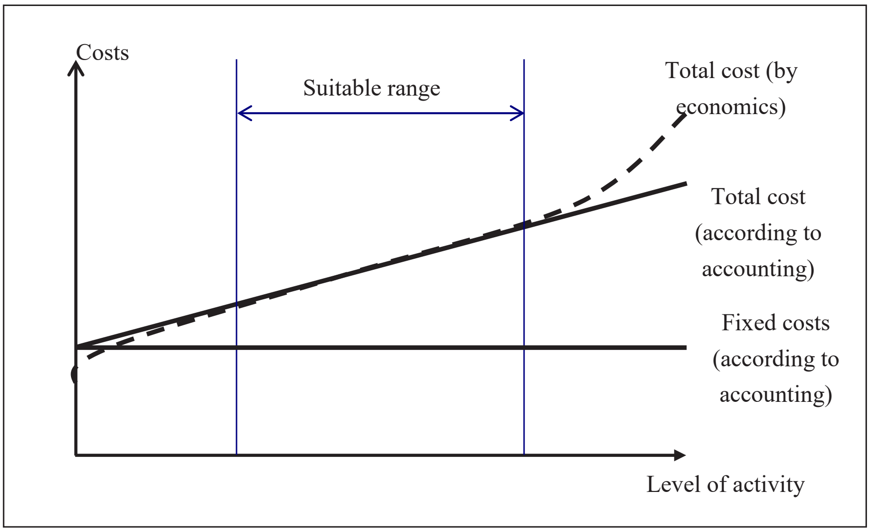
In terms of impact, Variable Costs are divided into two categories: Proportional Variables and Tiered Variables:

- *Proportional variable costs:* These are related costs that are directly proportional to fluctuations in the underlying level of activity. Proportional variable costs include costs: Direct materials costs, Direct labor costs.

- *Tier variable costs:* These are costs that change only when the level of activity changes significantly and clearly. Variable costs of this type do not change or change inconspicuously when the baseline activity level changes slightly. In other words, variable costs of this type have a proportional but non-linear relationship with the basic level of activity, such as: indirect labor, maintenance costs... Variable costs of production and business have three basic characteristics, copy:
- Variable cost per unit product is usually stable, unchanged.
- Total Variable Costs change as output changes.
- Variable costs are approximately zero when the business is inactive.

Fixed costs are expenses that do not change depending on the size of production or level of sales such as rent, rent, insurance or interest payments. In other words, those costs that do not change in total over a range appropriate to the firm's activity levels but fluctuate inversely with the level of activity when averaged for a unit of activity level. motion. The appropriate scope to consider the fixed or variable cost here is the limit of minimum and maximum production capacity in the short run of the enterprise. Within this fit, the relationship between cost and activity level is linear and is represented as a straight line and is consistent from an economic point of view (graph 2).

Mixed costs are costs that have both a fixed and a variable element. In fact, there are many costs incurred in business activities of enterprises that are not purely variable costs or purely fixed costs but are mixed costs. A good understanding of the variable and fixed components of mixed costs will help businesses in estimating costs. Different methods can be used to estimate mixed costs.



Graph 2. Cost classification by relationship to activity level

3. REQUIREMENTS OF BUILDING A COST MANAGEMENT ACCOUNTING MODEL AT A HIGH-TECH INVESTMENT AND DEVELOPMENT JOINT STOCK COMPANY

Suitable for business activities

With the characteristic that enterprises invest in the construction of works, projects, and do real estate business in the current competitive and economic downturn, research and business decision-making are very important in this regard. current stage of development of the Company. Therefore, on the basis of the general principles of the organization of cost management accounting in the enterprise, the cost management accounting model at the Company needs to be built in accordance with the Company's business process. company. Thus, the new cost management accounting system can promote its roles and have practical effects on business organization at the Company. With the unique characteristics of the construction industry as well as the output products are specific products, construction activities always need a department to make estimates, evaluate project performance, from which to consider whether to invest in the construction industry. the project or not and give the appropriate plan. Besides, controlling costs for analysis and evaluation is always a prerequisite for business success. Enterprises using costs effectively, economically and for the right purposes will save input costs for businesses. Estimation is the first important step before starting project implementation, when the project starts construction until the project is completed, handed over and put into use, the cost management accountant must calculate, compare and contrast. Comparison between the estimate and actual results gives the difference, thereby finding the cause and if necessary, providing solutions to help the process of using costs more effectively. Therefore, the cost management accounting model from the personnel organization to the organizational structure and tasks of the cost management accounting department must be suitable for the Company's operations.

Respond to the diverse information needs of managers and reach cost control goals in enterprises

As mentioned above, in a complex competitive business environment, business managers need useful information to be able to make optimal business decisions. The information that managers need is very diverse, serving to make many kinds of decisions, from operating daily production and business activities to planning development strategies for the business. This requires the cost management accounting system to provide both detailed and specific information about each aspect of the business's activities, while also providing general, comparative, and evaluation information. Comprehensive assessment of all aspects of business activities. In addition, the issue of cost control should pay special attention in the process of managing business activities of enterprises. Every business that wants to be successful must do a good job of controlling costs. Therefore, the cost management accounting model at the Company must pay special attention to the Company's cost control objectives.

To reach efficiency and savings goals

The company's current cost accounting system mainly serves the purposes of financial accounting, the cost management accounting part is now available, but it is only at the beginning and only stops at the stage of cost classification. costing, budgeting, and actual completion. Although incomplete, there is a basic content in cost management accounting. Therefore, the construction of a cost management accounting model will create significant changes to the overall accounting system at the Company. In order to build and operate the cost management accounting system, the Company will certainly have to make investments in human and material resources, and there will be changes in the way of accounting management and organization. However, the cost management accounting system needs to be harmoniously combined with the financial accounting system, not too complicatedly to cause difficulties for the accounting apparatus, not too expensive but still ensuring efficiency. Therefore, there must be a model suitable to the characteristics of company.

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RESEARCH ON PUBLIC ACCOUNTING STANDARDS ON REVENUE FROM NON-EXCHANGE TRANSACTIONS AND APPLICATION IN ACCOUNTING OF STATE BUDGET COLLECTION AT TAX AGENCIES

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Abstract: *This article aims to study international public accounting standards on revenue from non-exchange transactions, and research objects on tax, and fee collection in international public accounting standards, thereby proposing to promulgate basic contents in public accounting standards on revenue from the non-exchange transactions in Vietnam, study basic contents of state budget collection accounting and its relationship with public accounting standards on revenue from non-exchange transactions.*

Keywords: *Public accounting standards for revenue, tax revenue, tax expenses, tax assets.*

1. OVERVIEW OF INTERNATIONAL PUBLIC ACCOUNTING STANDARDS ON NON-EXCHANGE TRANSACTION REVENUE AND ITS RELATIONSHIP WITH REVENUE ACCOUNTING AT TAX AUTHORITIES.

Public accounting standards are regulations and guidelines on basic, general, and complete accounting principles, contents, methods, and procedures, which serve as a basis for accounting records and financial statements preparation to achieve an honest, reasonable and objective assessment of the financial status and performance of accounting units in the public sector.

Public sector accounting units include central governments, local governments (provinces, cities, counties, districts, towns), and their affiliates, with the exception of designated units. Public accounting standards are accounting standards applicable to entities in the public sector. Including principles and standards as the basis for public entities to organize accounting work, prepare and present financial statements, revenue and expenditure reports. Public accounting standards, in addition to legal provisions that ensure the reasonableness and comparability of accounting information, create high reliability for users, also contain guiding regulations to guide, and explain uniformly calculation methods and procedures for recording and reflecting accounting information. The ultimate goal of public accounting standards is to uniformly prescribe the content, presentation, and interpretation of financial statements of public accounting units, the Government, and state budget revenue and expenditure reports.

The International Public Sector Accounting Standards Board (IPSASB) of the International Federation of Accountants has drafted accounting standards for public sector entities, also known as international public accounting standards. IPSASB strongly encourages national governments and standard-setting bodies to participate in the development of IPSASB standards by submitting comments on the proposal contained in the published drafts. Many countries around the world have announced their own use of IPSAS or a similar standard system, and there are more and more plans to apply IPSAS in different countries in the near future.

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Government adoption of IPSASs will contribute to improve the quality and comparability of financial information reported by public sector entities around the world. Internationally, IPSASB recognizes the right of Governments and national standard-setting bodies to develop accounting standards and provide guidance on how to prepare financial statements within their jurisdictions.

In this system, the non-exchange transaction revenue accounting standard is specified and denoted by IPSAS 23: Revenue from non-exchange transactions, the main body of this standard refers to the accounting principles that record revenue from taxes, fees, charges of the state, transfers, assets formed through non-exchange transactions, tax expenses,…

IPSAS 23: Revenue from non-exchange transactions, which is the main basis for tax accounting recognition at state budget revenue management agencies.

In our country, there are two main systems: the General Department of Taxation and the General Department of Customs. State budget revenue accounting at tax agencies is currently regulated with Circular 111/2021/TT-BTC of the Ministry of Finance guiding domestic tax professional accounting, this regime stipulates: General regulations for tax accounting; Application of information technology in tax accounting; Collect input information of tax accounting, tax accounting documents; Tax accounting accounts; Tax accounting book; Tax accounting reports; Organization of tax accounting.

Accounting of taxes and other revenues for import and export goods is guided in Circular No. 174/2015/TT-BTC of the Ministry of Finance, as amended and supplemented in Circular 112/2018/TT -BTC. The main content of this accounting regime is to guide accounting principles, accounting methods, accounts, financial accounting reports, and management accounting reports. Taxes on import and export activities and other revenues are statutory state revenues and are part of non-exchange revenue.

Thus, a careful study of international public accounting standards on non-exchange transaction revenue, laws and mechanisms for collecting taxes, fees and charges on revenues from non-exchange transactions are the most important foundation for issuing accounting standards for revenue from non-exchange transactions in Vietnam.

2. ANALYSIS OF BASIC CONTENT OF INTERNATIONAL STANDARDS (IPSAS 23) OF NON-EXCHANGE TRANSACTION REVENUE AND ITS APPLICABILITY TO STATE BUDGET COLLECTION ACCOUNTING IN VIETNAM

2.1. Receivables

The regulated receivables include: receivables from taxes, receivables from fines, fees, charges..., the basic contents are as follows:

Taxes receivable: The function of taxes, fees and charges is the main source of state budget revenue and a tool to adjust the macroeconomy. In Vietnam, tax is a form of compulsory encouragement of the State, belonging to the distribution category, in order to concentrate a part of the income of natural and legal persons into the state budget to meet the expenditure needs of the state and serve the public interest. Therefore, taxes are not directly tied to specific benefits that taxpayers enjoy from public goods provided by the state. Natural and legal persons performing the tax payment obligation to the State according to the law do not have the right to require the state to provide them directly with a certain amount of goods and services or to refund the tax they have paid in accordance with the law.

From there, it shows that tax revenue in Vietnam is consistent with the regulations and standards of IPSAS 23 - Revenue from non-exchange transactions. Tax receivables specified in IPSAS 23 are defined through the following concepts: (1) A tax event is an event where the Government, legislature, or other authority determines the amounts to be taxable. (Paragraph 7 - IPSAS 23). (2) Taxes are economic benefits or potential services that are obligatory or payable to public entities that are, by law and/or regulation, established to generate revenue for the Government. Taxes do not include fines or other penalties incurred for breaking the law. (Paragraph 7 - IPSAS 23). These contents are very consistent with the current tax administration law No. 38/2019/QH14, and the corresponding tax laws for each tax policy such as value-added tax, corporate income tax, export and import tax,…

- Regulations on tax revenues:

Tax laws that regulate taxes can vary considerably from one jurisdiction to another, but they share some common features:

+ Tax laws and regulations establish the government's right to collect taxes, determine the basis for tax calculation, and develop tax administration procedures, which are procedures for calculating tax receivable and ensuring tax payment is collected.

Tax laws and regulations often require taxpayers to submit periodic tax returns to the government agency that administers a particular tax. Taxpayers often provide details and proof of the extent of the activity that is taxable, and the amount of government tax due. Tax collection rules can vary considerably but are often designed to ensure that the government collects taxes regularly without resorting to prosecution.

Tax laws are often strictly enforced and often prescribe severe penalties for individuals or other entities that violate the law.

These contents are also consistent with the tax administration law No. 38/2019/QH14, and the corresponding tax laws for each tax policy.

- Contents of tax receivable:

Taxes are the main source of revenue for many governments and other public entities. Optional transfers to the Government or public entities such as gifts and fees are not taxable, although they may result from non-exchange transactions. (Paragraph 26 - IPSAS 23).

Taxes to be collected: The government, legislature, or other authority determines the taxes payable by taxpayers, including: Income Tax; VAT; Taxes on goods and services; Customs duty; Inheritance tax; Real estate tax; and other taxes.

Amounts to be collected from fines:

When individuals or other entities violate the law and must pay fines according to regulations, these revenues are fines receivable.

Fines are economic benefits or potential services that are obtained or owed by public entities, as determined by a court or other law enforcement agency, as a result of a violation of a law or regulation. (Paragraph 7 - IPSAS 23).

2.2. Liabilities

How to determine liabilities

A present obligation arising from a non-exchange transaction that satisfies the concept of liability should be recognized as a liability if and only if: (1) It is probable that an outflow of resources contains future economic benefits or potential services that will be needed to perform the obligation; and (2) A reliable estimate can be made of the amount of the obligation (Paragraph 50 - IPSAS 23). In which, current obligations are explained as follows:

A present obligation is one that behaves in a certain way and can increase liability on any non-exchange transaction. Existing obligations may be imposed pursuant to the provisions of law or the binding regulations or agreements that form the basis of the transfers. They can also arise from the normal operating environment, such as the recognition of advance payments (Paragraph 51 - IPSAS 23). In Vietnam, it is the payables to taxpayers due to overpayment or VAT refund.

The reporting entity may recognize resources before a tax event occurs when liability is recognized corresponding to the amount of advance recognized until the tax event occurs (Paragraph 53 - IPSAS 23). In Vietnam, these items are temporary state budget revenues, or in other words, revenues arising from past events that are recorded as revenues but not yet qualified to be recognized as real revenues of the state budget, for example, temporary collection of import tax for imported raw materials for production and processing of exported goods, the import tax on temporarily imported goods for re-export, etc.

When resources are received prior to a binding assignment, it recognizes a liability for an advance until the arrangement becomes compliant (Paragraph 54 - IPSAS 23). In Vietnam, there are many similar contents such as grants, uncommitted aid, no detailed contract, framework contract, or state budget revenues and expenditures; tax refund offset.

2.3. Non-exchange transaction revenue

Non-exchange transactions are transactions in which one entity receives value from another without directly returning a roughly equivalent value, or gives value to another entity without directly receiving the roughly equivalent value in return, or in other words, a non-exchange transaction is a transaction that is not an exchange transaction.

Non-exchange revenue: the majority of revenue for governments and other public entities usually arises from non-exchange transactions such as:

(a) Taxes; and

(b) Transfers, including grants, debt relief, fines, inheritance, gifts, giveaways, and free goods and services.

These contents are completely consistent with transactions in the public sector in Vietnam, so this concept and content can be fully applied to Vietnam and especially in the field of state budget revenue management such as taxes, fees, charges, giving, giving, giving, subsidies, etc.

Recognition of revenue from non-exchange transactions

Revenue from non-exchange transactions

Revenue includes the total increase in economic benefits and potential services received or may be received by the reporting entity, recognizing an increase in net assets/equity without having to increase related to the owner's capital contribution. The value obtained as an agent of the government, another Government entity, or other third parties will not increase the net assets or revenue of the agent (Paragraph 12-IPSAS 23). A specific example in Vietnam is that when a taxpayer submits a tax return and accepts the tax payable to the state, the tax collection agency recognizes the revenue from the tax, or the non-business units receive gifts, donations, aid, grants, etc., they record revenues and expenditures into the state budget, revenue from non-exchange transactions arises, or in other words, this content can be completely applied to Vietnam.

When an entity incurs any cost related to revenue arising from a non-exchange transaction, revenue is the sum of the future economic benefits and the potential for services, and any decrease in resources is also recognized as a transaction cost. (Paragraph 13-IPSAS 23), this content is similar to the current tax law in Vietnam, especially when the tax return has been accepted for the payable tax amount, but at the same time, tax exemption or reduction is also granted, or after the subject has paid the tax, there is a decision on tax exemption or reduction.

Special case: There are also traditional transactions where it is not immediately obvious whether they are barter or non-exchange transactions. In this case, it is necessary to examine the nature of the transactions to decide whether they are exchange or non-exchange transactions. For example, the sale of goods is often classified as a barter transaction. However, if the transaction is executed at a support price, that is, a price that is not roughly equivalent to the fair value of the goods sold, the transaction falls under the concept of a non-exchange transaction. When determining the nature of a transaction as non-exchange or exchange, professional judgment is made. In addition, entities may receive trade discounts, quantity discounts, or other discounts in property quotes for a variety of reasons. These price discounts do not necessarily mean that the transaction is a non-exchange transaction (paragraph 11- IPSAS 23).

This content has a quite similar situation in Vietnam currently, which is the issue of tuition fees and some revenues in public services, now we need to carefully examine and compare the value of capital, economic and technical norms with the price of fees collected, in the situation where revenue does not cover expenses, the budget subsidizes most or if there is a large amount of third party funding, we classify it as a non-exchange transaction. In this case, more specific guidance is needed when promulgating this content in public accounting standards in Vietnam.

To distinguish between exchange and non-exchange transactions should be based on the nature of the business, not on the form of arising. Examples of non-exchange transactions such as revenues derived from the exercise of supreme power (such as the collection of direct or indirect taxes, and government taxes) from subsidies and grants. (Paragraph 6 - IPSAS 23).

Tax revenue

a) Taxes payable and paid to tax authorities will be recognized as revenue.

b) The government enjoys tax revenue that no one else is entitled to.

c) Tax revenue must be determined at the total value. It is not reduced because costs are paid through the tax system.

d) Tax revenue is not included in the tax expense value. (Paragraph 73 - IPSAS 23).

So here the standard does not allow the offset between tax revenue and tax expenses, this content needs to be carefully studied to be suitable for Vietnam, currently, the accounting regimes for revenue in Vietnam are approaching. With this principle, we have designed separate account type 8 to reflect tax expenses, and account type 7 to reflect tax revenue, but pay attention not to allow offset of tax revenue and tax expenses. directly.

Revenue from fines

Fines typically require an entity to transfer a fixed amount of cash to the government and do not subject the government to any obligation that could be recognized as a liability. Thus, fines are recognized as revenue when the receivable satisfies the concept of an asset and meets the criteria for recognition as an asset. When an entity collects fines as an agent, the fine shall not be the revenue of the collector (Paragraph 89 - IPSAS 23).

2.4. Tax cost

Tax costs are favorable provisions of tax law for statutory taxpayers (Paragraph 7 - IPSAS 23)

This content is very similar to the legal documents on tax in Vietnam, the Vietnamese tax law stipulates the cases and conditions for tax exemption, reduction, extension, debt freezing, and tax cancellation. Thus, in Vietnamese public accounting standards, it is necessary to specify specific tax costs for the government in accordance with the content of tax exemption, reduction, refund, grace period, debt freeze, and tax cancellation...

The government uses the tax system as a macro-regulatory tool for the economy, encouraging this activity and preventing and restricting other activities. For example, homeowners are allowed to deduct mortgage interest and property taxes from their gross income when calculating taxable income.

For example: For state budget revenue accounting at tax authorities in Vietnam, expenses are tax exemptions and reductions and tax arrears, which have been designed by the professional accounting system to account for tax expenses in account type 7.

3. CONCLUSION

The author's research process has summarized and summarized the important contents of international public accounting standards (IPSAS 23): Revenue from non-exchange transactions, associated with accounting objects: Accounts Receivable, Liabilities, Revenue, and Expense analysis with similarity of Vietnamese law is the premise for the compilation of Public Accounting

Standard on revenue from non-exchange transactions in Vietnam and especially applying it to the accounting regime of state budget revenues at collection management agencies such as: Tax, Customs, State Treasury, etc. The research contents were also discussed with experts, scientists specialized in public accounting standards at home and abroad. From there, make recommendations to apply international public accounting standards to improve state budget revenue accounting at tax authorities in Vietnam in the process of public finance reform. Accordingly, focus on studying the basic content of the objects of revenue accounting on the basis of a detailed presentation of concepts, regulations, principles, as well as basic contents about revenue accounting objects including: Accounts Receivable, Liabilities, Revenue, and Tax Expense.

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RESPONSIBILITY ACCOUNTING SMALL AND MEDIUM ENTERPRISES IN VIETNAM: CURRENT SITUATION AND RECOMMENDATIONS

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Abstract: *In the world, responsibility accounting plays an important role in supporting the executive board to manage business operations, and at the same time providing information to realize corporate governance goals in order to achieve the highest efficiency. Management accounting uses the responsibility accounting system to classify the organizational structure into responsibility centers, on which to evaluate the results of each department based on the responsibilities assigned to that department. However, for Vietnam, responsibility accounting is still a relatively new field and has not been paid enough attention, which has resulted in many enterprises, especially SMEs, having an unorganized management structure suitable; enterprises have implemented decentralization of management, reporting system but rather sketchy, not regular; Management staff do not have a high sense of responsibility in their work as well as for the department they manage... This makes the evaluation of each unit's performance against the overall goal of the business. lack of accuracy, production and business efficiency is not high. Therefore, this article aims to evaluate the current situation of applying responsibility accounting in SMEs, thereby proposing solutions to promote this type of accounting in management accounting activities in SMEs in Vietnam today.*

Keywords: *Responsibility accounting, management accounting, application of responsibility accounting, SMEs, Vietnam.*

1. INTRODUCTION

Responsibility accounting increasingly shows an important role and position in economic management activities in enterprises in countries around the world, especially in countries with developed economies. In Vietnam, the application of the contents of management accounting in general and responsibility accounting in particular is still a very new issue and has not attracted much attention from businesses, especially SMEs. Therefore, researching and promoting the application of responsibility accounting is an urgent requirement for SMEs in Vietnam today.

Responsibility accounting is one of the basic contents in management accounting at enterprises and is one of the economic and financial management tools that play an important role in operating, controlling as well as evaluating. effective cost of production and business activities of the unit; is one of the useful financial tools for controlling and operating business activities of managers in enterprises. That is viewed as a system of collecting, processing and communicating financial and non-financial information that can be controlled according to the scope of responsibility of each manager in order to achieve the overall goals of the organization.

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The essence of responsibility accounting is that each division in the management apparatus has the right to control, direct and be responsible for separate operations within the scope of its management decentralization. Responsibility accounting is only performed in enterprises with clearly decentralized organizational structure. Depending on the characteristics of the organizational structure, the level of management hierarchy and the goals of the enterprise administrator, it is divided into respective responsibility centers. Each responsibility center within an organization has full control over its operations, such as the management of costs, revenues, and investments. Responsibility centers create continuity in the management system. Through responsibility accounting, SME managers can assess the quality of the performance of parts of the unit. From there, SMEs will measure the performance results of divisional managers as well as motivate departmental managers to run their divisions in an appropriate manner according to the basic objectives of the proposed organization. out.

On the basis of inheriting domestic and international research results, this paper analyzes and evaluates the current situation of applying responsibility accounting in SMEs, thereby making some recommendations to help SMEs improve their application of responsibility accounting in these enterprises.

2. LITERATURE REVIEW

Responsibility accounting is a basic content of management accounting and is a process of gathering and reporting controllable information, used to check operational processes and evaluate task performance in each department in an organization. Responsibility accounting is an accounting method that collects, records, reports and measures the operating results of each division in order to evaluate the results, control the operating process and incurred costs of the divisions in the company, to achievement of the overall goals of the business.

A responsibility accounting system is an information system, using financial and non-financial information, within the control system of an organization's management. Responsibility accounting can only be performed in units with a clear organizational structure and management apparatus. The essence of responsibility accounting is that each division in the management apparatus has the right to control, direct and be responsible for separate operations within the scope of its management decentralization. The responsibility accounting system is associated with the decentralization of management. Without the decentralization of management, there would be no responsibility accounting system or the responsibility accounting system would have no meaning. Management decentralization is the division of power from superior to subordinate, decision-making authority and responsibility spread throughout the organization. Different levels of management are empowered to make decisions and are accountable to their scope of authority and responsibilities.

In responsibility accounting, responsibility centres are mainly divided by financial function, that is: Cost centre, revenue centre, profit centre and investment centre. When decentralizing management, accountants will identify levels belonging to one of the responsibility centres for tracking reports. A responsibility centre is a department in an organization where a division manager is responsible for the department. Fowzia (2011) when researching responsibility accounting in

Bangladesh to find a satisfaction about a responsibility accounting system, through surveying 88 service organizations and using Logit regression analysis. To test the influence of factors on the responsibility accounting system, it was suggested that: the assignment of responsibilities, the way to measure the effectiveness of the responsibility accounting work and the reward work have an influence on the job performance. responsibility accounting. Meanwhile, the study did not find a statistically significant impact of the responsibility center factor and the standard of performance measurement according to the regulation of the responsibility accounting system on the responsibility accounting work. Fowzia (2009), when researching non-banking financial institutions that are using the responsibility accounting system, stated that: the identification of the types of responsibility centers, performance measurement standards, and methods of measuring performance. Measuring the effectiveness of responsibility accounting, reward work has an impact on responsibility accounting.

Research by Indjejikian et al (1999) suggests that the assignment of responsibility and the reward of managers have an influence on responsibility accounting. According to the authors Anthony A.Atkinson, Robert S.Kaplan, responsibility accounting is an accounting system with the function of collecting, synthesizing and reporting accounting data related to the responsibilities of each manager. separate management within an organization through reports relating to expenses, income, and performance metrics by each responsibility area or unit within the organization. An accounting system generates reports that contain both controllable and uncontrollable objects for a level of management. Accordingly, controllable and non-controllable objects need to be clearly separated and the identification of controllable objects is a fundamental task in responsibility accounting and responsibility reporting. According to the group of authors Clive Emmanuel, David Otley and Kenneth Mar- chant presented their views on responsibility accounting as follows: responsibility accounting is the collection and reporting of financial information about different centres within an organization (responsibility centres), also known as operations accounting or profitability accounting. It traces costs, income, or profits to individual managers who are responsible for making decisions about the costs, incomes, or profits in question, and take action on them. Responsibility accounting is appropriate in organizations where top management transfers decision-making power to subordinates. Accordingly, the idea behind responsibility accounting is that each manager's performance should be judged by how well or badly they have managed the tasks under their influence.

According to James R. Martin, "responsibility accounting is an accounting system that provides information about the results and performance of divisions and units in an enterprise. It is a tool to measure and evaluate the performance of the divisions related to investment, profit, revenue and cost, for which each division has control and is responsible accordingly. The main idea underpinning James R. Martin's idea of responsibility accounting is that dividing a company's management structure into responsibility centres provides good management. more, and this is really meaningful and necessary for large organizations with diverse operating industries. In the process of management, individuals and departments are assigned decision-making rights and responsibilities to perform part or all of a certain job. Decentralization in the organization creates a multi-level structure and requires superiors to monitor and evaluate the performance of subordinates. Therefore, responsibility accounting is built to track the results and efficiency of using resources in each department in an enterprise.

It can be seen that the studies focus on the application of responsibility accounting in enterprises to find out the causes, limitations and provide solutions to improve the responsibility accounting system in enterprises. Some authors have built models of factors affecting the application of responsibility accounting in SMEs, clarifying the necessary conditions for application. However, these studies also show that the application depends on each country because each country will have differences in the legal, political, economic system and the level of human resources as well as human resources. many other specific factors. More and more authors conduct research on the application of responsibility accounting in SMEs as well as to determine the influence of factors affecting this process, and at the same time provide a reliable source of information, and effective support for the responsibility accounting in SMEs.

In Vietnam, Nguyen Thi Huyen Tram (2007) said that the factors affecting the accounting work at enterprises include: legal environment, factors belonging to the characteristics of the business (such as information users). accounting information, internal control system, the application of information technology to accounting work).

Dam Phuong Lan (2014) argues that the division of responsibilities is concretized into the following elements: decentralization in management, separation of responsibilities between levels in management and control, setting up centres responsibility.

Assoc. Prof. Dr. Pham Van Dang (2014) believes that listed companies need to have a tool to help senior managers monitor and evaluate the management responsibilities of their subordinates for their assigned work. That is, there are timely corrective actions to improve inefficient activities in order to accomplish the overall goal of the whole enterprise.

The thesis 'Organization of the responsibility accounting system in commercial enterprises in Vietnam' by Nguyen Thi Thanh Thuy (2014), raises the issue of the reorganization of the responsibility accounting work in Vietnam. commercial companies, while correcting the reporting system and the separation of authority and responsibility within the company to help evaluate the performance of responsibility centres.

In the country, the research works on responsibility accounting mainly focus on assessing the current status of the responsibility accounting system, the organization of responsibility accounting, the factors affecting the responsibility accounting work… propose solutions to improve the responsibility accounting system in enterprises, have not studied this work deeply in SMEs.

An overview of domestic studies shows that there are quite a few studies on the application of responsibility accounting to operating enterprises in different business fields and different sizes. However, there have not been many in-depth studies with SMEs, so the proposed measures or directions are vague, lack of practicality and difficult to apply.

3. RESEARCH METHODOLOGY

Qualitative research method: Using direct interview method and internet survey method of business managers and accounting staff to determine the current status in application of responsibility accounting in SMEs in Vietnam from 2020 to now.

4. RESEARCH RESULTS

The actual survey process shows that, some SMEs have organized responsibility accounting, have built a clear and non-overlapping system of assignment and responsibility, creating the necessary conditions to build a system of responsibility center. However, there are still many SMEs that have not yet built a scientific and specific responsibility accounting model or have not been given due attention. Specifically:

Firstly, many SMEs do not have or do not have adequate control over the cost center. This is a center where the manager is solely responsible or has control over costs with no control over revenue, profit or investment. Cost centers are often formed from workshops, teams, and production teams. Therefore, the cost center at enterprises includes departments of corporate offices, professional departments of general warehouses, factories and branches, quality control centers, warehouses, retail stores, teams. Workshops are sometimes not fully controlled by SMEs.

Secondly, the SME manager is almost exclusively responsible for revenue, not for profit or capital investment in the revenue center. Revenue centers are usually generated at sales departments, so the revenue centers in enterprises are usually Sales Departments, retail stores. Here, the Sales Manager, the store manager is the person who is most responsible for the sales revenue of the store or unit under his/her management and must be accountable to the director. but most are not responsible for the profit or investment capital for the center, leading to the inability to evaluate the real performance.

Thirdly, about the profit centre, this is the centre where the manager is responsible for all revenue, expenses and operating results, usually determined at the company, factory and branch level, The directors of the company and the directors of the member units are responsible to the Board of Directors for the profits generated by the company, and at the same time can approve the expenses related to the generated profits. However, calculating the correct and sufficient profit of these centres is still a big challenge for SMEs.

Fourthly, about the investment centre, this is the place where the manager plans and controls the entire operation of the unit, the asset investment process, which often arises at the investment department, associated with the responsibility of the manager. business director and head of investment department. However, most SMEs do not decentralize the accounting information system to monitor the performance of this centre.

5. RECOMMENDATIONS AND SUGGESTIONS

In fact, in Vietnam today, the use of information from responsibility accounting by corporate managers to make business decisions is still very limited. Responsibility accounting in SMEs has not been paid enough attention commensurate with its position and role in corporate governance. In order for responsibility accounting to be effectively applied to the management of SMEs, it is necessary to carry out a series of specific solutions with the participation of the following parties:

Firstly, on the State side, besides Circular 53/2006/TT-BTC, guiding the application of international accounting in enterprises, the Ministry of Finance should issue circulars guiding the application of management accounting, especially responsibility accounting. suitable for each field of activity, each specific industry, each firm size. In which, additional content on responsibility accounting, detailed reporting system regulations. The Ministry of Finance assigned VAA to organize an annual update of knowledge on responsibility accounting for practicing accountants and widely propagate to business managers about the position and role of responsibility accountants... The State should also assign associations to organize many seminars, training sessions, and exchange practical experiences in organizing the domestic and foreign responsibility accounting system.

Secondly, on the side of SMEs, it is necessary to restructure the organization of production and management, strengthen decentralization to improve management responsibility and authority. SMEs need to build a clear and non-overlapping system of division and division of responsibilities; remove the thinking that accounting is simply to serve the authorities, it is necessary to focus on positive thinking rather than accounting first for businesses. SMEs need to actively build a responsibility accounting model suitable to the characteristics of their enterprises, build a system of reports, tables and evaluation criteria... specifically for each department, team, team... as a basis for building norms, cost estimates, and revenue contracts for each department. SMEs also need to be aware of the role of responsibility accounting for proper investment, there needs to be synchronous coordination between managers and accounting staff, responsibility accounting information needs to be are taken care of and handled properly according to regulations; Only then will responsibility accounting information really come to life and go into the management of the business. Finally, in order for the responsibility accounting to be done well, the enterprise needs to develop a set of internal management regulations, regulations and norms and disseminate them widely throughout the company so that everyone understands and apply. Annually, the organization inspects the application of regulations to promptly correct, amend and supplement the limited issues of the prescribed processes.

Thirdly, on the part of training institutions, in the process of training human resources for the economy, it is necessary to focus on training responsibility accountants not through theoretical lessons but must be applied in practice. prepare learners how to apply responsibility accounting skills in all different business environments. Training institutions need to make responsibility accounting an important content in the compulsory management accounting training content for students majoring in accounting and students in the economic sector who are not majoring in accounting; can guide students to build virtual responsibility accounting models for students to practice, combined with bringing students to enterprises to approach real management accounting models in enterprises; Regularly update the contents of the responsibility accounting system in the direction of international practices and standards. The training method needs to improve learners' initiative, help learners actively apply knowledge to adapt to the changing needs of providing accounting information for managers, in addition, learners There are also flexible innovations to advise administrators in management.

The implementation and application of responsibility accounting is always an effective measure to increase the business efficiency of any SME, however, it is necessary to consider the appropriate level in terms of scale and business strategy, staff qualifications... to choose the optimal solution.

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OVERVIEW OF INFLUENCING FACTORS IN THE IMPLEMENTATION OF THE APPLICATION OF VIETNAM PUBLIC ACCOUNTING STANDARDS AT PUBLIC PROFESSIONAL UNITS

MAc Tran Thanh Tam[1]

Abstract: *The article identifies factors affecting the application of Public Accounting Standards in public non-business units in Vietnam. From an overview of previous studies in the world, through in-depth interviews with experts, the research results show that factors that will affect the implementation of Public Accounting Standards at public non-business units within the scope of the application of Public Accounting Standards in Vietnam include: level of training and professionalism, cost of implementation, political system and legal environment, support from consulting organizations and information technology application.*

Keywords: *Factors, application, public accounting standards, public non-business units.*

1. INTRODUCTION

The adoption of Public Accounting Standards by countries is geared towards the preparation and improvement of financial statements for the government's general purpose in public sector, a clearer assessment of decisions made by the Government to allocate resources, conveying a true and fair view of the financial situation. The application of accounting standards in accordance with international practices also ensures the comparison of financial statements with other countries, creating favorable conditions for countries in mobilizing capital from the international market. In Vietnam, the project to announce the Public Accounting Standard System issued by the Ministry of Finance under Decision 1299/QD-BTC on July 31, 2019 has outlined contents related to the organization and implementation of the application of Vietnamese public accounting standards. Accordingly, the promulgation of standards is divided into several phases from 2020 to January 2024 and is suitable to the characteristics and management mechanism of Vietnam's legal system. Vietnam has also announced the first 5 public accounting standards under Decision No. 1676/QD-BTC dated September 1, 2021 of the Ministry of Finance. The units within the scope of applying financial accounting standards, including public non-business units, during such implementation and application, will definitely encounter certain barriers. Does the accounting team have the approach and professionalism for adoption reform? Otherwise, are the training units for the current public accounting profession in Vietnam competent to meet the requirements of training qualified and professional accountants? Are the costs of implementing reforms high? Factors that support political and legal regulations as well as support from professional organizations are also issues to be determined when moving to apply Vietnamese public accounting standards.

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2. RESEARCH METHODS

In order to ensure that the evaluations and comments are accurate and have high reference value from the given research, the author uses a combination of qualitative research methods, literature review and expert consultation.

Based on the research documents, the author conducts analysis and comparison to synthesize the factors that are likely to affect the application of the Vietnamese financial accounting standards and synthesize the components of the factor scale. In addition, the author consults researchers who are accounting experts, lecturers teaching public accounting and Public Accounting Standards, accountants with practical experience in public non-business units, helping the author have more grounds, as well as awareness to make a correct assessment of the factors affecting the application of Vietnamese public accounting standards.

3. RESEARCH OVERVIEW

The researches by Miraj and Wang (2019), Agyemang (2017), conducted in Pakistan and Ghana, all address the factors affecting the implementation of international public accounting standards (IPSAS) that are accounting education and training in the region public sector, along with the cost of implementing IPSAS in countries; identified as a barrier in the application of IPSAS in these countries with a descriptive qualitative research model. Both countries have numerous challenges that impede the effectiveness of government accounting and financial management. These problems arise from poor oversight of basic financial functions, ineffective financial information for decision-making, and poor employee motivation and accountability. The studies were conducted with public sector administrative staff, accounting practitioners and government accounting departments to identify and measure the influencing factors of accounting education and training in the public sector, along with the costs of implementing IPSAS. The results in both studies show that the majority of respondents agree that there is little knowledge of IPSAS, a lack of personnel in accordance with international financial standards, lack of auditors and technically knowledgeable accountants techniques in implementing IPSAS. The government has to spend the high cost of materials, and seminars for qualified accountants. The cost analysis determined that the implementation and maintenance costs for IPSAS were quite high across countries. However, a limit within these two factors cannot cover all the influencing factors when each country has its distinct political institution, different resources, and choice to apply a particular model of international public accounting standards, causing many other factors.

The study in Greece on influencing factors by Shah (2017) showed that the adoption of IPSAS in the Greek public sector was quite low after six years of regulatory implementation. The study found that the preventive factors that have proven to have a positive effect and are important to the adoption of IPSAS include employee education, training, quality of information technology and consulting support inquiries from organisations. In addition, other factors were shown to have no significant influence on the current issue such as experience, leadership, and organizational size (Suparman et al, 2015). Research by Upping and Oliver (2012) on the application of public accounting standards in higher education institutions in Thailand concluded that the political institutional capacity, information technology resources and knowledge of employees' Membership are key aspects needed to implement accounting change and succeed in public sector universities.

Research by Moseti and Muturi (2012) carried out in Kenya, especially in southern Nyanza identifies and measures the factors affecting the implementation and application of IPSAS as the political system, legal regulations, the evaluation of the effectiveness of the systems and process elements in the implementation of IPSAS, and staff professionalism. Also studying the factors affecting the implementation of IPSAS in Kenya, Hamisi (2010) mentions the above factors;In addition,the author identifies and measures many other factors such as communication and communication about IPSAS; coordination and consultation; implementation costs; link between budget and accounting requirements; information technology capacity and support from international financial institutions.

Other influencing factors which were found in studies by Adhikari and Mellemvik (2011) studies in Nepal; Azmi and Mohamed (2014) in Malaysia includesupport from leadership and senior management groups, interest from international organizations and the involvement of professional accounting bodies. In addition to the above factors, the study of Babatunde and Adepeju (2017) in Nigeria also mentions sociological factors, accountability affecting the implementation of IPSAS in this country.

Research by Sellami and Gafsi (2019) identifies environmental factors related to countries' decisions to adopt International Public Sector Accounting Standards (IPSAS). Based on a sample of 110 countries, the results show a positive effect of external public funding (coercive isomorphic pressure), the degree of external openness (mimicking isomorphic pressure), and the importance of external public funding to the adoption of IPSAS. They show a negative effect of local GAAP availability on this decision, while education level is a non-significant factor.

Research by Hamisi (2012), "The Factors Affecting the Implementation of International Public Sector Accounting Standards in Kenya" argues that reforms in Government financial management systems and processes, information delivery efficiency and the capacity of accountants are factors affecting the application of international public accounting standards.

Muraina and Dandago (2020) examine the effect of the implementation of International Public Sector Accounting Standards (IPSAS) on the financial reporting quality of Nigeria. The study uses a survey study design to determine the impact of IPSAS implementation on Nigeria's financial reporting quality.

Research by Ademola & Ben-Caleb, Egbide & Madugba & Adegboyegun & Eluyela (2020) evaluated the relationship between IPSAS adoption and financial reporting quality in South West, Nigeria. Prominent factors affecting the implementation of IPSAS were investigated. The empirical results show that the adoption of IPSAS creates positive and important relationships with financial reporting quality, reliability and comparability of financial statements. This study suggests that implementation costs, staff training, technology factors, IPSAS knowledge and awareness and availability of expertise significantly influence IPSAS implementation. However, the results show that IPSAS implementation is not significantly affected by institutional commitment, cultural, sociological, legal, political and environmental factors.

It can be seen that the studies mentioned many different groups of factors, and the factors affecting the implementation of public accounting standards mentioned in the studies are summarized in Table 1.

Table 1. Summary of factors affecting the application of financial accounting standards

Influencing factors	*Related research*
Accounting education and training	Hamisi (2010); Miraj & Wang (2019); Agyemang (2017); Shah (2007); Upping and Oliver (2012); Azmi & Mohamed (2014); Moseti & Muturi (2012); Sellami & Gafsi (2019); Ademola & Ben-Caleb, Egbide & Madugba & Adegboyegun & Eluyela (2020)
The professionalism of the staff	Moseti & Muturi (2012); Hamisi (2012); Azmi & Mohamed (2014); Ademola & Ben-Caleb, Egbide & Madugba & Adegboyegun & Eluyela (2020)
Implementation costs	Hamisi (2010); Miraj & Wang (2019); Agyemang (2017); Azmi & Mohamed (2014); Moseti & Muturi (2012); Ademola & Ben-Caleb, Egbide & Madugba. & Adegboyegun & Eluyela (2020)
Political system	Upping & Oliver (2012); Moseti & Muturi (2012); Azmi & Mohamed (2014); Hamisi (2010)
Support from financial institutions	Hamisi (2010); Adhikari & Mellemvik (2011); Azmi & Mohamed (2014)
Information technology	Upping & Oliver (2012); Azmi & Mohamed (2014); Hamisi (2010); Adhikari & Mellemvik (2011); Ademola & Ben-Caleb, Egbide & Madugba. & Adegboyegun & Eluyela (2020)
Legal regulations	Moseti & Muturi (2012)
Implementation system and process	Moseti & Muturi (2012)
Sociology	Hamisi (2010); Shakirat (2017)
Support from leadership teams and senior management	Hamisi (2010); Adhikari & Mellemvik (2011); Azmi & Mohamed (2014)
Participation of professional accounting agencies	Hamisi (2010); Azmi & Mohamed (2014)
Public accounting standards communication and communication	Hamisi (2010)
Link between budget and accounting requirements	Hamisi (2010)

4. FOUNDATIONAL RESEARCH THEORY

When studying the factors affecting the application of public accounting standards, in order to have a rationale for the given contents, a number of fundamental theories are mentioned, including: The new public management theory and stakeholder theory.

The new public management theory (NPM): The growing interest in public sector accountability leads to a new management theory called public management. New public management was born and successfully applied in the UK in the early 1980s. The term Public Management was newly developed as a brief description of how the departments in the public sector were reorganized to make the public sector more efficient. management, reporting, and accounting closer to management techniques in business (Dunleavy & Hood, 1994).

This theory calls for a change in management practices of the public sector, with responsibility focusing on results rather than processes; whether in developed or developing countries, NPM introduces a new obligation on efficiency, performance measurement, accountability and transparency for all elements of the public sector (Phetphrairin & Judy, 2011; Onalo et al, 2013; Andriani et al, 2010). New public management techniques for the public sector are also meant to facilitate improved decision making in the operations of public entities (Mack and Ryan, 2006). New public management includes many methods from reforming organizational structure to reforming financial and budgeting systems. Meanwhile, reform is also reflected in the introduction of new public accounting standards based on IPSAS by countries for effective governance reform in the provision of services to citizens. Public accounting standards applied to the fundamentals of social, economic and public reform mean to improve accountability, transparency and public sector governance in countries. The implementation of reforms when applying public accounting standards can come from internal motivations such as political factors or urgent governmental reforms from outside such as international donor or support organizations support from international financial institutions. At the same time, the implementation of reforms when applying public accounting standards should not be hastily adopted by copying reform tools, but built with a political system, legal foundation and development human resources for the public sector.

Stakeholders theory: Stakeholder theory was started from Freeman's study on organizational governance and business ethics (Freeman, 1984). Stakeholder theory is the foundation for State agencies in promulgating legal regulations related to reforms in the public sector, as well as measures to handle violations. These legal regulations need to ensure the harmonization of the interests of the parties, between the information disclosure unit and information users as well as between information users. The theory requires managers to demonstrate a shared sense of the value they create and what it offers stakeholders to deliver for their purposes (Freeman et al, 2004). The financial statements are subject to stakeholder scrutiny to determine whether their usefulness is consistent with the theory of the related parties. Danescu and Rus (2013) argue that available accounting information will serve users for their goals. Countries that apply public accounting standards in the public sector consider the implementation of public accounting standards essential to measure the performance, accountability of government organizations and decision-making to support an organization proper democracy. Applying stakeholder theory to the public sector shows that a wide range of stakeholders have interests in a financially viable government. As they encourage the use of government financial statements, the collective knowledge derives from a desire to know the amount, timing and uncertainty of the benefits they expect to receive from the government (Azmi & Mohamed, 2014). Public accounting standards are an enhancement to general purpose financial reporting that reduces information asymmetries between stakeholders and government functions in controlling the government's financial accounting system; it is a better way to please stakeholders be it public officials or citizens; they are voters; payers of tax, fees and charges; sponsors; lenders; employees; ect. In order to protect the conflicts of interested parties from being changed by the government or vice versa, the implementation of public accounting standards is considered an essential condition.

From the overview combined with background theory, the author initially proposes factors affecting the application of Vietnamese Public Accounting Standards in public non-business units. From the initial factors, the author conducts qualitative research through discussion with experts to determine the factors affecting the application of Vietnamese Public Accounting Standards in public non-business units. The results of the study are presented in section 5.

5. FACTORS AFFECTING THE APPLICATION OF VIETNAMESE PUBLIC ACCOUNTING STANDARDS IN PUBLIC NON-BUSINESS UNITS

According to the project on Announcement of Vietnamese Public Accounting Standards, accounting standards will be issued from 2020 to 2024 in different periods. In the process of implementation arise factors that can affect the implementation of Public Accounting Standards at public sector accounting units, including public non-business units. Based on the study of factors from the literature review, there can be many influencing factors from the perspective of different studies. The factors of education, training, professionalism or competence of accountants are all considered to be related to the basic attitudes and readiness of employees in the public sector (Agyemang, 2017) can be grouped into the factor "Level of training and professionalism". Factors of political system, legal regulation and support from leadership and senior management groups can be combined into one factor as "Political system and legal environment" due to its systematic nature. Most from the issuing agency of Public Accounting Standards from the agency, the Ministry of Finance, the unified management of State finances with decision-making from senior leaders. The factors that support the participation of professional accounting agencies and the support of international financial institutions are related to the support from possible internal and external consultants grouped into the factor "The support of consulting organizations". Research results show factors affecting the application of Vietnamese Public Accounting Standards, including: (1) Level of training and professionalism; (2) Implementation cost; (3) Political system and legal environment; (4) Support from consulting organizations; (5) Information technology. As for other factors, there is little evidence on specific studies, so the author does not have an appropriate basis to include in the study.

Level of training and professionalism: The assessment of accounting concepts is not the same between experienced and inexperienced members. Thus, the level of educational development has a significant impact on the country's adoption of public accounting standards. Miraj & Wang (2019) argue that public accounting standards are a strategic decision because understanding and applying it requires a high level of education and professional skills. When Vietnam adopts public accounting standards that require expert knowledge, interpretation and application need to reach a certain level of higher education and training, because the language used in the public accounting standards is not easy to understand due to technical terms, definitions and measurement methods. Public accounting standards are complex and requires extensive knowledge of accounting and other financial knowledge and practical experience. The training of accountants with awareness and ability to handle impacts on public accounting standards because according to many studies, accountants and their professional capacities are very important issues, in which career evaluation and judgment are the key.

Implementation costs: The process of developing, ratifying and publishing public accounting standards in Vietnam to be implemented in public sector units is long and goes through many different stages, requiring consulting support from international financial institutions and support from professional accounting organizations, and funding for implementation. These costs include research, training, technology and consulting (Azmi & Mohamed, 2014). The costs of implementing public accounting standards can be difficult to estimate, but the costs incurred in connection with the implementation of public accounting standards can be an impact factor when applying public accounting standards. There may be higher costs for personnel, training for staff to access and familiarize themselves with the reform program; the cost of acquiring both software and hardware; increase the costs to organize seminars, introduce public accounting standards. When implementing governmental reforms to the adoption of public accounting standards, the removal of old incompatible accounting packages or the installation and maintenance of new accounting packages that are in line with the regulation of public accounting standards can also generate costs.All expenses incurred should be identified and measured for their impact on the current implementation of public accounting standards.

Political system and legal environment: Hamisi (2010) examines the impact of the political system and legal environment through the degree of political freedom, which is an important factor affecting the economic expertise of each country. Many countries face obstacles due to specific political institutions, the state has the right to control, dominate or directly issue legal documents to manage accounting activities, accounting regulations in a specific direction, in detail, but not in the direction of principles such as public accounting standards should be applied in countries with difficulties. The political factor depends on the extent to which the State intervenes in the economy in the form of political institutions. Different countries in terms of legal systems and the extent to which the government governs affects public accounting standards and accounting practices differently. Therefore, the full application, partial application or non-application of international accounting standards depends on the conditions and needs of each country. The promulgation of the application of public accounting standards in Vietnam has been specified in the project on public accounting standards publication on the selection of the level of application, the method of implementation and the specific implementation content. However, the promulgation also needs to consider the compatibility with the public financial management reform project, with the budget management information system, the budget law, the accounting law, etc. to prepare for making state financial statements. This requires support from the government and the creation of a unified regulatory environment for public entities to apply public accounting standards; This shows an important impact on accounting because it is related to government domination and the direct issuance of specific legal regulations.

Support from consulting organizations: Vietnam's public accounting standards system is built on the basis of international public accounting standards system. It is difficult for the government to be the sole sponsor and independent entity when developing and implementing the application of public accounting standards in Vietnam due to integration requirements and compliance with international accounting practices. Identified implementation costs, budgeted stages, and how long the adoption process will take should make it possible for most developing countries to seek international financial support with the bank may be limited. Most of the international public accounting standards are designed to apply to countries implementing accrual accounting, the orientation of contents in the field of public accounting in Vietnam follows accrual accounting as well as Choosing accounting standards suitable to political and legal conditions requires advice and support from international financial institutions. The active participation of financial institutions is a fast and effective way to integrate with the world development trend; Public sector entities need support from professional organizations to assist in the application of public accounting standards.

Information technology: The implementation of reforms when applying public accounting standards today cannot be excluded from the impact of the industrial revolution 4.0. Computerized information systems are a key component of the accounting, budgeting and financial management required when a country adopts the accrual accounting public accounting standard (Tanjeh, 2016). The application of IT is uniform, simple and easy to understand to be able to enter data, process data into information, store both data and information, and produce outputs such as financial statements levels and government financial statements and management reports for decision making, planning, program implementation and control, therefore a positive relationship is expected when implementing the Vietnam's public accounting standards.

In summary, inheriting from the above studies, the research results show that factors affecting the application of Vietnamese public accounting standards in public non-business units as follows: (1) Level of training and professionalism; (2) Implementation costs; (3) Political system and legal environment; (4) Support from consulting organizations; (5) IT applications.

Scale of factors

Inheritance of the scale is used for the research model of factors affecting the application of public accounting standards based on research Hamisi (2010); Miraj và Wang (2019); Agyemang (2017); Ademola & Ben-Caleb, Egbide & Madugba & Adegboyegun & Eluyela (2020).

The scale of factors affecting the implementation and application of Vietnamese public accounting standards is presented in Table 2.

Table 2. Scale of factors

Variable name	*Scale*	*Related research*
Level of training and professionalism	Lack of suitable professional accountants in the public sector	Hamisi (2010); Miraj & Wang (2019); Agyemang (2017); Shah (2007); Upping & Oliver (2012) Azmi & Mohamed (2014); Moseti & Muturi (2012); Sellami & Gafsi (2019); Ademola & Ben-Caleb, Egbide & Madugba. & Adegboyegun & Eluyela (2020)
	All accountants have the necessary expertise and techniques to be qualified to apply public accounting standards	
	All accountants understand about Public Accounting Standards	
	There is little public knowledge of Public Accounting Standards	
	Current accounting practitioners have little knowledge of implementing Public Accounting Standards	
	Access to and exposure to training materials related to Public Accounting Standards is limited	
	Lack of trained and experienced decision makers (heads of departments and agencies, etc.)	
	The role of the head of the public unit	
Implementation costs	The cost of implementing Public Accounting Standards is difficult to estimate	Hamisi (2010); Miraj & Wang (2019); Agyemang (2017); Azmi & Mohamed (2014); Moseti & Muturi (2012); Ademola & Ben-Caleb, Egbide & Madugba. & Adegboyegun & Eluyela (2020)
	Cost of studying Public Accounting Standards	
	High cost of staff training for the application of Public Accounting Standards	
	High cost of consulting for the implementation of Public Accounting Standards	
	High costs of acquiring the software and hardware required for the implementation of Public Accounting Standards	

Variable name	*Scale*	*Related research*
	High cost of removing old accounting packages that are not compatible with Public Accounting Standards	
	High cost of installing and maintaining new accounting packages when applying Public Accounting Standards	
Political system and legal environment	Regulations guiding the application of Public Accounting Standards	Upping & Oliver (2012); Moseti & Muturi (2012); Azmi & Mohamed (2014); Hamisi (2010)
	Completely based on Public Accounting Standards	
	Complexity of Public Accounting Standards	
Support from consulting organizations	Advice from professional organizations	Hamisi (2010); Adhikari & Mellemvik (2011); Azmi & Mohamed (2014)
	Consulting of the propaganda department	
	Conclusions of inspection and examination agencies, professional organizations of accounting and auditing	
	Elements to ensure the safety of public units	
IT applications	Application software that meets the application of Public Accounting Standards	Upping & Oliver (2012); Azmi & Mohamed (2014); Hamisi (2010); Adhikari & Mellemvik (2011); Ademola & Ben-Caleb, Egbide & Madugba. & Adegboyegun & Eluyela (2020)
	Database	
	Information technology human resources	
	Information technology infrastructure	

6. CONCLUSION

International economic integration creates favorable conditions for countries to expand their economic markets and increase opportunities to mobilize investment capital from abroad. That requires the financial information of countries to be open and transparent. Therefore, the preparation and presentation of financial statements of countries must comply with common international practices to ensure that the financial statements information of countries is transparent and comparable. Not out of that trend, Vietnam has developed and issued a project to announce the Vietnamese public accounting standard system. This is considered as an inevitable and necessary effort to make information transparent in the context of international economic integration deepening and deepening. Vietnam's public accounting standards system is built on the basis of the international public accounting standards system (IPSAS), aiming to provide more transparent information on financial statements and ensure comparability. Building a national public accounting system according to the whole IPSAS approach will be the basis for providing timely and honest financial information in order to improve the capacity, efficiency and publicity in managing the resources of the financial institutions units in the public sector.

However, the approach and application of public accounting standards in public non-business units is still quite new and faces many difficulties. Therefore, it is necessary to identify the factors affecting the application of Public Accounting Standards in the units. All factors from the level of training and professionalism, the cost of implementation, the political system, the support from the consulting organizations to the information technology factor can have a strong impact when introducing Vietnam Public Accounting Standards to be applied. Through a review of research documents combined with qualitative research methods, the article has identified the factors affecting the application of Vietnamese public accounting standards, which is also the basis for conducting a survey of the impact in reality of those influencing factors on the implementation of financial accounting in public non-business units in Vietnam.

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FACTORS AFFECTING THE CHOICES OF ACCOUNTING POLICIES IN CONSTRUCTION ENTERPRISES IN QUANG NGAI PROVINCE

MAc Nguyen Thi Thuy Huong[1]

Abstract: *The article studies the factors affecting the choices of accounting policies in construction enterprises in Quang Ngai province. After surveying 98 construction enterprises in the area, the research results show that there are 5 factors affecting the choice of policy: Enterprise size, Tax and other costs, Accountant qualification, Financial expenses for bidding work, Personal purposes of managers. 'Influence level of Tax and other cost' factor has a significant impact on the choices of accounting policies in construction enterprises in Quang Ngai province. Based on the research results, the author also suggests a number of recommendations related to the factors that have a strong impact the choices of accounting policies of enterprises. The recommendations are proposed to help the application of accounting policies in construction enterprises in Quang Ngai province be more complete, contributing to providing more accurate information to users.*

Keywords: *Accounting policy, choices of accounting policy, construction enterprises, Quang Ngai.*

1. INTRODUCTION

Financial statements are the end product of accounting. Financial statements play an important part in the field of economic management, attract the attention of many people inside and outside the business. Each party is interested in Financial Statements in a different way, but in general, they want to get necessary information for making decisions in accordance with their goals.

In particular, in the field of construction, Financial statements receive great attention from project investors and main contractors (who are corporate customers) when they assess their capacity to assign contracts to construction units (who are enterprises). The preparation and presentation of the financial statements is generally based on accounting policies, including specific accounting principles and methods. Accounting standards allow each enterprise to choose an accounting policy that is appropriate to its business characteristics. The application of different accounting policies will bring different information presented on the Financial statements, many businesses only focus on providing beautiful figures on their Financial statements. Thus, enterprises not only choose suitable accounting policies according to standards, but also accounting policies that can bring the most beneficial information to them. Therefore, the truthfulness and reasonableness of the Financial statements are always given the most attention.

Accounting policies govern how accounting principles should be applied in each entity. The selection of accounting policies at the enterprise will help the users of accounting information have more objective assessment of the business performance of the enterprise, and thereby make the right decisions in order to help the management board and corporate accounting department see the advantages and disadvantages in their accounting work, find ways to improve the application

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of accounting policies as well as ensure compliance with the law while still ensuring the company's profit management goals.

In Vietnam, financial statements are prepared on the basis of accounting regimes and standards, guiding circulars. But many construction enterprises use accounting policies according to the managers' subjective wishes. Moreover, the choices of accounting policy are also influenced by many subjective factors of the enterprise. These factors have partly affected the quality of information in the Financial statements of enterprises in Vietnam in general and construction enterprises in Quang Ngai in particular. Therefore, it is necessary to study the factors affecting the choices of accounting policies in construction enterprises in Quang Ngai province, to help users of the financial statements predict whether indicators that are presented in the financial statements tend to increase or decrease as compared to reality, thereby making appropriate decisions.

2. RESEARCH OVERVIEW

Missioner-Piera's (2004) study investigates the economic determinants of Swiss accounting method choices. The factors that the author predicted to affect the choice of accounting method are financial leverage, nature of assets, political costs and degree of equity dilution. The results of the study show that the managers of Swiss companies are more likely to choose the accounting policy to adjust the profit and financial leverage ratio when the ownership dilution is high and the labor force is large. In addition, the level of debt, the size of the company and the bonus policy for managers have a significant influence.

In a similar vein, Colin et al (2007) conducted a study on "Factors affecting the choices of economic policy in Egypt". Available data has been taken from 96 companies listed on the Cairo Stock Exchange and surveyed through a questionnaire sent to the 320 largest enterprises in Egypt, of which the response rate is 29%, equivalent to with 93 enterprises, included in quantitative analysis. The obtained research results are consistent with the compensation plan hypothesis, the debt hypothesis and the tax hypothesis. It is the existence of a compensation plan that encourages managers to use amortization accounting method, method of determining the value of inventories that increase profits without increasing tax liability.

In a study done by Fekete et al (2010), factors affecting the choices of accounting policies (accounting methods) of small and medium enterprises in Romania were examined. As a result of exploratory factor analysis, there are six factors affecting the choices of economic policy: information, tax, external image, internal image, economic, honest and reasonable. In which, the information factor (mainly the information needs of managers, shareholders,...) has the strongest influence, followed by the tax factor, the remaining factors have little influence.

Pham (2012) conducted a study "Research on the influence of corporate income tax factors on the choices of accounting policies of enterprises in Da Nang city". The survey was carried out with 190 enterprises in Da Nang city including types of enterprises with state-owned capital, joint stock companies, limited liability companies, and private enterprises through a survey questionnaire. The findings from Pham (2012) point out that the choice of accounting policy in the preparation of financial statements and tax reports in enterprises of the same size in Da Nang City is mostly the same, in other words, tax is a factor that affects the choice of economic policy of enterprises.

Further, Nguyen and Nguyen (2014) conducted a study on "Factors affecting the choice of accounting policy based on economic influence from selected economic policies". The results show that there are four factors that have significant influence, namely CIT expense, debt level, listing status, stability between profit levels, and there is a fairly high consensus in the views of accountants and auditors. This study has synthesized many factors from previous studies.

Through a review of domestic and international studies, the issue of the choice of economic policy of enterprises has received a lot of attention and there has been a great deal of research on this subject in different periods of time, fields and countries. In the field of construction in Quang Ngai, the area has developed rapidly in recent times, with its own characteristics and achieved a very high total production value of the construction industry. Furthermore, based on the factors mentioned in previous studies to analyze and synthesize the influential factors, the author also added new factors to this research model according to the characteristics of construction enterprises in Quang Ngai.

3. RESEARCH METHODS

3.1. Qualitative research

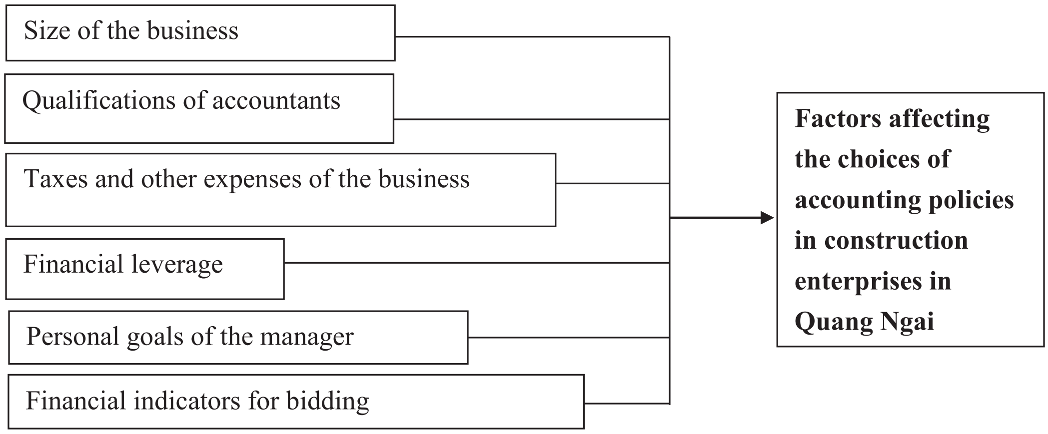
The author used the qualitative method of interviewing 20 experts on the model and the scales the author designed, and made more open-ended questions to ask for more opinions whether there are any other factors that can affect the choice of accounting policy in construction enterprises in Quang Ngai province or not through the interview form. After having the results of expert interviews, the author adjusted, supplemented and introduced the official research model, the observed variables used to measure the research variable.

3.2. Quantitative research

Quantitative research is carried out with data collected through a formal survey questionnaire. The data was statistically analyzed through SPSS 20 software to test the scale and research model.

The survey subjects are construction enterprises in Quang Ngai province in 2021. The sample size required by multiple regression with the survey table consisting of 6 independent variables is expected, the sample size will be from 98 samples.

The research model proposed by the author is as follows:



4. RESEARCH RESULTS

4.1. Qualitative research results

The results of the qualitative study show that the experts who were invited to interview all agree that the independent variables proposed by the author have an impact on the choice of economic policy of construction enterprises in Quang Ngai province and the statements used to measure the research variables in the model are appropriate and understandable. The percentage of experts agreeing on the scales of research variables is over 60%.

4.2. Quantitative research results

4.2.1. Results of testing and evaluation of the scale

Reliability analysis: Through Cronbach's Alpha coefficient, the author checks the reliability of the scales. The variable "Financial leverage" has Cronbach's Alpha coefficient = 0.314 < 0.6. Therefore, the variable "Financial leverage" does not satisfy the requirements of the scale with sufficient reliability, so this factor is excluded from the research model. In addition, the observed variable is "Minimize accounting operating costs for measuring and recording" with Cronbach's Alpha coefficient if item deleted = 0.824 > Cronbach's Alpha of the variable group "Tax and expenses of the enterprise" therefore do not meet the requirements. At the same time, the observed variable "enterprise with high dilution of corporate ownership" also has Cronbach's Alpha coefficient if item deleted = 0.961 > Cronbach's Alpha of variable group "Personal purpose". Therefore, these two observed variables are also excluded. The author re-checks the reliability for the scale of the variable "Tax and expenses of the enterprise" and "Personal purpose of the manager". After removing the above 2 observed variables, 17 scales of the independent variable and 3 scales of the dependent variable all ensure reliability and continue to be used for the next analysis.

(EFA) EXPLORATORY FACTOR ANALYSIS

The KMO coefficient and the Bartlett test are used to analyze the fit of the factors in the research model. The results in Table 1 show that KMO = 0.804 satisfies the condition 0.5 < KMO < 1, which proves that the data used for factor analysis is completely appropriate. At the same time, the Barlett test has Sig = 0.000 < 0.05. Thus, it proves that the variables included in the factor analysis are meaningful and the research model is consistent with the proposed factor.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,804
Bartlett's Test of Sphericity	Approx. Chi-Square	1040,778
	Df	91
	Sig.	,000

Perform factor analysis according to Principal components with Varimax rotation. The results show that 17 observed variables are initially grouped into 5 groups. The Eigenvalues of the factors are all high (>1), the fifth factor has the lowest Eigenvalues 1,116> 1, and the total variance extracted = 84.654% > 50%: satisfactory; then it can be said that these 5 factors explain 84.654% of the variability of the data. The most important factor explains 45.064% of the total variance, the remaining factors explain respectively 11.359%; 10.730%; 9,531%; 7.971% of the total variance.

The factor loading coefficients are all greater than 0.7 and there is no case of the variable uploading both factors at the same time with the loading coefficients close to each other. Therefore, the factors ensure convergence and discriminant validity when analyzing EFA. In addition, there is no mixing of factors, which means that the question of one factor is not confused with the question of the other factor. Therefore, after factor analysis, these independent factors are kept unchanged, not increased or decreased by factors.

4.2.2. The results of multiple regression analysis

The author uses multiple linear regression model by least squares method (OLS) with the support of SPSS 20 software to study the influencing factors of each explanatory variable. The linear regression model was used to test the above hypotheses.

$$Y = \beta_0 + \beta_1\ \text{TĐKTV} + \beta_2\ \text{QMDN} + \beta_3\ \text{CTĐT} + \beta_4\ \text{MĐCN} + \beta_5\ \text{THUECP} + \varepsilon$$

In which: Y (Choice of accounting policy); β0 (Free parameter); β1, β2, β3, β4, β5, β6 (Model unknown parameters); ε (Random Error); TDKTV (Accountant qualification); QMDN (Size of enterprise); DTDT (Financial targets for bidding); MDCN (Manager's Personal Purpose); THUECP (Taxes and other expenses).

Correlation analysis of variables in the model

Before performing the model regression test, it is necessary to conduct a correlation analysis between the independent factors and the dependent factors from which we will choose the independent factors that are actually correlated with the dependent factor and put those factors into the regression. If the results indicate that a relationship exists, a new regression analysis should be performed in the next step. The results of the correlation analysis show that the dependent variable on the choices of economic policy in construction enterprises in Quang Ngai province is correlated with all independent variables in the model at 1% significance level. Thus, all these independent variables can be included in the multiple regression model for further analysis to explain the influence on the choices of economic policy.

Checking the goodness of fit of the regression model

Table 2. Checking the goodness of fit of the regression model

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	,859[a]	,737	,723	,41896	1,833

a. Predictors: (Constant), CTĐT, MĐCN, THUECP, QMDN, TĐKTV

b. Dependent Variable: CSKT

In statistics, to evaluate the influence of the independent variables on the dependent variable in the regression model, we use the coefficient R2 (R-squared) or adjusted R2 (Adj R-squared). From Table 2, we see that adjusted R2 is 0.723, then this linear regression model fits the data set at 72.3%.

Table 3. ANOVA Test

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	45,302	5	9,060	51,618	,000[b]
	Residual	16,149	92	,176		
	Total	61,451	97			

a. Dependent Variable: CSKT

b. Predictors: (Constant), CTĐT, MĐCN, THUECP, QMDN, TĐKTV

Table 3. Anova analysis shows Sig values. of the model F value of 0.000 is less than 0.05 with F of 51,618. Thus, the independent variables in the model have a relationship with the dependent variable. Thus, the linear regression model has been built in accordance with the collected data set (Hoang & Chu, 2013).

- **Checking the model's defects**
  + *Test the correlation between residuals*: Dubin - Watson coefficient is 1.833. With 19 observations and 5 independent variables, we have k = 5. When using the Dubin – Wason lookup table with a significance level of 5%, we get the following values: d (u) = 1,802 < d = 1,833 < 4 – d(u) = 2.198. We see that the Dubin - Watson coefficient is within the allowable range, from which it can be concluded that there is no correlation between the residuals.
  + *Test for multicollinearity:* VIF coefficients of all variables in the model are less than 2, from which it can be concluded that the model does not have multicollinearity.

Test the research hypotheses

Based on the results from the software, the author summarizes the results of the regression model as follows:

Table 4. Table of coefficients

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-,955	,273		-3,493	,001		
QMDN	,245	,063	**,251**	3,911	,000	,696	1,437
THUECP	,442	,080	**,363**	5,508	,000	,659	1,518
TĐKTV	,222	,079	**,197**	2,808	,006	,582	1,718
MĐCN	,158	,062	**,153**	2,568	,012	,806	1,240
CTĐT	,208	,065	**,205**	3,195	,002	,693	1,444

a. Dependent Variable: CSKT

From the results of the regression analysis in Table 4, we can see that the independent variables QMDN, THUECP, TDKTV, TDCN, and CI are statistically significant with the Sig value. <0.05. The variables in the model are measured in different units, so the Beta coefficients are normalized coefficients. The model of influencing factors is presented in the form of a standardized regression equation as follows:

$$Y = 0.251*QMDN + 0.363*THUECP + 0.197*TDKTV + 0.153*MDCN + 0.205*CTDT$$

According to the analysis results, the following hypotheses will be accepted:

H1: Taxes and other expenses of enterprises influences the choices of accounting policies in construction enterprises in quang ngai province.

H2: Enterprise size influences the choices of accounting policies in construction enterprises in quang ngai province.

H3: Financial criteria for bidding influences the choices of accounting policies in construction enterprises in quang ngai province.

H4: Accountant qualifications influences the choices of accounting policies in construction enterprises in quang ngai province.

H5: Personal goals of managers influences the choices of accounting policies in construction enterprises in quang ngai province.

5. RECOMMENDATIONS FOR AFFECTING FACTORS

Tax factor and other expenses of the business

Tax pressure makes enterprises have to apply tax regulations to handle and present in financial statements, the tax inspection has a great impact on the observance of tax laws, especially for small businesses, from negative to positive. For small and medium enterprises, they often pay attention to financial statements for tax authorities.

The increased pressure from tax causes small and medium enterprises to comply with tax regulations instead of regulations of accounting standards. This is because there is still a difference between accounting and tax, therefore, there are still cases of using accounting policy in cost accounting to reduce taxable income and Financial reporting for the purpose of dealing with the tax authorities. To solve this problem, it is necessary to coordinate with law-enforcement agencies and tax authorities. There must be agreement with each other to reduce the difference between accounting and tax.

Enterprise size

With the current situation of construction accounting in the area, it shows that not all businesses have enough qualifications and human resources to build their own accounting policies. The author recommends that the law-enforcement agency should review the regulations and supplement the guidelines on accounting policies for specific activities of construction so that enterprises can compare and apply them in practice.

Financial indicators for bidding work

To serve the bidding work, administrators will calculate and use financial indicators because it is not only meaningful to financial analysts, but also very important to investors as well as to investors. the enterprise itself, it proves the capacity of the enterprise to meet the requirements of the bidding documents and have a possible solution to implement the bidding package. In order to achieve revenue and profit participating in bidding, construction enterprises can apply accounting policies to adjust the increase or decrease in revenue, enterprises will pre-recognize revenue and profit for activities with long time. Sales of supplied products take many years, so enterprises are allowed to record periodically (choosing the percentage of completion method to recognize revenue and expenses according to the contract performance schedule), based on the subjective estimate of the acceptance party, the enterprise will write an invoice and record sales and profits. Construction time spanning many financial years is the basis for performing this technique. Enterprises can transfer revenue and profit from the following year to the current year and vice versa. Therefore, when considering bidding documents, investors need to analyze the fluctuations of revenue and income over the years; Check the movement of receivables from customers on the balance sheet and see the cash flow from business activities. At the same time, pay attention to the fluctuations of indicators that are closely related to revenue such as inventory, cost of goods.

Accountant qualification

The experience, qualifications and capacity of accountants to complete accounting work are factors that directly affect the application of accounting standards. Currently, accounting work at construction enterprises in Quang Ngai province only focuses on tax declaration purposes. Because of this, most accountants do not distinguish between tax and accounting purposes. Accountants need to improve themselves through short-term training programs to continuously update their knowledge and understand the needs of users of accounting information. Enterprises need to have reasonable remuneration to retain and attract highly qualified and experienced accountants. In addition, enterprises should cooperate with training institutions to develop training programs suitable to market needs.

6. CONCLUSION

After surveying 98 construction and installation enterprises in the area, from the regression results, the research results show that there are 5 factors affecting the policy choice: Enterprise size, Tax and other costs, Accountant qualifications, Financial expenses for bidding work, Personal purposes of managers.

From the results of this study, it has helped enterprises in general as well as construction enterprises in particular understand the influencing factors and the degree of impact of these factors on the choices of economic policy. However, the research still has limitations such as because of the epidemic situation, it is difficult to directly survey experts. On the other hand, due to time constraints, the author has only studied a number of factors affecting the choice of accounting policy at construction enterprises in Quang Ngai province, has not conducted research for enterprises in other fields of activity such as production, trade, services, in other areas of Vietnam and there may be other factors affecting the choice of accounting policy that the research has not discovered or proven to influence through the results of empirical research. From the limitations mentioned above, the author would like to suggest the next research direction that can be implemented is to expand the research object for enterprises operating in different fields; enterprises in different areas in Vietnam.

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BENEFITS AND INFLUENCES ON THE APPLICATION OF ACCOUNTING STANDARDS IN SMALL AND MEDIUM ENTERPRISES

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Abstract: *Accounting standards are a common set of principles, standards, and procedures that define the basis of financial accounting policies and practices (Will Kenton, 2022). Accounting standards create a unified system of behaviors for all accountants in enterprises. The correct application of accounting standards plays a very important role in accounting work for both enterprises and related organizations. However, this study has shown that the level of application of accounting standards in enterprises is still not synchronous and voluntary. In addition, the research results also confirm that the benefits of applying accounting standards such as the ability to access loans, the ability to expand business activities and the creation of trust from stakeholders have a positive impact to apply accounting standards for small and medium enterprises. This is the basis for giving solutions to promote the application of accounting standards in small and medium enterprises.*

Keywords: *Accounting standards; accounting system; accountant; auditing; small and medium-sized enterprises.*

1. INTRODUCTION

In the trend of international economic integration, Vietnam is gradually establishing legal frameworks following the practices of other countries in order to complete and improve the quality of financial statements. However, the actual situation of applying accounting standards in Vietnamese enterprises is still inadequate. This stems from many different causes due to factors in the legal, business and cultural environment, the interweaving and lack of consistency between the accounting standards and the accounting law as well as the accounting regime. Vietnamese accounting needs to undergo certain improvements to create harmony towards systematic synchronization.

Along with the renovation of Vietnam's accounting system, the Ministry of Finance (MoF) has made efforts to draft and publish 26 accounting standards since 2001 to the present. However, there are still shortcomings in applying the standards in Vietnamese enterprises. This stems from various reasons. Promulgating accounting standards as well as how to apply these standards is an entire process and always faces a great number of barriers due to the characteristics of the economy, legal systems, capacity and habits of accountants (Choi et al, 2011). In the context where the legal system on accounting in Vietnam is being developed, in addition to the accounting standard system, and there is also an enterprise accounting regime, which more specifically prescribes

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the accounting methods for arising economic transactions. Does the application of common accounting standards, accordingly, ensure a relatively uniform and favorable legal framework for State management? This has affected accountants. Should they rely on the accounting regime or accounting standards for their work? However, the accountants are directly under the direction and management of the enterprise owner. Page and Collis (2000) argues that owners of small and medium-sized enterprises (SMEs) rarely use financial statements in decision-making; if at all, they are often interested in tax declarations. This perception often leads to the fact that accountants in SMEs do not put much emphasis on the application of accounting standards but pay more attention to the regulations of the tax authorities, and nor does this exclude the case when enterprise owners require accountants to behave in a way to create deviations in accounting data for tax benefits. In fact, what benefits will enterprises receive when applying the correct accounting standards in their business, is the right process being applied, is an available model being followed, or is it about the intervention from enterprise owners for their own purposes? How has the benefit factor affected the application of accounting standards in SMEs in recent years? This study will present in detail the influences and impacts of the benefit factor on the application of accounting standards in SMEs from theory to practice.

2. RESEARCH OBJECTIVES

This study aims to evaluate the influence of benefits upon application of accounting standards in in SMEs.

Research scope: SMEs in Gia Lai province.

3. RESEARCH METHODS

This study is based entirely on primary data. To collect the necessary data, we designed a structured questionnaire and conducted a survey to collect information by directly interviewing the chief accountants or accountants of the enterprises.

The author used qualitative analysis techniques and basic descriptive statistics to analyze survey data. According to the research design, the author conducted a survey on 350 SMEs (equivalent to 350 votes), collected 350 votes (100% of the votes distributed). The number of valid votes was 340 votes (97.14% of the votes collected). The content of the questionnaire deals with a number of major issues:

- The application of accounting standards helps enterprises have access to loans;
- The application of accounting standards helps enterprises expand their business activities;
- The application of accounting standards helps enterprises create trust in the business community (taxes, customers, suppliers, etc.)

Survey period: from February 10, 2021 to May 15, 2021.

Detailed information about the study sample is described in the following table:

Table 1. Number of enterprises surveyed by industry

Industry	Number	Percent (%)	Cumulative percent (%)
Production	58	17,06	17,06
Trading	173	50,89	68,49
Services	65	19,11	87,06
Combined	44	12,94	100
Total	340	100	

Source: Gia Lai Statistics Department 2020

4. RESEARCH MODEL

Based on J. Dewey's theory of experience and the characteristics of the accounting environment in Vietnam, the factor model is used to describe the rate of application of accounting standards to predict the impacts associated with particular aspects of the current economic situation.

The benefits of the application with regard to the accessibility to credit from the bank and the transparency of information will help promote the image of enterprises in the business community and thereby facilitate the expansion of their business activities. According to R.S. Lusegun Wallace and Kamal Naser (2016), the parameters shown in financial statements of enterprises such as the income statement have a positive impact on the application of accounting standards, namely the level of information disclosure. However, the relationship between application of accounting standards and benefits of the application is still open, either a two-way relationship or the relationship between the benefits of accounting standards and their application.

When studying this factor, the author Nguyen Thi Phuong Thao (2019) also showed the results that the benefit factor is discussed in a balanced relationship with costs and benefits. However, the direction in which it influences the application of accounting standards has not been consistent.

For medium-sized enterprises that can be listed on the stock market, transparency and financial disclosure requirements are always mandatory. Owners and administrators are often concerned with the application of standards when organizing accounting work. Studies in Switzerland show that, if the standards are well applied, the possibility to find business contracts will increase and this will then significantly increase profits for the company. For SMEs in Vietnam, the research results of Tran Dinh Khoi Nguyen (2010), Nguyen Thi Ngoc Diep et al (2020) also show that the interest of owners and managers also positively affects the application of accounting standards. This study also expects proportionate relationships in SMEs in Gia Lai province when the direction of the owner greatly affects many management functions, including accounting. Accordingly, the author also proposes a hypothesis that: *Benefits of applying accounting standards has a positive impact on the application of accounting standards in SMEs.*

Through the results of the pilot survey along with the process of interviewing accounting experts, the author has given the attributes of the factors affecting the implementation and application of accounting standards in SMEs. The scale used in this study is a Likert scale of 5 (1 – Totally disagree, 2 – Disagree, 3 – Neutral, 4 – Agree, 5 – Totally agree). The contents of this content measurement are presented in Table 2.

Table 2. Scale of benefits of applying accounting standards

Factor	Calibration scale	Encode	Source
Benefits of applying accounting standards	The application of accounting standards helps enterprises have access to loans	LI1	Page (1984), Lolis and Jarrvis (200), Expert opinion
	The application of accounting standards helps enterprises expand their business activities	LI2	
	The application of accounting standards helps enterprises create trust in the business community (taxes, customers, suppliers)	LI3	

5. RESEARCH RESULTS

5.1. Current situation of applying accounting standards

Accounting is considered a manager's tool to check and monitor all activities and operations of an enterprise. Authors Page, Collis and Jarvis argue that enterprise owners are often more interested in tax declaration than in compliance with accounting regulations in applying accounting standards, which affects quality of information provided in the financial statements. Compliance with tax regulations always takes precedence over compliance with accounting regulations; therefore, the quality of information provided in the financial statements is often poor because of the lack of compliance with principles in the standards. In many cases, accounting is used as a means to declare taxes under the management of the State while many enterprise owners are not really interested in the management role of accounting.

Respondents were asked to give a 'Yes' or 'No' answer using the standards in the 19 lists of standards applicable to SMEs. The survey results show that all SMEs applied accounting standards. However, the level of application was not the same, ranging from 26.3% - 89.5%, which means that the number of enterprises applying the least standards took up only 26.3% while that of enterprises applying the most standards reached 89.5%. No enterprise applied 100% of accounting standards used for SMEs. Statistical Index /19 was used to calculate the level of application of accounting standards. According to Circular 133/2016/TT-BTC on accounting regimes for SMEs, 19/26 standards were applied in SMEs depending on the characteristics of each enterprise. Among those 19 standards, there are standards that enterprises applied or did not apply. The higher index an enterprise had, the more standards they applied and vice versa. The results of descriptive statistical analysis show that the rate of applying the standards was not equal among enterprises, as shown in the following table:

Table 3. Current situation of applying accounting standards in SMEs

Group of standards	N	No. of enterprises applying standards	Rate of enterprises applying standards (%)
General standards	320	281	87,8
Inventories	320	299	93,4
Tangible fixed assets	320	316	98,7
Intangible fixed assets	320	317	99,0
Investment property	320	164	51,3
Leases	320	170	53,1
Accounting for investments in associates	320	46	14,3
Financial Reporting of Interest in Joint Ventures	320	1	0,31
Effects of changes in forex rates	320	1	0,31
Other revenue and income	320	310	96,8
Construction contracts	320	130	40,6
Borrowing costs	320	198	61,8
Corporate income tax	320	210	65,6
Provisions, Contingent Liabilities	320	97	30,3
Presentation of Financial Statements	320	315	98,4
Events After the Reporting Period	320	169	52,8
Statement of Cash Flows	320	127	39,7
Related Party Disclosures	320	131	40,9
Changes in Accounting Estimates and Errors	320	119	37,2

Source: Calculations by the author

The analysis shows that, out of 19 Vietnamese accounting standards applied to SMEs, the level of application of the standards is not uniform; specifically, the group of most commonly used standards are those related to daily business activities such as Fixed Assets, Inventories, Revenue and other Income. However, a low adoption rate of accounting standards indicates that accountants may not be aware or fully aware that the standards are partially reflected in the regulations on daily accounting practice. There are a number of standards that enterprises do not apply completely or apply but not often such as Financial Reporting of Interest in Joint Ventures (VAS 08) and Effects of Changes in Forex Rates (VAS 10), accounting for 0.31%, and investments in associates (VAS 07) 14.3%, etc.

5.2. Results of the scale for the Benefit factor

The results of the Cronbach alpha analysis of the scale for the Benefit factor are presented in Table 3, showing that the measurement reaches the Cronbach Alpha coefficient of 0.70 or higher. Specifically, the Cronbach Alpha coefficient is 0.820, and it is not necessary to remove the variable to improve the Cronbach Alpha. In addition, the observed variables have a total correlation coefficient of 0.30 or more. Thus, the factor scale affecting the application of accounting standards in this SME reaches the required reliability and will be further included in the EFA exploratory factor analysis.

Table 4. Scale reliability test

Observed variable	Scale average if variable is removed	Scale variance if variable is removed	Total variable correlation	Cronbach Alpha if variable is removed
Benefits from application of accounting standards: α = .820				
LI1	LI1	LI1	LI1	LI1
LI2	LI2	LI2	LI2	LI2
LI3	LI3	LI3	LI3	LI3

Source: Calculations by the author

After analyzing EFA exploratory factors, the author continued to perform a regression analysis, checking the correlation coefficient Pearson = .47 (Pearson coefficient greater than .4 and smaller than .6) to quantify the closeness of the linear relationship between the independent variable and the dependent variable. The positive correlation coefficient shows a proportionate relationship between the Accountant Factor and application of accounting standards. Compared with the original hypothesis, accepting the hypothesis means that the benefits from the application of accounting standards have a positive impact on the application of accounting standards in SMEs.

5.3. Regression analysis results

The results of the official investigation by quantitative research have tested the research scales and models. These scales were re-tested by means of the Cronbach's Alpha reliability coefficient method and EFA exploratory factor analysis. After the testing of the scales, the use of the remaining observed variables to test the theoretical model and the theoretical relationship value based on the particularities of the context of Vietnam in general and Gia Lai in particular shows that the application of accounting standards in SMEs in Gia Lai province is influenced by 6 main factors: size of enterprise, debt ratio, awareness of enterprise owners, capacity of accountants, and advice from external organizations, and the benefits from applying accounting standards also affect this model, specifically:

$$\textbf{Application of accounting standards} = 0.094^{*}\,\textbf{size} - 0.165^{*}\textbf{debt ratio} + 0.288^{*}\textbf{awareness} + 0.262^{*}\textbf{capacity} + 0.105^{*}\textbf{advice} + 0.221^{*}\textbf{benefits} \quad (1)$$

Table 6. Regression analysis

Model	Unnormalized regression coefficient		Normalized regression coefficient	t	Sig.	Test for multicollinearity	
	B	Std. Error	Beta			Acceptability	VIF
Factor	-.647	.439		-1.473	.142		
Sz	.107	.043	.094	2.498	.013	.942	1.061
RO	.044	.024	.069	1.838	.067	.955	1.048
De	-.471	.107	-.165	-4.416	.000	.954	1.049
Aw	.282	.044	.288	6.352	.000	.650	1.538
Ca	.254	.042	.262	6.039	.000	.711	1.406
Ad	.097	.038	.105	2.580	.010	.815	1.227
TL	.088	.049	.076	1.800	.073	.748	1.336
Be	.206	.038	.221	5.358	.000	.784	1.276

Source: Calculations by the author

From the results of the study on the regression equation, it is possible to determine the influences of the independent variables on the application of accounting standards in SMEs in Gia Lai province. Accordingly, the degree of influence of each variable in the order from the highest to the lowest influence is as follows: the variable of Enterprise Owners' Awareness contributes 28.8%, Accountants' Capacity 26.2%, Benefits From Applying Accounting Standards 21.1%, Loan Usage Level 16.5%, Advice of Professional Organizations 10.5% and lastly Size of Enterprise the lowest level of 9.4%. Of these 6 variables, 5 variables have a proportionate relationship and 1 variable has a disproportionate relationship (loan) with the dependent variable which is the application of accounting standards in SMEs in Gia Lai province.

Table 7. Comparison of the author's research results with those of local studies on SMEs in Vietnam

Author	Research results	Studies on other localities in Vietnam		
		Nguyen Thi Phuong Thao (2019)	Tran Dinh Khoi Nguyen (2013)	Nguyen Thi Ngoc Diep et al (2015)
Region	SMEs in Gia Lai	SMEs in North-West sub-region	SMEs in Da Nang	SMEs in HCMC
Cost-benefit balance	+	–	Not considered	No influence

Source: Calculations by the author

Impacts of the benefits from the application of accounting standards have a proportionate relationship in the research model, which is a factor affecting the application of accounting standards in enterprises. This result is different from those of some previous studies of Nguyen Thi Phuong Thao (2019). Most accountants believe that the application of accounting standards in SMEs will affect their possibility to receive credits, create opportunities of business expansion, demonstrate responsibility to management agencies, and enhance accountability to the business community. This result is an optimistic signal about the importance of accounting information to the business community. Once fully aware of this, if combined with the close supervision of the State management agencies on the implementation of the accounting law, the good application of accounting standards will create favorable conditions for creating transparent information environment in healthy business conditions, which thus minimizes risks for all enterprises in the whole system. However, the above-mentioned points are only presented from the perspective of evaluation and accountants' views, because it is more important to apply accounting standards appropriately to ensure that accounting information is honest and reasonable. This requires further research because from a banking perspective, many experts say that they do not rely on the financial statements of SMEs for financial appraisal, but only take into consideration their collateral upon application for a loan. In addition, business partners such as suppliers still do not have the habit of reading customers' financial statements to maintain long-term business relationships with enterprises. In other words, the respondents all realized the roles and benefits of information disclosure to their activities. The application of accounting standards in enterprises on a regular and adequate basis shows that it will bring certain benefits to enterprises: improving the business environment, developing sustainably, attracting investment capital, improving transparency of financial information, honestly reflecting the situation of enterprises, which is what investors are always looking for in their investment decision making process. This helps enterprises have access to many capital flows in the market, thus improving the transparency and comparability of financial statements in enterprises.

Through in-depth interviews with accounting experts and enterprise owners, it was shown that accountants are often interested in the results of financial statements to facilitate relationships with credit institutions or banks; in many cases accountants must perform accounting at the request of the enterprise owner. However, the survey results also showed that the staff in the enterprises are really interested in accounting information and assume a lot of responsibilities for their work. This explains why this factor strongly affects the application of accounting standards in SMEs in Gia Lai. This is an optimistic signal for enterprises to develop more equitably and transparently in the economic market.

6. CONCLUSION

The compliance with and application of accounting standards play a very important role in the accounting work and management activities of an enterprise. The strict application of accounting standards will create many business opportunities for enterprises because the accounting standards themselves have shown transparency and accuracy in measurement contents and information disclosure. However, the application of accounting standards is highly dependent on the accounting regime which often changes according to macroeconomic developments. In our country, there exist parallel accounting standards and regimes. This easily leads to confusion for accountants in their work performance. They cannot clearly distinguish between regimes and standards.

This study evaluates the factors affecting the application of accounting standards in a province representative of economic characteristics of the Central Highlands. SMEs in Gia Lai province mainly conduct commercial activities serving and close to the production of specific crops of the region such as pepper, coffee, rubber, etc. This study is the first step for more intensive and broader studies on the situation of applying accounting standards and factors affecting the application of accounting standards in SMEs in the province to evaluate more comprehensively, contributing to helping enterprises improve the transparency and clarity of the financial information they disclose, and creating good trust from the community and related organizations.

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THE ROLES OF ACCOUNTANTS AND THE INFORMATION QUALITY WITH PERFORMANCE – AN EMPIRICAL STUDY IN SMALL AND MEDIUM HOTELS

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MAc Nguyen Thi Minh Tam[1]

Abstract: *The purpose of this study was to collect empirical evidence on the effect of contigency factors on the performance of small and medium-sized hotels. This model is proposed and tested according to data collected from 240 small and medium hotels in central Vietnam using SmartPLS 3.0. The results of the study show that the accountants'participation in the strategic decision-making process and the information quality of information system (IS) will promote hotels'performance. The results provide a basis theory and practice for managers from which there are activities and policies to improve the roles of accountants as well as the quality of information to improve the hotel's operational efficiency.*

Keywords: *Accountant's participation in strategic decision making processes; SMEs hotels, Quality of IS information; Performance.*

1. INTRODUCTION

The development of small and medium enterprises (SMEs) plays a very important role in the economy (Tong et al, 2022). The number of SMEs is increasing not only in the world but also in Vietnam, according to the Vietnam Small and Medium Enterprises Association, there are about 800,000 enterprises in 2021, of which small and medium enterprises (SMEs) accounts for over 98%. SMEs has created jobs, improved people's lives, ensured social security, increasingly contributed to the socio-economic development of localities in particular and the country in general. In the globalization, sustainable development requires businesses to make efforts to increase their performance, however, SMEs have the shortage of resources along with a simple structure, will be certain limitations which making SMEs face challenges in increasing performance (Ma et al, 2022).

Many empirical studies show that the performance of a business depends a lot on random factors such as organizational structure, environment, organizational processes and business-specific factors (Naranjo-Gil & Hartmann, 2007). This is a topic that has been researched in many countries in the world, in many different industries and business fields. In which, hotel is one of the tourism service business activities, it is a "smokeless" economic sector, which makes a significant contribution to the economy of a number of countries around the world (Compas et al, 2022) and especially countries and territories with special characteristics and differences that are favored from nature, including Vietnam. From reviewing perious studies, researching on performance in the hotel sector has been carried out in Greece (Pavatos, 2015), or in Switzerland (Turner et al,

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2017) but without distinction of scale, that is the gap in the research subject and the scope that this study wants to clarify.

The research objective is to determine the factors affecting the performance of the small and medium-sized hotels, namely the accountants' participation in strategic decision- making processes, the quality of IS information and the decentralization. The research results will contribute to a repository of theoretical documents and empirical data demonstrating the relationships between these factors and performance of small and medium-sized hotels, thereby helping hotels managers have a scientific basis to establish or adjust and supplement appropriate management policies to achieve their goals.

The paper includes four parts. The first section reviews the relevant theories, literature and research hypothesis development. The following section is the research methodology and data. The third section presents the research outcomes and further discussions. Lastly, the conclusion summarizes the previous contents, focuses on the research objective, main findings and limitations.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Literature review

SMEs contribute to the development of private ownership and entrepreneurial skills, create jobs, adapt to changing market supply and demand conditions, and diversify economic activities (Sitharam & Hopue, 2016; Ma et al, 2022); SMEs play an important role in the development of the country, a strong SME sector has a high contribution to the economy, contributing to gross domestic product, through reducing unemployment, reducing poverty and promoting entrepreneurship (Sitharam & Hopue, 2016). In Vietnam, SMEs have made significant contributions to the socio-economic development in recent years, creating synergies, exploiting and mobilizing their potential communities. Thereby, promoting a more competitive market and creating a positive spillover effect on the economy (Ma et al, 2020).

Overview from previous research documents, SMEs have been studied quite a lot in empirical studies in recent years, in which there is research about performance and factors affecting the effectiveness of business activities. Performance researching, such as Doan Ngoc Phi Anh (2012), Oanh et el (2021), Sulistyaningsih & Hanggraeni (2021), these studies are mainly in manufacturing enterprises or in many different fields. However, for the hotel business, it is still quite meager.

In order to achieve performance, managers find and approach to many management methods and tools to be able to control and solve many problems arising in actual operations. Many empirical studies on factors affecting performance are found in the literature. Most of the factors discovered and tested have a positive impact on performance such as strategic management accounting (Cadez & Guilding, 2008; Kalkhouran et al, 2017; Marten et al, 2021; Ojra et al, 2021; Turner et al, 2017), environmental, human society (Chairani & Siregar, 2021; Sitharam & Hopue, 2016), organizational factors (size, age of enterprises, decentralization,...) (Andrews, 2010; Doan Ngoc Phi Anh, 2012; Miah & Mia, 1996; Oanh et al, 2021), macro factors (inflation rate, gross domestic product growth, quality of local governance method) (Oanh et al, 2021), etc. These factors are related to the roles and functions of the individual, the department or belong to organizational factors as well as the environment, which is consistent with the contingency theory, which is chosen to explain the relationship between these factors, thereby helping businesses get the optimal solution in specific conditions (Chenhall, 2007).

Base on the contingency theory (Gaibraith, 1973; Scott, 2005) with previous research results, we build a model to test these factors about the role~~s~~ of accountants, information quality and decentralization affect performance through the PLS-SEM model approach. That is our research object.

2.2. Hypothesis development

Information quality of information systems (IS) and performance

An information system is a system consisting of interrelated elements to collect, process, store and provide to users in order to achieve predetermined goals. According to The Committee of Sponsoring Organizations of the Treadway Commission – COSO (2013), information system is one of the five elements constituting the internal control system, and is a linking factor, connecting the remaining elements in the internal control system, helping business owners achieve internal understanding, harmonize action, maintain organizational strength, gain competitive advantage~~s~~, and achieve efficiency, compliance, and financial transparency goals. Many empirical studies show that the value of information systems, especially accounting information system (AIS), always increases enterprises' performance (Gofwan, 2022; Pratama & Widhiyani, 2021), while information quality is one of the aspects most studied. The quality of the system and the quality of the information are considered to be the main factors affecting the acceptance of IS and the improvement of the organization's performance (Al-Mamary et al, 2014). Therefore, the quality of IS information is expected to help managers make quality decisions leading to performance, the hypothesis H1 is posposed:

H1: Information quality of IS has a positively associated with performance.

Accountants' participation in strategic decision making processes and performance

This relationship is found few in documents, Wooldridge and Floyd (1990) conducted a study investigating the strategic engagement of middle managers in 20 organizations. The results show that participation in the strategy formulation process is associated with improved organizational performance. Cadez and Guiding (2008) expected this correlation when testing in their study for large companies in Slovenia, however, the results show that accountants' participation in the strategic decision making process does not affect the performance.

Nowadays, the change in business environment, the challenges of competition, globalization and technological development have created many great challenges for accountants, they are more required, encouraged to actively participate in order to promote performance by their privilege of holding economic and financial information (Robalo & Costa, 2017). So the hypothesis H2 is posposed:

H2: Accountant's participation in strategic decision making processes has a positively associated with performance.

Decentralization and performance

Decentralization is known as division of management levels, provide managers with greater responsibilities over planning and control activities and greater access to information not available to the corporate body (Doan Ngoc Phi Anh, 2012).

Some documents appears to indicate that decentralization does not have a direct effect on performance (Doan Ngoc Phi Anh, 2012; Miah & Mia, 1996). But decentralization left managers handle events effectively, operate without delay and enhance the quality of decision (Andrews, 2010) and allows managers to have decision making authority and take responsibilities, they make appropriate decisions leading to better performance. Hill (1988) suggests that decentralization have a direct effect on performance, so the hypotheis H3 is:

H3: Decentralization has a positively associated with performance.

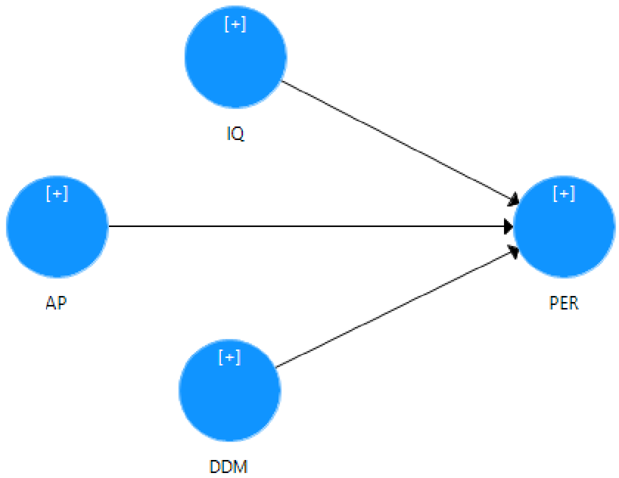


Figure 1. The posposed research model

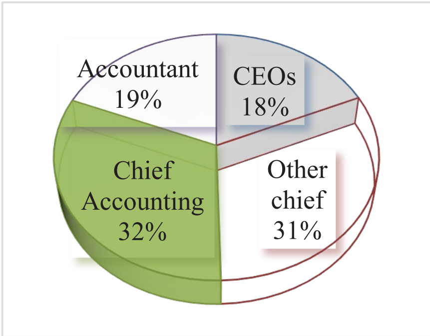
3. METHODOLOGY

3.1. Data

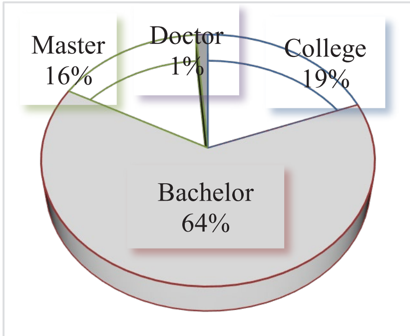
Our data sample is from small and medium hotels in the central of Vietnam, from Hue to Khanh Hoa.

Data used for analysis are information collected directly and emailed based on a pre-designed survey questionnaires for the members of the Board of Directors, Management Board (49%); accountants and chief accountants (51%). Respondents with bachelor's or higher education are the majority (> 80%) with the least working experience (less than ten years) for 38% and the highest working experience (over 20 years) accounting for 10%. We conduct the data collection from November 2019 to December 2020. The results are synthesized and processed to reach a final sample including 240 units with the characteristics described by charts:

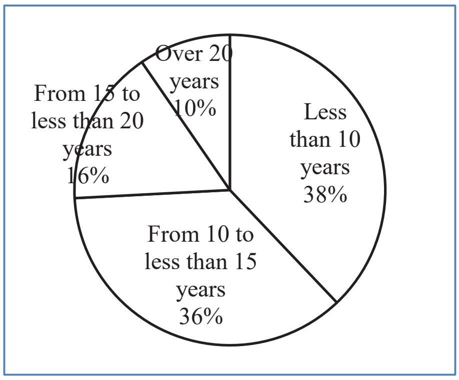
Personality Position



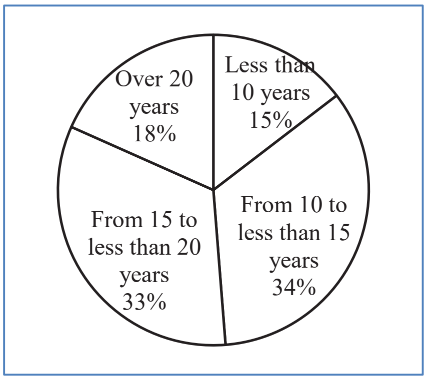
Personality Acedemic



Personality Experience



Number of years operating



3.2. Variable measurement

Information quality of information systems. This variable is observed through the 5 issue measures published by Dunk (2004) and also used by Pavatos (2015) in related research. Respondents were asked about: accuracy, precision, reliability, completeness and relevance. The scale anchors ranged from 1 (not at all involved) to 5 (fully involved).

Accountants' participation in strategic decision making processes: The measure used draws on Wooldridge and Floyd's (1990) instrument designed to assess middle management involvement in strategic decision making. Respondents were asked to record their participation with respect to five aspects of strategic management: identifying problems and proposing objectives, generating options, evaluating options, developing details about options, and taking the necessary actions to put changes into place. The scale anchors ranged from 1 (not at all involved) to 5 (fully involved).

Decentralization of decision making is an inherited factor from the study of Doan Ngoc Phi Anh (2012), has a certain comparison with Pavatos (2015) to ensure the significance of the observed measured expressions which is suitable for the conditions of enterprises in Vietnam. The measuring range, according to Likert, is from 1 (strongly disagree) to 5 (strongly agree). The related questions focus on whether the interviewee agrees or not about decentralized management in new products and services development, managerial personnel hire and fire, asset purchase, products and services pricing, services distribution, and management level's operational decision-making.

The performance is included both financial and non-financial, based on the degree of agreement on the increase of both financial and non-financial measures using the Likert scale, from 1 (Strongly disagree) and 5 (Strongly agree). Inheriting from the studies of Cadez and Simmond (2008), Doan Ngoc Phi Anh (2012), Turner et al (2017) on the basis of synthesis from the research of Hopue and James (2000), Kaplan and Norton (1996) the business performance scale is synthesized to ensure that it is suitable with the industry's charactistic and business environment. Performance is measured through: market share, revenue, profit margin, return on investment, stable cash flow, customer satisfaction, product/service quality, human resource development and corporate reputation and brand.

3.3. Data analysis

To test the proposed research model, specifically the SEM model, we use the least squares method (PLS) called PLS-SEM technique, also known as PLS path modeling (PLS path modeling). Regarding the estimation procedure, PLS-SEM is based on the usual least squares (OLS) regression method (Hair et al, 2017). PLS analysis follows two below steps (Hair et al, 2018):

First, we test the measurement model, such as testing each variable's scale, construct reliability and validity, and discriminant validity of the variables in the model to ensure the reliability and appropriateness of the proposed model. We also test the multi-collinearity phenomenon in the model.

Second, we test the structural model with the Bootstrapping technique to estimate the path coefficients' magnitude and significance at 95%. Then, we assess the influence of studied factors and evaluate the significance of the research model.

4. FINDINGS AND DISCUSSION

4.1. Testing measurement model

Table 1 presents the results of evaluating the reliability and convergence of each variable's scale. We can see that the load factors' values are greater than 0.5, Cronbach's Alpha is greater than 0.5, and CR is also greater than 0.7. The results suggest that the convergence of the variables is very high, demonstrating the consistency of each variable's scale (Fornell & Larcker, 1981).

Table 1. Reliability and convergence test

Variables	Measurement	Load factor	Cronbach's alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	VIF
Information quality of information systems (IT)	IT1	0.865	0.938	0.940	0.757	1.485
	IT2	0.871				
	IT3	0.888				
	IT4	0.888				
	IT5	0.837				

Variables	Measurement	Load factor	Cronbach's alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	VIF
Accountant's participation in strategic decision making processes (AP)	AP1	0.889	0.920	0.940	0.757	1.925
	AP2	0.918				
	AP3	0.864				
	AP4	0.905				
	AP5	0.902				
Decentralization (DDM)	DDM1	0.871	0.908	0.929	0.685	1.570
	DDM2	0.802				
	DDM3	0.817				
	DDM4	0.857				
	DDM5	0.888				
	DDM6	0.722				
Performance (PER)	PER1	0.849	0.949	0.956	0.710	
	PER2	0.882				
	PER3	0.869				
	PER4	0.868				
	PER5	0.853				
	PER6	0.856				
	PER7	0.797				
	PER8	0.792				
	PER9	0.810				

Source: Authors calculated by SmartPLS software

VIF values of the variables (Table 1), all higher than 0.2 and lower than 5, suggest eliminating the multi-collinearity defect in the research model (Hair et al, 2018).

Also, we use the Fornell - Larcker and HTMT criteria to test discriminant validity. The test parameters are within the acceptable range (Hair et al, 2018; Henseler et al, 2015). This result in Table 2 proves that the variables' scales have achieved discriminant validity, meaning that the independent variables' scale is suitable to test the structural model.

Table 2. Result of discriminant validity test

Fornell-Larcker Criterion

	AP	DDM	IT	PER
AP	0.870			
DDM	0.597	0.828		
IT	0.565	0.406	0.896	
PER	0.534	0.328	0.610	0.842

Heterotrait-Monotrait Ratio (HTMT)

	AP	DDM	IT	PER
AP				
DDM	0.650			
IT	0.600	0.438		
PER	0.562	0.337	0.640	

Source: Authors calculated by SmartPLS software

The result of the measurement model shows that the scale of the independent variables is suitable to perform the structural model test.

4.2. Structural model testing

We conduct the Bootstrap technique 5000 times to test the structural model. The results are shown in Table 3 (with a 5% significance level).

Table 3. Structural model test

Hypothesis		Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
H1	**IT -> PER**	0.456	0.457	0.076	5.987	0.000
H2	**AP -> PER**	0.297	0.289	0.095	3.116	0.002
H3	**DDM -> PER**	-0.034	-0.023	0.077	0.444	**0.657**

Source: Authors calculated by SmartPLS software

With p-values showed in table 4, the hypothesis H1 and H2 are accepted, the hypothesis H3 is not accepted, that means AP and IT has a positive correlation with PER while DDM has not positive corelation with PER.

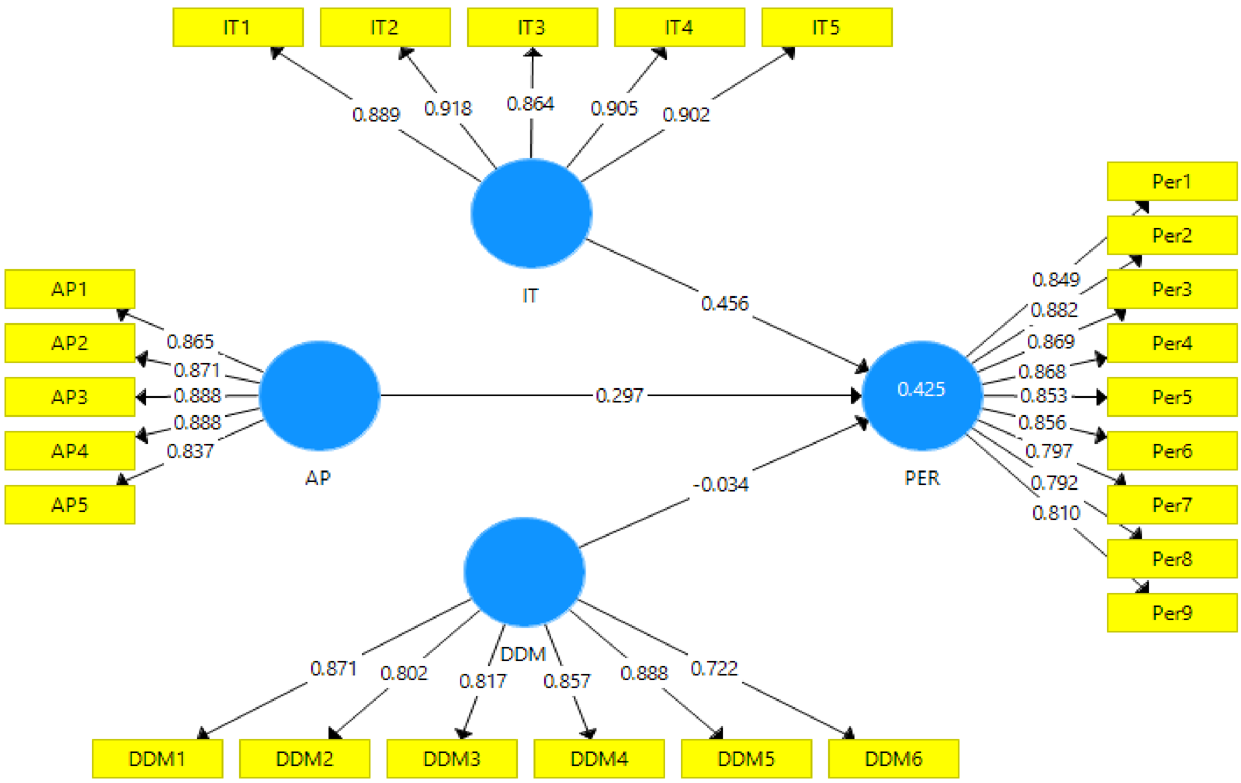


Figure 2. Structure model estimates – PLS

Source: Authors calculated by SmartPLS software

From the results of testing the model, it is shown that two factors as the accountants' participation in strategic decision making processes and the quality of IS information have a positively associated with hotels'performance but decentralization is not. Specifically:

- First, the more the accountants' participation in strategic decision making processes, the better hotels' performance increases. This result is not similar to the study of Cadez & Guilding (2008), but shows the role of accountants in their job, thanks to them who hold financial information, the capital flow of enterprises will have made decisions to help managers to increase the hotels' performance.
- Second, the more quality information IS provides, the better small and medium hotels' performance increases. This results are similar to the study of Gofwan (2022); Pratama & Widhiyani (2021), however, the implications of information quality of IS carried out in this study are broader than those of accounting information systems (AIS) according to their results. This result shows that maybe hotels are interested in investing in technology or applications to help information have better quality and increase efficiency.
- Third, decentralization does not increase the small and medium hotels' performance, may be the research object is only small and medium hotels, so the decentralization in these hotels are often simpler, so they do not contribute much to performance.

5. CONCLUSION

This empirical result shows that the accountant's participation in the strategic decision making processes and the quality of IS information have a positive effect on performance of small and medium hotels. The results will contribute to the documents about these relationships, which is the scientific basis for managers to make appropriate decisions to improve performance.

From this result, some managerial implications are suggested for managers as follows: Firstly, managers need to improve the role of accountants in the process of making strategic management decisions because they hold financial information, their autonomous participation in these processes will help to advise managers to make better quality decisions. Secondly, managers need to improve the quality of IS information by using the application of science and technology, implementing digitalization of work procedures and processes to ensure quality information for making management decision.

Besides the obtained results, the limitation of this study is that the sample size is quite small, the external environment factors have not been evaluated, so future studies may consider increasing the sample size and evaluating the factors belonging to the external environment such as uncertainty, competition or cooperation, etc., help managers have a scientific basis to be able to solve problems arising from the external environment to increase business performance.

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THE ACCOUNTANTS' PARTICIPATION IN STRATEGIC DECISION-MAKING PROCESSES AND PERFORMANCE – THE ROLE OF STRATEGIC MANAGEMENT ACCOUNTING

MAc Phan Thi Thuy Nga[1]

Abstract: *The study examines the mediating effects of strategic management accounting (SMA) application in the relationship between accountants' participation in strategic decision-making processes and performance. The model is advanced and tested using the data collected from 326 tourism businesses in central Vietnam by SmartPLS 3.0. This result shows that SMA has a significant indirect effect as a partial mediator in the relationship between accountants' participation in strategic decision-making processes and financial and non-financial performance.*

Keywords: *Strategic management accounting; Accountants' participation in strategic decision making processes; Finance performance, Non-finance performance; Tourism business.*

1. INTRODUCTION

Strategic management accounting (SMA) was first introduced by Simmond in 1981 when he researched competitors' data syndication and analysis functions in developing and monitoring strategic business. Since then, the theory of SMA is still limited because no consistent theoretical framework has been proposed, but the development in empirical research constantly (Arunruangsirilert & Chonglerttham, 2017; Cadez & Guilding, 2008; Cinquini & Tenucci, 2010; Hasid & Sayed, 2021; Guilding et al, 2000; Kalkhouran et al, 2017; Lisa, 2005; Marten et al, 2022; Turner et al, 2017) has empasized the role, position, and value of SMA applications, which are interested in researching in many countries around the world, from developed countries to developing countries (Rasid et al, 2020).

Through previous researches, hospitality has been interested in research on SMA (Collier & Gregory, 1995). A few SMA techniques are found to be applied. The most common in hotels are activity-based costing, balanced scorecards, and benchmarking along with traditional methods like budgeting (Campos et al, 2022). Moreover, many new SMA techniques are used more in hotels (Alvarez et al, 2021) because this is the service sector that contributes significantly to the growth of the economy of some countries (Campos et al, 2022). Thanks to the SMA application, managers can improve their business's performance (Pavatos, 2015; Turner et al, 2021; Campos et al, 2022).

The relationship between accountants' participation in strategic decision-making processes, performance and SMA was researched by Cadez and Guilding (2008) in 193 large Slovenian companies. The results did not show a direct impact of the accountants' role in the strategic decision-making processes and performance, but if they applied SMA, the accountants' role would promote business performance. This shows that the intermediary role of SMA in this relationship is positive and helps to elevate the role of accountants as well as improve performance.

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This study will re-examine this relationship in the tourism business to emphasize the role of accounting in strategic management and clarify the value of applying SMA through the intermediary role of SMA in the relationship between accountants' participation in strategic decision making processes (AP) and performance (PER - both financial and non-financial), thereby helping managers to understand the role of accountants in strategic management and the value of applying SMA to improve performance.

The tourism businesses in the central region of Vietnam were selected as research subjects because Vietnam's tourism has continuously improved competitiveness in the rankings of the World Economic Forum (WEF), which ranked 63/140 economies. Moreover, tourism services are considered to be a key economic sector in Vietnam in 2030. In fact, tourism in the central provinces contributes a significant part. This is because of its competitive advantages in natural resources, with typical products of the sea, islands, resorts, etc., which are different from other regions.

The paper includes four parts. The first section reviews the relevant theories, literature, and research hypothesis development. The following section presents the research methodology and data. The third section presents the research outcomes and further discussions. Finally, the conclusion summarizes the previous contents, which focuses on the research objective, main findings, and limitations.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. Literature review

Strategic management accounting (SMA) and SMA techniques

In the early 1970s, competition among enterprises became more intense. Businesses need to develop internal strengths and create opportunities from the external environment's challenges to gain a competitive advantage in the market. Simmond (1981) first mentioned strategic management accounting when he realized that information collection and comparison with competitors were necessary to help companies compete and gain their competitive position advantage as well. This first discovery shows that the external orientation is changing with traditional management accounting's internal view. Many researchers have explored, evaluated, and shaped various concepts before the 2000s, such as Simmond (1981), Bromwich (1990), and Roslender & Hart (2010). Most points of view agree that SMA is a set of techniques to provide strategic orientation information. Although SMA is considered a loose set in providing strategic information, it is accepted and developed in later empirical studies.

Many previous papers showed evidence that SMA has been applied more widely in practice (Ma & Tayles, 2009), although there were a lot of different views on each SMA technique's quantity and content. For example, some researchers reported that activity-based costing (ABC) was only instantaneous pricing, accuracy, and allocation techniques and did not support the strategy (Kaplan, 1984; Guilding et al, 2000), but in the opposite view, other authors argued that thanks to ABC's application, strategic decision-making implications were more precise and manipulative (Cinquini & Tenucci, 2009; Cadez & Guilding, 2008; Guilding et al, 2000; Langfield-Smith, 2008;

Pavlatos, 2013). There are also differences in the customer accounting group. Cinquini & Tecnuci (2009) merely considered this as a technique. However, many other authors split it into three different techniques: customer benefit analysis, customer profitability analysis, and valuation of customers as assets, which were all given the same classification by Cadez & Guilding (2008). Besides, environmental management accounting was also an SMA technique (Smith, 1997; Tanc & Gokoglan, 2015), but there was no study using it as an SMA technique in empirical studies.

Reviewing previous researches, SMA includes 18 techniques divided into six groups.

Table 1. Strategic management accounting techniques

SMA groups	SMA techniques
Costing	1. Attribute costing (Browich, 1990; Cadez & Guilding, 2008; Roslender & Hart, 2003) 2. Life-cycle costing (Cadez & Guilding, 2008; Cravens & Guilding, 2001; Guilding et al, 2000). 3. Quality costing (Cadez & Guilding, 2008; Cinquini & Tenucci, 2010; Cravens & Guilding, 2001; Guilding et al, 2000) 4. Target costing (Cadez & Guilding, 2008; Cinquini & Tenucci, 2010; Guilding et al, 2000). 5. Value - chain costing (Cadez & Guilding, 2008; Turner et al, 2017). 6. Activity-based costing (Cravens & Guilding, 2009; Cinquini & Tenucci, 2010; Kalkhouran et al, 2017; Arunruangsirilert & Chonglerttham, 2017).
Planing, control and performance measurement	7. Benchmarking (Cadez & Guilding, 2008; Turner et al, 2017). 8. Integrated performance measurement (Cadez & Guilding, 2008; Hasid & Al-Sayed, 2021; Turner et al, 2017).
Strategic decision – making	9. Strategic costing (Cadez & Guiding, 2008; Hasid & Al-Sayed, 2021; Turner et al, 2017). 10. Strategic pricing (Cadez & Guilding, 2008; Turner et al, 2017). 11. Brand valuation (Cadez & Guilding, 2008; Cravens & Guilding, 2000).
Competitor accounting	12.Competitor cost assessment (Bromwich, 1990; Simmonds, 1981) 13. Competitive position monitoring (Cadez & Guilding, 2008; Cinquini & Tenucci, 2010; Turner et al, 2017). 14. Competitor performance appraisal (Cadez & Guilding, 2008; Cinquini & Tenucci, 2010; Hasid & Al-Sayed, 2021; Turner et al, 2017).

SMA groups	SMA techniques
Customer accounting	15. Customer profitability analysis (Cadez & Guilding, 2008). 16. Life time customer profitability analysis (Cadez & Guilding, 2008; Turner et al, 2017). 17. Valuation of customers as assets (Cadez & Guilding, 2008).
Environment management accounting	18. Environment management accounting (IFAC, 2005; Staniskis & Stasiskiene, 2006)

Sources: Authors' collection in previous researches

Accountants' participation in strategic decision-making processes

The role of accountants has traditionally been limited to providing relevant information for planning, control, and decision-making purposes (Roslender & Hart, 2003). In the mid-1980s, Kaplan (1984), Johnson and Kaplan (1987) first found that conventional management accounting is not capable of actively participating in the achievement of strategic objectives. However, few empirical studies show the role of accountants in the strategic management process, such as Fern and Tipgos (1988), who conducted a study of large US companies and showed that the involvement of management accountants in the strategic management process is quite high. They are more or less actively involved in related activities such as developing the mission, setting strategic goals, formulating and choosing the best strategy, and translating the strategy into a budget. This result was also found in the UK when Bhimani and Keshtvarz (1999) conducted a similar survey. Robalo and Costa (2017) conducted a case study on the role of accountants in Politejo small and medium-sized company. This result showed that the greater involvement of accountants in professional departments supports decision-making even if those processes are routine and standardized.

Moreover, from the angle of information perspective, the participation of accountants will support detailed information about all movements of objects such as assets and capital, which helps managers have enough understanding of internal finance to make effective management decisions. Understanding the nature of information will help accountants participate in strategic management decisions of enterprises, which will contribute more effectively. The role of accountants in providing information for strategic decision making and strategic monitoring is also demonstrated by previous studies, such as the study of the shift in cost control from the collection of internal information combined with external information and non-financial information by Bromwich (1990); Pearson (1996) and Rickwood et al (1987). Therefore, strategic management accountants are no longer considered as just information providers, they are seen more as active players in the strategic management process, with the power to achieve their goals (Chenhall, 2003).

2.2. Hypothesis development

Accountants' participation in strategic decision-making processes and SMA application

This relationship is tested by Cadez and Guilding (2008) when studying 193 large companies in Slovenia. The results show that accountants' participation in strategic decision-making processes has a positive effect on SMA application. The results help to confirm the role of accountants more when clarifying their views on SMA. This study has made the role and position of accountants more closely associated with quality management than studies on the role of accountants or management accountants in specific jobs such as mission development, strategic goal setting, strategy formulation and selection (Fern & Tipgos, 1988), or decision support (Robalo & Costa, 2017), etc.

In Vietnam, Bui Thi Truc Quy (2021) found the same results for this relationship in manufacturing enterprises in the Southeast region. Moreover, accountants' participation in strategic management is seen to be different in each industry and each business sector (Aver & Cadez, 2009), so this relationship is expected to be positive for research in the tourism business. Based on the contigency framework, hypothesis H1 is proposed:

H1: Accountants' participation in strategic decision-making processes is positively correlated with SMA application.

Accountants' participation in strategic decision-making processes and performance

This relationship has been found in a few documents. Wooldridge and Floyd (1990) studied the strategic engagement of middle managers in 20 organizations. The results show that participation in the strategy formulation process is associated with improved organizational performance. Cadez and Guiding (2008) expected this correlation when testing in their study for large companies in Slovenia. However, the results show that accountants' participation in the strategic decision-making process does not affect performance.

Nowadays, the change in the business environment, the challenges of competition, globalization, and technological development have created many great challenges for accountants. They are more required and encouraged to actively participate in order to promote performance through their privilege of holding economic and financial information (Robalo & Costa, 2017). So two hypotheses, H2a and H2b are proposed:

H2a: Accountants' participation in strategic decision-making processes is positively correlated with financial performance.

H2b: Accountants' participation in strategic decision-making processes is positively correlated with non-financial performance.

SMA application and performance (financial and non – financial performance)

Previous empirical studies have also supported the view that the use of information by the management accounting system will promote an increase in firm performance (Baines & Langfield - Smith, 2003; Cadez & Guilding, 2008; Craven & Guilding, 2001; Hopue & James, 2000; Kalkhouran et al, 2017; Tuner et al, 2017). This result is also supported by the studies carried out for manufactories in the South of Vietnam by Bui Thi Truc Quy (2021) and Le Thi My Nuong (2021). Both authors also demonstrate that the application or implementation of SMA promotes an increase in enterprises' performance.

However, when applying SMA to each subject, the scope of the study has an impact on many different aspects of performance. For example, in the study of Doan Ngoc Phi Anh (2012), business performance was divided into two aspects, financial and non-financial. The results show that small and medium enterprises applying SMA will promote both financial and non-financial performance. However, Kalkhouran et al (2017) showed the application of SMA only increases the financial performance in their study for small and medium-sized enterprises in Malaysia. Therefore, the following hypotheses are proposed:

H3a: SMA application is positively correlated with financial performance.

H3b: SMA application is positively correlated with non - financial performance.

3. METHODOLOGY

3.1. Data

Our data sample is from tourism businesses: travel, accommodation, transportation, entertainment, and shopping complexes in the central region of Vietnam, from Hue to Khanh Hoa.

The data used for analysis are information collected directly and emailed based on a pre-designed survey questionnaire for the members of the Board of Directors, Management Board (18.1%); accountants and chief accountants (50.3%); and other department managers (31.6%). Respondents with bachelor's or higher education are the majority (> 80%), with the least working experience (less than ten years) accounting for 35% and the highest working experience (over 20 years) accounting for 10.1%. We conducted the data collection from November 2019 to December 2020. The results are synthesized and processed to reach a final sample including 326 units with the characteristics described in Table 2.

Table 2. Research data's characteristic

Personality	No	Rate	Enterprise	No	Rate
Position			***Capital***		
CEOs	59	18,1%	Less than 20 billions dong	73	22,4%
Other chief	103	31,6%	From 20 to less than 50 billions dong	90	27,6%
Chief Accounting	107	32,8%	From 50 to less than 100 billions dong	106	32,5%
Accountant	57	17,5%	Over 100 billions dong	57	17,5%
Acedemic			***Number of years operating***		
College	54	16,6%	Less than 10 years	65	19,9%
Bachelor	211	64,7%	From 10 to less than 15 years	106	32,5%
Master	58	17,8%	From 15 to less than 20 years	78	23,9%
Doctor	3	0,9%	Over 20 years	57	17,5%
Experience			Less than 20 billions dong	73	22,4%
Less than 10 years	114	35,0%			
From 10 to less than 15 years	122	37,4%			
From 15 to less than 20 years	57	17,5%			
Over 20 years	33	10,1%			

3.2. Variable measurement

SMA application is understood as recording, processing, synthesizing, evaluating, and analyzing information related to what level firms apply SMA techniques. The degree of SMA technique usage was measured using the same approach as Cadez & Guilding (2008), Smith et al (1997), and Tanc & Gokoglan (2015). We measure each observed variable with the Likert scale, from 1 (do not use/use very little) to 5 (use a lot). The purpose is to assess the SMA application level, rather than analyze the technique's usage in depth. We describe the core content of eighteen SMA techniques to ensure correct understanding of survey subjects.

Accountants' participation in strategic decision-making processes: The measure used draws on Wooldridge and Floyd's (1990) instrument designed to assess middle management involvement in strategic decision making. Respondents were asked to record their participation with respect to five aspects of strategic management: identifying problems and proposing objectives, generating options, evaluating options, developing details about options, and taking the necessary actions to put changes into place. The scale anchors ranged from 1 (not at all involved) to 5 (fully involved).

Performance is included both financial and non-financial, based on the degree of agreement on the increase of both financial and non-financial measures using the Likert scale, from 1 (Strongly disagree) to 5 (Strongly agree). Inheriting from the studies of Cadez & Simmond (2008), Doan Ngoc Phi Anh (2012), Turner et al (2017) on the basis of synthesis from the research of Hopue & James (2000) and Kaplan & Norton (1996) the business performance scale is synthesized to ensure that it is suitable for the industry's charactistics and business environment.

Financial performance (PER-F) is measured through market share, revenue, profit margin, return on investment, and stable cash flow.

Non-financial performance (PER-NF) is measured through customer satisfaction, product/service quality, human resource development, and corporate reputation and brand.

Table 3. Variables Measurement

Variable	Namely	Measurement (Likert scale 1 – 5)
Strategic management accounting application	SMAu1 to SMAu18	Degree of each SMA technique shown in Table 1
Accountants' participation in strategic decision-making processes	AP1	Identifying problems and proposing objectives
	AP2	Generating options
	AP3	Evaluating options
	AP4	Developing details about options
	AP5	Taking the necessary actions to put changes into place
Financial performance (PER-F)	PER1	Market share
	PER2	Revenue
	PER3	Profit margin
	PER4	Return on investment
	PER5	Stable cash flow

Variable	Namely	Measurement (Likert scale 1 – 5)
Non-financial performance (PER-NF)	PER6	Customer satisfaction
	PER7	Product/service quality
	PER8	Human resource development
	PER9	Corporate reputation and brand

Sources: Authors' compilation and collecting from previous researches

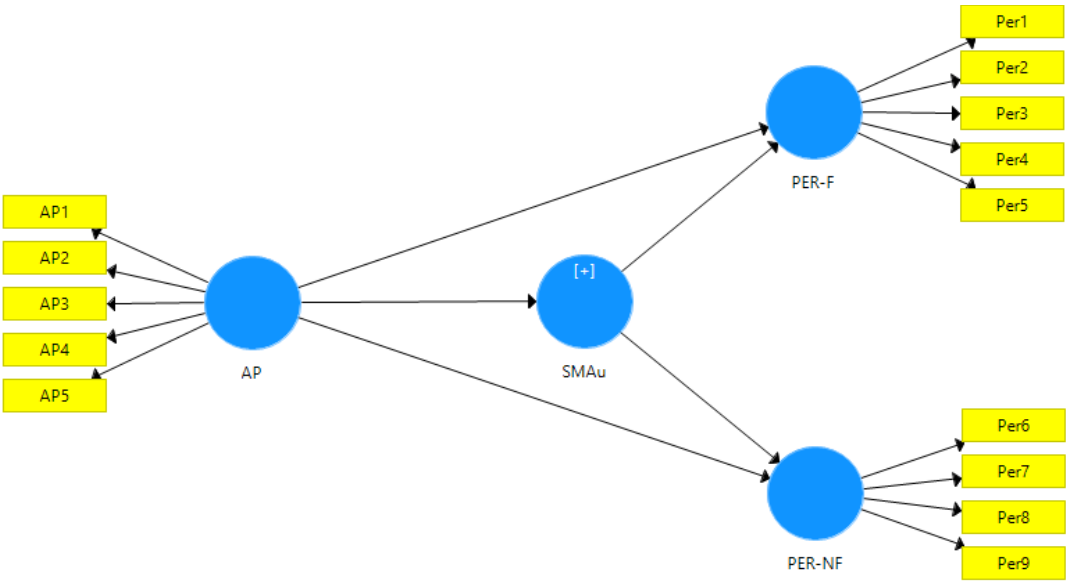

Figure 1. The posposed research model

3.3. Data analysis

In this research, the partial least squares regression (PLS) was used to achieve our goal. According to Henseler et al (2015), this method shows more benefits in testing multi-dimensional correlations among variables and limiting the model's defects than other methods. PLS analysis follows two steps (Hair et al, 2018):

First, we test the measurement model, such as testing each variable's scale, construct reliability and validity, and discriminant validity of the variables in the model to ensure the reliability and appropriateness of the proposed model. We also test the multi-collinearity phenomenon in the model.

Second, we test the structural model with the Bootstrapping technique to estimate the path coefficients' magnitude and significance at 95%. Then, we assess the influence of studied factors and evaluate the significance of the research model.

4. FINDINGS

4.1. Testing measurement model

Table 4 presents the results of evaluating the reliability and convergence of each variable's scale. We can see that the load factors' values are greater than 0.5, Cronbach's Alpha is greater than 0.5, and CR is also greater than 0.7. The results show that the convergence of the variables is very high, which demonstrates the consistency of each variable's scale (Fornell & Larcker, 1981).

Table 4. Reliability and convergence test

Variables	Measurement	Mean value	Load factor	Cronbach's Alpha	Composite Reliability (CR)	Average Variance Extracted (AVE)	VIF
SMAu	SMAu1	3,42	0.746	0.966	0.969	0.638	1.405
	SMAu2	3,387	0.791				
	SMAu3	3,663	0.784				
	SMAu4	3,546	0.859				
	SMAu5	3,463	0.816				
	SMAu6	3,607	0.826				
	SMAu7	3,485	0.852				
	SMAu8	3,291	0.781				
	SMAu9	3,469	0.821				
	SMAu10	3,77	0.814				
	SMAu11	3,684	0.792				
	SMAu12	3,574	0.813				
	SMAu13	3,558	0.853				
	SMAu14	3,466	0.819				
	SMAu15	3,629	0.766				
	SMAu16	3,626	0.719				
	SMAu17	3,482	0.785				
	SMAu18	3,304	0.728				
AP	AP1	3,629	0.869	0.918	0.939	0.753	1.405
	AP2	3,460	0.855				
	AP3	3,666	0.881				
	AP4	3,571	0.889				
	AP5	3,543	0.845				
PER – F	PER1	3,764	0.866	0.941	0.935	0.784	
	PER2	3,739	0.907				
	PER3	3,706	0.895				
	PER4	3,681	0.919				
	PER5	3,623	0.906				
PER-NF	PER6	3,794	0.886	0.908	0.969	0.638	
	PER7	3,847	0.881				
	PER8	3,865	0.891				
	PER9	3,822	0.883				

Source: Authors calculated by SmartPLS software

- Statistical results on mean the value of each observed variable from Table 4 show that:
  + The level of each SMA technique's application in tourism businesses in the central provinces is only average. The average value of the observed variables is statistically from high to low, showing that the highest mean value is 3,770 of the price strategy and the lowest iss 3,291 of the integrated performance measurement.
  + The average value of each scale of AP is in the range from 3,460 to 3,666, in which the role of the accountant when participating in the evaluation of the options has the highest average value (3,666), and the participation of accountants in the problem of giving options has the lowest mean value (3,460).
  + The average value of each scale of operational efficiency is assessed at a fairly high level. The non-financial performance group has a higher average value than the financial performance group. In the financial performance group, the highest average value is the growth of market share (3.764), while the non-financial group has the highest mean value is the company's interest in human resource development (3,865).
- The VIF values of the variables (in Table 4) are all higher than 0.2 and lower than 5, which shows the elimination of the multi-collinearity defect in the research model (Hair et al, 2018).
- We use the Fornell - Larcker and HTMT criteria to test discriminant validity. The test parameters are within the acceptable range (Hair et al, 2018; Henseler et al, 2015). The result in Table 4 proves that the variables' scales have achieved discriminant validity. It means that the independent variables' scale is suitable to test the structural model.

Table 5. Result of discriminant validity test

Fornell-Larcker Criterion

	AP	PER-F	PER-NF	SMAu
AP	0,868			
PER-F	0,514	0,899		
PER-NF	0,453	0,786	0,885	
SMAu	0,537	0,451	0,355	0,799

Heterotrait-Monotrait Ratio (HTMT)

	AP	PER-F	PER-NF	SMAu
AP				
PER-F	0,548			
PER-NF	0,491	0,847		
SMAu	0,565	0,468	0,370	

Source: Authors calculated by SmartPLS software

The test results show that the scale of the independent variables is suitable to perform the structural model test.

4.2. Structural model testing

We conducted the Bootstrap technique 5000 times to test the structural model. The results are shown in Table 5 (with a 5% significance level).

Table 6. Structural model test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
AP -> PER-F	0,382	0,379	0,057	6,666	**0,000**
AP -> PER-NF	0,369	0,367	0,070	5,275	**0,000**
AP -> SMAu	0,537	0,539	0,042	12,671	**0,000**
SMAu -> PER-F	0,246	0,250	0,051	4,778	**0,000**
SMAu -> PER-NF	0,157	0,163	0,063	2,504	**0,012**

Source: Authors calculated by SmartPLS software

With p-values < 0.05, it is clear that AP has a positive correlation with PER-F and PER-NF; AP has a positive correlation with SMAu; and SMAu has a positive correlation with PER-F and PER- NF. So, there is the mediating role of SMAu in the relationship between AP and PER-F and PER-NF.

4.3. Results of testing the mediating effects of SMAu

Table 7. Test the mediating effects of SMAu

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
AP -> SMAu -> PER-F	0,132	0,135	0,031	4,281	**0,000**
AP -> SMAu -> PER-NF	0,084	0,088	0,035	2,433	**0,015**

(Source: Authors calculated by SmartPLS software)

The results from the table show that both indirect and direct effects are significant because the confidence interval contains no value 0. The value of the AP indirect effect on PER-F and PER-NF is 0.132 and PER-NF is 0.084 while the level of direct impact is 0.382 and 0.369, with the p-value significance level being less than 0.05, showing that the significance of these relationships is reached. Because the direct and indirect effects are both positive, it can be said that SMAu has an intermediary role in the relationship between AP and PER-F and PER-NF. This means that AP affects PER in the form of partial mediation, which is different from the results of Cadez & Guilding (2008).

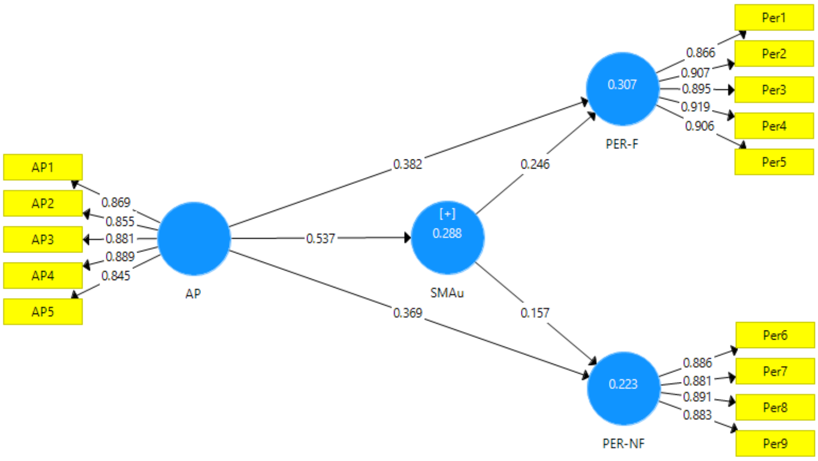

Figure 2. Estimate of structural model – PLS

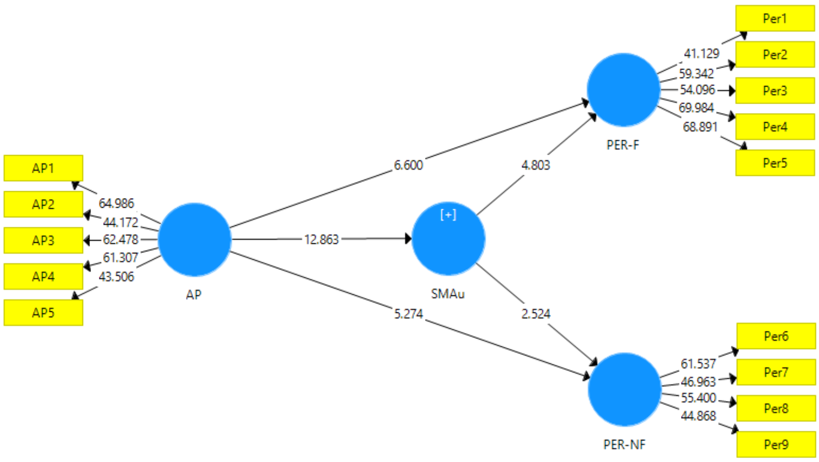

Figure 3. Estimate of structure model – Bootstrapping

Source: Authors calculated by SmartPLS software

5. CONCLUSION

The research was conducted with a small sample size, representing a region in Vietnam, but the study's contribution can be considered useful in the context of increasing interest in the application of SMA. The results provide further empirical evidences for two research targets. Firstly, assessing the role of accountants in the strategic decision-making process, such as identifying problems and proposing objectives, generating options, evaluating options, developing details about options, and taking the necessary actions to put changes into place. Secondly, the SMA application promotes the role of accountants in both financial and non-financial performance.

The research adds to the documents on SMA and provides empirical value for managers. They recognize and properly evaluate the role of accountants and promote the application of SMA tools to improve business performance. Some managerial implications of enhancing the role of accountants in strategic decision-making processes:

- Promoting and supporting them in training and self-training to improve their qualifications, especially in strategic management.

- Promoting and facilitating them to participate more in strategic planning; implementing strategies related to finance and financial reporting; and evaluating strategy implementation.

As a result, accountants can better understand and be proactive in implementing more of their duties. They also collaborate with other departments to effectively advise managers on strategic decision-making processes that help increase business performance.

Although the research objective was achieved, the study still has some limitations. Firstly, the number of samples collected is only in the central provinces of Vietnam, so it is not possible to generalize the result on a broader scale. Second, this is a kind of empirical research, re-testing the proposed model by Cadez & Guilding (2008), but it was done for new subjects. It has not been discovered or tested how many factors can affect the SMA application. These may be the next directions that the author will continue to research in the next studies.

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CORPORATE LIQUIDITY MEASURE USING CASH FLOW RATIO AND DETERMINANTS OF CORPORATE LIQUIDITY: AN EMPIRICAL RESEARCH OF COMPANIES LISTED ON THE HO CHI MINH CITY STOCK EXCHANGE

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Abstract: *This paper introduces a method of measuring the corporate liquidity of a firm based on the Statement of Cash Flows which is the operating cash flow ratio. Then, the article investigates the relationship between the operating cash flow ratio with firm-specific factors including size, inventory turnover days, accounts receivables turnover days, financial leverage, market to book ratio, sales growth and capital expenditure. Research data is collected from the financial statements of 341 non-financial companies listed on HOSE in the period 2010-2019. The research results show that the corporate liquidity represented by the ability to ensure payment of current liabilities with operating cash flow is significantly influenced by the size, financial leverage, sale growth and capital expenditure. The study has expanded the theory of corporate liquidity of companies and provided empirical evidence on the method of measuring corporate liquidity based on the Statement of Cash Flows and the factors affecting the company's corporate liquidity.*

Keywords: *Corporate liquidity, cash flow ratio, determinants of corporate liquidity.*

1. INTRODUCTION

Corporate liquidity is an important indicator in assessing the short-term financial position of a company. Corporate liquidity represents the ability of a company to convert its current assets into cash so that it can settle its current liabilities at corresponding costs but not reduce its value. Deriving from ineffective use of assets, corporate liquidity risks may arise and this is also the most challenging risk of the financial risks that companies face. Therefore, liquidity management is an issue that has attracted the great attention of many business managers as well as economic analysts for many decades, especially since the financial situation is increasingly developing and becoming more complex around the world.

There are many different methods of measuring corporate liquidity. For decades, the corporate liquidity has often been assessed based on the relationship between current assets and short-term liabilities of a company. Commonly used traditional ratios including current ratio, quick ratio, and cash ratio. However, Kirkham (2012) cautions that the data to calculate these ratios are taken from the Balance Sheet, so they may not always be reliable due to different accounting measurement options of asset values and accrual accounting. According to Subramanyam & Will (2009), due to the accrual accounting, financial transactions in both the forms of credit and cash are recognized as they are finalized, instead of focusing only on when payment is received or made. Furthermore, accrual accounting determines net income based on estimates, deferrals, allocations and valuations, considerations that are sometimes more subjective than the cash flow determinants. In addition, objections also point out that the Balance Sheet data is static, it is measured only at a certain point in time, while the Income Statement contains non-cash allocations (such as depreciation expenses).

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Stemming from the above limitations of traditional ratios in measuring corporate liquidity, in recent years, the ratio based on cash flow from operating activities has been gradually put into use by researchers and analysts in measuring the corporate liquidity. For example: Ryu & Jang (2004), Kirkham (2012), Atieh (2014), Billah et al (2015), Pham Quang Tin et al (2017). This measurement method presents a new perspective for measuring corporate liquidity of a company. Mills & Yamamura (1998) state that the Cash Flow Statement provides more reliable information for analysis of liquidity than Balance Sheet or Income Statement. This is because the Cash Flow Statement clearly shows the inflow and outflow of cash over a given period of time. In addition, the information presented in the Cash Flow Statement is not affected by accrual accounting and the matching principle. Therefore, they are less likely to be manipulated than those reported on the Balance Sheet and Income Statement (Ali, 1994 and Sharma, 2001).

Currently, in the world, there have been many studies on analyzing corporate liquidity based on operating cash flow information, however, similar studies in Vietnam are few and quite new. Therefore, it is necessary to add more empirical evidence in the Vietnamese economy. The main objective of this article is to depict a realistic picture of the corporate liquidity of listed companies based on operating cash flow ratio. In addition, the article also conducts research to determine which factors the operating cash flow ratio is affected by. The empirical results from this study can provide insight into liquidity management practices in listed companies in Vietnam, and expedite the use of cash flow statement in financial analysis in general and corporate liquidity in particular to understand the financial situation of companies better.

2. LITERATURE REVIEW

One of the initial studies using operating cash flow ratio as a measure of corporate liquidity was done by Ryu and Jang (2004). Their study examines the corporate liquidity position of commercial hotel and casino hotel companies in the US for the period from 1998 to 2002 by employing both traditional ratios and cash flow ratios. The results from the t-test show that traditional ratios generated different results from cash flow ratios in corporate liquidity. Kirham (2012) involved the comparison between the traditional ratios and cash flow ratios of twenty five companies in the telecommunications sector over a five year period in Australia. The study revealed that differences existed in corporate liquidity position between the traditional liquidity ratios and the cash flow ratios. Kirkham concludes that for the purposes of evaluating financial data, cash flow ratios provide a more valid and relevant means than traditional ratios. Atieh (2014) examines the difference in corporate liquidity positions between the traditional ratios and the cash flow ratios of seven pharmaceutical companies in Jordan from 2007 to 2012. The research results show that there is a statistically significant difference between the current ratio and the operating cash flow ratio when measuring the corporate liquidity of the sampled companies. The research by Kajananthan and Velnampy (2014) investigates the corporate liquidity position of two media companies in Sri Lanka over the five-year period from 2009 to 2013 using traditional ratios and cash flow ratios, the results also show that there is a difference in corporate liquidity position between these two types of ratios. The study by Billah et al (2015) examines, over the three years (2010-2012) period, the corporate liquidity position of selected companies from three prominent sectors (Consumer products, Industrial products and Trading/Services) of the Malaysian economy using cash flow statement ratios and traditional liquidity ratios. The pair T-tests results show that there is statistically significant difference between traditional ratios and cash flow ratios. In Vietnam, the only study by Pham Quang Tin et al (2017) is to use cash flow ratios as measure of corporate liquidity. In this study, the authors examine the difference between the traditional ratios and the cash flow ratios in measuring the corporate liquidity of 254 listed companies in Vietnam over the 5-year period from 2011 to 2015. Similar to other studies, the results of this study also showed that there is a statistically significant difference between cash flow ratios and traditional ratios. Thus, it can be seen in most of the above studies that the cash flow ratios supports the traditional ratio by providing more insight and more reliable information about the ability to meet payment obligations of firms compared to the traditional ratios.

In addition to measuring and evaluating the liquidity position of the company by different methods, determining the factors that affect the liquidity of the company is also studied by many scholars around the world. For example, Krishnankutty and Chakraborty (2011) examined determinants of corporate liquidity of listed companies in India. The result of this study showed that size, accounts receivable turnover days, inventory turnover days and payable days are the major determinant of corporate liquidity. Goel et al (2015) examined the effect of financial leverage on the liquidity of 151 Indian machinery firms from 2005 to 2013, it was found that financial leverage has significant impact on the corporate liquidity. Research by Doğan and Kevser (2020) with a sample of 157 industrial companies listed in Turkey in the period 2008-2018 showed that corporate liquidity is negatively affected by size, financial leverage and growth opportunity. The results of research by Samarajeewa and Perera (2020) with listed manufacturing companies in Sri Lanka in the period of 2014 to 2018 showed that capital expenditure has a significant negative effect on the current ratio. In Vietnam, in recent years, the factors affecting the corporate liquidity are also a matter of concern for many researches. Research by Nguyen Dinh Thien et al (2014) with listed non-financial companies in the period 2007-2013 showed that corporate liquidity is negatively affected by financial leverage and positively affected by growth opportunity. Research by Hoang Anh Nhu Ngoc (2017) with listed companies in the food and beverage industry in the period 2013-2015 indicated that size and financial leverage has a negative effect on corporate liquidity, while accounts receivable turnover days and sales growth has a positive effect. Similar research by Tran Manh Dung et al (2018) with listed companies in the food processing industry in the period 2012-2016 indicated that size has no correlation with corporate liquidity, but financial leverage positively influences the corporate liquidity.

The literature review presented above shows that the previous studies have contributed to the theory of corporate liquidity with a new measurement method based on the Cash Flow Statement, which is represented by the operating cash flow ratio. In addition, the above studies also add empirical evidence on factors affecting corporate liquidity in different countries and different economic stages. However, previous studies on operating cash flow ratios have only focused on comparing differences in corporate liquidity as measured by operating cash flow ratios and traditional ratios, but there is no research to determine the factors affecting the corporate liquidity in terms of operating cash flow ratio. Although there have been many studies to identify factors affecting corporate liquidity, but these studies only focusing on the aspect of traditional liquidity ratios and have not done with the operating cash flow ratio. In addition, the use of operating cash flow ratio in measuring corporate liquidity is quite new in Vietnam, to the best of the author's knowledge, currently only researched by Pham Quang Tin et al (2018) is to use this method. However, this study has not shown which factors the operating cash flow ratio of firms in Vietnam is affected by. On the other hand, research samples of the studies in Vietnam include companies listed on HOSE and HNX, while the difference in charter capital required by these two exchanges is quite large (HOSE requires companies to have a charter capital of 120 billion VND or more, HNX only requires 30 billion VND), which leads to a significant difference in size between firms in the research.

With the problems presented above, in order to overcome the research gaps and add more empirical evidence in the economy in Vietnam, in addition, with stricter requirements for listed companies on HOSE compared with HNX, this study uses a liquidity measurement based on the cash flow statement represented by the operating cash flow ratio, and at the same time identifies the factors affecting the financial liquidity of companies listed on HOSE.

3. RESEARCH METHOD

3.1. Research hypotheses

Based on previous studies, the factors that are predicted to affect the corporate liquidity in this study including size, financial leverage, accounts receivable turnover days, inventory turnover days, growth opportunity, sales growth and capital expenditure. The following hypotheses are put forward:

H1: Size has a negative effect on corporate liquidity of companies listed on HOSE.

H2: Financial leverage has a negative effect on corporate liquidity of companies listed on HOSE.

H3: Accounts receivable turnover days has a negative effect on the liquidity of companies listed on HOSE.

H4: Inventory turnover days has a negative effect on corporate liquidity of companies listed on HOSE.

H5: Growth opportunity has a positive effect on the liquidity of companies listed on HOSE.

H6: Sales growth has a positive effect on the liquidity of companies listed on HOSE.

H7: Capital expenditure has a positive effect on the liquidity of companies listed on HOSE.

3.2. Research model

The author analyzes the influence of firm-specific factors on corporate liquidity based on the panel data regression model as follows:

$$LIQ_{i,t} = \alpha + \sum \beta_j X_{jit} + \mu Control_{i,t} + \theta_n + \delta_t + \varepsilon_{i,t}$$

In there:

$LIQ_{i,t}$: The corporate liquidity of company i at year t, represented by the operating cash flow ratio;

X: Independent variables;

Control: Control variable.

The above model also includes industry fixed effect (θn) and year fixed effect (δt) to control for the dominant effect of industry and year on the influence of independent variables on corporate liquidity. Robust standard error is used to deal with heterogeneity of variance and is estimated on firm-level clustering to solve the problem of autocorrelation when calculating statistical value based on the method by Petersen (2009).

3.3. Measure variables

3.3.1. Corporate liquidity

Similar to the study of Ryu & Jang (2004), Kirkham (2012), Atieh (2014), Billah et al (2015), Pham Quang Tin et al (2017), to measure the corporate liquidity based on the Cash Flows Statement, this paper uses the ratio of net cash flows from operating activities to the current liabilities of the company for the year being calculated, which is determined by the following formula:

$$\textbf{Operating Cash Flow Ratio (CFO)} = \frac{\textbf{Net cash flows from operating activities}}{\textbf{Total current liabilities}}$$

3.3.2. Independent variables

- Size (SIZE): Determined by the logarithm of the total value of assets of the enterprise at the end of the year of the year being calculated. This measurement method is suitable with Krishnankutty & Chakraborty (2011), Doğan & Kevser (2020), Hoang Anh Nhu Ngoc (2017), Tran Manh Dung et al (2018).
- Financial Leverage (LEV): Determined by the ratio of debt to total assets of firm at the end of the year of the year being calculated. This measurement method is similar with Goel et al (2015), Doğan & Kevser (2020), Nguyen Dinh Thien et al (2014), Hoang Anh Nhu Ngoc (2017), Tran Manh Dung et al (2018).
- Accounts Receivable Turnover Days (ATD): Determined by the ratio of average accounts receivables to average sales at the end of the year of the year being calculated. This measurement method is similar with Krishnankutty & Chakraborty (2011).
- Inventory Turnover Days (ITD): Determined by the ratio of average inventory to average daily cost of goods sold at the end of the year of the year being calculated. This measurement method is similar with Krishnankutty & Chakraborty (2011).
- Growth opportunity (Market to Book - MB): Determined by the ratio of Market Capitalization to Net Book Value at the end of the year in which it is being calculated. This measurement method is similar with Doğan & Kevser (2020), Nguyen Dinh Thien et al (2014).
- Sales growth (SG): Determined by the ratio of increase/decrease in sales of the year being calculated compared to the sales of the preceding year. This measurement method is similar with Hoang Anh Nhu Ngoc (2017).
- Capital Expenditure (CAPEX): Determined by the ratio of capital expenditure to total assets at the end of the year being calculated. This measurement method is similar with Samarajeewa & Perera (2020).

3.3.3. Control variable

Based on previous studies by Goel et al (2015), this study uses the age of the company (AGE) as a control variable.

3.4. Research Sample and Data

The research sample includes non-financial companies listed on HOSE in the period 2010-2019. After excluding companies that have been delisted as of 2019, the number of companies retained for research purposes is 341 companies in 10 industries, including: essential consumer goods, consumer goods, utility services, healthcare, energy, information technology, telecommunications services, industry, materials and real estate. The author removed from the sample incomplete observations of the variables for the regression analysis. In addition, to limit the influence of outliers, observations at the 1% and 99% percentiles of the sample distribution of each variable were also removed.

The data used in this study includes accounting data on financial statements and stock price data of companies listed on HOSE for the period 2010-2019. The data is provided by Vietstock, which is a company specializing in collecting and analyzing financial data of companies in Vietnam.

4. RESULTS AND DISCUSION

4.1. Descriptive statistics and Correlation matrix

Table 1. Descriptive Statistics

Variables	N	Minimum	Maximum	Mean	Std. Deviation
CFO	3,169	-389.57	59.15	0.2448	7.0749
SIZE	3,169	25.00	33.63	27.9432	1.3385
ITD	3,169	-5,281.48	149,107.30	141.7280	2,649.9071
ATD	3,169	-9,823.56	1,045.06	56.7304	181.3673
LEV	3,169	0.00	1.29	0.4835	0.2117
MB	2,736	-1.30	35.44	0.7853	1.0762
SG	3,082	-1.00	316.06	0.5211	6.8624
CAPEX	3,169	-2.07	0.06	-0.0075	-0.0023

Table 1 presents descriptive statistics of corporate liquidity as measured by operating cash flow ratio and independent variables. During the period from 2010-2019, the firms listed on HOSE had an average corporate liquidity of 0.2448, which is a positive value that shows that the average cash inflow of firms is larger than the cash outflow. However, this value less than 1 indicates that although firms have positive net cash flows, it is not enough to cover the current liabilities of the firms. Pancawardani (2009) believes that this ratio should be equal to or greater than 1 to ensure the payment of due debts of the firms.

Table 2 presents the Pearson correlation coefficient matrix among the variables used in the regression analysis. The data in Table 2 also show that, in general, the correlation between the independent variables in the regression models is low, and thus limits the possibility of multicollinearity in the regression analysis (according to Gujarati (2003), multicollinearity is not a serious problem if the correlation coefficient between two independent variables is less than 0.8).

Table 2. Correlation Matrix

Variables	CFO	ITD	ATD	CAPEX	SIZE	LEV	MB	SG	AGE
CFO	1								
ITD	0.005	1							
ATD	0.002	0.134	1						
CAPEX	-0.002	0.004	0.001	1					
SIZE	-0.003	0.022	-0.016	0.612	1				
LEV	-0.034	0.027	0.004	0.117	0.326	1			
MB	0.044	-0.007	-0.031	0.061	0.175	-0.066	1		
SG	0.001	-0.003	0.003	0.013	-0.013	-0.034	0.009	1	
AGE	0.011	-0.015	-0.014	-0.020	0.040	0.042	0.046	-0.074	1

4.2. Regression analysis results

4.2.1. Analysis results of panel data regression model with OLS estimation method

Table 3 presents the regression results corresponding to the OLS regression model, including the dependent variable being the operating cash flow ratio representing the firm's corporate liquidity and the independent variable being the firm-specific variables, which are controlled for industry effect and year effect.

Unlike the initial prediction made in hypotheses H3, H4 and H5, the results show that firm-specific variables including account receivables turnover day (ATD), inventory turnover day (ITD) and growth opportunity (MB) are not statistically significant in the model, in other words, these variables have no influence or negligible influence on the increase or decrease of the operating cash flow ratio. These results are different from the results of previous studies by Krishnankutty & Chakraborty (2011), Doğan & Kevser (2020), Nguyen Dinh Thien et al (2014).

The remaining variables including size (SIZE), financial leverage (LEV), sale growth (SG) and capital expenditure (CAPEX) show a significant influence on the operating cash flow ratio, specifically as follows:

SIZE has a positive effect with an estimated coefficient of 0.320 (t-stat = 16.37) at 1% significance level. This result is contrary to hypothesis H1 and the results of previous studies by Doğan & Kevser (2020) and Hoang Anh Nhu Ngoc (2017).

Financial leverage has a negative effect on the operating cash flow ratio with an estimated coefficient of -0.474, t-stat = -3.48 at 1% significance level. This result is consistent with hypothesis H2 and the results of previous studies by Goel et al (2015), Doğan and Kevser (2020), Nguyen Dinh Thien et al (2014), Hoang Anh Nhu Ngoc (2017), but in contrast with Tran Manh Dung et al (2018).

Sales growth (SG) has a positive effect with an estimated coefficient of 0.014 (t-stat = 2.76) at 1% significance level. This result is consistent with hypothesis H6 and the results of previous studies by Hoang Anh Nhu Ngoc (2017).

Capital expenditure (CAPEX) has a positive effect with an estimated coefficient of 2.142 (t-stat = 1.73) at 10% significance level. This result is contrary to hypothesis H7 and the results of previous studies by Samarajeewa and Perera (2020).

Table 3. Analysis results of OLS regression model

Variables	CFO
SIZE	0.320***
	(16.37)
LEV	-0.474***
	(-3.48)
ATD	-0.000
	(-0.52)
ITD	0.000
	(0.66)
MB	-0.005
	(-0.62)
SG	0.014***
	(2.76)
CAPEX	2.142*
	(1.73)
AGE	-0.000
	(-0.66)
Constant	-8.477***
	(-14.30)
Effects control	IY
Observations	2,667
Adjusted R-squared	0.6095

Note: *I: Industry effect; Y: Year effect;*

, **, * at the 10%, 5% and 1% levels of statistical significance.*

4.2.2. Check the sustainability of the results (Robustness Check)

The results of the analysis above determine which firm-specific factors have a significant effect on the corporate liquidity of the companies listed on HOSE from 2010-2019 after controlling for the firm's age and industry effects, year effect which can influence the effect of firm-specific factors on the corporate liquidity of the companies. However, some endogenous issues are likely to exist that affect the reliability of the results in the OLS model, specifically:

First, it may be possible that a certain firm-specific factor that does not change (or change little) over time but cannot be observed has a dominant influence on the relationship between the remaining variables and the corporate liquidity of the companies. To solve this possibility, the author performs a regression with a fixed-effects regression model (FEM) and further controls the firm fixed-effects in the model.

Second, Naiwei & Arvind (2010) and Anand et al (2018) also explain that the endogeneity problem is most likely to exist when simultaneously processing independent variables that are firm-specific factors leading to an estimate is biased, so additional use of the dynamic panel data model is needed to overcome this limitation. Therefore, in this article, the author also controls for the corporate liquidity lag (dependant variable) in the regression model. This can give rise to a number of econometric problems such as: (i) causality can run in both directions (from the outcome variable to the explanatory variable and vice versa), (ii) these regressions can be correlated with the error term, (iii) the presence of a lagged dependent variable can give rise to autocorrelation. Therefore, to overcome these possible problems, the System-GMM estimator developed by Hansen (1982) is applied to the dynamic panel data model when using the lagged dependent variable into the regression model.

Table 4 presents the results of the fixed effects regression model (FEM) analysis and the dynamic panel data regression model using the System-GMM estimation method.

Table 4. Check the sustainability of the results

Variables	**(1) CFO**	**(2) CFO**
L.CFO		0.050***
		(6.21)
SIZE	0.285***	0.309***
	(10.36)	(29.87)
LEV	-0.544***	-0.443***
	(-3.34)	(-6.39)
ATD	-0.000	-0.000
	(-0.49)	(-1.45)
ITD	0.000	0.000
	(0.05)	(0.06)
MB	-0.003	-0.014**
	(-0.25)	(-2.48)
SG	0.011***	0.008***
	(3.50)	(23.82)
CAPEX	3.728***	3.280***
	(2.70)	(5.16)
AGE	-0.002	0.000
	(-0.52)	(0.36)
Constant	-7.435***	-8.178***
	(-9.07)	(-27.24)

Variables	**(1) CFO**	**(2) CFO**
Effects control	FY	IY
Observations	2,667	2,666
Adjusted R-squared	0.6505	
AR2 test		0.334
Hansen test		0.072

Note: *F: Firm Fixed Effect; Y: Year Effect;*

, **, * at the 10%, 5% and 1% levels of statistical significance.*

Column (1) presents the regression results of the firm-fixed effect model (FEM) with the operating cash flow ratio and company-specific factors used to test sustainability of the results of the OLS regression model in Table 3. Based on the data in column (1), it shows that the relationship between the independent variables and the dependent variable is similar to the regression results of the OLS model. After controlling for firm-fixed effect, the variables of size (SIZE), financial leverage (LEV), sale growth (SG) and capital expenditure (CAPEX) all show significant impacts on the operating cash flow ratio, and the direction of impacts is also similar to the results in the OLS model. The remaining independent variables are also not statistically significant in this model, consistent with the results of the OLS model.

Column (2) presents the results of the dynamic panel data regression model with the Sys-GMM estimation method, adding the operating cash flow ratio with 1-year lag to the model as an independent variable. The influence and direction of the variables of size (SIZE), financial leverage (LEV), sale growth (SG) and capital expenditure (CAPEX) in the Sys-GMM model are consistent with the results found in the OLS regression model and the FEM model. The results show that the estimated coefficients of size, sale growth and capital expenditure are positive and all statistically significant at the 1% level, showing the positive effect of these variables on the operating cash flow ratio. The estimated coefficient value of the financial leverage (LEV) is negative and statistically significant at the 1% level, representing the operating cash flow ratio that is negatively affected by leverage. Similar to the results found in both the OLS and FEM models, the Sys-GMM regression model also shows that account receivables turnover days (ATD), inventory turnover days (ITD) are not have significant effect on the operating cash flow ratio. However, the regression results of the growth opportunity variable (MB) in this model are different from the regression results of the OLS and FEM models, in the dynamic panel data regression model with the Sys-GMM estimation method shows that the market-to-book ratio has a significant and negative effect on the operating cash flow ratio, this means that a company with a higher market-to-book ratio has poorer corporate liquidity and vice versa.

5. CONCLUSIONS

The article has systematized the theory of the method of measuring corporate liquidity of firms based on the Cash flow Statement, with the representative indicator being operating cash flow ratio. A key benefit of the operating cash flow ratio is that it examines the resources a company has created to meet payment commitments over a period of time, whereas traditional ratios only indicate how many current assets the company has at a time (Billah et al, 2015).

Using the operating cash flow ratio, the author measures and evaluates the corporate liquidity of companies listed on HOSE in the period 2010-2019. In addition, the paper also conducts research to determine the factors affecting the operating cash flow ratio of companies listed on HOSE in the period 2010-2019. The results of the panel data regression model show that the operating cash flow ratio is significantly negatively affected by financial leverage, and significantly positively affected by size, sale growth, and capital expenditure, while not being significantly affected by inventory turnover days, and account receivables turnover days; the effect of market-to-book ratio on operating cash flow ratio is ambiguous. Based on these findings, this study has the following important implications:

- To measure and assess the corporate liquidity of the company, traditional liquidity ratios should not be used alone because the company can still experience serious liquidity problems if the cash flow generated does not guarantee payment of the company's obligations in the short term.
- The cash flow, as well as corporate liquidity of a company, is directly affected by specific factors of that company, so to manage corporate liquidity well, managers need to have appropriate policies on using reasonable financial leverage, building an effective capital expenditure plan, and at the same time increasing sales to maintain the liquidity of the company always in a state of ensuring the ability to pay debts when coming term.

The response of companies to the effects of factors across different industries is not the same because each industry has its characteristics. Therefore, further research in the future will determine the factors affecting the corporate liquidity of companies in a specific industry, so that managers can make the right and appropriate financial management decisions to increase the corporate liquidity of their businesses.

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ACCOUNTING OF SALE AND LEASEBACK WITH THE LESSEE IN INTERNATIONAL FINANCIAL STANDARDS

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Abstract: *International Financial Reporting Standard (IFRS) 16 is the most fundamental accounting change for leases in more than 30 years. Accordingly, IFRS 16 removes the classification and accounting of operating and financial leases for lessees and requires lessees to record most leases on the balance sheet. When applying IFRS 16, the lessee will record more leased assets and lease liabilities on the balance sheet, increasing transparency about the effects of lease liabilities and comparability of financial statements. of asset purchasers and asset leasers. This article will discuss how to record and present information on sale and re-lease transactions in accordance with International Financial Reporting Standards 16, which will be ideas to improve Vietnam's accounting system in accordance with international standards. international accounting practices.*

Keywords: *Leasing assets, lessor, lessee, accountants, IFRS 16, VAS 06, IAS 17.*

1. INTRODUCTION

Currently, in the market economy, businesses have a very high need to mobilize capital to serve investment and expand production scale, innovating technology lines to produce products that meet the increasing demands of the market. A financial solution when businesses want to expand production and business is to rent assets.

Lease is used by many businesses because the business still has the right to use the property without making a large initial capital investment. According to the impact assessment report of IFRS 16 released by the International Accounting Standards Board (IASB) in 2016, in 14,000 listed companies that are applying IFRS and US accounting principles, there are more than $2.8 trillion. The United States commits to pay future leases that are not recognized on the balance sheet.

Before IFRS 16 is applied, according to International Accounting Standard IAS 17 - Leases, users of financial statements must make their own assessment of the materiality and impact of off-balance sheet items (including commitments to lease) on the financial statements of the enterprise. After reviewing comments about the lack of transparency in the information about lease obligations, the IASB and the American Financial Accounting Standards Board began a project to improve lease accounting between 2006 and 2016. then issued IFRS 16 – Leases to replace International Accounting Standards (IAS) 17-Leases.

IAS 17 or Vietnamese Accounting Standard (VAS) 6 - Leases have focused on assessing whether a lease is of a similar economic nature to the purchase of an asset. If the lease is of a similar economic

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nature to the acquisition of an asset, the lease is classified as a finance lease and the leases and leases are recognized on the balance sheet respectively. All other leases are recognized as operating leases and are not recognized in the balance sheet of the enterprise (recorded to an off-balance sheet item). Operating leases are recognized similarly to service contracts and leases are recognized in the income statement.

IFRS 16 has a big change in accounting for sale and leaseback transactions compared to IAS 17. An asset sale and re-lease transaction is a transaction in which a seller (lessee) sells an asset and leases the same asset back from a buyer (lessor). Presenting information related to asset sale and re-lease transactions on the financial statements in an accurate, true, and transparent manner is always required and imperative.

Information presented related to asset sale and re-lease transactions will be the basis for enterprises to make decisions in the effective use of business capital. Towards perfecting Vietnam's legal and accounting system in the direction of harmonizing with international accounting, in this article, the author clarifies from the study of International Financial Reporting Standards IFRS 16 on sale and resale. leasing, in order to point out the outstanding aspects and orient to improve Vietnam's legal and accounting system on the sale and sublease of assets in the context of international economic integration. The article is divided into 5 parts. After the Problem statement, the article introduces the research problem, the author clarifies the necessity of the research problem from a theoretical as well as a practical perspective. Next, the author presents an overview of the contents of International Financial Reporting Standards IFRS 16 – Leases. In the fourth content, the author gives an Overview of Sale and Re-rent transactions; introduce accounting principles for sale and re-lease transactions according to Vietnamese Accounting Standard VAS 06 - Leases; and accounting principles for sale and re-lease transactions in accordance with IFRS 16 with specific illustrated application situations.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

IFRS 16 International Financial Reporting Standard – Leases, provides scientific principles for lease accounting

History of issuance of International Financial Reporting Standards IFRS 16 – Leases:

- In April 2001, the International Accounting Standards Board (IASB) adopted IAS 17 - Leases, previously issued by the International Accounting Standards Committee (IASC) in December/ December/1997. IAS 17 - Leases replacing IAS 17 - Accounting for leases was issued in September 1982.
- In April 2001, the IASB adopted SIC-15 Operating Leases - The first incentives issued by the Standing Interpretation Committee (SIC) of the IASC in December 1998.
- In December 2001, the IASB issued SIC-27 - Assessment of the Nature of Transactions Concerning the Legal Form of a Lease. The original SIC-27 was developed by SIC to provide guidance on many things, including determining whether an agreement regarding the legal form of a lease meets the definition of a lease. lease property under IAS 17 or not.

- In December 2003, the IASB issued the revised IAS 17 as part of the first program of their engineering projects.
- In December 2004, the IASB issued IFRIC 4 - Determining whether an arrangement includes a lease. The Speakers Committee has developed Guidelines for determining whether transactions do not have the legal form of a lease but transfer the right to use an asset in return for a payment or payments is a lease or includes such a transaction and should be accounted for in accordance with IAS 17.
- In January 2016, the IASB issued IFRS 16 - Leases. IFRS 16 replaces IAS 17, IFRIC 4, SIC-15 and SIC-27. IFRS 16 prescribes principles for the recognition, measurement, presentation and disclosure of leases.

Why was IFRS 16 born?

IFRS 16 was born to replace IAS 17. IAS 17 classifies asset leases into two types as operating and finance leases. Because the accounting recognition for these two types of leases is different, the financial statements that lead to the impact of these two types of leases are completely different, especially when the rental value is large. With operating lease, the rent will be recognized as an expense during the period and goes directly to PL (Profit or loss), no effect on BS (Statement of Financial position). But if it is a finance lease, it is mandatory for the enterprise to record an additional asset and a counterpart liability on the BS, and at the same time, record the asset depreciation expense and the financial expense for the debt obligation every month.

Because of this difference, many enterprises deliberately treat the finance lease transaction as an operating lease so as not to adversely affect financial ratios such as debt ratio, interest cover, ROCE, P/E ratio… to gain benefits when raising capital or offering shares to the public

Therefore, IFRS 16 makes a recommendation to not discriminate between leases, and to recognize them as finance leases in order to avoid the confusion of financial statements, which is part of the cause of the financial crisis. and bankruptcy of banks.

MAIN EFFECTS OF APPLYING IFRS 16

a) For the lessee

+ For lessees, accounting for leases will change completely compared to before: there is no longer a distinction between leases recorded in the balance sheet (financial leases) and leases recorded off-balance sheet. (operational lease). Instead, the lessee has only one way of recognizing leases in the balance sheet as finance leases in accordance with IAS 17. There are some specific exceptions, such as short-term leases, low-value leases or variable rentals over the lease term that are recognized as service contracts.
+ For lessees, recognition of a lease under IFRS 16 increases assets but also increases liabilities. In terms of income, total costs including depreciation and interest expenses tend to be higher in the early years and decline in the later years of the lease, even though the cash flow for rent payments is low. unchanged. Accordingly, some financial indicators of the business will also change, such as debt ratio, current ratio, asset turnover, profit before tax, interest, depreciation, interest rate, etc. return on total assets…

+ For lessees, challenges in applying IFRS 16 come from both accounting expertise as well as corporate financial policy. Specifically, enterprises need to determine when applying IFRS 16 whether the lease is a lease as defined by IFRS 16, whether the lease term includes options for renewal or termination, how to determine the discount rate in the context of information not available, the accounting impact of changing the terms of the lease due to objective reasons such as the epidemic… As a result, businesses must gather more information to make these critical assessments. For many businesses, it is also a challenge to collect sufficient information for accounting and disclosure of leases under IFRS 16.

+ Not only affecting financial results, the application of IFRS 16 can affect the operations of the business at a broader level, such as necessary changes in information systems, processes and data. data to meet the information collection, calculation and recording and disclosure needs required by IFRS 16.

b) For the lessor

The lessor basically continues to do the accounting as it is. The lessor continues to do the accounting required under IAS 17, which is subject to the classification of operating leases and financial leases. However, there are also some differences where the lessor must also assess the effect of applying IFRS 16 on certain transactions such as sale and re-lease transactions or secondary lease transactions.

In Vietnam today, Vietnamese Accounting Standards are still applying the same guidelines as IAS 17 to lease contracts, increasing the difference between VAS and IFRS, especially for enterprises with many financial resources rental property. To be able to successfully transition to IFRS, businesses need to assess the impact starting from accounting differences, switching options, all the way up to operational impacts including systems, processes, data, personnel and from there come up with a suitable transition plan.

Vietnamese Accounting Standard on Leases (VAS 06) was issued and announced by the BTC under Decision No. 165/2002/QD-BTC dated December 31, 2002 and Circular 105/2003/TT-BTC, Issued on November 6, 2003. Then, in Circular 161/2007/TT-BTC, guiding the re-implementation of 16 Accounting Standards issued on December 31, 2007, leasing was also reiterated by the Ministry of Finance. However, there is almost no change in content compared to Circular 105/2003/TT-BTC issued before. Since its issuance, VAS 06 has revealed many limitations in the application process and has not made any changes or adjustments to match reality. Therefore, the evaluation and re-discuss of VAS 06 is one of the issues that need to be done in the current period. Especially, during the period when the Ministry of Finance is collecting comments on the draft new accounting standards and VAS 16 is also in the process of drafting and collecting comments.

Leases, which include both sale and leaseback transactions in Vietnam, have attracted the attention of researchers in recent years, but the number of publications is limited and only focuses on research. certain aspects of leasing. Some of the main contents of the research on leasing properties in Vietnam can be mentioned, including: *One, Improving corporate accountability for lease accounting* with the study of Hoang Ninh Chi and Nguyen Thi Thanh Tham (2019); presented the impacts of IFRS 16 on lease accounting and orientation to apply IFRS 16 in the coming time in Vietnam. *Two, is it possible to record the revenue in the Sale and sublease transactions* with the research of Phan Le Thanh Long, MBUS(Acc), CPA, CMA (Aust.) – Director of the Australian Institute of Certified Management Accountants in Vietnam Male (2017); the study presented how to account for sales and leaseback transactions that Vietjet Air has performed. *Third, International Financial Reporting Standards No. 16 - a new era of lease accounting*, with research by Tran Hong Kien, Deputy General Director, Auditing Services, Hanoi Office, PwC Vietnam (2018); the author has presented the effects of IFRS 16 on the Balance Sheet and related balance sheet indicators such as Total Debt/Equity index; At the same time, the study also shows the effect of IFRS 16 on the income statement because enterprises need to recognize interest expenses for lease obligations (lease payment obligations) and the business also needs to calculate depreciation on the 'right to use property' (i.e. the property reflects the right to use the leased asset). Therefore, for a lease previously classified as an operating lease, the total cost at the beginning of the lease will be higher than in IAS 17...

In general, the above studies have pointed out the reasons for the birth of IFRS 16 as well as the impacts of IFRS 16 on the information presented in the financial statements. However, the above studies mainly stopped at general principles without specifically analyzing how to record sale and re-lease transactions to present information in the financial statements.

The author's research below will provide specific analysis, comparing how to record sale and re-lease transactions in accordance with current Vietnamese Accounting Standards and in accordance with IFRS 16; there are specific illustrative situations, helping readers to better understand the meaning and presentation of information according to IFRS 16 with the hope that these will be ideas to improve the Vietnamese accounting system according to the information international accounting rules.

3. METHODOLOGY AND PROPOSED MODEL

Research Methods: From the collected material, the author conducts qualitative research, through such methods: analyzing and synthesizing theory, experts, analyzing and summarizing experience, studying history… On dialectical materialistic perspective: use translation to speculate the corollary, use comparisons to make intermediate judgments, thereby using induction to make conclusions, summarize to propose recommendations and solutions.

Secondary data collection

Summary reports of the Ministry of Finance, State Bank, State Securities Commission, books and magazines such as: Financial and Accounting Research Journal, Accounting Journal, Accounting - Auditing Journal, scientific research journal of auditing, domestic and foreign studies related to the topic. Websites such as the website of the Ministry of Finance (www.mof.gov.vn), the International Accounting Standards Drafting Committee (www.iasplus.com) and some other websites.... legal documents related to accounting for lease of assets such as Enterprise Law, Accounting Law, International Accounting Standards, Vietnam Auditing Standards, Decrees, Decisions, Circulars... of the Government and agencies relevant function.

4. RESEARCH RESULTS

4.1. Sale and Lease back transaction overview

a) Concept

Sale and Lease back is a special type of financial instrument in which the owner of an asset will sell it to an investor and then lease it back.

Sale and Lease back is a form of lease in which: the lessee sells his or her own property to the lessor (usually a finance leasing company), and at the same time signs a contract to lease back the property that they have just sold.

Assets here can be existing assets of the business or assets that are being purchased by enterprises from suppliers but have not yet fulfilled their payment obligations to suppliers. Through the sale of these assets, the enterprise uses the cash flow from the finance leasing company to pay suppliers or uses this cash flow to continue to invest in other machinery and equipment or supplement the lack of capital. short to continue the business plan.

Transactions take place in the form of Sale and Lease back

- The lessee sells its assets to the lessor, the ownership of the property is legally transferred to the buyer (financial leasing company) and receives the proceeds from the sale of the asset at the price agreed between the parties.
- After signing a lease contract with the lessor, they receive back the right to use the property just sold.
- Periodically, the lessee pays the rent to the lessor and fulfills other conditions depending on the lease-purchase method.

b) Transaction characteristics Sale and Lease back

- In this form, the tenant as the original owner becomes the user and the lessee of the property; and the lessor from the buyer's position to the owner and lessor of the property.
- The benefit to sellers in this transaction is that they can raise capital without having to move production sites or disrupt business operations.
- The form of sale and re-lease helps businesses to have more capital, especially to meet working capital needs while still maintaining the use of assets. This has important implications for small and medium enterprises, which often lack business capital without being eligible for loans from financial institutions - banks.

c) Advantages of Sale and Leaseback activities

+ Enhance business performance

  Usually when a company needs to raise cash, they usually borrow (debt incurred) or issue shares. This creates a lot of risks about the ability of the business to repay its debts and the continuity of operations if the business is having difficulties or needs to use the money for other purposes.

Therefore, the form of sale and re-lease is very attractive, it is as a method to raise more capital without too affecting the operation of the business.

+ Improve balance sheet

  When using this form, the nature is that the business borrows money from outside, so it will incur a liability and show it on the company's balance sheet. This debt is a long-term debt and will be repaid on an annual basis. So a leaseback can really help improve a business's balance sheet, specifically:

  - Liabilities on the balance sheet will be reduced (by avoiding more debt since rental costs only need to be paid on an annual basis, compared to borrowing an amount equal to the value of the property)
  - Current assets will increase (in the form of cash and leases, in other words, the right of use asset)
  - Asset turnover of the business will improve as fixed assets decrease, but the ability to generate revenue of assets remains in the hands of the business

+ Reduced Taxes: Renting will incur rental costs, resulting in a decrease in profits and a corresponding reduction in taxes. Businesses can avoid paying taxes on the sale of assets, by selling assets through subsidiaries, based in tax-advantaged areas.
+ Reduced risk of assets: After the sale, the company no longer has to bear the risks of assets that the owner of the asset has to bear in the event of market fluctuations.

4.2. Accounting for Sale and Lease back transactions according to Vietnamese Accounting Standard VAS 06 - Leases

Currently, Vietnam Accounting Standard No. 06 – Leases (VAS 06) and the current corporate accounting system according to Circular 200/2014/TT/BTC dated 22/12/2014 provide similar provisions to Standard International Accounting Standard No. 17 – Leases (IAS 17)

The accounting for the sale and re-lease of assets in accordance with IAS 17 depends on whether the lease is classified as a finance or operating lease. According to IAS 17, there are two forms of sale and re-lease: sale and re-lease, which is a financial lease, and sale and re-lease, which is an operating lease. In which, IAS 17 gave the following principles (Ministry of Finance, 2003):

+ If the sale and re-lease of the asset is a finance lease, the difference between the sale income and the residual value of the asset must be amortized over the life of the lease. If the sublease is a financial lease, it means that the lessor provides finance to the lessee, which is secured by the asset. The difference between the income from the sale of the asset and the carrying amount in the accounting books is not immediately recognized as a gain from the sale of the asset but must be recognized as unrealized income and amortized over the lease term asset.
+ Sale and re-lease transactions of assets as operating leases are recognized when:

  - If the sale price is agreed at a fair value, then the loss or gain must be recognized immediately in the period in which it is incurred;

- If the selling price is less than fair value, then profit or loss must also be recognized in the period in which it arises, unless the loss is offset by a future lease at a rental rate lower than the market rent school. In this case, the loss is not recognized immediately, but must be amortized to expenses in line with the rental payments over the period for which the asset is expected to be used;
- If the sale price is above fair value, the difference above fair value must be amortized into income in line with rent payments over the life of the asset's intended use.
- If the sublease is an operating lease, the rent and sale price are agreed at fair value, i.e., having made a normal sales transaction, profits or losses are recognized immediately in the period in which they arise.
- For operating leases, if the fair value at the time of sale and re-lease is less than the carrying amount of the asset, a loss equal to the difference between the carrying amount and the fair value must be recognized in the period of birth.

The nature of the sale and re-lease transaction is explained as follows:

+ For a lease that is classified as a finance lease, the standard assumes that the nature of the transaction is a financed transaction. Therefore, accounting does not recognize profit from the sale of assets, but recognizes this transaction as a borrowing transaction, in which the finance lease asset acts as collateral; In case the sublease is a financial lease, due to the nature of the transaction as borrowing, the lessee (the seller of the asset) is not allowed to record revenue and profit from the sale of the asset, but must record the proceeds from the sale of an asset that is a debt. In this transaction, the re-lease price will be closely dependent on the selling price of the property and the re-lease price is always higher than the selling price of the property to ensure the lessor's profit. Therefore, the profit gained from the sale of the property should be used to cover future re-lease costs rather than recognized as profit to share.
+ For an asset lease that is classified as an operating lease, the standard allows an entity to recognize the full profit/loss arising from the transaction as a normal sale/liquidation, with conditions of sale and re-lease prices in line with market values. In case the sublease is an operating lease, due to the nature of the transaction, it is not a loan, so the seller of the asset can recognize revenue and profit because the amount to be paid for the sublease only accounts for a part of the total amount gain from the sale of property.

The basic difference between sell and release is a finance lease and sell and release is an operating lease, is when the sale and re-lease is an operating lease, the amount payable for the lease represents only a small portion of the total proceeds from the sale of the asset, and then the nature of the transaction is not a borrowing operation, when Only then will the accountant record profit or loss from the sale transaction right in the period.

Illustrated Situation 1: *(Accounting for Sale and Lease back is a financial lease according to VAS 06)*

Company A has an asset of machinery and equipment for production X with the original cost of VND 15 billion. As at 01/01/N, Company A signed a contract to sell and re-lease asset X with the financial leasing unit, Company B, with the following terms:

Selling price: 15 billion VND;

Lease term: 10 years;

Interest rate: 8%/year;

Annual rental payable: VND 2,235,442,330, paid periodically on December 31 every year.

Know the status of asset X as of 01/01/N as follows: Remaining value: VND 10 billion; Remaining economic life: 10 years.

What is the accounting recognition for this transaction? (Ignore the effects of VAT on the transaction)

Comment: In the above contract, the amount to be paid to rent is VND 2,235,442,330/year for the 10-year lease term, which accounts for the majority of the total proceeds from the sale of the property, which is VND 15 billion and when the nature of the transaction is a loan secured by assets, the accounting records should reflect the nature of the transaction as a loan.

Method 1: Accounting treatment based on the nature of the transaction

Since the nature of the transaction is a loan secured by assets, the accounting recognition only needs to accurately reflect the nature of the transaction as a loan.

Company A's accountant recorded the following:

When Company A receives money from Company B:

Dr. Acc 112: 15 billion VND

Cr. Acc 3412: 15 billion VND

To reflect the amount borrowed by Company A from Company B: Adjust asset X from tangible fixed assets to finance lease fixed assets:

Dr. Acc 212: 15 billion VND

Cr. Acc 211: 15 billion VND

Dr. Acc 2141: 5 billion VND

Cr. Acc 2142: 5 billion VND

To reflect the fact that Company A temporarily loses ownership of asset X, but retains control over this asset.

Periodically, the depreciation expense for asset X is VND 1 billion/year (= VND 10 billion/10 years).

The table of payment of principal and interest for finance lease debt is shown in the following table: *(Table 1).*

Table 1. Payment table of principal and interest for finance lease of production equipment X

Years	Opening balance	Interest	Pay		Ending balance
			Original debt	Interest	
1	15.000.000.000	1.200.000.000	(1.035.442.330)	(1.200.000.000)	13.964.557.670
2	13.964.557.670	1.117.164.614	(1.118.277.716)	(1.117.164.614)	12.846.279.954
3	12.846.279.954	1.027.702.396	(1.207.793.934)	(1.027.702.396)	11.638.540.020
4	11.638.540.020	931.083.202	(1.304.359.128)	(931.083.202)	10.334.180.892
5	10.334.180.892	826.734.471	(1.408.707.859)	(826.734.471)	8.925.473.033
6	8.925.473.033	714.037.843	(1.521.404.487)	(714.037.843)	7.404.068.546
7	7.404.068.546	592.325.484	(1.643.116.846)	(592.325.484)	5.760.951.700
8	5.760.951.700	460.876.136	(1.774.566.194)	(460.876.136)	3.986.385.506
9	3.986.385.506	318.910.840	(1.916.531.490)	(318.910.840)	2.069.854.016
10	2.069.854.016	165.588.321	(2.069.854.016)	(165.588.321)	
	Total		**(15.000.000.000)**	**(7.354.423.307)**	

Method 2: Handling accounting according to the provisions of the current corporate accounting regime Circular 200/2014/TT/BTC dated 22/12/2014

Applying the above provisions, the accountants of Company A will have the following entries:

Record the proceeds from the sale of the property:

Dr. Acc 112: 15 billion VND

Cr. Acc 711: 10 billion VND

Cr. Acc 3387: 5 billion VND

Write down fixed assets:

Dr. Acc 811: 10 billion VND

Dr. Acc 2141: 5 billion VND

Cr. Acc 211: 15 billion VND

Record increase in finance lease assets:

Dr. Acc 212: 15 billion VND

Cr. Acc 3412: 15 billion VND

Comment:

From a balance sheet perspective:

+ The value of finance lease debt in both cases is the same, both 15 billion VND;
+ When handled according to Method 1, the value of the finance lease asset is VND 10 billion;

+ When handling according to Method 2, the value of the finance lease asset is VND 15 billion, and the Company has a liability (unrealized revenue) of VND 5 billion; Since the value of the finance lease asset is VND 15 billion, the depreciation expense of the asset is VND 1.5 billion/year (= 15 billion/10 years).

According to the provisions of Circular 200, the accountant needs to adjust the depreciation expense for the part of the selling price that is greater than the residual value of the asset currently hanging on account 3387. Bookkeeping accounting entries:

Dr. Acc 3387/Cr. Acc 6xx: 500 million VND (= 5 billion VND/10 years = 500 million VND/year)

From the point of view of reporting business results:

+ Value on Cr. Acc 711 and on Dr. Acc 811 are all 10 billion dong, which will be offset when reporting business results, resulting in no profit or loss on asset liquidation;
+ Depreciation expense of 1.5 billion dong/year is adjusted down by 500 million dong/year, which leads to actual asset depreciation expense after adjustment is 1 billion dong/year, similar to depreciation expense defined in Method 1.
+ For interest expense and principal and interest payment table similar to the one defined in Method 1.

Illustrated Situation 2: *(Accounting for Sale and Lease back is an operating lease according to VAS 06)*

On 1/1/N, Hoa Mai Company signed a contract to sell the car to Hoa Lan company; At the same time, Hoa Mai company signed a contract to sublease the car itself under the operating lease method. Fixed assets have original cost of 1,000 million dong, depreciation value of 200 million dong, residual value of 800 million dong.

Let's determine the above economic operation account at Hoa Mai company in each of the following cases: (Assuming 10% VAT deduction)

a. Selling price = Fair value = 900
b. Selling price = 850; Fair value = 750
c. Selling price = 850; Fair value = 900 and the loss from a bargain sale is not offset by a future lease that is less than the market rent
d. Selling price = 700; Fair value = 750 and the loss from a bargain sale is offset by a future lease that is less than the market rent
e. Selling price = 700; Fair value = 900 and the loss from a cheap sale is offset by a future lease that is less than the market rent

According to the principles of VAS 06, the accountant of Hoa Mai company records in each case as follows:

a. Selling price = Fair value = 900

   Dr. Acc 214: 200

Dr. Acc 811: 800

Cr. Acc 211: 1.000

Dr. Acc 112: 900 + 90

Cr. Acc 711: 900

Cr. Acc 3331: 90

b. Selling price = 850; Fair value = 750

Dr. Acc 214: 200

Dr. Acc 811: 900

Cr. Acc 3387: 100

Cr. Acc 211: 1.000

Dr. Acc 112: 850 + 85

Cr. Acc 711: 850

Cr. Acc 3331: 85

Periodically, allocate profit for this period:

Dr. Acc 3387: 100/ number of allocation periods

Cr. Acc 627: 100/ number of allocation periods

c. Selling price = 850; Fair value = 900 and the loss from a bargain sale is not offset by a future lease that is less than the market rent

Dr. Acc 214: 200

Dr. Acc 811: 800

Cr. Acc 211: 1.000

Dr. Acc 112: 850 + 85

Cr. Acc 711: 850

Cr. Acc 3331: 85

d. Selling price = 700; Fair value = 750 and the loss from a bargain sale is offset by a future lease that is less than the market rent

Dr. Acc 214: 200

Dr. Acc 242: 50

Dr. Acc 811: 750

Cr. Acc 211: 1.000

Dr. Acc 112: 700 + 70

Cr. Acc 711: 700

Cr. Acc 3331: 70

e. Selling price = 700; Fair value = 900 and the loss from a cheap sale is offset by a future lease that is less than the market rent

Dr. Acc 214: 200

Dr. Acc 242: 100

Dr. Acc 811: 700

Cr. Acc 211: 1.000

Dr. Acc 112: 700 + 70

Cr. Acc 711: 700

Cr. Acc 3331: 70

4.2. Accounting for Sale and Lease back transactions in accordance with IFRS 16

IFRS 16 accounts for the sale and re-lease of assets based on the transfer of control of the asset from the seller (lessee) to the purchaser (lessor):

+ If there is a transfer of control of the asset from the seller to the buyer, the transaction will be accounted for as a sale and re-lease in accordance with the provisions of IFRS 16;
+ If there is no transfer of control of the asset from the seller to the buyer, the transaction will now be accounted for as a financial financing transaction from the buyer (lessor) to the seller (lessee). The leased property now acts as collateral.

The determination of whether or not control of assets has been transferred from the seller to the buyer is made in accordance with the provisions of IFRS 15 - Revenue from contracts with customers.

Does a "sale" constitute a "sale" to be recognized under IFRS 15 – Contract revenue with customers? To do this, we need to consider when commitments to provide goods and services are satisfied: Commitment to provide goods and services is determined to be completed when the seller transfers control of goods and services to the customer.

Control over an asset is defined as the ability to navigate its use and derive substantially all of its residual benefits, including the ability to prevent other parties from gaining access to it and benefit from the property. Interests related to assets are potential cash flows that can be obtained directly or indirectly.

According to IFRS 16, for a sale and re-lease transaction, if a satisfactory transaction is a "sales transaction", the recognition principle is as follows:

+ The seller (the lessee) determines the value of the right to use the property arising from the sublease transaction in proportion to the previous residual value of the asset.
+ The seller (the lessee) only recognizes the profit and loss from the sale of the property related to the right to use the property that has been transferred to the buyer (lessor)

If the unsatisfactory transaction is a "sales transaction": The seller (the lessee) then continues to recognize the transferred asset and the income from the transfer is treated as a liability. finance (loans secured by assets) and therefore accounted for under IFRS 9.

Thus, under the provisions of IFRS 16, a transaction classified as a finance lease can still recognize profit from the sale of the asset, provided that the transaction satisfies the condition that it is a sale transaction. according to the provisions of IFRS 15 - Revenue from contracts with customers.

International Financial Reporting Standard IFRS16 - Leases, which was issued in January 2016 and took effect from January 1, 2019 has undergone a major change, whereby IFRS16 requires a lessee to recognize a liability in a lease, whether it is a finance lease or an operating lease, except where the value of the leased asset is insignificantly low or lease term less than 12 months. This provision of IFRS16 is based on the nature of the lease transaction that the lessee will have to periodically pay a certain amount in the long-term future. Accordingly, a lease transaction has the characteristics of a debt. Thus, under IFRS 16, the lessee will be required to recognize a liability for the proceeds from the sale of a leaseback transaction whether it is a finance lease or an operating lease.

IFRS16 will change the lessee's financial statements, specifically the asset lease transaction on the Balance Sheet, towards recognizing the right to use the asset and a liability (the obligation to pay future rent). Therefore, increasing financial leverage means that lessees will have a higher ratio of Debt on the balance sheet. Lease expenses will be presented as depreciation expense and interest expense on the income statement. This will affect costs and change the structure of expenses in the income statement with increased profit before tax, interest and depreciation.

Below are some accounting recognition situations that may arise in practice related to the sale and re-lease of assets to the lessee:

Illustrated Situation 3: *(Accounting for the Sale and Lease back of assets according to IFRS 16)*

On 1/1/N, Vietjet Air signed a contract to sell and lease back assets with HDBank for 1 aircraft of Vietjet Air with the selling price of $2,000,000. The plane's fair value at the time was $1,800,000. The residual value of the aircraft on 1/1/N is $1,000,000. According to the contract, Vietjet Air will lease this aircraft back for 18 years – the remaining useful time of the machine. Rent is $120,000/year to be paid at the end of the year. The default interest rate is 4.5%. Assume the qualifying transaction is a sale transaction under IFRS 15.

Comment:

As at 1/1/N: The fair value of the aircraft is $1,800,000; The price Vietjet Air sells to HDBank is $2,000,000; Thus, the difference of $200,000 is essentially HDBank lending to Vietjet Air.

The rent is $120,000/year to be paid at the end of the year; The implied interest rate is 4.5%, then the Present Value of the lease payments is $1,459,199, inclusive of:

+ Property rental: $1.259.199
+ Loan debt: $200.000

Determine retention rate = (Amount retained by the seller/ Fair value of property) × 100%
= (1.259.199/1.800.000) × 100% = 69,95%

The residual value of the plane at 1/1/N is: 1.000.000; so:

+ Value of retained assets: 1.000.000 × 69,95% = 699.555

+ Value of property sold (transferred): 1.000.000 - 699.555 = 300.445

Profit from the transaction of Vietjet Air selling aircraft to HDBank:

1.800.000 – 1.000.000 = 800.000, which defines:

+ Retained earnings: 800.000 x 69,95% = 559.644

+ Profits transferred: 800.000 - 559.644 = 240.356

The buyer's accountant (lessor - HDBank) recorded the following:

Dr. Acc Aircraft: 1.800.000

Dr. Acc Loan receivables: 200.000

Cr. Acc Cash: 2.000.000

The seller's accountant (lessee - Vietjet Air) recorded the following:

Dr. Acc Cash: 2.000.000

Dr. Acc ROU assets: 699.555

Cr. Acc Aircraft: 1.000.000

Cr. Acc Lease debt: 1.259.199

Cr. Acc Debts: 200.000

Cr. Acc Gains from Sale and Lease back transactions: 240.356

Illustrated Situation 4

Vietjet Air is a lessee who signs an aircraft lease contract with the lessor, HDBank, whereby Vietjet Air is the lessee who purchases aircraft from the supplier and resells this aircraft to HDBank who is the lessor. After that, the lessee, Vietjet Air (the seller), leases the same property from HDBank as the lessor (the buyer). Assume the estimated economic life of the above asset is 25 years. The rental price of the property is fixed throughout the lease term in the contract.

Case 1: The lease period is 5 years. The lease does not include provisions for contract renewal nor for the purchase of the property at the end of the lease term;

Case 2: The lease period is 20 years. The lease does not include provisions for contract renewal nor for the purchase of the property at the end of the lease term. It is expected that at the end of the lease contract, HDBank as the lessor can still recover the remaining economic benefits of the asset through operating lease or liquidation of the asset. Assume a lease qualifies as a finance lease;

Case 3: The lease term is 20 years with a provision to buy back the leased asset at the end of the lease term at a purchase price lower than the market value of the asset at that time.

The accounting recognition for each case is made as follows:

– Case 1:

In this case, although the lessee (seller) Vietjet Air has the right to own the property before selling this ownership back to HDBank as the lessor (buyer), the lessee does not actually have control over the property control. So, in essence, this is not a sale and re-lease transaction. This transaction is recorded as a transaction by Vietjet Air, the lessee, leasing assets from HDBank as the lessor. The amount received by Vietjet Air as the lessee (the seller) from HDBank as the lessor (the buyer) is offset against the amount that the lessee has to pay for the purchase of the asset as a collection and payment on behalf of the lessee. The difference (if any) between the proceeds greater than the amount payable from the purchase of the asset is recognized as a rental incentive and deducted from the value of the right to use the asset from this transaction.

– Case 2:

In this case, even though the asset lease transaction is a financial lease, HDBank is essentially the lessor who still has the actual control over the asset and therefore, this is not a sale and re-lease transaction property in accordance with the standards. The accounting is done similarly to case 1.

– Case 3:

In this case, the control of the property actually belongs to Vietjet Air which is the lessee (the seller of the property). At the same time, when the asset sale transaction takes place, there is no transfer of control of the asset from the lessee to HDBank as the lessor. Therefore, this is not a sale and re-lease transaction. The accountant recognizes this transaction as a transaction. HDBank is the lessor to finance the lessee.

Thus, in all 3 cases, the accountant does not recognize any profit arising from this transaction.

Illustrated Situation 5

Company A is a company operating in the field of packaging production, fixed assets include X production line as well as a system of printing axes. On January 1, 2019, Company A signed a contract to sell production line X to Company B and leased this same line from Company B. Knowing that the residual value of production line X as of January 1, 2019 is VND 10 billion, the selling price to Company B is VND 12 billion, assuming in this situation the selling price is consistent with the fair value of the asset. The estimated remaining economic life of the above line is 50 years.

The lease term and rental price are as follows:

Case 1: The lease term is 40 years, the rental price is fixed throughout the lease term. The lease does not include an extension or the right to buy back the property;

Case 2: The lease term is 25 years, and the lessee has the option to renew the lease every 5 years for the remaining 25 years. Fixed asset rental price during the lease term (including lease renewal period);

Case 3: The lease term is 25 years, and the lessee has the option to renew the lease every 5 years for the remaining 25 years. Fixed asset rental price during the initial lease term. In the event that Company A chooses to renew the contract, the rental price of the property will be adjusted to match the market rent at the time of renewal;

Case 4: The lease term is 25 years. At the end of the lease term, Company A has the right/obligation to buy back production line X for 6 billion VND according to the market value of the asset at this time;

Case 5: The lease term is 25 years. At the end of the lease term, Company A is obliged to buy back production line X for 6 billion VND if there is a request from Company B.

The accounting recognition for each case is made as follows:

– Case 1:

There has been a transfer of control of the asset from the lessee (seller) to the lessor (buyer). Therefore, this transaction satisfies the conditions of the asset sale and re-lease transaction. Company A recognizes the profit arising from this transaction in accordance with IFRS 16.

– Case 2:

In this case, Company A needs to determine whether it is highly probable that the Company will renew the lease for the entire remaining economic life of the asset. If the Company does not have a high probability of renewing the lease, or the extension period does not occupy the entire remaining economic life of the asset, the transaction that meets the condition is a sale and re-lease. Conversely, if the Company has a high probability of extending the lease term for the entire remaining economic life of the asset, then the right to renew the lease will be similar in nature to the right to renew the lease. Company A will record the amount received from Company B (12 billion VND) as a loan from Company B.

– Case 3:

In this case, the fact that the rental price is adjusted to market price during the contract extension period indicates that most of the risks and rewards associated with ownership of the asset belong to the lessor (Company B). However, as analyzed in case 2, if Company A has a high probability of extending the lease contract for the entire remaining economic life of the asset, at this time, the right to renew the contract It is essentially the same as the right to purchase an asset and therefore is not a sale and re-lease of the property. Company A will recognize the amount received from Company B as a loan to Company B, similar to case 2. The fact that the rental price varies with market value instead of being fixed has no effect on the results.

– Case 4:

When Company A has the right or obligation to repurchase the asset at the end of the lease, there is, in essence, no transfer of control of the asset from Company A to Company B. Company B does not really have control over the assets in this case, for example leasing them to other customers, or selling/liquidating the assets instead of leasing them. Company B's ability to control assets depends on whether Company A exercises its right to purchase the assets. The fact that the asset purchase price is fixed (6 billion VND) or changes according to market value does not affect this conclusion. Since there is no transfer of control of assets, Company A accounts for this transaction as a financing transaction.

– Case 5:

In this case, Company A needs to determine if Company B will likely require Company A to buy back the asset at the end of the lease. This can be done by comparing the purchase price of the property (VND 6 billion) with the market value of the property at the end of the lease. If Company A assesses that the market value at the end of the lease is higher than the value of VND6 billion and thus, Company B will be less likely to exercise its right to require Company A to buy back the property, the transaction will now satisfy the condition that it is an asset sale and re-lease transaction. Conversely, if the market value of the asset at the end of the lease is estimated to be less than VND 6 billion, then Company B will have a high probability of exercising its right to request Company A to buy back the leased asset. The transaction at this time will not satisfy the condition as a sale and re-lease transaction. The accountant recognizes this transaction as a financing transaction.

5. DISCUSSION AND CONCLUSION

Sale and Leaseback transactions are accounted for in accordance with International Financial Reporting Standards - IFRS 16 (Replacing previously used IAS 17). IFRS 16 has eliminated the distinction between operating leases and finance leases when accounting for lessees, so the mandatory accounting that the seller-lessee must apply to the sale and sublease transaction will be clear. In addition, in addition to IAS 17, IFRS 16 outlines the accounting requirements for the buyer-lessor.

In Vietnam, Vietnamese Accounting Standard VAS 06 – Leases was issued under Decision No. 165/2002/QD-BTC dated 31 December 2002 based on the spirit of IAS 17 – Leases. In order to help Vietnamese businesses integrate and develop with the world economy, the improvement of the legal system on accounting for leases in Vietnam is a problem. Being aware of the role of asset sale and re-lease transactions in the enterprise, after a period of research and understanding of relevant legal documents, derived from the reality of the business, the author presented the views and contents of International Financial Reporting Standard IFRS 16 – Leases, introduction to accounting principles for sale and re-lease transactions according to Vietnamese Accounting Standard VAS 06 - Leases; and accounting principles for sale and re-lease transactions in accordance with IFRS 16 with specific illustrated application situations, these will be the ideas to improve Vietnam's accounting system in accordance with accounting practices international math./.

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ORGANIZATIONAL CULTURE, BUSINESS STRATEGY, AND MANAGEMENT ACCOUNTING PRACTICES: EVIDENCE FROM SMALL AND MEDIUM-SIZED ENTERPRISES IN CAN THO CITY

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Abstract: *This paper aims to analyze the impact of factors affecting the management accounting implementation of small and medium-sized enterprises (SMEs) in Can Tho city. The primary data of the article was collected from a survey of 50 SMEs in the city. The data analysis methods used in this study include descriptive statistics, exploratory factor analysis (EFA), Cronbach's alpha reliability test, and binary logistic regression analysis. The article's research results have identified two factors that have a positive influence on the application of management accounting in SMEs in Can Tho city, including organizational culture and business strategy. Based on the findings of the study, the author has proposed recommendations to help SMEs in Can Tho city to apply successfully management accounting.*

Keywords: *Management accounting practice, small and medium enterprises, organizational culture, business strategy.*

1. INTRODUCTION

Management accounting has the role of providing information for business management. Management accounting not only helps managers do well in planning and setting plans but is also a useful tool to analyze and evaluate costs, revenue, and profits, thereby helping businesses well control costs and have a timely plan to achieve the overall goals of the business. The decisions of the managers are often made based on information from accountants, especially management accounting - which is a useful and reliable information resource.

Management accounting has existed for a long time in the organizational accounting system. However, management accounting has only been systematized and developed systematically in theory and practice in recent decades in enterprises. In countries with developed market economies, management accounting is considered a scientific and effective management tool aimed to promptly process and provide information, and meet the information needs of managers.

Vietnam has joined the trend of global economic integration and the Vietnamese economy has been gradually transforming to catch up with the general development speed of the world market, management accounting treatment is still a very new issue and it has not been implemented synchronously and scientifically.

Can Tho city is a municipality of Vietnam, located in the center, bearing the characteristics of the Southwest region, and is the most modern and developed city of the Mekong Delta. Can Tho city is an economic and cultural center, an important hub for intra-regional and international transportation in the lower reaches of the Mekong river. The role of Can Tho city is extremely

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important, both in terms of socio-economic and cultural life, it is a key area holding a strategic position in the defense and security of the Mekong Delta.

Through preliminary surveys from previous studies, it can be seen that the percentage of enterprises applying management accounting is still very low, especially in SMEs, which have strategies and competitiveness are poor so the application rate of management accounting in SMEs in Can Tho city is still low. The application of management accounting in SMEs in Can Tho city is affected by both internal and external factors, and the degree of impact will increase or decrease the feasibility of applying management accounting. This study aims to examine the affecting of the application of managerial accounting in Can Tho city SMEs. The results of this study are estimated to contribute SMEs to applying fully management accounting.

2. LITERATURE REVIEW

Managerial accounting is the sum of practices that are formed to assist management through the planning of reasonable economic targets. Management accounting is a vital tool for effective business management as it provides appropriate information to managers for decision-making regarding the success of the organization (Stefanou & Athanasaki, 2012).

Furthermore, Drury (2015) elucidates that management accounting is concerned with the provision of information to people within the organization to help them make better decisions and improve the efficiency and effectiveness of existing operations. Moreover, the main focus of management accounting is to improve an organization's performance and profitability and assist managers by providing relevant financial and non-financial information for making decisions (Ghorbel, 2016).

There are many different views on management accounting, but there are similar basic points as follows: (1) management accounting is a part of accounting in general, (2) it's an important tool, providing information, is the basis for management, control, and decision-making, (3) provide information for past and future economic activities.

The development of behavioral accounting showed a change in organizational psychology and the organizational field beside the development of accounting as a practice. Organizational culture, which is regarded as the subfield of organizational studies, is a significant part of this movement. Gosselin (1997) has studied the effect of strategy and organizational structure on the adaptation and application of activity-based costing. By extending the study, the effect of organizational and cultural factors on the performance of operations management practices was examined.

Chia and Koh (2007) have studied the adaptation of organizational culture and managerial accounting practices in the public sector. Two main purposes of the study are; it was found that the environmental change and adaptation of innovative managerial accounting practices mean the adaptation of the organization to innovation. The case of the study is Singapore and the ministries examined concern the public sector.

Organizational structure and business strategy are considered contextual factors within the company that may be related to changes in the application of management accounting. Researchers have shown that management accounting practices and control systems, structures, and processes are affected by uncertainty, production technology, and strategy (Tuan Mat, 2010).

3. RESEARCH METHODS AND MODEL

3.1. Research Methods

The research method used includes a survey through a questionnaire of SMEs to assess the factors affecting the application of management accounting. Each of the variables in the study was measured using a 5 – point Likert scale. This scale is a type of psychometric response scale in which responders specify their level of agreement to a statement typically in five points: (1) "Strongly disagree"; (2) "Disagree"; (3) "Neutral"; (4) "Agree"; (5) "Strongly agree". The 5-point Likert scale is familiarly used in many studies, so the author also quantifies each factor according to five points. Quantitative research was carried out with SPSS 26 software.

The study was conducted by sending questionnaires to accountants and business managers of 50 SMEs in Can Tho city. The data analysis methods used in this study include descriptive statistics, exploratory factor analysis (EFA), Cronbach's alpha reliability test, and binary logistic regression analysis to explain the factors affecting the application of management accounting by SMEs in Can Tho city.

3.2. Research model and hypothesis

From the research overview, the proposed research model is as follows:

The Binary Logistic regression equation is written in the following form:

$$\mathbf{Y = Log\ (P/(1\text{-}P)) = \beta_0 + \beta_1 OC + \beta_2 BS}$$

In there:

- P: is the probability that affects the level of management accounting application in SMEs in Can Tho city of the survey according to 2 variables (OC, BS).
- Y: The dependent factor of the application of management accounting in SMEs in Can Tho city.
- OC: The independent factor of organizational culture
- BS: The independent factor of business strategy
- β_0: Regression constant; β_1, β_2: Regression coefficient.

The probability equation has the form

$$\mathbf{P_i = \frac{e^{(\beta 0 + \beta 1 OC + \beta 2 BS)}}{1 + e^{(\beta 0 + \beta 1 OC + \beta 2 BS)}}}$$

In there:

- Pi: is the probability of the event occurring, if Pi > 0.5 we can evaluate the probability of the event occurring (Y=1), if Pi < 0.5 we can evaluate the probability of not happening event (Y=0).
- e: is a mathematical constant whose value is close to 2.71828

From the research domestic and foreign results, based on the selective inheritance of theory and based on the existing research framework, typically the study of Abdel-Kader and Luther (2008) conducting surveying businesses in the food and beverage industry in the UK to find out the factors affecting the application of management accounting in SMEs in Can Tho city. The study proposes two factor ... ture and business strategy.

The resear ... hor is as follows:

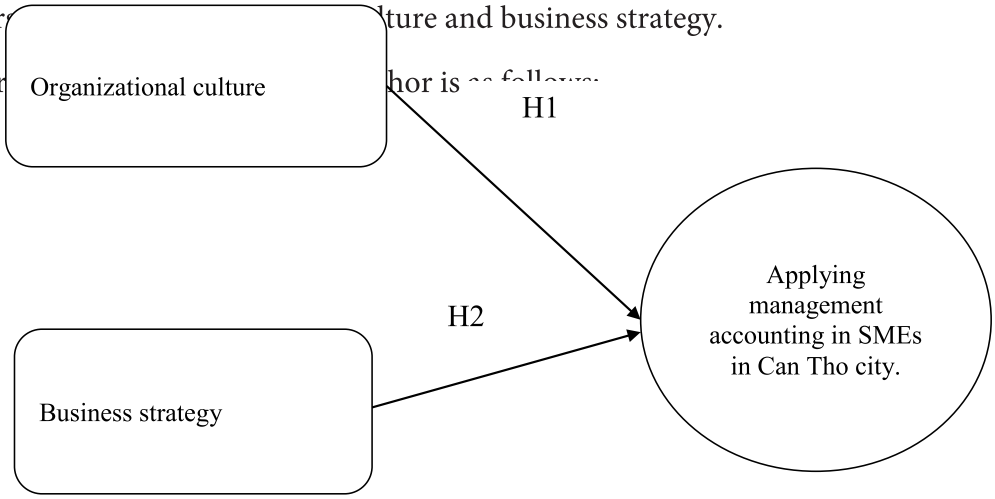

Figure 1. Proposed research model

To evaluate affecting of factors on the application of management accounting in Can Tho city SMEs, the study uses 2 detailed hypotheses as follows:

H1: There is a significant positive relationship between organizational culture and applying management accounting in SMEs in Can Tho city.

H2: There is a significant positive relationship between business strategy and applying management accounting in SMEs in Can Tho city.

The research model will adopt 7 observed variables belonging to 2 independent factors and one dependent variable, using a 5-point Likert scale rate. The variables in the model are described in the following table (Table 1).

Table 1. Description of variables in the model

Variable Names	Symbol	Expectations	Observable variables
Organizational culture	OC	+	1. Support from managers for employees in the business (OC1). 2. Mutual support from employees in departments of the enterprise (OC2). 3. Consensus on the common development goals of the business (OC3).

Variable Names	Symbol	Expectations	Observable variables
Business strategy	BS	+	1. The mission of the business is clearly defined (BS 1). 2. Strategic goals are specifically formulated by the business (BS 2). 3. Provide after-sale service (BS 3). 4. Producing specialized products according to customer requirements (BS 4).

4. RESEARCH RESULTS

The educational qualifications of accountants and business managers of SMEs in Can Tho city are described in the table below:

Table 2. Description education level of respondents

Indicator	Frequency	Percentage
Qualification		
Intermediate	4	8
College	7	14
Bachelor	35	70
Postgraduate	4	8
Total	**50**	**100**

The analysis result shows that the education of the survey respondents is mostly a bachelor with 70%, the survey respondents have a college degree accounting for 14%, while the survey respondents have intermediate and postgraduate have the same ratio with 8%.

The working seniority of survey respondents belonging to SMEs in Can Tho city is analyzed through the table below.

Table 3. Description of working seniority of respondents

Indicator	Frequency	Percentage
Working seniority		
Less than 1 year	12	24
From 1 to less than 3 years	18	36
From 3 years to less than 5 years	12	24
Over 5 years	8	16
Total	**50**	**100**

The analysis results show that the majority of respondents in SMEs in Can Tho city have working seniority from 1 to less than 3 years with 36% (18/50), while those working for less than 1 year is 24% (12/50), from 3 to 5 years also has the rate of 24% (12/50), this figure drops to 16% for survey respondents have more than 5 years of seniority.

The perception assessment results of accountants and business managers of SMEs in Can Tho city on the organizational culture scale are measured in the following table:

Table 4. Perceptions of respondents on the organizational culture scale

Ordinal	Variable	Content	Mini-mum	Maxi-mum	Mean	Sts Deviation
1	OC1	Support from managers for employees in the business	3	5	3,88	0,773
2	OC2	Mutual support from employees in departments of the enterprise	2	5	3,90	0,707
3	OC3	Consensus on the common development goals of the business	2	5	4,06	0.,843
Mean value of organizational culture scale = 3,95						

Table 4 shows that in 3 variables measuring the organizational culture of SMEs in Can Tho city, the respondents all agree with the measurement variable.

The results of the assessment of perceptions of accountants, and business managers of SMES in Can Tho city on the business strategy scale are measured in the following table:

Table 5. Perceptions of respondents on the business strategy scale

Ordinal	Variable	Content	Mini-mum	Maxi-mum	Mean	Sts Deviation
1	BS1	The mission of the business is clearly defined.	2	5	4,08	0,829
2	BS2	Strategic goals are specifically formulated by the business.	2	5	4,02	0,869
3	BS3	Provide after-sale service.	2	5	4,00	0,857
4	BS4	Producing specialized products according to customer requirements.	2	5	3,94	0,913
Mean value of business strategy scale = 4,01						

Table 5 shows that in 4 variables measuring the business strategy of SMEs in Can Tho city, the respondents all agree with the measurement variable.

The reliability testing results of the organizational culture scale are shown in the following table:

Table 6. Testing the reliability of the organizational culture scale

Ordinal	Variable	Content	Total variable correlation	Alpha if this variable is excluded
1	OC1	Support from managers for employees in the business	0,508	0,651
2	OC2	Mutual support from employees in departments of the enterprise	0,539	0,619
3	OC3	Consensus on the common development goals of the business	0,555	0,595
Organizational culture (OC): Alpha = 0,712				

Through the data table, we can see that the alpha coefficient of the organizational culture scale = 0.712 > 0.6, the total correlation coefficient of the variables OC1, OC2, and OC3 are all greater than 0.3 (lower limit). All observed variables have alpha coefficients if this variable is excluded is less than the total Alpha coefficient. Thus, the organizational culture scale is reliable and used in the next exploratory factor analysis (EFA).

The reliability testing results of the business strategy scale are shown in Table 7:

Table 7. The reliability testing of the business strategy scale

Ordinal	Variable	Content	Total variable correlation	Alpha if this variable is excluded
1	BS1	The mission of the business is clearly defined.	0,673	0,702
2	BS2	Strategic goals are specifically formulated by the business.	0,617	0,729
3	BS3	Provide after-sale service.	0,554	0,760
4	BS4	Producing specialized products according to customer requirements.	0,556	0,761
Business strategy (BS): Alpha = 0,79.				

From the analysis data, we can see that the total Alpha coefficient of the business strategy scale = 0.79 > 0.6, the correlation coefficient of the total variable of the observed variables has a value greater than 0.3 (gender) lower limit, all observed variables have alpha coefficients if this variable is smaller than the alpha coefficient of the sum variable. Thus, the business strategy scale is reliable and used in the next analysis (exploratory factor EFA).

The results of exploratory factor analysis for the coefficients of KMO and Bartlett's Test are shown in Table 8.

Table 8. Results of KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0,631
Bartlett's Test of Sphericity	Chi-Square (Approx. Chi-Square)	105,198
	Degrees Of Freedom (df)	21
	Significance level (Sig.)	0,000

KMO coefficient = 0.631 > 0.5, proving that the data used for factor analysis is completely suitable, and Bartlett's test has Sig. = 0.000 < 0.05 means that the test rejects the hypothesis H_0 (variables are not related to the population), so through the KMO coefficient test and Bartlett's Test, it is possible to confirm the data used for analysis factors are relevant and between variables are correlated

Table 9. Eigenvalues coefficients analysis results

Factor	Initial eigenvalue			Number after extraction		
	Total	Variance percentage	Cumulative percentage	Total	Variance percentage	Cumulative percentage
1	2,839	40,560	40,560	2.839	40.560	40.560
2	1,572	22,451	63,010	1.572	22.451	63.010
3	0,868	12,401	75,411			
4	0,686	9,802	85,212			
5	0,433	6,179	91,391			
6	0,357	5,105	96,496			
7	0,245	3,504	100,000			

The results show that there are 2 groups of factors with Eigenvalues coefficients greater than 1, so there will be 2 eligible factors to be retained to perform the regression model. The total variance extracted is 63.01% > 50%, the total variance extracted 63.01% tells us that the two components are determined to explain 63.01% of the variation of the data.

The results of evaluating the reliability of the scale by Cronbach's alpha show that all scales have reliability greater than 0.6 and the correlation coefficient of the total variable is greater than 0.3. All scales satisfy the conditions for EFA exploratory factor analysis. The reliability of the scales is summed up in the table below (Table 10).

Table 10. Rotation matrix analysis results

Rotation matrix		
	Factor	
	1	**2**
BS1	0.862	
BS2	0.783	
BS3	0.745	
BS4	0.713	
OC3		0.813
OC1		0.779
OC2		0.772

The factor loading coefficients are all greater than 0.5 and there is no case that an observable variable loads both factors at the same time. Therefore, the factors ensure convergent and discriminant validity when analyzing exploratory factors (EFA), in addition, there is no disturbance of factors, which means that the question of this factor is not confused with the question of the other one.

Rotation matrix analysis results shown in Table 10 demonstrate that there are 2 independent factors with 7 specific observed variables as follows:

The first factor, business strategy has the largest coefficient of 0.862 and the smallest is 0.713.

The second factor, organizational culture has the largest coefficient of 0.813 and the smallest is 0.772.

The theoretical model after analyzing factors has all 3 factors mentioned above, in which the factor of applying management accounting in SMEs in Can Tho city is dependent, 2 factors Business strategy and organizational culture are independent factors and are assumed to be factors affecting the application of management accounting in SMEs in Can Tho city. The study continued to conduct regression analysis to determine the level of influence of factors on the application of management accounting in Can Tho city by using the quantitative research SPSS 26 software. The data types of the variables in the research model are determined as follows:

Table 11. Data types of variables in the model

	Variable name	**Data type**	**Code**
Dependent factor			
Applying management accounting in SMEs in Can Tho city	Y	Binary	0, 1
Independent factor			
Organizational culture	OC	Ordinal	1, 2, 3, 4, 5
Business strategy	BS	Ordinal	1, 2, 3, 4, 5

To determine the influence of the independent variable OC, and BS on the dependent variable Y, the author conducts analyzes by the Binary Logistic regression method. The regression method is performed at the same time (Method: Enter).

The regression analysis must be based on the binary regression method because the dependent variable only receives two codes of 0,1, if analyzed by normal regression, it will violate the assumptions, for example, there are only two expressions so it is not appropriate to assume that the residuals are normally distributed.

Table 12. Variables in the Equation

Variables in the Equation							
		B	**S.E.**	**Wald**	**Df**	**Sig.**	**Exp(B)**
Step 1	OC	2.186	.919	5.649	1	.017	8.895
	BS	2.248	.905	6.170	1	.013	9.468
	Constant	-20.317	6.605	9.461	1	.002	.000

Organizational culture variable has Sig. value = 0.017 < 0.05. Therefore, the organizational culture variable has a significant correlation with the variable of applying management accounting in SMEs in Can Tho city with 95% of reliability. This shows that organizational culture is a big concern of accountants, deputies/heads of departments, and business owners, it has an impact on the application of management accounting in SMEs in Can Tho city with 95% of reliability.

The business strategy variable has Sig. value = 0.013 < 0.05. Therefore, the business strategy variable has a significant correlation with the application management accounting in SMEs in the Can Tho city variable. This shows that the organizational mission, business goals, sales strategies, and competitive strategies of enterprises are correlated with the application of management accounting in SMEs in Can Tho city with 95% of reliability.

The regression analysis results have the organizational culture variable and business strategy variable with Sig. < 0.05 (significance level α), so both variables are statistically significant, we put two variables into the Binary Logistic regression equation.

Logistic regression analysis results show that the level of application of management accounting in SMEs in Can Tho city is correlated with the organizational culture and business strategy of enterprises. Enterprises have a supportive culture and a clear, strategic, goal-oriented culture, the more flexible the business strategy, the more likely it is to apply management accounting in SMEs in Can Tho city.

In the data in column B (unnormalized regression coefficient), the organizational culture factor has an unnormalized regression coefficient = 2.186, so the organizational culture factor has a positive impact on the application of management accounting in SMEs in Can Tho city. The business strategy factor has an unstandardized coefficient = 2,248, so the business strategy factor has a positive impact on the application of management accounting in SMEs in Can Tho city.

Table 13. The results of testing the research hypotheses

Content	Expected	Result
H1: There is a significant positive relationship between organizational culture and applying management accounting in SMEs in Can Tho city.	+	+
H2: There is a significant positive relationship between business strategy and applying management accounting in SMEs in Can Tho city.	+	+

The business strategy factor, research results show that the business has a clearly defined mission, specific strategic business goals, and after-sales service, and manufacturing special products according to customer requirements will potentially increase the feasibility of the application of management accounting in SMEs in Can Tho city. This comes from the business advantages of SMEs that are very flexible, due to their small size and simple structure so adapting to the business environment to meet the needs of the market is also done more flexibly.

Organizational culture factor, research results show that when there is support from managers for employees in the enterprise when there is mutual support from employees in departments and consensus agreement on the common development goals of the business, it will increase the feasibility of the application of management accounting in SMEs in Can Tho city. This is also appropriate when setting goals, normative costs, sales plans, and production plans must also be agreed upon by departments and divisions of the enterprise towards the most common goal, specifically of management accounting. In Vietnam, the dominant culture in SMEs is still strongly family culture, which is also quite compatible with the mutual support between employees or between management and employees. This means that if SMEs in Can Tho city build a strong organizational culture, it will facilitate business development, and contribute to promoting the application of management accounting tools and the management, control, and operation of the enterprise.

5. CONCLUSION

The main objective of this study was to analyze the impact of factors affecting the management accounting implementation of SMEs in Can Tho city. The author has built a research model of influencing factors based on theoretical foundations, through quantitative analysis, there are two factors with statistical significance and positive impact on the application of management accounting. including organizational culture and business strategy.

From the results of the study, the author has proposed recommendations to help SMEs in Can Tho city to apply management accounting, which in turn, will improve the operational efficiency of SMEs as follows:

- The organizational culture factor means that an enterprise having a supportive culture and clear goal orientation will increase the ability to apply management accounting in SMEs in Can Tho city.

- The business strategy factor means that businesses having flexible business strategies will increase the ability to apply management accounting in SMEs in Can Tho city.

The model with two factors represents the research problem, but there are many other factors and observed variables that can affect the application of management accounting in SMEs in Can Tho city but are not yet mentioned in the current research model due to limitations in scope, time, and resources.

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APPLICATION OF ENVIRONMENTAL ACCOUNTING IN VIETNAM SUGAR ENTERPRISES

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Abstract: *Environmental accounting is a part of business accounting, which has been implemented in many countries around the world. In Vietnam, environmental accounting has not been applied scientifically and effectively. This article outlines the basic contents of environmental accounting in enterprises and orients to apply environmental accounting in sugarcane enterprises in Vietnam.*

Keywords: *Application of environmental accounting, sugarcane enterprises, Vietnam.*

1. INTRODUCTION

Environmental pollution and climate change have been directly affecting human life. In that context, economic development associated with environmental protection activities has become a concern of many countries around the world. Enterprises in the US, Japan, Korea... have applied environmental accounting as an important tool not only to help businesses comply with the provisions of the law but also to improve business efficiency and develop sustainably. In Vietnam, enterprises have not implemented environmental accounting in a scientific and systematic manner, so environmental accounting has not become a useful tool for business managers.

The sugar industry plays an important role in the lives of Vietnamese people. With more than 25 years of development, the sugar industry has achieved many achievements, built many strategies and projects to integrate into the world. However, with the characteristics of production and business activities, the activities of enterprises in the sugar industry more or less have an impact on the environment. In recent years, a number of enterprises such as La Nga Sugar Joint Stock Company, Hoa Binh Sugar Joint Stock Company, Song Lam Sugar Joint Stock Company, etc. have polluted the surrounding area leading to environmental pollution. must pay fines and significantly affect production and business activities. Therefore, in order for sugarcane businesses to improve their competitiveness and develop sustainably, the application of environmental accounting helps to provide complete and systematic information related to environmental issues, will help business administrators make appropriate decisions is extremely important.

2. LITERATURE REVIEW

2.1. Overview of environmental accounting

Environmental economics is a relatively new issue in Vietnam but has appeared in developed countries since the 90s of the last century. There are many different views on environmental engineering, some typical views are summarized as follows:

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According to the US Environmental Protection Commission USEPA (1995), environmental accounting is generally a concept that covers three different fields: National environmental accounting, environmental financial accounting and management accounting environment in the business.

According to the International Federation of Accountants IFAC (2001): Environmental accounting is a broad concept used in a number of different contexts, such as: Assessment and disclosure of environmental-related financial information in financial statements, evaluate and use types of physical and monetary information related to environmental activities for environmental governance. According to the scope of providing information, environmental accounting in enterprises is classified into 2 types, environmental financial accounting and environmental management accounting.

According to Schaltegger and Burritt (2000): Environmental accounting is an accounting department related to the operation of a business. Including: recording, analyzing and reporting information on the environmental performance of the enterprise and the eco-economic efficiency of the enterprise.

Considering the scope of enterprises, it can be understood: Environmental accounting is a part of corporate accounting to collect, process, analyze and provide information on environmental activities of enterprises.

2.2. Content of environment accounting

Because environmental accounting is a part of corporate accounting, the object of environmental accounting is still assets, liabilities, expenses and income, but studied from an environmental perspective. Thus, within the scope of the article, the author approaches the content of environmental accounting in enterprises including: (i) Identification of assets, liabilities, expenses, environmental income in enterprises; (ii) Organize the recording of assets, liabilities, environmental income expenses in the enterprise; (iii) Organizations providing environmental accounting information.

2.2.1. Identifying assets, liabilities, environmental income costs

** Environmental property*

An environmental asset is a controlled resource of an enterprise, arising from past events and expected to provide future economic benefits to the enterprise, used for environmental performance. If the environmental cost meets the criteria for recognition as an asset, the environmental cost is capitalized as an asset.

** Environmental liabilities*

An environmental liability is an enterprise's present obligation to make payments for costs incurred in connection with its environmental performance and to meet the criteria for recognizing a liability. Environmental liabilities include mandatory statutory obligations, remedial obligations, fines, compensation costs, etc.

*** Environmental costs**

Environmental costs can be understood as costs associated with environmental damage and environmental protection of enterprises. This cost includes the costs to prevent, destroy, plan, control, change action and remedy the damage that may occur in the company and affect the government and people.

*** Environmental income**

Environmental income is the result obtained from carrying out environmental protection activities in an enterprise. Environmental income comes from the sale of scrap, waste (for reuse by another entity), income from the sale of emission certificates, etc.

2.2.2. Organizing to record assets, liabilities, environmental income expenses

*** Organization of accounting vouchers**

To obtain information on environmental assets, environmental liabilities, environmental costs and environmental income in an enterprise, it is necessary to use the accounting voucher method. On the basis of identifying environmental accounting objects, accountants will determine the form, content and types of documents used for environmental accounting. For vouchers reflecting environmental assets, environmental liabilities, environmental costs and environmental income in service of environmental financial accounting, the existing voucher system of accountants shall be basically used. business tradition in which it is possible to design details to reflect environmental accounting objects. Particularly for vouchers to receive information for environmental management accounting, accountants need to add cost coding criteria for each department or cost center, and at the same time can design more voucher form to collect information related to the environment for decision making.

*** Organization of accounting accounts**

Currently, businesses base on the size and operating characteristics to design an appropriate accounting account system. For the recognition of environmental accounting objects, accountants can design detailed accounting accounts (level 2 accounts, level 3 accounts...) to serve management requirements.

*** Organization of accounting books**

To apply environmental accounting in enterprises, it is necessary to design an accounting book system so that it can reflect information for financial accounting and environmental management accounting. For the record book of arising transactions related to environmental assets, environmental liabilities, environmental costs and environmental income in service of environmental financial accounting, the accounting book system can be applied. traditional accounting. For accounting numbers used to record arising transactions for environmental management accounting, it is necessary to design specific types of books according to management requirements.

2.2.3. Organization of providing environmental accounting information

Environmental accounting information may be disclosed in annual financial statements or separate reports.

Environmental accounting information in the financial statement system: Information related to environmental assets and environmental liabilities is presented on the balance sheet. Information related to environmental costs and environmental income is presented on the income statement. In addition, the environmental accounting information can be presented in detail in the notes to the financial statements of the enterprise.

Environmental audit information in the management reporting system: The environmental management report is prepared and presents information according to the needs of the administrator for decision-making, so there is no specific template and time for preparation and depending on the information requirements of the administrator in each specific case.

3. RESEARCH RESULT

3.1. Characteristics of Vietnamese sugarcane enterprises

3.2.1. Vietnam's sugar industry

Vietnam is considered as one of the major sugar producers and consumers in the world and in ASEAN. The process of more than 25 years of construction and development, up to now, Vietnam's sugar industry has created jobs for more than 350,000 farmer households, contributing to poverty reduction, especially in remote and isolated areas and ensuring national food security. However, in the context of deepening international integration, the sugar industry is subject to the impact of rampant smuggled sugar, as well as inadequacies in the production of cane raw materials and fluctuations in the sugar consumption market have caused the domestic sugar industry to face many challenges. In the sugarcane production year 2020/2021, the sugar industry continues to face many difficulties, causing the picture of the whole industry to have deep colors in business results as well as production status.

According to a report of the Vietnam Sugar Association in the 2020/2021 crop year, the entire sugar industry has only 24 operating factories, a decrease of 17 factories compared to the previous year due to bankruptcy or no longer operating. However, in the crop year 2021/2022, it is forecasted that the sugar industry will have many signs of prosperity, sugarcane businesses will be able to apply trade defense measures and restore raw material areas to be able to develop their products. develop and stand firmly in the market.

3.1.2. Impact of sugarcane production on the environment

The sugar industry is a large polluting industry because the production of cane sugar generates huge waste streams including liquid, solid, and gaseous waste from sources in the production line. of sugarcane enterprises. Wastewater of sugarcane enterprises always contains a large amount of organic substances including compounds of Carbon, Nitrogen and Phosphorus. These wastes are easily decomposed causing environmental pollution. In addition, most of the suspended solids present in the wastewater of sugarcane enterprises are in inorganic form, which, when discharged into the environment, is capable of forming a thick layer at the bottom of the water source, destroying the biological system. Toxic gases are also produced such as H2S, CO2, CH4 and cause hypoxia in the water.

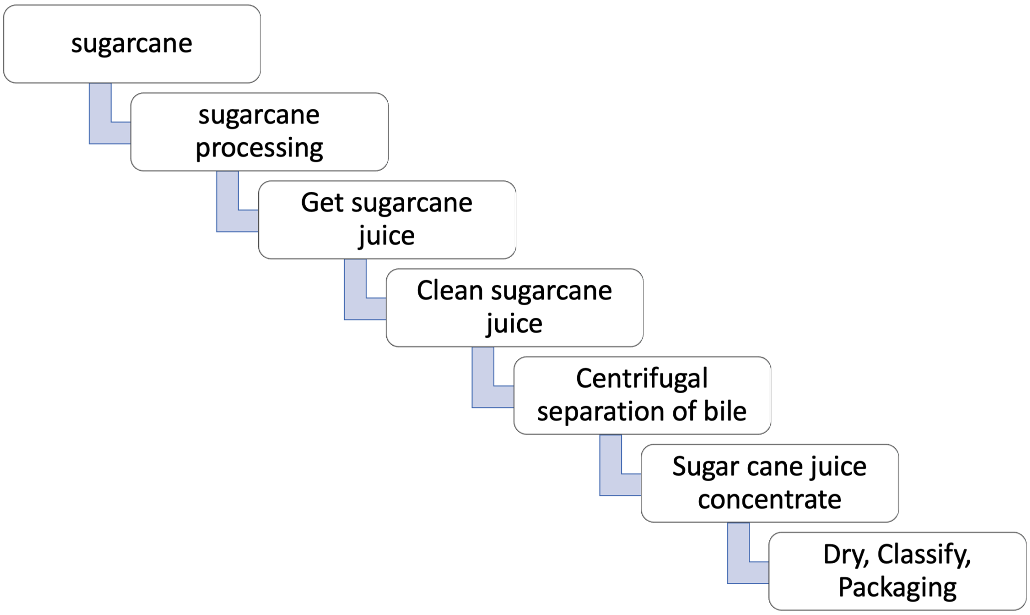

Diagram 1. Production process of Vietnamese sugarcane enterprises

Source: Compiled by the author

3.2. Orientation to apply environmental accounting in sugarcane enterprises

Approaching the content of environmental accounting in the above direction, in order for sugar businesses to apply environmental accounting in accounting work, the author proposes some contents as follows:

Firstly, identifying environmental assets, environmental liabilities, environmental costs and environmental income in sugarcane enterprises

** Identification of environmental assets*

Environmental assets are a part of the assets of enterprises, which is significant in terms of environmental protection, so the separate and independent identification of environmental assets is important to help users. Use information to evaluate the investment in environmental protection of each enterprise. Environmental assets are resources controlled by enterprises and can obtain economic benefits in the future through preventing environmental pollution, improving the efficiency of environmental protection activities in particular and the efficiency of environmental protection activities. business in general. In the current sugarcane enterprise, environmental assets can be waste treatment equipment, waste treatment plant, pollution treatment equipment, CO2 collection treatment system, smoke treatment system. dust… These assets are now tracked by sugar businesses like a regular asset and tracked at the usage departments. In order to apply environmental accounting, sugarcane businesses need to separate and track separately the cost, depreciation and residual value of these environmental assets.

** Identify environmental liabilities*

An environmental liability is an enterprise's present obligation to make payments for costs incurred in connection with its environmental performance and to meet the criteria for recognizing a liability. In sugar cane enterprises, environmental liabilities can be payable to cleaning service providers, payable to outsource waste treatment, payable to pay environmental fines. At present, sugar enterprises are monitoring environmental liabilities as a normal debt and recorded in payables to sellers or other payables. The determination of environmental liabilities in the total liabilities will have an important meaning in providing information for state management agencies, suppliers, banks, credit institutions, etc. to assess the obligations of enterprises. sugarcane enterprises and environmental risks in particular and enterprises in general in the future. Therefore, sugarcane businesses also need to identify and separate specifically arising environmental liabilities.

** Identify environmental costs*

To achieve the goal of sustainable development, sugar businesses must always attach importance to both "development" and "environmental" factors. In order to achieve the goal of profit in sustainable development, businesses need to well control costs, including environmental costs, increase revenue and income, and improve operations in an environmentally friendly direction. Therefore, it is very important to accurately identify environmental costs.

At present, in sugarcane enterprises, environmental costs are not classified separately but are determined according to the contents of such costs: cost of materials, tools and equipment (such as cost of labor protection tools).); Wage expenses and salary deductions (such as salary costs of cleaning workers at sugar cane juice concentration groups, sugar cooking groups, salaries of KCS environmental managers, etc.); Depreciation costs of fixed assets (such as depreciation costs for wastewater treatment equipment, depreciation costs for pollution treatment equipment, etc.); Expenses for services purchased from outside (such as maintenance costs for wastewater treatment equipment, testing costs, expenses for hiring experts to train in environmental protection, etc.) and other monetary expenses (taxes) , environmental protection fees, fines, provisions, etc.). Using environmental accounting, environmental costs need to be identified and tracked separately. At the same time, it is possible to classify environmental costs according to some common criteria as follows:

Table 1. Classification of environmental costs in Vietnamese sugarcane enterprises

Criteria	Types of environmental costs
Based on the content and use of the cost	- Waste treatment costs: Depreciation costs of wastewater treatment equipment, depreciation costs of pollution treatment equipment, labor costs for waste treatment, taxes, environmental protection fees, and other expenses. pay fines, provisions… - Expenses for environmental prevention and management: maintenance costs for wastewater treatment equipment, testing costs, expenses for hiring experts to train in environmental protection... - Value of waste materials: Cost of raw materials put into the production process but not finished products, cost of purchasing waste packaging materials - Processing costs do not create products: Labor time is lost due to inefficient production.
Based on environmental protection activities	- Cost of containment: cost of selecting environmentally friendly raw materials, cost of selecting pollution control equipment, cost of hiring experts to train environmental protection, maintenance cost of treatment equipment. Waste water treatment, cost of labor protection tools... - Cost of detection: cost of testing. - Expenses for internal waste treatment activities: operating costs of equipment to minimize or eliminate pollution, salary costs of KCS environmental managers... - Expenses for waste treatment activities outside the enterprise: salary costs of cleaning workers at sugarcane juice concentration groups, sugar cooking groups
Based on management purposes	- Avoidable environmental costs (expenses related to the future that businesses can avoid): fines, damages. - Inevitable environmental costs (expenses that inevitably arise that enterprises must pay): maintenance costs of wastewater treatment equipment, costs of testing, costs of hiring experts creating environmental protection, salary costs of cleaning workers at sugarcane juice concentration groups, sugar cooking groups, etc.

Source: Author's recommendation

** Identify environmental income*

Environmental income is the total value of economic benefits obtained by an enterprise in an accounting period, arising from environmental protection activities in the enterprise, contributing to an increase in equity. At present, the environmental income of sugarcane enterprises is the income from the sale of waste products or reuse of by-products from sugarcane production. According to the statistics of the Vietnam Sugarcane Association, a huge amount of by-products after sugar processing are present in three main forms: bagasse (accounting for 25-30% of the mass of pressed sugarcane), molasses (accounting for 4 -4.5% mass of pressed sugarcane), microbial products (accounting for 3-4% of pressed sugarcane weight). Waste products and by-products after sugarcane production can be utilized such as bagasse after pressing to burn more furnaces, plywood, electricity generation, molasses for alcohol production or animal feed processing. Making full use of waste products and by-products not only reduces pressure on environmental pollution but also brings economic efficiency to businesses. In fact, at present, sugarcane enterprises, waste products and by-products for internal consumption are not recorded, but if they are sold outside, they are recognized as another income. In order to apply environmental accounting, this environmental income also needs to be identified specifically and separately as a basis for assessing the environmental performance of sugar enterprises.

Second, to recognize assets, liabilities, and environmental income expenses in sugar cane enterprises

** Organize accounting vouchers*

On the basis of the accounting voucher system as prescribed by the Ministry of Finance, Vietnamese sugarcane enterprises need to select suitable vouchers to obtain information on environmental activities, and at the same time in the content of interpretation, arising economic transactions with clear footnotes related to environmental activities for classification.

** Organization of accounting accounts*

According to a survey at Vietnamese sugarcane enterprises, environmental assets are currently recorded in accounts 211, 213, environmental liabilities in accounts 331, 338, and environmental costs in accounts 621, 622, 627, 641, according to a survey. 642, 811, environmental income on account 711. To serve the management, sugar businesses base on the current accounting system to design detailed accounting accounts for monitoring. For environmental accounting subjects, for example, if Account 211 has a Level 2 Account 2112 – Machinery and equipment, the enterprise can open a Level 3 Account: 21121 – Environmental machinery and equipment to monitor quality treatment equipment. waste, pollution treatment equipment; Accounts 711 and 811 currently only have a level 1 account, so they can open another level 2 account, which is Account 7111 – Other environmental income and Account 8111 – Other environmental expenses.

** Organization of accounting books*

On the basis of the accounting form that sugar enterprises choose to design appropriate accounting books. On the basis of opening detailed accounting accounts to track environmental accounting objects as above, enterprises open corresponding detailed books such as account details account 21121, account 7111, account 8111... Besides, To serve the management, accountants can detail some contents on the accounting books, especially the accounting books reflecting environmental costs, which need to be detailed for each content according to the cost classification in Table 1.

Third, providing environmental accounting information

In order to provide environmental accounting information to external parties, Vietnamese sugarcane enterprises need to add environmental information in the notes to their financial statements specifically:

- Environmental assets need to be detailed in the sections "Tangible fixed assets" and "Intangible fixed assets" in which the historical cost (first number, year-end number), physical value (early number, year-end number), year-end number), residual value (beginning number, year-end number).
- Environmental liabilities detailed in the section "Prepaid from sellers and buyers", "other payables" in which time division (short-term and long-term) and clarifying the final number year and the beginning of the year to see the obligations of the business.
- Environmental costs are detailed according to the classification chosen by the sugarcane business.
- Environmental income is also detailed in the other income section.

In addition to providing information to external information users, it is also necessary to prepare environmental management accounting reports for internal audiences. Depending on the information needs of the administrator to design an environmental management accounting report template, there are usually types of reports such as: Environmental cost reports by department; Report environmental costs by product…

4. CONCLUSION

Environmental protection is the responsibility of all businesses, including sugarcane producers, to society. Therefore, the application of KTMT is very necessary in the current context. To do so, businesses need to fully and accurately identify environmental audit objects that are environmental assets, environmental liabilities, environmental costs, and environmental income. that, on the basis of information collected to provide to objects inside and outside the enterprise. Thus, the information of environmental accounting is complete and meaningful for the users, in order to help them make appropriate decisions.

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COST MANAGEMENT ACCOUNTING MODELS USED BY CONSTRUCTION ENTERPRISES

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Abstract: *Driven by the need for organizational change, management accounting models have developed and proliferated at an unprecedented rate in the last few decades. Currently, there are many different models to build a management accounting system. For construction enterprises, the combined, separate , and mixed models are the most commonly used.*

Keyword: *Cost accounting, management accounting model.*

1. INTRODUCTION

The increasing business scale of organizations in the globalized business environment leads to complexity in managing the internal working. Hence, the main aim of the research report is to present how to evaluate the application of several techniques of management accounting, especially in construction enterprises. With the specific characteristics of construction activities and construction products, cost management accounting must focus on all stages of cost classification, constructing norms and estimating construction costs. In addition, accountants also have to account the cost of implementation and calculate the cost of construction and installation products, analyze to control costs in order to make rational business decisions, which ensure the cost management accounting apparatus operates effectively.

2. LITERATURE REVIEW

A construction company is a business that specializes in the building, installation, and execution of construction entities, as well as technical consulting, investment project planning, design, appraisal, technology transfer, and the manufacture of construction materials and products. Construction is the economic activity of expanding, restoring, and renovating material facilities.

Construction and installation is the economic activity of expanding, restoring, and renovating material facilities. In the construction industry, bidding plays an vital role and is usually done by selecting a bid based on the bill of quantities submitted by contractors. Capital construction is a material production industry with an industrial nature, but still has distinct characteristics that differentiate it from other manufacturing industries, thus complicating the management and accounting work. Construction and installation production have the following characteristics:

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- Construction products of individual nature are large scale architectural works, complex production techniques, one-off production, long-term production projects, etc. Each product has different requirements in terms of structure, design, and construction site, which requires making an estimate (design estimate, construction estimate). The construction and installation process must always be consistent with the estimate, and the estimate must be used as a basis for implementation.
- Construction products are sold according to the estimated value (or the price agreed upon when the bid is won or through the direct appointment of contractor). The properties of construction and installation goods are not demonstrated specifically, since the prices, buyers and sellers have been pre-determined through the contract, therefore the sale is done through the handover of the completed works to the contractor.
- Construction and installation activities are mobile in nature because they are mostly performed outside. Construction goods are fixed at the place of production, whereas the production means (equipment, employees) must move accordingly with the production site. This characteristic complicates the accounting and management of assets, labor, and materials while also increasing the likelihood of assets being lost or damaged due to natural and environmental conditions. Therefore, businesses need to have an appropriate moderation plan in order to save costs and lower prices.
- The construction period and the service life of construction - installation products are very long, and the quality of which are specified in the technical design documents. Therefore, good management and accounting work is essential in order for the quality of the work to meet the design estimates, etc.

Construction and installation costs are all costs of living labor and materializing labor incurred in the construction process of an enterprise in a certain period, including production costs and other production costs constituting construction-installation products.

In order to check, the actual construction-installation costs incurred are compared with the estimated production and installation costs classified by cost elements and cost items.

Construction and installation company has the characteristics of production and business activities is building and installing works. A work is often divided into many items, bidding packages, sub-works in whichs construction time is often long, costs are also collected according to each separate project. Construction products have the following characteristics:

- For individual products, the collection of production costs, cost calculation and determination of construction and installation results are also calculated for each separate construction product. Production is done under contracts or according to customer orders, so there are few costs incurred in the process of circulation.
- Basic construction products have great value, large volume of works, relatively long construction time, so when calculating the price is usually determined according to the time when the work or work item is completed or handed over and put into use.

- Because the time to use construction products is relatively long, all mistakes in the construction process are often difficult to repair and have to be demolished and reworked. Mistakes in basic construction are both wasteful and have very serious long-term consequences and are difficult to deal with.

Therefore, the quality of the works needs to be regularly checked and monitored during the construction process

- Because basic construction products are used on-site, when a construction work is completed, it must be moved to another construction site. Therefore, there will be costs for dispatching workers and construction machinery to construct temporary works.
- Basic construction usually takes place outdoors, in order to organize the management of labor and materials closely, to ensure a fast progress in the construction process, enterprises need to have appropriate moderation plans to save costs and lower prices.

Construction and installation cost is the process of transforming building materials into products under the influence of machinery and equipment and the labor power of workers. In other words, under the purposeful impact of labor power through the construction process, the elements of means of labor and subjects of labor will become construction products. The costs expressed in the form of value are the costs of production. Costs of production include many different types, different uses and purposes, but generally include living labor costs such as wages and salary deductions; materialized labor costs such as raw materials, depreciation of fixed assets, etc. Costs of production include many different types with different uses and purposes, but in general, it will include living labor costs such as wages and salary deductions; materialized labor costs such as raw materials, depreciation of fixed assets, etc.

With the unique characteristics as well as production costs in construction enterprises, it is necessary to have an effective cost management method. Since the stage of making the estimate, the cost management accounting department had to make a very detailed estimate, on that basis, the entire value of the project was estimated. The construction process is often long, the acceptance and settlement of works can take many accounting years. Therefore, the cost manager must control costs by each construction item, to evaluate the cost effectiveness of the whole project. Costs of production are very important as it directly affects profit, so that it is necessary to manage and closely monitor costs. To be able to monitor and manage costs well, it is necessary to classify costs according to appropriate criteria, thereby evaluating the effectiveness of cost use from detail to overall.

3. CONTENTS OF COST MANAGEMENT ACCOUNTING IN CONSTRUCTION AND INSTALLATION ENTERPRISES

Expenses are expressed through the loss costs or damages that businesses have to bear or sacrifice when producing and trading a certain volume of goods and services. From the point of view of management accounting, cost is understood as "the actual loss cost stream associated with daily activities when the organization performs, checks, makes decisions; costs can also be the stream of loss cost estimated to implement the project, the loss cost due to alternative options, business opportunity sacrifices, etc.". Cost management accounting is a part of management accounting that specializes in processing and providing cost information to serve the performance of managers' functions such as planning, organizing implementation, control and decision making.

When reviewing the content of cost management accounting, we can figure out that there are similarities and differences between cost management accounting and financial accounting. The similarities include:

+ Cost management accounting and financial accounting both refer to economic events related to enterprise costs and are concerned with the most cost-effective way. To be more specific, one reflects the generality and the other reflects the meticulous detail.
+ Cost management accounting and financial accounting are based on the initial accounting records system. The initial recording system is the basis for financial accountants to prepare periodic financial statements, provided to external parties. For cost management accounting, that system is also the basis for application and processing to create appropriate information for the decision-making of managers about costs. Cost management accountants make extensive use of financial accountants' daily records of costs, although there is development and increase of data as well as the content of the information.

In addition, these fundamental differences between financial accounting and cost management accounting are as follows:

+ Cost management accounting emphasizes the provision of metrics for the internal use of managers. The managers must handle a large volume of frequent and infrequent decisions, all of which require the provision of special information for each.
+ Cost management accounting puts more focus on the future. Since the majority of the tasks and needs for information of the manager have goals for the future. In contrast, financial accounting for costs rarely has to do with the estimates or projections of future costs.
+ Cost management accounting emphasizes the appropriateness and flexibility of cost data. In order to carry out internal tasks, managers are often interested in getting completely objective cost figures and being able to verify the appropriateness of costs, which means that it is in the right place for the problem that needs to be solved.
+ Cost management accounting often pays less attention to the accuracy of documents on collected costs and more to non-financial documents. When information is urgently needed, more attention is paid to speed than to cost accuracy. Usually, the faster cost information reaches managers, the sooner the problem can be considered and resolved.
+ Cost management accounting focuses on segments of an organization rather than considering the whole one. Financial accounting primarily relates to companywide reports on business activities, whilst cost management accounting is associated with segment reports.

+ Cost management accounting is not compliant with the general principles of accounting application. The documents of financial accounting in general and financial accounting on expenses in particular must be prepared in accordance with the general principles of accounting, because these documents will be related to outsiders. In contrast, the managers of a business do not depend on these general principles.

According to Circular No. 53/2006/TT-BTC issued on June 12, 2006 of the Ministry of Finance, the content of cost management accounting is an integral part of the content of management accounting. The contents of cost management accounting in general and construction and installation cost management accounting in particular include:

- Classificate expense;
- Build construction norms and estimate construction costs;
- Account the cost of implementation and calculate the cost of construction and installation products;
- Analyze costs to control them and make business decisions.

4. ACCOUNTING MODELS OF COST MANAGEMENT IN CONSTRUCTION AND INSTALLATION ENTERPRISES

In order to be able to carry out the methods and techniques of cost management accounting to perform well the function of providing information for the internal management department in the enterprise, the management accounting model in general as well as the cost management accounting model in particular need to be organized in a reasonable way. There are three types of organization of cost management accounting models in enterprises in general, especially in construction and installation enterprises, including combined model, separate model and mixed model. Accordingly, there are three management models including combined cost management model, the separate model and the mixed model.

4.1. Combined model

As a model connecting the management accounting system and the financial accounting system in an accounting system unified with the general accounting apparatus and general accounting work. Its advantage for businesses is that it saves operating costs of the accounting system and closely combines financial accounting information and management accounting. However, the efficiency will not be high because these two types of accounting are not effectively specialized according to modern technology. Because management accounting may not follow the same accounting principles as financial accounting due to the difference between financial accounting and management accounting. Therefore, it will be hard to achieve if we apply it to the same accounting system. This model is often applied in small and medium-sized enterprises, the number of arising economic operations is small, the organizational structure is as follows:

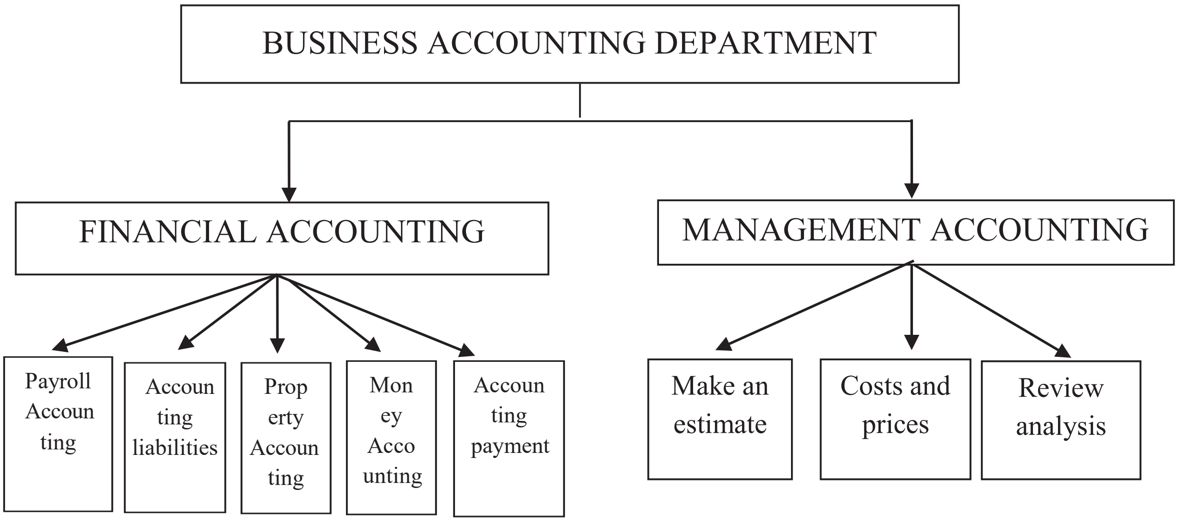

Diagram 1. Organization of the apparatus according to the combined model

With an organizational model combining management accounting and financial accounting according to each accounting practice such as: production and business cost accounting, product cost accounting... accountant in charge which accounting practice will perform the two tasks of both Financial Accounting and Management Accounting. According to this model, the management accounting and financial accounting systems are organized into a unified apparatus. Financial accountants use accounting accounts and accounting books as prescribed by law, while management accountants use more detailed accounting accounts from which by their own methods to prepare reports for corporate governance. Accounting professionals simultaneously undertake two tasks: acquiring and processing financial accounting and management accounting information. This model is often applied in enterprises whose management system is mainly based on each operational process (understood to include all stages and departments such as product research and development, production, service, design, product manufacturing process, marketing, distribution, post-distribution service or consists of a group of stages, interconnected parts in the process of production and business), then the content of management accounting is built in the direction of providing quantitative information about the economic - financial situation according to each operational process to serve the planning, organization, coordination, implementation, and effectiveness evaluation of each group performing the operation process (people with different expertise working on the same business process). Specifically:

- Classify, control and evaluate costs according to each operational process.
- Estimate the budget of each operational process and evaluate the effectiveness of each process group.
- Collecting and analyzing data to build appropriate information, serving the selection of each operational process and coordinating the implementation of the process implementation team.
- Analyze and forecast financial indicators of each operation process.

According to this model, management accounting focuses on building, checking, determining and planning costs in each product or product group, from which managers can compare and evaluate costs between products and activities.

4.2. Separation model

This model is an organizational model of a management accounting system that is independent from the financial accounting system both in terms of accounting apparatus and accounting work. With this model, the cost management accounting system will maximize its role, separating independent financial accounting information from management accounting according to direction both can modernize. However, the enterprise will have to pay a lot of costs to operate this model but still not generalize the information of the two modules together. Although these two systems can bring more benefits than the combined model, the author believes that the practicality of the segregation model is not high because very few enterprises have the financial capacity to operate two accounting systems simultaneously. Segregation model is often applied in enterprises with large scale and number of economic operations.

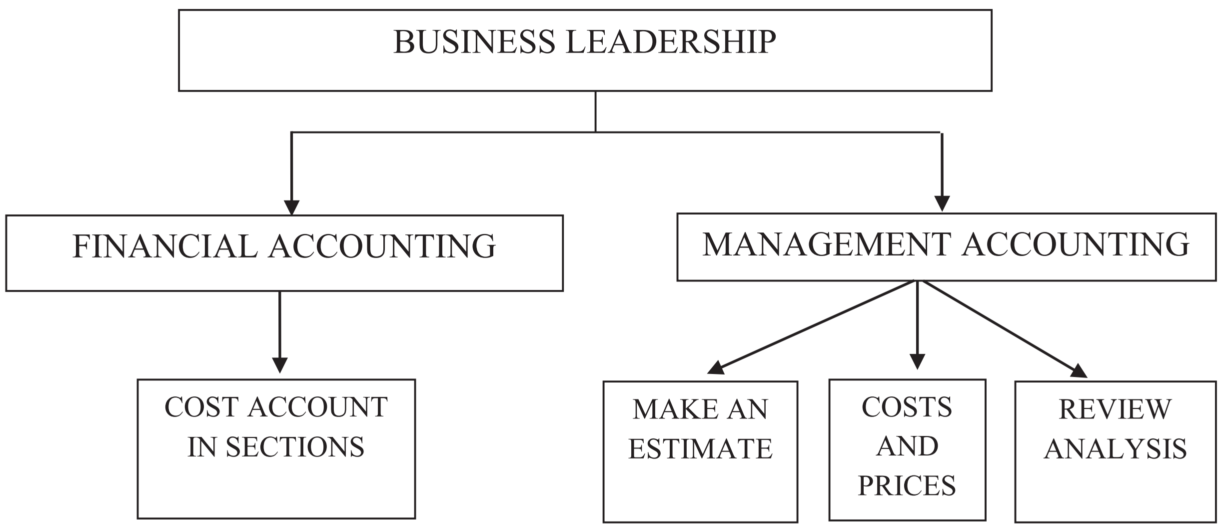

Diagram 2. Organization of the apparatus according to the separation model

With the organizational form in which the Financial Accounting and Management Accounting departments are built independently, Management accountants use a system of accounting accounts and separate accounting books, making internal accounting reports for corporate governance which is separate from the Financial Accounting department. This model is often applied to enterprises whose management system is mainly based on deep specialization in each division of production activities, business activities and management activities. Cost management accounting focuses on identifying and controlling costs by dividing costs according to cost centers. From there, it sets out requirements for cost estimation, analysis, evaluation and control at each center. The content of Management accounting is built on the basis of providing quantitative information about the economic - financial situation according to each specialized department to serve for planning, organizing, implementing, controlling and decision-making services at each management level. The content of this management accounting model usually includes basic theories and technical operations about:

- Classify, control and evaluate cost according to each area of specialization and level of management.
- Determine, control and evaluate the Production Cost which is mainly the Production Cost of each manufacturing process.
- Estimate the annual budget for production and business activities for each department and evaluate management responsibilities at each level of management.
- Collect and analyze information collection to establish the appropriate information to calculate selling prices, short-term and long-term business plans according to each department, management level.
- Analyzing and forecasting a number of financial indicators in each department and the whole enterprise.

4.3. Mixed model

It is a model that has both separate and associative characteristics. For the departments with similarity between financial accounting and management accounting, the combined model will be applied. For the departments that have fundamental differences, provide specially important information for businesses, it will be organized in a separate model. For example, the cost accounting department- cost will be organized separately for the two systems of financial accounting and management accounting. According to the author, not only this model has great flexibility and can provide information, but it also requires businesses to have relatively large investments in the organization of accounting apparatus, human resource quality and the accounting process must also be invested more compared to the combined model..

5. CONCLUSION

In order for management accounting to be really concerned and applied in today's businesses, it must be done synchronously at all levels from high to low. At the macro management level, it requires the macro intervention of the state and specialized training management agencies in order to stipulate and guide the application model of management accounting, so that enterprises can see the importance and effectiveness brought about when applying management accounting. Moreover, in the enterprise itself, managers must have the most awareness about the use of accounting information, build a smooth information system within their enterprises, and must boldly improve improve and rearrange the accounting apparatus to suit the development requirements of the market economy. If state agencies and enterprises work together to develop the basic conditions mentioned above, then we believe that applying management accounting to businesses is completely feasible, creating a channel Extremely useful information for managers at all levels to run businesses more effectively in the competitive conditions of today's market economy.

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COMPLETE PAYMENT ACCOUNTING WITH BUYERS AND SELLERS AT JOINT STOCK COMPANY

PhD Dao Ngoc Ha[1]

PhD Ngo Tien Dung[2]

Abstract: *"Completing payment accounting with buyers and sellers" is a very important goal for all businesses in today's economy. With that goal, the authors have conducted a study on payment accounting at joint stock companies in the construction industry. In the research process, the authors use inductive, interpretive, comparative, and statistical methods to analyze theoretical and practical issues at joint stock companies in the construction industry. Thereby pointing out the problems, current situation and solutions to complete payment accounting with buyers and sellers at enterprises in the construction industry today.*

Keywords: *Buyer and seller payment accounting.*

1. INTRODUCTION

As the world economy is more and more developing and applying many scientific and technological achievements to production and business, our country's economy is also on the path of development and integration with the global economy. Business activities in the market of enterprises are increasingly diversified and competitive in the market to find ways to survive and develop. Therefore, each enterprise must constantly strive to improve its management system, business strategy, and production method in each period to maximize its strengths to achieve efficiency in production and business activities.

It is important for any economy in the world to form, complete and develop the accounting apparatus in every step of business strategy. The head of the business needs to understand the information and data from the accounting department to have a comprehensive, objective and accurate view of the business situation. According to that, the administrators can come up with the most accurate and fastest business strategies. Therefore, the accounting department becomes an indispensable part of every business. Accounting is likened to be the department that plays the role of a bridge between (i) business owners and activities of buying and selling, doing business, raising capital, disbursing capital, etc.; (ii) between business owners and employees in the enterprise by collecting information and data on the financial situation and economic activities of the enterprise. This ensures businesses achieve their future business goals.

One of the relationships formed in business is the buyer-seller relationship, which is a production - business relationship, associated with the process of buying, selling and exchanging goods and services between economic organizations. This relationship takes place regularly, leading to the forms and methods used in payment which is also constantly updated and changed to match each situation and development stage of the economy in general and business development in particular.

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Because the payment is directly related to a number of accounts such as capital in cash, receivables, payables, etc., it directly affects the financial situation of the business. Therefore, each accountant is not only responsible for recording and storing data and documents, but also is in charge of quickly recovering short/long-term debts, finding sources of capital to pay debts and to preserve financial statements when due, and limiting the risk of payment. The completion of the payment system for buyers and sellers needs to operate flexibly and constantly change to be able to adapt to difficulties and risks in the implementation as well as in the development process of the enterprise.

In this article, with the goal of systematizing the theoretical basis of payment accounting, presenting, analyzing, assessing the current situation and proposing payment accounting solutions to buyers and sellers joint stock companies in the construction industry nowadays. Consequently, these joint stock companies will have a more objective view of the policies implemented with buyers and sellers.

2. ACTUAL SITUATION OF PAYMENT ACCOUNTING WITH BUYERS IN THE ENTERPRISE

- A sale of goods/services contract, an economic contract, a lease contract, etc. are understood as an agreement between the parties whereby the seller is obliged to deliver the goods, services, transfer ownership of goods to the buyer and receive payment; the buyer is obliged to pay the seller in accordance with the contract, to receive the goods, services and ownership of the goods as in agreement.

- VAT invoice: issued by the Ministry of Finance or self-printed by the company to declare and calculate VAT according to the tax credit method. VAT invoices need to include information about the name, address, tax identification number of the seller and the buyer (if any), the list of goods and services, the date of the transaction, the total value of goods and services, and VAT calculation value, VAT rate and VAT value.

- Goods delivery note: a note to closely monitor the quantity of materials, products and goods released for departments of the enterprise to use or for customers to purchase;

- The cash receipt is made to determine the actual amount of cash entered into the cash fund and serves as a basis for the cashier to record the cash book.

- Bank credit note/ bank statement used to confirm that an individual or an organization has transferred money to the account number of the company or another individual. The money transfer content on the report is shown on the statement, the buyer needs to clearly note the name of the money transferor, the contract number, the invoice, etc. so that the seller can correctly record in that buyer's code when receiving the money, avoid the case of incorrect recording of the code, leading to the wrong supplier's debt.

- Payment slip: Another form to show that the buyer has paid the seller in full. Instead of bank transfer, the buyer pays cash to the seller's account. The seller based on this document and the bank statement will be able to account the debt according to the supplier code.

- Monthly/periodic clearing debt minutes: A record of debt recognition of two parties at a certain time. The minutes should contain the names, addresses and representatives of the debt clearing parties; Debts include opening balance, increase in disbursement balance, decrease in disbursement balance, and ending balance. The final conclusion needs to be sure about the amount to be paid, the two parties confirm and sign the minutes so that the accountant has a basis for accounting.

- Sale of goods/service contract, economic contracts, lease contracts, etc. liquidation record: help the parties once again determine together what has been done, the values include: invoiced value, paid value, price still to be paid. Above all, it is as an affirmation of the party performing the remaining obligations after the contract is terminated.

- And other relevant documents and documents (such as: Business registration of the buyer being an enterprise; citizen identification card, marriage registration certificate for the buyer being an individual customer, etc.).

- Detailed ledger 131: ledger 131 is used to check and track the payment with the buyer according to each object including payment amount, payment date, payment installment. The detailed ledger 131 of the enterprise must fully show the date of entry, document number, content, reciprocal account, number arising on the debit side (creditor) of the account.

- General ledger 131 is made at the end of the accounting period in order to summarize the detailed books arising by all suppliers including the opening balance, arising balance and ending balance. The general ledger must ensure that all buyers have receivable relationships during the period.

- Ledger 131: is a general accounting book used to record accounting and financial transactions arising in the accounting year and according to the accounting accounts specified in the accounting account system applicable to enterprises.

Accounting vouchers always move from one period to another; from one department to another.

The rotation of payment accounting vouchers with the buyer plays an important role in accounting management with the buyer. Accounting vouchers must be made clearly, with full signatures, legal and accurate seals according to the prescribed forms and stored in accordance with internal regulations and current laws.

The rotation of payment accounting vouchers with the buyer is shown as follows:

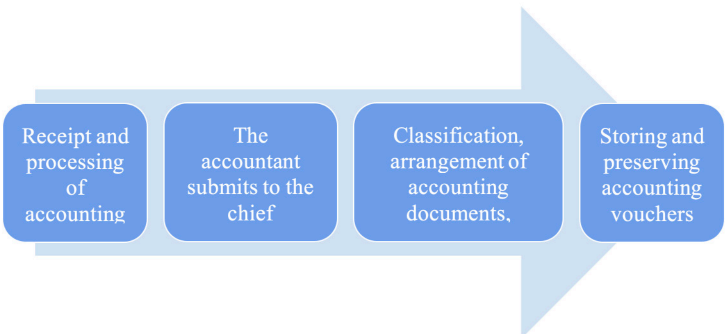

Diagram 1. Rotation of payment accounting vouchers with buyers

Author's own synthesis

- Receipt and processing of accounting vouchers: After receiving vouchers from relevant departments, accountants check the reasonableness, validity and accuracy of vouchers. The contents of the accounting vouchers must be full of criteria, clear and truthful with the arising economic and financial operations. The written word on the voucher must be clear, not erased, not abbreviated. The amount written in words must match the amount written in numbers. Those vouchers will be used for accounting only after verifying the legality of the vouchers.

- The accountant submits the signature to the chief accountant and the director for approval: After the dossier is checked, the accountant will pay the buyer to sign the dossier for approval for accounting. All accounting vouchers must have enough signatures according to the titles specified on the vouchers to be valid.

- Classification and arrangement of accounting vouchers, terms and entries in accounting books: After obtaining signatures for approval, accountants make book entries according to the right customers, each payment time, etc. with proof of payment received.

- Storing vouchers: Accounting vouchers must be fully and safely preserved by the accounting unit during use and storage. The archived accounting vouchers must be the originals and must be arranged in a scientific manner, easily searchable upon request from the leaders.

- Account used

The account used to track receivables from customers for sales of products and services is 131 - Receivables from customers. This account is used to record receivables and payments of receivables of customers from goods, investment properties, fixed assets, financial investment or services. This account is also used to record receivables from the principal construction contractor and the principal for the volume and value of the capital construction work that has been handed over and put into use.

The detailed account 131 has the following structure:

Debit:

- Trade receivables generated within a tax period from sale of goods, investment property, fixed assets, services or financial investments;

- The excess amount returned to the customer;

Credit:

- The amount the customer has paid;

- Amount received in advance, prepaid by customers;

- Discounts offered to customers after customers receive goods and lodge complaints;

- Sales of returned goods (with or without VAT);

- Amount of payment discounts and trade discounts offered to buyers;

Surplus

- Debit: The amount that is still receivable from the customer;

- Credit: reflects the amount received in advance, or the amount collected is more than the amount receivable from customers in detail for each specific object.

Debit balance of detailed account 131 in accounting ledger = Balance sheet 131 – Trade receivables on the Balance Sheet of Accounts Receivable = The closing debit balance of detailed account 131 on the account balance sheet = Customer accounts receivables in the accounts receivable monitoring.

Credit balance of detailed account 131 balance in accounting ledger = Balance sheet 313 – Buyer prepaid on balance sheet = Closing credit balance of detailed account 131 on the account balance sheet.

Receivable balances of customers in foreign currencies are assessed at current exchange rates at the time of financial statements preparation.

3. IMPROVEMENT SOLUTION

- Systematize the debt management procedure from last year so as not to suffer many consequences due to customer late or non-payment and recovery of loans.

✓ With seller:

- Coordinate with relevant departments to urge the refund of payment vouchers from contracts that still have outstanding advance balance. Suppliers or contractors who have outstanding advance balance but still continue to work on the project should compensate the payment of new contract value;
- Classify contractors/suppliers by debt levels:

  Level 1 (Green): Contractors with years of experience who are still having construction and supply contracts with the company.

  Level 2 (Yellow): Contractors with years of experience, who currently have no outstanding loans at the company, are preparing to make new contracts.

  Level 3 (Red): The contractors are no longer contactable, bankrupt or disreputable.

✓ With buyer:

- The contract explicitly states that payments must be made on time and details the penalties of late payments.
- Classification of customers according to debt collection levels.

  Level 1 (Blue): Long-standing customers of the company, having explained the late payment after the first call from the contact center. After that, the customer took the initiative to pay.

  Level 2 (Yellow): Customers always pay a few days to a week later than the payment notice.

Level 3 (Red): Customers always pay late, have several excuses for not paying, and do not accept calls or emails from the customer support center.

✓ Keep records of all customer transactions and contact customers through many methods (email, phone, handwritten letters, etc.) to avoid future litigation.

- Establish provision/allowance for uncollectible accounts receivables:

✓ Provision for doubtful debts: this is the provision for the loss value of overdue receivables as well as receivables that are not yet due but are unlikely to be collected on time.

✓ The provision for doubtful debts of the company should be made in accordance with the documents issued by the State, accompanied by records of debt comparison and debt clearing, and reports showing that the provision is legal and reasonable.

✓ Legal basis: According to Circular 48/2019/TT-BTC dated 08/08/2019, guiding the establishment and management of provisions for devaluation of inventories, loss of investments, uncollectible accounts receivables, and warranties of products, goods, services, and construction works of enterprises. The time of making and reversing provisions is the time of making annual financial statements.

✓ For overdue receivables, the level of provision is as follows:

- 30% of the value for receivables that are overdue from 6 months to less than 1 year;
- 50% of the value for receivables that are overdue from 1 year to less than 2 years;
- 70% of value for receivables that are overdue from 2 years to less than 3 years; 100% of value for receivables that are overdue for 3 years or more.

✓ For receivables that are not yet due for payment but the enterprise has collected shreds of evidence to determine that the economic organization has gone bankrupt, has opened bankruptcy proceedings, has absconded from the business location; the debtor is being prosecuted, detained, tried, or executed by law enforcement agencies, or is suffering from a serious illness (certified by the hospital) or is dead, or the debt has been requested to be executed by the enterprise but cannot be fulfilled because the debtor has fled from his or her residence; If the debt has been sued by the enterprise for debt collection but the settlement of the case is suspended, the enterprise will estimate by itself the level of irrecoverable loss (maximum equal to the value of the debt being monitored on the accounting books) to make provisions.

✓ The account used for provisioning is:

- Account 229: Provision for property loss
- Account 2293: Provision for bad debts
- Account structure 2293

Debit:

Refund of provision for bad debts

Clearing bad debts

Credit: Bad debts are included in the administrative expenses

Credit balance: Provision for bad debts available at the end of the period

✓ Prepare a quarterly report on the debt situation to re-evaluate debt collection as well as create a spreadsheet to make provision for bad debts by each supplier.

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IMPROVING THE QUALITY OF ACCOUNTING AND AUDITING SERVICES IN THE CONTEXT OF THE FOURTH INDUSTRIAL REVOLUTION

MAc Le Nguyen Nguyen Nguyen[1]

Abstract: *Currently, accounting and auditing services in Vietnam have constantly improved to assert the place in the national economy. The context of the Fourth Industrial Revolution (Industry 4.0), the roles of accounting and auditing activities have changed, which have an impact on the quality of accounting and auditing services in Vietnam. The aim of this article is to analyze and understand the current situation of accounting and auditing services in Viet Nam. It also indicates opportunities and challenges that this sector is facing in the context of Industry 4.0. Finally, the author also makes some suggestions with policy implications to improve the quality of accounting –and auditing services in the context of Industry 4.0.*

Keywords: *Industry 4.0, integratinon, quality of accounting auditing services.*

1. INTRODUCTION

The Industry 4.0 creates many opportunities for the accounting and auditing profession in Vietnam, but also poses many challenges, and there is a great competition among businesses providing accounting and auditing services. In which, some traditional job positions of the accounting and auditing profession will disappear. Applications of intelligent robots, artificial intelligence, machine learning, natural language processing, automatic data entry systems, data processing, etc. have gradually replaced accounting and auditing human resources…

Along with that, traditional techniques and methods have gradually been replaced by new techniques and methods to match the information technology infrastructure that enterprises use. Industry 4.0 requires accountants and auditors to control all those automated systems, they must understand which control procedures are already in place in the system? and which checkpoints are missing? which automatic process is not suitable for the actual operation at the enterprise that needs to be improved, which tricks are used in the system to transform and manipulate data in the system?...

The types of services in the field of accounting - auditing are increasingly diversified and in-depth, which have actively contributed to the mobilization and improvement of efficiency of all domestic and foreign resources for development investment, creating a favorable environment for all economic sectors. On the other hand, the development of these types of services contributes to improving transparency in economic activities, contributing to ensuring the soundness and security of the national financial system. In the market mechanism with industry 4.0 and the liberalization of activities in the field of providing accounting and auditing services, the improvement of service quality as well as scaling up services is important and required.

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The development of accounting - auditing services has been carried out by many authors and published in many research works such as Hugh A.Adams (2005), Dinh Thi Thuy (2014), Tran Quoc Thinh (2005). 2014), Nguyen Thanh Trung (2014), Nguyen Thi Nguyet (2014)... assessed the status and quality of accounting and auditing services. The research works that have been done in the world as well as in Vietnam related to the article are quite few, the research is still general, small, the authors have approached in many different ways and research methods to evaluate the quality of accounting and auditing services.

So, with context in Vietnam, especially in the period of deep international integration with Industry 4.0, it is necessary and urgent to study the current situation and solutions to improve the quality of accounting and auditing services in Vietnam.

The content of the article consists of 3 parts: (1) The current situation of the quality of accounting and auditing services in Vietnam; (2) Opportunities and challenges in the quality of accounting and auditing services in Vietnam; (3) Solutions to improve the quality of accounting and auditing services in Vietnam.

2. LITERATURE REVIEW

Research by Master.Pham Thi My, University of Economics - Technology for Industries, with article "Some solutions to improve the quality of accounting and auditing services in Vietnam". The researches points out the limitation and proposes some solutions to improve the quality of accounting and auditing services On the State side, On the side of companies providing accounting and auditing services, To the Vietnam Association of Accountants and Auditors.

Research by Ph.d Le Thi Thanh Xuan, Master.Ly Nguyen Thu Ngoc (2021), Ho Chi Minh city open university, with article "an overview about the audit quality with the factor analysis approach". This paper examines the audit quality with the use of factor analysis method. Researches like this study is to examine the perceptions of auditors and stakeholders about quality factors in order to identify important elements of audit quality.

Research by Assoc.Prof.Dr. Phan Thanh Hai (7/2021), School of Economics, Duy Tan University with the article "Research overview on the influence of factors on audit prices and the relationship with audit service quality". This study helps to form theoretical research models and empirical studies to provide policy implications for managers at auditing firms, professional associations and state management agencies.

Research by Master. Pham Huy Hung (12/2021) Hanoi University of Natural Resources and Environment with the article "Factors affecting the audit quality of financial statements of independent auditing firms". The article studies the factors affecting the audit quality of financial statements of independent auditing firms. Through quantitative research methods and regression analysis, the author analyzes 205 survey samples from independent auditing firms in Ho Chi Minh City. Hanoi. The results show that there are 3 factors affecting the quality of financial statement audit, which are: sense of responsibility, independence and audit experience. From the above results, the article makes academic and practical management implications, contributing to improving the quality of audit activities of financial statements of independent auditing firms in the coming time.

Research by Master. Dinh Thi Thuy Lien, University of Economics and Industry with the article "Developing the Vietnamese accounting and auditing service market: Current situation and recommendations". The author analyzes the current situation and suggests some suggestions to improve the efficiency of the accounting and auditing service market in Vietnam.

Research by Master. Le Doan Minh Duc, Thu Dau Mot University with the article "Non-audit services and independence of Vietnam auditers". Through the research methods, the article finds out a type of bookkeeping services and tax consulting services that significantly diminishes the independence of the audit.

The two authors Shaban mohammadi and Ali mohammadi (2014) in the study "comparison between cloud-based accounting and traditional accounting model", pointed out the positive effects and risks that businesses have to face. faced when applying cloud computing in accounting work.

Research by Rapina (2014), Sacer & Oluie (2013) "quality of accounting information system" can be achieved if its components work properly and have quality.

Tran Thi Hang "Improving the quality of Vietnamese accounting training in the context of the industrial revolution 4.0", Science & Technology Magazine, Issue 46.2018. The industrial revolution 4.0 is having a strong impact on life, economics, society and has spread rapidly to many countries in the world, including Vietnam. It will create tremendous changes in life, economics, society, especially education - training. However, this is also a big challenge for training institutions in general and accounting training institutions in particular in the training of human resources to meet the new needs of the era. The paper focuses on the current situation of Vietnam accounting staff training and the impact of the 4.0 industrial revolution on the training of accounting personnel in Vietnam. Based on that, the paper proposes some recommendations to improve the quality of accounting training in Vietnam in the context of the industrial revolution 4.0.

Pham Duc Hieu "Accounting and auditing 4.0: Opportunities, challenges and the importance of human resources". Proceedings of the national conference on accounting and auditing (2019). The article is based on the debates of the practitioners. and accounting and auditing researchers on the opportunities, challenges and importance of people in the context of accounting and auditing 4.0. Since then, the writer expressed his personal opinion affirming that there is no mutual exclusion between intelligent robots and accounting and auditing professions.

Dang Van Thanh "Accounting process and banu accounting training in the impact of industrial revolution 4.0", Business and Technology Magazine Issue 03/2019. In Vietnam Context of overall , far and wide integration into regional and international economy with the participation in many free trade agreements, the active preparation for necessary foundations to approach the new technological achievements of the 4.0 industrial revolution (4.0 IR) will help Vietnam economy in general and the area of accounting and auditing in particular take an effective part in a series of global values and in the market of accounting and auditing services.

Cao Thi Cam Van, Lang Thi Minh Thao "Factors impact accounting in digital age of the industrial revolution 4.0", Journal of Science and Technology - Volume 46 (04-2020). World is turning into the digital era of the Fourth Industrial Revolution 4.0, with main content is about creating a new operational structure for the manufacturing industry by applying high-tech, artificial intelligence, cloud computing... Whereby, the whole process, including production, quality management, commodity consumption to payment, are handled through advanced software.

Research by Dr. Le Duc Thang, Ho Chi Minh City University of Technology, published in the financial magazine (2020) "Development of the accounting and auditing profession in Vietnam in the period of industrial revolution 4.0" presented opportunities, challenges as well as proposing solutions to improve the quality of accounting and auditing services under the impact of the industrial revolution 4.0.

Research by author Nguyen Thi Thanh Tham published in the financial journal (2021) "accounting - auditing and the industrial revolution 4.0" has presented a new trend for accounting and auditing services under the impact of the revolution. industrial network 4.0.

In general, there are many studies on the quality of accounting and auditing services. However, most of the previous research works of the authors were only general in nature and did not survey the current status of accounting and auditing services with specific detailed data. With different time contexts, especially in the era of industrial revolution 4.0, as well as differences in space and time of research. The author chooses the research topic "improving the quality of accounting - auditing services in the context of the integration of the industrial revolution 4.0" which is really necessary to understand and analyze the actual situation of service quality accounting – auditing Vietnam; opportunities and challenges in the quality of accounting and auditing services Vietnam is currently facing in the era of industrial revolution 4.0. From there, the author also makes some suggestions with policy implications to improve the quality of accounting and auditing services in Vietnam in the era of the industrial revolution 4.0.

3. THE CURRENT SITUATION OF THE QUALITY OF ACCOUNTING AND AUDITING SERVICES IN VIETNAM

3.1. The successes of accounting and auditing services in Vietnam

First, the numerical success of accounting and auditing services in Vietnam

An important event that marks the official arrival of the market of accounting - auditing services in our country, is the birth of the first two companies providing accounting - auditing services in Vietnam: Vietnam Auditing Company - VACO (now Deloitte Vietnam) and Auditing and Accounting Financial Consultancy Services Limited Company (AASC) – was established on May 13, 1991. Regarding the capacity to supply goods to the audit market, according to data released by the Ministry of Finance (2021), there are 191 auditing firms in the country, including 2 firms with 100% foreign capital; 9 firms with foreign investment and 180 firms with 100% domestic capital (small and medium enterprises). Regarding the capacity to supply goods to the audit market, according to data released by the Ministry of Finance (2019), there are 191 auditing firms in the country, including 2 firms with 100% foreign capital; 9 companies with foreign investment and 180 firms with 100% domestic capital (small and medium enterprises). The number of people with Vietnamese auditor certificates working in auditing firms is 3,784 people, an increase of 8.17%

compared to 2019 (2,083 people), including 2,160 Vietnamese and 27 foreigners. The number of practicing auditors (eligible to sign audit reports) is 2,037 people, accounting for about 40% of the total number of people who have been granted auditor certificates to date (5,080 people). This is a breakthrough of this service industry. It is shown in Table 1:

Table 1. Statistics on the number of enterprises and audit staff in 2021

Number of audit firms	191
Number of people with Vietnamese audit certificate working in an audit firm	3.784
Total number of people with auditor certificate	5.080

Source: Electronic information of the Ministry of Finance

Among accounting firms, auditors are allowed to audit at businesses by the Ministry of Finance, there are quite a few companies which is approved by the State Securities Commission to audit securities companies and companies listed on the stock market.

Second, success in terms of quality of accounting and auditing services in Vietnam

Currently, there are 4 companies with 100% foreign capital operating in Vietnam: KPMG, PWC, Grant Thornton, Ernst & Young with total revenue in 2021 of VND 6,482 billion, up 16% compared to the same period last year (According to statistics of the Ministry of Finance and VACPA, AASC) and nearly 10 Vietnamese auditing and financial consulting firms are recognized as members by major international auditing firms such as: Deloitte Vietnam, A&C, U&I, UHY, ACPA, ACA Group, AC&C, Vietauditor, DTL,... in which Ernst&Young Vietnam achieved the largest revenue of 960.7 billion VND in 2021 (According to statistics of the Ministry of Finance and VACPA, AASC), that shows the efforts of companies with quality accounting - auditing services as well as the wider market's acceptance of this type of service. The presence of these auditing firms in Vietnam has promoted the process of further competition among auditing firms, forcing all companies to constantly improve service quality. This makes an important contribution to promoting the development of the accounting and auditing service market in Vietnam, initially confirmed the position of Vietnamese auditing firms in the international arena.

3.2. The shortcomings of accounting and auditing services in Vietnam

Firstly, organizations that provide accounting and auditing services are still lacking and weak

The competitiveness of most accounting and auditing companies is weak. In addition to a few financial consulting audit firms that are members of international firms and are 100% foreign owned, most of the remaining companies have not met the quality requirements. Even the big auditing and consulting firms in our country have not kept up world-class expertise and service quality. The number of companies providing accounting and auditing services has increased rapidly, especially after implementing the Enterprise Law. However, the limitation of scale, including charter capital, has greatly affected the competitiveness of companies, especially Vietnamese companies. Among the audit service companies were accredited in 2021 in Vietnam, there are some companies with limited number of clients as shown in Table 2 as follows:

Table 2. Summary of companies with the number of audit clients

Company name	Customers number
Hanoi Auditing and Consulting Co., Ltd	17
Indochina Audit Co., Ltd	36

Source: Ministry of Finance and VACPA, AASA

The quality of accounting - auditing services is not controlled because of the price race, so it is not really uniform. According to the Vietnam Association of Certified Public Accountants (VACPA, as of 2021), there are currently 11,056 professional employees working in this field, in which the largest number of employees are Big 4 companies (accounting for 28.53% of the number of professional employees in the whole industry). However, the proportion of auditors practicing in Big 4 companies only accounts for about 14.27% of the number of auditors practicing in the whole industry. Of the 11,056 people who are professional staff, there are 2,083 people who have Vietnamese auditor certificates, including 2,056 Vietnamese and 27 foreigners. The number of qualified auditors to sign the audit report is 1,948 people.

In addition, the proportion of professional staff across the industry of some auditing firms is still very low, as shown in Table 3 as follows, according to information from VACPA.

Table 3. Summary of companies with the proportion of professional employees across the industry

Company name	Proportion of professional employees across the industry
Mazars Vietnam Co., Ltd	1.37%
Thang Long - TDK . Auditing and Valuation Co., Ltd	1.54%
Grant Thomton (Vietnam) Co., Ltd.	1.92%

Source: Ministry of Finance and VACPA, AASC

Secondly, the team of accountants and auditors is still weak and legal documents are not synchronized

The team of accounting experts is lacking in quantity and weak in quality, while staff training is almost exclusively concerned with a few large companies, in small companies, it is rarely mentioned due to the limitations of funding, time and good experts.

Although the number of certified auditors has increased in recent years. However, the current number of practicing auditors is still lacking when is compared to the demand because there are about 1,500 people with auditor certificates who are not registered to practice auditing.

The number of people with university degrees majoring in accounting and auditing is increasing. However, the quality of training is low. The reason is that schools are slow to innovate training programs and especially foreign language skills are still limited. The number of Vietnamese people who have ACCA international audit certificates is still limited, moreover, the number of ACCA members in Vietnam is still modest, only 800 people, and very low when is compared to Singapore

(8,000), Malaysia (11,000), Hong Kong (18,000), (summarized in Table 4). On the other hand, according to the Center for Forecasting Human Needs and Labor Market Information in Ho Chi Minh City, the demand for middle and high-level human resources in the financial sector in Vietnam will increase rapidly.

Table 4. Number of ACCA members

Number of ACCA members in Vietnam (person)	800
Number of ACCA members in Singapore (person)	8,000
Number of ACCA members in Malaysia (person)	11,000
Number of ACCA members in Hong Kong (person)	18,000

Source: ACCA, CPA Australia

Legal documents lack consistency, synchronization, incomplete accounting and auditing standards system, there is still a lack of necessary legal provisions to control the quality of accounting and auditing services.

Third, the types of accounting - auditing services are less diversified

The system of accounting and auditing services has been established for more than 25 years. Currently, there are 150 auditing firms, more than 120 accounting service firms and more than 5,000 accountants and auditors with practicing certificates (accounting for 2% of the total 196,000 accountants and auditors in the ASEAN region). However, the number of Vietnamese people who have ACCA international auditing certificates is still very limited, moreover the number of ACCA members in Vietnam is still very modest, only 800 people, very low when compared to the general demand of the market especially in the period of the current industrial revolution 4.0. The fact shows that the proportion of providing accounting and auditing services of financial statements is still quite high. Other types of services such as financial consulting services, tax consulting services are still low, especially for domestic enterprises, which is shown through the statistics on the ratio of revenue by type of service (Table 5) of Auditing companies are as follows:

Table 5. Ratio of revenue by service type of auditing firms

Revenue from financial statement audit services	39%
Revenue from financial statement review service	3%
Tax consulting service revenue	16.1%
Appraisal service revenue	2.1%
Revenue from other consulting services	14.9
Revenue from audit services of the settlement reports of completed projects	19.2%
Other service revenue	5.6%

Source: VACPA, 2021

On the other hand, companies providing accounting - auditing services are focusing on operating in some large markets such as Hanoi, Ho Chi Minh City, in other localities, although there are branches, they are not evenly distributed. Moreover, in the whole industry, almost the accounting - auditing service industry has not brought high profits.

In addition, the average performance when calculated by revenue/per professional employee of the auditing companies is not high, especially audit firms with small scale, lacking in quantity and quality of auditors.

4. OPPORTUNITIES AND CHALLENGES IN THE QUALITY OF ACCOUNTING AND AUDITING SERVICES IN VIETNAM

4.1. Opportunities in the quality of accounting and auditing services in Vietnam

Firstly, expand the market, improve labor productivity

The 4th Industrial Revolution can create fierce competition, but it is also an opportunity for financial and accounting organizations to constantly develop more professional financial and accounting services, contribute to the transparency of information, improve quality serving, meet the increasing demands of society.

According to the activity summary report in 2021 of the Accounting - Auditing Management and Supervision Department under the Ministry of Finance shows that, revenue in 2021 of the whole industry reached VND 7,783,915 million, an increase of 20.09% compared to 2020 (VND 6,481,767 million). The structure of 8 types of service revenue in these companies in 2021 all increased compared to 2020 (The highest increase was the revenue from asset valuation services, which increased by 53.52%; the lowest also increased by 8.35%, which was also the revenue from financial, accounting-audit training services).

In addition, the increase of newly established enterprises leads to an increasing number of clients of accounting-auditing firms every year. Specifically: in 2021 there were 52,598 enterprises, an increase of 8.58% compared to 2020. By type of enterprise, organizations or custumers that are limited liability companies still account for a high proportion (in 2020 it was 56.82%, in 2021 it was 54.77%). By form of ownership, state-owned enterprises still account for a small proportion (in 2020 it was 12.29%, in 2021 it was 12.47%), for the remaining two forms of ownership, each form accounts for over 42%. The number of people with Vietnamese auditor certificates working in auditing firms is 3,784 people, an increase of 8.17% compared to 2020 (2,083 people), including 2,160 Vietnamese and 27 foreigners. The number of practicing auditors (eligible to sign audit reports) is 2,037 people, accounting for about 40% of the total number of people who have been granted auditor certificates to date (5,080 people).

Second, the Vietnamese accounting and auditing system has basically followed the international accounting and auditing principles and standards and has been successful.

The Vietnam accounting system has been being fundamentally and comprehensively reformed and has been built on a basis of selectively approaching and integrating with international common principles and practices on accounting. Business accounting system, administrative accounting, the system of accounting standards, which was issued in 2006, has selected and presented quite basically the popular international accounting principles and standards to match the characteristics and development level of the Vietnamese economy. In addition, it has also conducted research and widely disseminated international accounting standards (IAS), international auditing standards (ISA), selected standards that are applicable in Vietnam and promote the drafting and publication of the Vietnamese Accounting Standards System (VAS). Up to now, the system of Vietnamese accounting standards has been promulgated by the Ministry of Finance in 5 phases. Besides that the Law on Independent Audit was issued in 2011, legal documents on independent audit were promulgated in 1994, on internal audit, it was in 1997, creating a premise for the birth and development of auditing organizations. Up to now, the State has issued a Decree on independent audit, regulations of the Ministry of Finance on internal audit regulations in state-owned enterprises. This is the legal basis to facilitate the development of the audit system in Vietnam. In addition, the Ministry of Finance has also issued 38 auditing standards to apply in independent audit activities and audit quality control.

Third, the extensive cooperation with international professional organizations

Vietnam has become the 130th member of the International Federation of Accountants (IFAC), which is a global organization of national accounting organizations. And Vietnam has also become the 7th member of the ASEAN Federation of Accountants (AFA). AFA, which is the professional organization of accountants and auditors in Southeast Asia, was established in March 1997 with the goal of: Promoting professional development of accounting – auditing; contributing to the creation and maintenance of a healthy business environment; establishing cooperative relations in the spirit of solidarity and mutual assistance between member organizations and accountants, auditors in the region; creating a forum to exchange information, express opinions and share professional experiences, develop association organizations, establish the position of accounting and auditing profession in ASEAN countries in the world.

4.2. Challenges in the quality of accounting and auditing services in Vietnam

Firstly, the team of certified accountants and auditors in the true sense and international standards is still too thin in quantity and limited in quality.

The country with more than 96 million people, accounting for more than 1/6 of the population of ASEAN countries, but the number of accountants and auditors with practicing certificates only accounts for about 2% (5,000 accountants-auditors) of the total. existing number of accountants and auditors of ASEAN countries. Obviously, this is a weakness in accounting and auditing human resources.

Meanwhile, the training program for certified accountants and auditors has not been developed and standardized. Exam organization and certification takes place sparsely (once a year). Professional titles, professional certificates have not been established and recognized according to international standards.

Whether Vietnamese accountants and auditors are qualified and recognized to practice abroad is still an unanswered question.

The size of Vietnamese auditing firms is small, audit experience has not been fostered, in-depth training, and many training activities have not been organized in the direction of integration. Therefore, the adaptation to the international audit environment is still limited.

Second, the soft skills of accountants and auditors are still weak

A survey by the recruitment organization Navigos Search shows that the demand for using international languages, teamwork ability, communication ability, critical thinking - problem solving is increasingly focused. However, according to a study by the Institute of Labor and Social Sciences, employees in the field of accounting and auditing who have been trained in Vietnam although they are rated as agile, creative and able to meet the needs of… but lack and weak soft skills (such as teamwork, foreign languages, critical thinking, creativity, technology compliance...), discipline compliance is not strict...

Third, the confidentiality of information is an important problem

There have been many recent incidents with companies, especially those that provide social networking services such as Facebook, Twitter; the personal information of users has been sold or leaked out which has seriously affects the privacy of users. Therefore, it is necessary to have regulations as well as measures to protect the software, hardware, data of enterprises and customers. This is a big risk that accountants need to be aware of and be prepared for when using new technologies.

5. PROPOSING FUNCTIONAL POLICY TO IMPROVE THE QUALITY OF ACCOUNTING AND AUDITING SERVICES IN VIETNAM

Legal Environment Solutions

It is necessary to study the content and revise the laws in line with the economic law - in particular, legal documents serve as the basis for assessments for services provided by auditing firms such as business law, accounting law, tax laws, etc. Promulgating legal documents to strongly transfer the management of practicing accounting and auditing from state agencies to professional organizations. Perfect the system of accounting and auditing standards, such as promulgating agricultural standards, reducing asset prices, financial reports in the inflation economy and laborers' welfare; The system of public accounting standards, supplementing the standards of Accountant - auditing is inadequate compared to the international accounting standards system.

Solutions on Business Environment

Regulations should be promulgated soon to enhance the publicity of the business environment in the Accountant - auditing field; set up the charge rates and charge brackets in each stage and the size of the auditing firms. To closely control the structure of services provided by auditing firms to customers, avoiding the spread of human resources, providing customers with contracts of failing to ensure quality, auditing firms that doesn't have enough competence. Develop criteria for assessing the ranking of auditing firms annually with a system of specific and appropriate criteria, publicity and transparency so that customers have all the information selected.

Strategic Solutions

In the coming time to meet the requirements of integration, the independent Accountant -audit sector in our country needs to pay attention to the effective implementation of strategies in which the top priority is the strategy of human resource development through Solutions such as: Promulgate the process of evaluating and granting practice certificates in conformity with international standards eliminate the inadequacies of current test conditions and procedures. Diversify forms of training auditing human resources in auditing firms, such as opening training centers, linking with universities in training and improving knowledge for learners in the time being study, even at work It is required to force the auditing firms set up funds for the purpose of training and researching technical equipment and new technologies in the course of providing services to customers. Elaborate and promulgate plans on salary reform and satisfactory income policy for people working in the auditing field.

Solutions on Quality Control Accountant - Audit

Should establish an Accountant - auditing quality audit agency under the management of VACPA and the State Securities Commission for auditing firms providing services to public companies. Regularly update the standards, sets of auditing criteria, improve the mechanisms for selection of auditing firms for external quality control. Establish regulations for self-assessment of quality through standardized forms of work by process, establishment of internal quality control boards at Accountant - audit firms.

Solutions for the Restructuring of Accountant - Auditing Firms

Conducting the merger of medium and small sized Accountant - auditing firms with weak competitiveness, charter capital and the auditor's human resources do not meet the requirements of the Law on Independent Auditing. Studying and allow the establishment of a private audit office in the future in line with the general rules relating to the organization of auditing operations in countries around the world. Improve the conditions for registration to become members of reputable international audit firms at different levels.

It is hoped that with some of the above mentioned solutions, the independent audit sector in Vietnam will gradually improve the quality and efficiency in providing services to customers, meet the expectation and belief of the society for auditing services in the context of integration into the international economy as deep as today.

In addition, intelligence and machines will have a huge impact on accounting, this is a development step of the world but also a challenge for accountants. Because in the future there will be a lot of work that machines will do instead of humans, data processing speed is done faster in larger volumes. Therefore, the role of accountants in the entire process of collecting, processing and providing accounting information has also been changed. However, in the near future, technology will not completely replace people, so the role of accountants needs to be raised to the level of checking, controlling and analyzing data and managing operations.

6. CONCLUSION

The Industrial Revolution 4.0 has been positively and deeply affecting all areas of human life in general as well as changing the environment and working conditions of accounting and auditing services in particular, many new problems in accounting and auditing arise without precedent associated with new economic models, posing challenges in both theory and practice, bringing many advantages. But it also poses many challenges in terms of labor, financial potential, and the ability to control data.

Under the influence of Industry 4.0, accounting and auditing service personnel are required to have high professional qualifications, good skills, and adapt to changes in technology and globalization. Therefore, the support of professional associations, enterprises as well as appropriate management policies of the State will contribute to improving the quality of human resources for accounting and auditing services in Vietnam as well as improving the long-term sustainable competitiveness of accounting and auditing service personnel in Vietnam today and in the future. Mr. Dang Van Thanh, Chairman of the Vietnam Association of Accountants and Auditors (VAA), said: "Problems such as application programming interfaces, seamless delivery or intelligent analysis will be common applications in product development activities, financial and banking services, especially products, services with high technology content of financial institutions, banking institutions. By applying electronic vouchers, instead of checking on paper and records, by general software, data processing, bookkeeping as well as allowing the implementation of audit methods in a computerized environment will simplify the document classification, handle each individual economic transaction, record different types of accounting books. At the same time, get closer to the international audit system".

For Vietnam, accounting - auditing services when entering the Industry 4.0 also have positive points, however, it is also found that the starting point of the accounting and auditing industry in Vietnam is still quite low. Therefore, researching and finding solutions to develop and enhance the position, quality of accounting and auditing services in our country in the Industry 4.0 is of great significance, and helps Vietnam take advantage of opportunities, overcome challenges, quickly catch up with the times for effective and sustainable development.

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HUMAN RESOURCE DEVELOPMENT IN ACCOUNTING FIELD IN THE PERIOD OF DIGITAL TECHNOLOGY IN ORDER TO DEVELOP PRIVATE ECONOMIC SECTOR

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Abstract: *The digital age is increasingly having a strong impact on many fields, including a significant impact on the human resources in Vietnam, in which accounting and auditing field are also greatly affected. In order to develop human resources for accounting and auditing field to meet the requirements in the renovation period, universities with specialized training courses in accounting and auditing need to comprehensively change their training programs and teaching methods to create quality human resources for accounting and auditing field. This paper will examine the impact of digital technology on accounting, then propose several suggestions to develop human resources for accounting and auditing field in the digital technology period towards the development of the private economic sector.*

Keywords: *Human resource development, digital technology.*

1. INTRODUCTION

Digital technology has been fundamentally changing all fields as well as having a strong impact on almost all areas of social life, in which the accounting industry is one of the industries strongly affected by the revolution. The reality shows that the benefits that digital technology brings to people working in the accounting industry is to help work in the industry not be limited by geographical distance. The achievements of digital technology are the driving force to help individuals, businesses and organizations operating in the field of accounting in countries and territories develop, grasp and promptly change to adapt to the new technology, improve labor productivity and work quality. Because of this change, many opportunities are opened for accounting personnel. In fact, digital transformation has fundamentally changed accounting practices in businesses around the world and in Vietnam, making accounting and auditing activities faster, more accurate, and more economical. and bring more value to society.

To meet the requirements of digital technology, the trend of accounting training must also change to adapt and catch up with the current integration trend. This also faces many challenges and is an issue that needs to be given top attention. Although Vietnam's accounting human resources are ready for economic integration, the quantity and quality of international standards is still an issue that needs to be improved. In fact, the team of accountants and auditors in Vietnam is not only small in quantity, but also weak in quality. Obviously, improving the quality of accounting training

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to create high-quality human resources to meet the requirements of the digital economy is an urgent requirement of our economy in the current period. Especially in the period of encouraging private economic development. In order to meet the integration requirements, the accounting training trend must also change to adapt and catch up with the current integration trend. The introduction of solutions to enhance skills related to digital technology for students majoring in accounting and auditing - the next force in the future is an extremely urgent need in current training in order to develop private economy.

2. RESEARCH METHODOLOGY

This paper applies qualitative research methods including synthesis, logical analysis, data collected from research journals around the world. From the point of view of dialectical materialism, the research team uses interpretation to speculate on inevitable consequences, uses comparison to make judgments, and then uses induction to draw conclusions and propose suggestions.

3. THE IMPACT OF DIGITAL TECHNOLOGY ON ACCOUNTING FIELD

The application of technology in the field of accounting has been changing the way of working. That change comes from the increased need to use software in accounting and related jobs of enterprises. Software engineering platforms possess various levels of functions and tasks that accountants value most, such as simple workflow optimization and minimization (Do Tat Thang, 2020). Based on the application of digital technology in the current socio-economic life in general and the accounting field in particular, it is possible to point out some of the fundamental impacts of digital technology in general and the achievements of the fourth industrial revolution in general and specifically for the field of accounting:

The impact on the state management on accounting

Over the years, the role and capacity of state management in accounting has gradually improved; the management and supervision of accounting activities continued to be promoted; the inspection and supervision of compliance with the law on accounting is carried out with appropriate and effective solutions. The apparatus of state management agencies in charge of accounting and auditing has been consolidated one step, creating a foundation for implementation. However, digital technology in general and the fourth industrial revolution will affect almost every aspect of accounting, including the accounting process of enterprises, so it requires management to keep up with the trend. The highest goal is to create favorable conditions for enterprises to develop. At the same time, it also requires professional qualifications and technology levels of officials and civil servants to catch up.

The impact on the development trend of the accounting service

Digital technology helps Vietnam's accounting sector to participate more effectively in the global value chain, in the financial services market, and positively contribute to the country's growth. According to Tran Thi Ngoc Anh (2019), technology in general and the fourth industrial revolution in particular can create fierce competition, but also an opportunity for financial and accounting institutions to constantly develop financial services, contributing to the publicity and transparency of information, improving service quality, and meeting the increasing requirements of the people. The fourth industrial revolution will also create great competition among accounting service providers. In this process, SMEs are at risk of reducing their market share because large enterprises have resources in technology to acquire customers as well as the competition of enterprises providing cross-border accounting and auditing services. However, this trend will also make the accounting services market more developed, more professional and stronger.

The impact on the accounting process

The digital economy and the fourth industrial revolution are increasingly influencing the accounting process. Thanks to information technology, accounting activities at enterprises have become more efficient, transparent and professional (Truong Thi Duc Giang, Nguyen Hai Ha, 2019). The application of the Internet of Things, storing and analyzing information on the basis of automation and artificial intelligence in accounting makes the collection, calculation and reporting of data simpler and faster. The process of applying artificial intelligence (AI), Big Data, Cloud Computing (iCloud), Internet of Things (ITs) will help solve complex problems without taking too much time. much time and cost. For example, with a cloud-based accounting and auditing system, business leaders can access the system and get reporting data about their businesses at any time. That data includes inventory, total revenue, and total costs. Moreover, this system also helps businesses save time in building workflows. Other studies also show that technology also helps to limit and eliminate confusion and minimize accounting errors (Do Tat Cuong, 2020).

Create opportunities to access convenient and cost-effective software

Recent studies in the world show that the fourth industrial revolution with the Internet of things, large-scale data storage, cloud computing, the development of artificial intelligence systems around the world will open good opportunities for the accounting and auditing fields to access convenient and cost-appropriate software, help effectively use resources, save time, human resources, and access accounting systems. international accounting. Smart systems and software will replace manual work, automate complex processes, support outsourced service trends, and reuse some other services internally. The development of an artificial intelligence system around the world will open opportunities for the accounting industry to access convenient accounting software at an appropriate cost. From there, effectively use resources, save time and human resources, and approach the international accounting system

The impact on accounting training activities

The international economic integration has been demanding that Vietnam develop highly professional accounting human resources capable of competing with labor from other countries in the region as well as the flow of human resources between countries. Along with the trend of international integration, the explosion of the fourth industrial revolution, achievements associated with artificial intelligence (AI), Big Data (Big Data), Internet of Things (ITs), Ledger (Blockchain), Cloud Computing (Icloud), etc. is expected to fundamentally change the way accounting is performed today by applying electronic vouchers, with software that aggregates and processes data automatically, bookkeeping as well as allowing the implementation of audit methods in a computerized environment. Thus, the traditional teaching methods need to change, the content of the program needs to be updated regularly.

4. OPPORTUNITIES FOR THE DEVELOPMENT OF ACCOUNTING FIELD IN VIETNAM IN THE DIGITAL TECHNOLOGY PERIOD TO PROMOTE PRIVATE ECONOMIC SECTOR DEVELOPMENT

Before the strong development of many new business models and the advancement of science and technology of the fourth industrial revolution, the state management of accounting faced many difficulties and challenges. The fourth industrial revolution is ushering in a new era - the era of digital technology, global connectivity, bringing development opportunities to all fields and professions, including the accounting field, creating a good premise for the economy in general and for the private sector in particular. This is the area that has the most impact, because when applying digital technology, accounting work is not limited by geographical distance. Then, if the necessary conditions are met, the accounting work can be performed at any location on a global scale. Digital technology facilitates the replacement of manual accounting tasks such as collecting, processing and providing information for business administration. However, artificial intelligence cannot replace humans in analyzing and finding causes in specific situations arising in business operations. However, the digital age is changing the environment and working conditions of accountants. The explosion of information technology along with the strong globalization process has a great impact on the development of many different fields including accounting.

With a new approach, using modern and smart technology will increase the efficiency of accounting many times compared to the traditional way. With a modern and intelligent accounting software system, it facilitates the use of more means of calculating, acquiring and processing information, social media, improving the way of working and the trend of using services. Outsourcing services, improving accounting labor productivity, etc.

The globalization encourages the free movement of money in the financial market, increases international linkage in the use of accounting outsourcing services, transfers professional skills as well as increasing increase the competitiveness of accounting human resources, creates a change in human resources in the accounting industry, attracts highly qualified human resources and modern information technology.

In the context of globalization, there will be new regulations on information disclosure, creating conditions for the innovation of thinking of accountants in enterprises about information collection, processing and provision, which requires accountants to have high professional qualifications and modern technology.

The fourth industrial revolution have created conditions for businesses, organizations and individuals operating in the field of accounting to be deeply aware of the need for and importance of applying modern techniques in accounting. At the same time, it is also required that they constantly study and research to improve their scientific and technological level and apply it to practice adapting to the conditions of new technology to improve accounting labor productivity and the quality of information collection, processing and provision for management.

In the era digital technology, with applications of Internet of Things, storing an extremely large amount of data and processing information quickly, opens up opportunities for the accounting field to access the use of current accounting software with great advantages and suitable cost. Since then, improving accounting labor productivity, effectively using resources, saving accounting time and human resources, and improving the quality of accounting services. The positive effects of the fourth industrial revolution and global integration help the private sector expand its scope of activities, help effectively use resources, save time and human resources in its operations. With the digital age, private businesses can collect information and data quickly and easily.

Digital age - achievements of the fourth industrial revolution facilitate the expansion of international relations in general and in the accounting field in particular, accountants can perform accounting jobs anywhere on a global scale.

Through the use of modern digital equipment, programs, and technology, accountants and auditors can easily collect information and data that were previously difficult to collect. The construction of large data centers makes data analysis and management in the field of accounting and auditing more and more advantageous. Besides, automation helps to eliminate confusion and minimize accounting and auditing errors.

Blockchain technology with the role of ledger is changing the operation of the field of accounting - auditing. Blockchain technology is changing the field of accounting - auditing by reducing costs in reconciliation and bookkeeping management. This technology also requires accuracy with respect to the ownership and history of assets. Blockchain technology will allow the use of cryptography and distributed messaging protocols to generate detailed accounting information according to accounting requirements. A single ledger records transactions between organizations, everyone with the right to participate can see the same information in real time, so blockchain can reduce errors and accounting fraud. When accountants and auditors perform transactions on the chain, all computers in the network will identify the user and check if the user has the right to transact, thereby improving safety and security of accounting information.

Changes in accounting storage methods: The Accounting Law of 2015 has regulations on electronic archiving, electronic documents and invoices to match the development of technology. According to Article 17 of the Law on Accounting, electronic vouchers must ensure confidentiality and data preservation, information in the process of use and storage must be managed and checked against any form of exploitation, infiltrate, copy, steal or use electronic documents in contravention of regulations. Electronic vouchers are managed like accounting documents in the original form in which they are created, sent or received, but must be equipped with suitable equipment for use. However, these regulations mainly respond to the current technology platform. Meanwhile, with the fourth industrial revolution, cloud computing technology, blockchain technology and big data help information to be stored in large volumes systematically and scientifically. This technology helps the ability to process large amounts of data in the best possible way.

In the fourth industrial revolution, accounting software is more developed and improved, not only providing time-saving solutions for bookkeeping, but also ensuring high accuracy. Online accounting software is one of the best software of the fourth industrial revolution. It is the perfect combination between the power of information technology, website programming and financial - accounting - management system. Recent studies in the world show that the fourth industrial revolution with the Internet of things, large-scale data storage, cloud computing, the development of artificial intelligence systems around the world will open up good opportunities for the accounting-auditing field to access convenient, cost-effective software, help effectively use resources, save time, human resources, access the international accounting - auditing system.

Technology will change the role of accountants and auditors in professional activities. Instead of focusing too much on traditional expertise, they will turn to focus on data analysis for business decision-making instead of focusing on ensuring the authenticity and conformity of the data with accounting standards for transactions in enterprises. According to Do Tat Cuong (2020), accountants and auditors have a new role as consultants with unique skills in classifying and processing data for the decision-making process of business leaders. Processing and analyzing financial figures of accountants and auditors helps business leaders understand more deeply the business's operations, which helps them determine which stages and areas of the business will have to improvements to increase efficiency, reduce costs and better manage risk.

The change of organizational model of accounting and auditing firms in Vietnam: Under the influence of development trends of regional and international accounting and auditing firms, meeting the new needs of enterprises In industries when applying technology, the organizational model of Vietnam's accounting and auditing firms also needs to be changed. Many enterprises in Vietnam have begun to change their organizational model to apply blockchain, big data and artificial intelligence technologies to reduce costs and maximize the effective use of resources that accounting and auditing firms must consider and change their organizational model. However, such a change in organizational model is unprecedented and accounting and auditing firms also need to learn and gather new knowledge about organizational models which applies these new technologies.

Besides the opportunities, accounting in the digital age also has certain difficulties, which can be listed as:

- The fundamental infrastructure for digital transformation in accounting is only limited to a few businesses, the products are still traditional, and there is a lack of breakthrough products that make changes in performing accounting work in the units. There are not many platforms that support digital transformation at a reasonable price so that small and medium enterprises can apply it at an appropriate cost.
- Human resources in accounting and auditing with quality suitable to the requirements of comprehensive digital transformation in accounting work are little. The transition in training of training institutions has been slower than expected. The quality of accounting - auditing human resources has not met the demand. Many people think that although Vietnam's accounting and auditing human resources are ready for economic integration, the quantity and quality of international standards is still an issue that needs to be improved.

5. SUGGESTIONS THE HUMAN RESOURCE DEVELOPMENT IN ACCOUNTING FIELD IN THE PERIOD OF DIGITAL TECHNOLOGY IN ORDER TO DEVELOP PRIVATE ECONOMIC SECTOR

Developing human resources in accounting field in the digital age is taking place strongly on a global scale to develop the private economy, some recommendations below are proposed:

5.1. Regarding the State

With the function of comprehensive management of the national economy, the Government needs to perform the following issues:

Firstly, continue to improve and synchronize the accounting legal system, focus on implementing the IFRS application scheme according to the roadmap approved by the Ministry of Finance, improving the VAS system in line with international practices, quickly promulgate a system of public accounting standards.

Secondly, strengthen, renew and improve the efficiency of activities of monitoring and checking the compliance with the law on accounting of enterprises and units of all economic sectors in order to promptly detect violations.

Thirdly, there should be adequate investment for the development of information technology infrastructure in a synchronous and timely manner, meeting the trend of digital technology development in the era of the Fourth Industrial Revolution, especially in building a network security system, protecting the safety of information, financial and accounting data.

Fourthly, review to develop preferential policies, support businesses in training and fostering high-quality accounting human resources, training accounting personnel with high information technology skills, capable of fulfilling the demanding requirements of digital technology. In particular, strengthen policies to support the private economy to apply scientific technology to production to increase production value, improve competitiveness, and promote the development of the private economy.

Fifthly, developing and diversifying types of accounting - auditing services, improving service quality of accounting and auditing service enterprises, innovating the inspection and examination process for the accountants.

Sixthly, to promote international cooperation, strengthen the development of the market of accounting and auditing services, and develop and diversify accounting and auditing service activities in line with regional and international countries in the current period.

5.2. Regarding training institutions

In recent years, economic and accounting training institutions have made positive changes in training high-quality human resources in accounting field. However, in the reality, many graduates do not meet the requirements of employers. Therefore, in the coming time, it is necessary to continue to innovate training contents, programs and methods on the basis of close cooperation with businesses to enhance practical knowledge and knowledge of informatics and technology, enabling students to quickly access the accounting process in the context of modern technology application brought by the Fourth Industrial Revolution.

In addition, an indispensable means to help current and future accountants and auditors reach far beyond their scope of activities is the international language. Particularly for the field of accounting - auditing, language brings added value, not only in communication language but also in international professional knowledge. Therefore, in addition to professional and professional training, training institutions also need to strengthen training in foreign languages, technology and soft skills, etc.

5.3. Regarding businesses

Enterprises need to be deeply aware, renew their thinking before the requirements of regional and international integration in the field of accounting; comply with the principles and regulations promulgated by the State in the field of finance and accounting; closely coordinate with professional associations and training institutions in the training and retraining of the accounting staff in order to improve the quality of the accounting team in terms of both expertise, professional ethics and information technology level; mobilize financial resources for investment in information technology infrastructure and high-quality accounting human resources to meet new requirements towards private economic development.

Focus on training highly qualified accounting human resources and understanding new technologies. Accordingly, in order to keep up with the trend of the times, businesses still need to build a process to gradually train and build human resources strong enough to respond to changes in technology in the future. A team of professional accountants can check the information automatically given by the computer as well as determine the accuracy of that information, which is a necessary condition for businesses in the new context of private economic development promotion.

5.4. For accountants

The digital era is bringing many new opportunities and new challenges to individuals and organizations operating in the field of accounting and auditing. For individuals, who have been and will be working in the field of accounting - auditing, there are two highlights in the digital era that each person must be aware of to change, which is technology ability and ability to make judgments, additionally, a core factor besides professional competence is professional ethics.

When every job can be handled by technology, professional ethics becomes more necessary than ever, so that it is possible to build and determine the true image of a business. Only accountants with professional ethics and respect for the truth are able to create true value for shareholders so that shareholders continue to invest in businesses. Only auditors with professional ethics can help investors determine the direction of less risk and more opportunity, helping to protect the legitimate interests of the public.

To effectively take advantage of opportunities in the digital age, it is first necessary for each accountant - auditor to understand the basic principles for all conduct in the professional field, to know whether such behavior is correct or not. standards and principles set forth and must understand the most basic knowledge, then can progress to higher level knowledge in the process of becoming professional accountants - auditors.

To do this, those who work in the field of accounting - auditing must have a clear understanding of the fundamental professional knowledge, gain experience, and regularly update changes. In addition, it is necessary to maintain professional ethics and put the public interest above self-interest. This will contribute to the formation and development of professional skills and professional ethics, experience and vision for accountants and auditors.

Moreover, the field of accounting - management accounting is also playing an increasingly important role in the new trend, helping businesses regulate business activities in the present and in the future. Therefore, at a basic level, accounting work can be automated, businesses also need people to check, analyze, and even make assessments for current and future financial situations. Depending on the level, the employer pays their employees.

An accountant - auditor who knows how to seize opportunities is someone who not only fosters his professional skills, can use technology for his work, has a vision, and has a professional ethic but also creative, sensible and intelligent.

At this time, each current and future accountant - auditor needs to train themselves on how to use artificial intelligence (using technology) for his or her work from as simple as applying excel functions to accounting software, management software, analysis, etc. and ways to secure information for businesses and their customers, thereby exploiting the customer market thoroughly. In addition, fostering knowledge and applying the ability to see problems of management accounting in enterprises, besides the current trend of financial accounting. This is the area that helps increase investment benefits for businesses.

In addition, an indispensable tool to help current and future accountants and auditors reach far beyond their scope of activities is the international language. Particularly for the field of accounting and auditing, the added benefit of language is not only communication language but also international expertise.

6. CONCLUSION

The digital age are bringing a global market for businesses operating in the field of accounting and auditing, especially those operating in the field of accounting and auditing. Vietnam's accounting-auditing field needs to make more efforts to take advantage of opportunities and overcome challenges in the process of integration that has been taking place more and more deeply. We hope that some of the suggestions in this article can contribute to changing awareness and actions to contribute to the development of the accounting field in Vietnam to promote the development of the private economic sector in the new era.

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SOCIAL RESPONSIBILITY ACCOUNTING OF STEEL COMPANIES LISTED ON THE VIETNAM STOCK MARKET – SITUATION AND POLICY RECOMMENDATION

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Abstract: *This paper examines the current situation of social responsibility accounting in steel companies listed on the Vietnam stock exchange. The study identifies three limitations of social responsibility accounting in these companies: (i) only some big companies provide sustainable development reports; (ii) lack of detailed information about environmental compliances, labour welfare, and community supporting activity; (iii) lack of measurable indicators. The paper makes some policy recommendations for improving social responsibility accounting in the listed steel companies in Vietnam based on these above assessments. The most important consideration is to build a cost classification system for emissions. Moreover, completing the indicators for measuring social impact efficiency and reinforcing reporting compliances can enhance the implementation of social responsibility accounting in the listed steel companies in Vietnam.*

Keywords: *Social responsibility accounting, listed steel companies, stock exchange, Vietnam.*

1. INTRODUCTION

The importance of the steel industry to global economic development is significant since steel is an essential commodity for many other industries, including construction, automobile, machinery, electricity, and others. However, the steel manufacturing process is energy-intensive and causes pollution. This industry has had profound side effects on the environment and human life. Steel corporations are criticized for environmental emergencies. For example, the Environment America Research & Policy Center reported that A.K. Steel Holding Corp. facility released more than 24.3 million pounds of chemicals into the Ohio River, the most of any one facility in the U.S. in 2010[2]. The company had to pay 1.2 billion USD for the environmental damage. In China, the leading steel-producing country with 928.3 million tons in 2018, the steel sector emits about 1.8 billion tons of carbon annually, accounting for about 15% of the total national emissions[3]. Steel companies are mainly responsible for air pollution, so the Chinese government has pledged to cut the crude steel output and strictly regulate steel makers who violate atmospheric environment rules.[4]

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[2] https://www.bizjournals.com/cincinnati/news/2012/04/11/report-ak-steel-among-top-waterway.html

[3] https://www.theworldcounts.com/challenges/planet-earth/mining/environmental-impact-of-steel-production

[4] https://asia.nikkei.com/Spotlight/Caixin/China-s-steelmakers-get-5-more-years-to-reach-peak-carbon-output

The intense climate commitments of COP26 require strategic action plans for all companies, especially in industries with high emissions as steelmakers. The responsible investment attitude of investors put heavy pressure on corporations today to hold themselves accountable to their stakeholders and actively contribute to the development of the community, human life, and environmental protection. Climate risks, pandemics, and uncertainties reshape the business landscape and public expectations on companies. Companies must address ESG issues concretely and transparently to survive and compete successfully.

At the COP26 climate conference in November 2021, the International Financial Reporting Standard (IFRS) Foundation announced the formation of the International Sustainability Standard Board (ISSB), which is expected to set sustainability standards focusing on shareholders and industry-specific. There are three significant ESG standards and frameworks: GRI, TCFD, and SASB. Each standard system has requirements for sustainable reporting. However, complying with these standards makes companies trustworthy and accountable in stakeholders' perception, which is crucial in the global flow of information and digital transformation.

Disclosure of sustainable information is compulsory for public companies in many developed countries. Companies in developed countries face intense pressure from primary and secondary stakeholders; therefore, Social Responsibility Accounting (SRA) has been implemented widely and thoroughly. Deegan (2019) indicated that companies listed on the U.S. stock exchange must complete the social responsibility report and make the document available to the public. Similarly, European corporations prepare and publish social responsibility reports following different professional standards and guidelines. On the other hand, social responsibility accounting seems to catch less attention in developing countries, even in China and India, the two most influential emerging economies.

In Vietnam, up to now, there is no compulsory regulation on SRA implementation and reporting of social responsibility. Circular 155/2015/ Ministry of Finance requires the listed companies to provide public sustainable development reports. The sustainable development report requires each company to clarify six aspects: (1) Material management; (2) Energy and Water Consumption; (3) Environmental regulations compliances; (4) Employee policies; (5) Community responsibility; (6) green capital market. However, the number of listed companies preparing and submitting a comprehensive sustainable report is minimal after Circular 155 took effect in 2016. For steel makers, only big corporations such as Hoa Phat Group or Hoa Sen Group provide details on ESG in the sustainable development reports. This situation shows the limitation of implementing SRA in steel companies in Vietnam.

In this paper, we address how to enhance the implementation of SRA in steel companies in Vietnam. We examine the current situation of SRA in the steel companies listed on the stock exchange to identify the reasons for limitations. From that, we make some recommendations for improving SRA implementation in the steel industry of Vietnam. The paper consists of five sections. We start with an Introduction, review previous studies on SRA, explain the data and methodology, discuss the results, and make implications for steel makers and government agencies.

2. LITERATURE REVIEW

Corporate responsibility was defined as a set of economic issues, legislation, ethics, and others that society expects on corporates at a particular time (Carroll, 1979). The pyramid of corporate responsibility consists of four layers. The floor is the economic responsibility, which makes profits and acts as a base for other responsibilities. Three up layers are legal responsibility, ethical business responsibility, and charity responsibility. According to the Word Business Council for Sustainable Development, corporate responsibility refers to the corporate commitments to sustainable development through complying with standards of environmental protection, gender equality, labour safety, income fair, employee policies and community development, and product quality assurance. In summary, corporate responsibility is a broad concept with multiple aspects, reflecting the expectation of society for corporates, and illustrating responsibility to the environment, employees, and local community. A broader definition mentions all a corporation's primary and secondary stakeholders, who require corporates to show accountability and transparency in business.

Sajd Gholami et al (2012) indicated that corporates need to care about social responsibility because violating business ethics can significantly impact business efficiency. The concept of SRA emerged in the 1970s when the environmental emergencies caused by big corporations caught the public's attention. The companies were required not only to report their business activities but also to estimate environmental damage. The Green Book of the U.K. (1977) defined SRA as the accounting reports separate items related to anti-pollution, safety measures and health protection. Anderson (1977) defined SRA as the management tool assisting the establishment of an organization's goals by considering the demand of the company and the public expectation. SRA provides necessary information for managers to make the right management decisions, a comprehensive picture of the performance besides the financial metrics, and shows the sustainable responsibility to the stakeholders. Tilt (2009) expressed the impacts of non-financial information about the society, the environment, and economics in the concept of SRA.

SRA has been a hot topic since the 1990s, when unethical and immoral behavior dominated the business landscape. Decision-makers have faced immense pressure to balance corporate goals and personal ethics (Alam, 1991). Recently, SRA has become growing concerned when ethical abuse scandals and environmental emergencies increase. The study of Samkin and Wingard (2020) found differences in implementing SRA between companies in developed and developing countries. SRA in developing countries does not receive close attention. In Vietnam, Nguyen and Truong (2016) indicated that a limit in the perception of corporate responsibility led to low adoption. The managers of 56% douted about the benefit of corporate responsibility information. Vu and Buranatrakul (2018) reported that large and profitable firms have better corporate responsibility disclosure information. The findings support the legitimacy theory. Alternatively, the government needs to issue regulations to facilitate companies' engagement in SRA implementation. Using the primary data, Nguyen et al (2022) identify factors affecting SRA in listed companies on the Vietnam Stock Exchange. The authors indicated five factors: legal regulation pressure, accountant's qualification, firm characteristics, managers' perception and demand for corporate responsibility disclosure. Similar to the study of Vu and Buranatrakul (2018), legal regulation is essential to improve SRA implementation in Vietnam. However, up to now, corporate responsibility information disclosure is encouraged for listed companies but not compulsory. Therefore, the number of listed companies that report such information is spare.

The situation is changing in Vietnam when human awareness of environmental impacts is increasing. Climate disasters in developing countries call for the actions of corporations. The social role of corporations becomes increasingly important to investors' decisions. Another reason comes from the climate commitments of the Vietnam government. Cutting emissions requires the government to conduct strict regulations on pollutant emissions, especially CO2 and nitrate substances. Therefore, a study on SCA in the steel industry is necessary. Nga (2017) examines the situation of environmental management accounting in steel manufacturing companies. In Vietnam, after the Formosa environmental profound damage, steel producers' activities are supervised strictly and closely by the government bodies, society, and investors. Nga (2017) used the primary data from steelmakers to identify the factors affecting EMA in steel companies. Similar to previous studies on SRA in Vietnam, environment cost classification, manager perception, and outside forces significantly impact EMA in steel manufacturing companies.

This paper examines SRA implementation in the steel companies listed on the Vietnam stock exchange. Our study is different from previous studies in two points. First, we use the secondary data and content analysis to access the SCA. Second, we combine qualitative evaluation with financial metrics and market power to identify the reasons for limitations in the SRA of the listed steel companies.

3. DATA AND METHODOLOGY

We use annual reports to collect information about the SRA of the listed steel companies. There are ten listed companies in our sample, shown in Table 1. The study period is from 2016 to 2021. We choose 2016 as the beginning year because Decree 155/2015 has been in force since 2016. The dispersion in contributed capital and business performance of the companies in the sample exists. The leading steel producer is Hoa Phat Group (Stock Code: HPG). The company made approximately 150 trillion VND in revenue in 2021, triple the figure of the second leading company – Hoa Sen Group (Stock Code HSG). There are eight steel manufacturing companies and two trading companies (Stock Code: KKC and TLH). It could be seen that steelmakers have enormous capital and higher business results than trading companies. Italy Steel JSC is the only steel company with a loss in 2021. The stock code VIS is delisted since 22/04/2022. However, this paper examines the SRA implementation of the listed steel companies from 2016 to 2021, and we keep VIS in the sample.

Table 1. The sample of the study

Stock code	Trading name	Listed year	Contributed Capital (billion VND)	Revenue (billion VND)	Net Income (billion VND)
DTL	Dai Thien Loc Corporation	2010	614	1,381	56
HPG	Hoa Phat Group	2007	44,729	149,680	34,521
HSG	Hoa Sen Group	2008	4,935	48,727	4,313

Stock code	Trading name	Listed year	Contributed Capital (billion VND)	Revenue (billion VND)	Net Income (billion VND)
KKC	Thanh Thai Group JSC	2008	52	350	6
NKG	Nam Kim Steel JSC	2011	2,184	28,173	2,225
POM	Pomina Steel Corporation	2010	2,797	14,000	183
TLH	Tien Len Steel JSC	2010	1,021	4,645	456
VCA	Vicasa-VnSteel	2010	240	2,613	36
VGS	Vietnam Germany Steel Pipe JSC	2008	421	6,684	129
VIS	Italy Steel JSC	2006	738	5,821	-132

Source: Author's collection

Information from the annual reports is assessed in the following criteria:

(i) The presence of information: Based on the instruction of Decree 155/2015/Ministry of Finance, the information about SRA has been evaluated on six factors: (1) Material management; (2) Energy and Water Consumption; (3) Environmental regulations compliances; (4) Employee policies; (5) Community responsibility; (6) green capital market.

(ii) The degree of detail: The company provides general information about the six above factors or specific information about each component in the six above factors.

(iii) Qualitative or quantitative information: The company provides a verbal description of each above factor or quantitative metric.

(iv) The strategic development goals consist sustainable development.

(v) Environmental and Labor risk assessment.

(vi) Business Process Improvement.

(vii) Research and Development activities.

4. RESULTS AND DISCUSSION

4.1. Current situation of SRA in the steel companies listed on the Vietnam stock exchange

Among the ten listed steel companies, only Hoa Phat Group and Hoa Sen Group provided sustainable development part in the annual reports in 2016. Dai Thien Loc Group and Nam Kim Group do not have separate part for sustainable development; instead, they combine information about the six above factors into the business performance part and corporate governance part. Dai Thien Loc Group presents detailed quantitative information about employee policy and general quantitative information about material recycling, energy and water consumption, and community responsibility. No company provides information about green capital.

Six companies do not provide information about the environment, labor policy, or community-supporting activities. They only mention sustainable development in the strategic goals. Alternatively, these companies do not pay enough attention to sustainable development. The implementation of SRA in such companies seems to be weak.

The following table clarifies the SRA of the listed steel companies:

Table 2. SRA implementation in the listed steel companies in Vietnam

Stock Code	Material Management	Energy & Water Consumption	Environmental regulation compliance	Employee Policy	Community Responsibility
HPG	Detail, Quantitative, R&D report	Detail, Quantitative for Energy saving, Wastewater reuse, Emissions	Strong compliance. Apply environmental standard	Detail, Quantitative, Specific metrics	Detail, Quantitative, and monetary metrics
HSG	Detail, qualitative	Detail, Qualitative	Detail, Qualitative	Detail, Quantitative, Specific metrics	Detail, Quantitative, monetary metrics
DTL	Detail, quantitative	Detail, quantitative	General	Detail, Quantitative, Specific metrics	Detail, Quantitative, monetary metrics
NKG	No information	Detail, quantitative	General	Detail, Quantitative, Specific metrics	Qualitative, General
KKC	No information	General quantitative	General	Detail, Quantitative	No information
POM	No information	No information	No information	No information	No information
TLH	No information	No information	No information	No information	No information
VCA	No information	No information	No information	No information	No information
VGS	No information	No information	No information	No information	No information
VIS	No information	No information	No information	No information	No information

Source: Author's synthesis from annual reports

The situation is changing recently when the State Securities Commission of Vietnam promotes ESG reporting, and responsibile investment has became popular. Hoa Sen Group follows the GRI framework when reporting the sustainable development part in 2018. Nam Kim Group follows GRI-G4 in reporting sustainable development. In 2020 and 2021, except for Pomina Steel Corporation, 9/10 companies submitted the annual reports with a sustainable development part, following the instructions of the State Securities Commission. Although the sustainable development part is an encouraging report, 90% of the companies present it in the annual report. Even though the information quality varies by company, this situation expresses that the listed steel companies are improving the implementation of SRA. The detailed, quantitative information shows the intense effort of management accounting in recording and reflecting cost and economic benefits related to social responsibility activities.

Hoa Phat Group is a typical sustainable development company. From 2016 to 20201, the company consistently reported detailed, quantitative information about 5/6 aspects of sustainable development (except green capital). The most notable difference of HPG compared to other companies is that HPG establishes specific sustainable development goals for each year. Other companies tend to report generally with few adjustments. The following table shows the road map to be leading sustainable steel maker of Hoa Phat Group:

Table 3. SRA implementation of Hoa Phat Group from 2016 to 2021

Year	Reporting activities
2016	R&D priority to; 5S practices in manufacture; Modern technology to save energy, materials; Water circulation; wastewater reuse; Establish a promotion system for the whole group; Diverse supporting programs for society; Agriculture investment
2017	Establish R&D Department, an independent body; Focus on the development of innovative products which other Vietnam steel makers cannot produce; Modernize manufacturing technology; business process improvement; Quality management in production and operations; Focus on material circulation; Waste management and water saving; Wastewater reuse; Electricity saving
2018	Identify six pillars of sustainable development strategy; R&D to save hundreds of billions VND; Innovative production organization, scrap management, reduce material rate, promote labor productivity; Complete ISO system, material management software, scan electric invoices; Receive ISO 14001:2015 environmental management system certificate; Meet agricultural environment standards; Diverse community activities.

Year	Reporting activities
2019	Focus on the circular economy; The close and circular production process to reduce consumption of raw materials, energy and water; Product innovation; Focus on product ecosystem; Methodical and detailed information activities.
2020	Green steel production; Digital transformation; Automatic quality analysis and assessment; Detailed quantitative information about cost items.
2021	Emission reduction; Green steel production; Digital transformation New product development.

Source: Author's synthesis from annual reports

4.2. Assessment

The above analysis shows the lack of implementation of SRA in the listed steel companies in Vietnam. Even though the steel industry in Vietnam is one of the most pollutant-making industries, steel makers do not care enough about the urgency of sustainable development goals. In 2016, after Decree 155/2015/ Ministry of Finance took effect, only two leading groups, Hoa Phat Group and Hoa Sen Group presented the sustainable development part in the annual reports. On the other hand, small companies or trading companies do not have a severe manner about this requirement. They consider sustainable development reporting as an optional part. Hence, they focus intensely on financial accounting information such as financial statements and notes. In three years recently, there has been a significant change in the sustainable development reporting of the listed steel companies. 9/10 companies have a separate part for ESG reporting (only Pomina Steel JSC does not provide any information). 4/10 companies follow the GRI framework when presenting the sustainable development part. Other companies report detailed material management, energy and water management, employee policy, and community support programs. All the companies strictly comply with the government regulations on the environment. All the companies report the community supporting programs in detail and estimate the total money for society.

Hoa Phat Group is the only company in 10 companies establishing annual sustainable development and considering sustainable development goals a backbone of the group's survival. The company puts strong efforts into R&D, modernizing production technology, and innovative products with excellent quality. The company shows high competence in cost management when providing detailed information about material rate reduction for each kind of product and the total cost saving. SRA has been adjusted annually under the strategic development goals of the companies. Since 2019, when the climate risk has become alarming globally, the company has established new sustainable development goals focusing on green steelmaking and emission reduction. The company also accelerates digital transformation and digital quality management. These adjustments make SRA in Hoa Phat Group easier and more comprehensive.

However, we can not deny the truth that most steel companies do not pay enough attention to SRA implementation. Financial accounting seems to be more critical than SRA in most companies. The steel companies tend to underestimate the necessity and meaning of ESG information because financial information such as net profit or EPS impacts stock price directly. Another reason is the trade-off between recording and presenting and the benefits. The costs are short-term while getting economic benefits takes a long time. That is why only big companies with substantial market power and financial capacity present sustainable development part wholly and carefully. Other small ones provide basic general information with no monetary estimation.

Moreover, the government has no favourable mechanism for small private companies reporting ESG information. Legislation regulation is not strong enough to motivate the responsibility of the companies. Thus, they just provide qualitative information to show their compliance with regulations, not their willingness to be accountable and transparent to the public.

Another issue is about the green capital information. According to Circular 155/2015, the company is encouraged to report activities on the green capital market. However, no listed steel company reports these activities. Even though Hoa Phat Group emphasizes green steel production and a circular economy, the company does not have any activities related to green financing and capital.

5. POLICY RECOMMENDATION

SRA implementation is crucial for not only steel makers but also all the companies in the era of climate change and uncertainties. The digital technology explosion allows the public to supervise business activities easily. Ethical business, accountability and social responsibility are getting more critical than before. This tendency requires each company to report in detail on their environment impacts, labour policies, and governance. Based on the above analysis and assessment, we make the following policy recommendation to promote SRA implementation in the listed steel companies:

First, increasing awareness of the importance of ESG information and SRA in the listed steel companies. The top managers of each company must understand that social responsibility is compulsory for the company's sustainable development. Responsible investors have already changed their behaviour. Rational investors take care of the social contribution of the companies instead of high returns on a portfolio with high emissions and climate damage. Business schools need to lecture on ethical business and ESG requirements. Peer pressure is another way to educate top managers about the importance of SRA.

Second, the Ministry of Finance and the Ministry of Natural Resources and Environment must collaborate to establish the standard costing system for environmental items. According to the study by Nga (2017), steel companies got difficulties in environmental cost classification, recording costs, planning environmental costs, and evaluating environmental efficiency. Therefore, the most crucial consideration is to build the cost classification system for the environment. It is necessary to allow each company to establish a separate account for environment related activities. Additionally, allowing the manufacturing company separate environmental costs from overheads. The companies should trace the environmental costs based on the emissions flows, both in value and physical form. The government needs to give specific favours to the companies with good practices in SRA.

Third, State Securities Commission needs to accelerate the development of the green finance market, especially green bonds. The steel industry plays a vital role in the economic development of Vietam to be an industrial country with high income in 2045. However, Vietnam has to finish the net zero commitment by 2030. Therefore, greening the steel industry is one way to deal with this situation. SSC and the Ministry of Natural Resources and Environment should release green label standards for investment projects, and support leading steelmakers such as Hoa Phat Group in green bond issuance.

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FINISHING ADMINISTRATIVE ACCOUNTING AS REQUIREMENTS OF VIETNAM PUBLIC ACCOUNTING STANDARDS IN THE FIRST PHASE

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Abstract: *This article aims to summarize, analyze and explain the main contents of the public accounting standards in Vietnam issued in the first phase in 2021. The analysis of the main contents of administrative accounting is guided by Circular 107/2017/TT-BTC, thereby showing the similarities and dissimilarities between the current administrative accounting issued in 2017 and public accounting standards promulgated in the first phase, issued in 2021, points out key issues that need to be improved, and recommends major solutions to amend administrative accounting to conform to Vietnam's public accounting standards.*

Keyword: *Vietnamese public accounting standards, Administrative accounting.*

1. NEW CONTENT OF CURRENT PUBLIC ACCOUNTING STANDARDS AND PROBLEMS FOR ADMINISTRATIVE ACCOUNTING

The study and application of international public accounting standards in Vietnam began in 2005, the Vietnamese government clearly saw the need to study and issue Vietnam Public Accounting Standards. After a period of research, survey, and study of international experience fully and thoroughly, on September 1, 2021, the Ministry of Finance of Vietnam issued Decision 1676/QD-BTC on the publication of 5 public accounting standards phase 1. Public accounting standards issued in the first phase include: Vietnamese Public Accounting Standard No. 01 "Presentation of financial statements"; Vietnamese Public Accounting Standard No. 02 "Statement of Cash Flows"; Vietnamese Public Accounting Standard No. 12 "Inventories" (Appendix 03); Vietnam Public Accounting Standard No. 17 "Real Estate, Plant and Equipment"; Vietnam Public Accounting Standard No. 31 "Intangible Assets".

The content of the article in this paragraph goes into analyzing the major differences that need to be improved, corrected and supplemented in the administrative accounting as required by the public accounting standards issued in the first phase.

The first issue: According to the provisions of Standard 01 "Presentation of financial statements" compared with the current accounting law, the public sector accounting law has not yet provided for: Reporting on changes in net assets/equity; and administrative accounting has not yet regulated this report, the determination of net assets/equity in administrative and non-business units.

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Paragraph 11 of standard No. 01 states: Net assets/equity is the term used in this Standard to refer to the residual value of assets in the statement of financial position after deducting liabilities. Net assets/equity can be positive or negative. Other terms may be used interchangeably with the terms net assets/equity, provided that such terms have a clear meaning (e.g. net assets).

The accounting principles and standards announced in this Standard 01 have largely been similar to the current Vietnamese Accounting Law, including Accounting Law No. 88/2015/QH13, Circular 107/2017/TT-BTC on guidance on administrative accounting, similarities include: components of financial statements (paragraph 17 of standard 01) and article 30 of the 2015 Accounting Law, as well as regulations on reporting in financial statements of administrative accountants, all have 04 reports: (a) Report on financial position; (b) Income statement; (d) Statement of cash flows; (f) Notes to the financial statements, including a summary of significant accounting policies and other explanations.

In Vietnam, according to the research team's analysis, who is the owner of the State agency or unit? Individual or collective? Or just a representative of the state? If there is a unit of mixed ownership between the public and the private sector, how is the owner determined? Especially, the determination of property values in books and in the practice, since then, are important issues that need to be studied and clearly resolved.

The second issue: Standard 01 "Presentation of financial statements" regulates economic units. Economic unit in paragraphs 5, 6, 7, and 8 states that the term "economic unit" is used in this Standard to refer to a collection that includes a controlling entity and all the entities subject to the control of that entity for financial reporting purposes. Other terms that can be used interchangeably to refer to an economic unit are "consolidated unit", "superior accounting unit" and "budgetary unit level 1". An economic unit can include units operating for social purposes according to assigned functions, tasks, and commercial purposes. For example, the Ministry may include state administrative units that only use the state budget and operate according to their assigned functions and tasks and public non-business units that both perform assigned tasks and carry out activities to provide services in accordance with the law.

This content should be clearly defined in the administrative and non-business accounting units, determining what is an economic unit, avoiding confusion in implementation, and applying this standard to administrative and non-business accounting, especially when consolidating financial statements to serve the preparation of state financial statements (Article 30 Accounting Law 2015).

The third issue: Future economic benefit or potential service

This is a new term and content, which needs to be clearly defined, specifically in the administrative accounting regime, in paragraphs 9, standard 01 and paragraph 14, standard No. 02 stipulating future economic benefits or potential service. Assets are means for units to perform activities according to their functions and tasks. Assets that are used to directly generate cash inflows are often considered "future economic benefits". Assets that are used to provide goods or services that are suitable for the entity's operational purposes but do not directly generate cash inflows are generally considered "potential services". To cover the entire intended use of the asset, this standard uses the term "Future economic benefit or potential service" to fully describe the basic characteristics of the asset.

Thus, in administrative accounting, there are regulations on assets, but it is not clear which assets serve "future economic benefits", and which assets create potential services and economic benefits in the future, as well as potential services, need to be regulated.

The fourth issue: Inventory and Net Realizable Value of Inventory

Inventories and Net Realizable Value of inventories, Paragraphs 6, 7, 12, 13, and 14 of Standard No. 12: Inventories, regulation.

Inventories are assets: (a) In the form of raw materials or tools, consumables in the production process; (b) Take the form of materials or tools, consumable or distributed in the course of providing a service; (c) Holds for sale or distribution during a normal operating cycle; or (d) In production for sale or distribution.

Public sector inventories can include:

(a) Stockpiling of goods; (b) Curing materials; (c) Spare parts for plant and equipment, other than those specified in the Property, Plant and Equipment Standards; (d) Strategic stocks (e.g. energy, food, rescue equipment; (e) Unissued vaults; (f) Postal supplies held for sale (e.g. postage stamps); (g) Work in progress, including: (i) Documentation of training courses; (ii) Customer services, when these services are provided at par; (h) Real estate held for sale.

Thus, the issue of Inventory specified in work in progress is one of the contents that need to be clarified and specified more specifically for administrative accounting. Currently, administrative accounting has regulated Account 154: Expenses for production and business, services in progress, however, for services, determining inventory is difficult in practice as well as in current regulations.

The valuation of inventory must be measured at the lower of cost and current replacement costs when the inventory is held to:

(a) Distributed free of charge or at a nominal price; or

(b) Consumption in the production of a good that is freely distributed or at a nominal price.

Net realizable value is the estimated selling price under normal operating conditions less the estimated costs to complete the products and the estimated costs necessary to sell, exchange or distribute them.

Net realizable value is the net amount that is expected to be received from the sale of inventory under normal operating conditions. Fair value reflects the value for which a similar inventory could be exchanged between a seller and a buyer who was reasonably knowledgeable and willing to make an exchange. The net realizable value is the value that is specific to the entity, while the fair value does not. The net realizable value of inventories may not equal fair value less costs to sell.

Thus, there is no regulation in the current Accounting Law and administrative accounting that the value of inventories must be determined at the lower of the original cost and current replacement cost, and the realizable value of inventories in the administrative and non-business units, especially in the regulation of net realizable value, is still difficult to understand and not yet concretized.

The fifth issue: Heritage and infrastructure assets

Vietnam Public Accounting Standard No. 17 "Real Estate, Plant and Equipment" in paragraphs 7, 8, and 9 deals with the estate. This Standard does not require an entity to recognize properties even though they meet the definition and criteria for recognizing property, plant, and equipment. If an estate is registered, the disclosure requirements of this standard shall apply and may, but are not required, the determination provisions of this standard.

In paragraph 16, Vietnam Public Accounting Standard No. 17 stipulates: Certain assets are classified as infrastructure. Infrastructure assets typically exhibit some or all of the following characteristics: (a) These assets are part of a system or a network; (b) These assets are specialized in nature and have no alternative uses; (c) These assets cannot be moved; and (d) These assets may be subject to resale restrictions.

Entities in the public and business sectors may own or be assigned to manage infrastructure, where key infrastructure is usually managed in the public sector. Infrastructure meets the definition and recognition criteria for property, plant, and equipment and must be accounted for in accordance with this standard. Examples of infrastructure include: Road systems, airport systems, railway systems, maritime systems, internal waterway systems, irrigation works systems, infrastructure industrial parks, export processing zone, commercial infrastructure, drainage systems, clean water and energy supply systems, and telecommunications systems.

These are new points for the recognition of fixed assets as heritage and infrastructure in Vietnam, which need to be supplemented in administrative accounting, and have specific contents about the recorded price, and method of recording.

The sixth issue: Post-initial recognition cost, useful life, and amortization

Costs, after initial recognition at cost of real estate, plant, and equipment specified in Vietnamese Public Accounting Standard No. 17, paragraphs 18, 19, and 20, are quite obvious, but accounting principles have many new contents compared to current administrative accounting principles.

The cost of maintaining a regular operation of an item of real estate, plant and equipment shall not be recognized in the cost of that asset. Basic daily maintenance costs include labor and materials costs and may include the cost of replacing small parts. The purpose of these expenses is generally considered to be for the "repair and maintenance" of property, plant, and equipment.

Certain parts of real estate, plant, and equipment items may require periodic replacement. For example, the surface of a road may have to be redone after a certain number of years. Property, plant, and equipment may also have to perform periodic replacements less frequently (such as replacing interior walls in a building) or have to perform a non-recurring replacement. Subject to the recognition principle described in paragraph 12, an entity recognizes the cost of replacing parts of an item of property, plant, and equipment to the cost of that asset when the replacement cost is incurred if the criteria are met. recognition criteria are satisfied.

In order to continue to be used, property, plant and equipment need regular major technical checks, detecting damage regardless of whether parts of the property need to be replaced or not. The cost of that major inspection is charged to the cost of the fixed asset as a replacement cost if the recognition criteria are met. The portion of the original cost of the previous inspection (separate from the value of physical parts) is written off when the new cost is recognized. This is independent of whether the cost of a prior inspection has been determined when purchasing or building the property. Where necessary, the estimated cost of future similar inspections may be used as a basis for determining the cost of an existing audit when acquiring or constructing the property.

In administrative accounting according to Circular 107/2017/TT-BTC and Decision 45/2018/QD-BTC on the management of depreciation and amortization of fixed assets, there are hard regulations on the use period. the use of fixed assets and the rate of depreciation and amortization of fixed assets, this regulation is not consistent with the provisions of standard 17. The inappropriate contents are that Vietnamese standard No. 17 promulgated in 2021 stipulates the useful life, not just the useful life, and only provides for depreciation, not for depreciation. And current administrative accounting calculates depreciation according to the principle of rounding this content contrary to regulations (Paragraph 50 of Standard No. 17).

2. SOLUTIONS AND RECOMMENDATIONS FOR IMPROVEMENT OF CURRENT ADMINISTRATIVE AND NON-BUSINESS ACCOUNTING

2.1. Supplemental Report on Changes in Net Assets

This statement reflects the change in net assets during the accounting period. The research team recommends that, first of all, it is necessary to do an in-depth study of equity in public sector accounting, because according to current law, the owner of all public assets is the State, representing the entire people. In a particular accounting unit, account holders, agencies, and state units almost exclusively have the right to use assets without ownership or disposition (Law on public property management 2017). Therefore, at this time, when the term equity is included in administrative accounting, we are afraid that there will be arguments, time-consuming, and low efficiency. With such an argument, we recommend using the term net assets in the report of the Administrative Accountant

2.2. Adding the term "economic unit"

Adding the term "economic unit" to administrative accounting and public financial management mechanisms, such as financial autonomy of public non-business units, budget process management mechanism: estimates, implementation of estimates, and finalization of budgets and finances in units using the state budget.

At this time, the economic unit needs to have a comparison with the estimated unit, according to the current state budget law, the budgeting unit includes the budgeting unit level 1 and the lower level estimate units, according to the Standard. In public accounting, "economic unit" is used in this Standard to refer to a collection that includes a controlling entity and all of its controlled entities for reporting purposes. financial statements, here the economic unit is the superior unit that must make general financial statements, in order to prepare the state financial statements.

2.3. Supplementing regulations on inventory and principles of inventory accounting in Administrative Accounting, including the following contents

- Specifying the list of inventories in administrative accounting, focusing on the list of unfinished services and inventories, because in administrative and non-business units, a large number of public services are provided, but the work could not be completely completed by December 31. Therefore, determining the value of inventory for public services is very necessary, in order to determine the cost and price of public services, especially those closely related to social security such as: Education, medical, …

- The value of inventories must be measured at the lower of cost and current replacement costs when the inventory is held; Determining the value of inventory at net realizable value requires guidance and additional provision for devaluation of inventory in administrative accounting. In our opinion, adding a provision account for inventory devaluation for the administrative accountant.

2.4. Heritage and infrastructural assets

Adding guidance on assets as an estate to administrative accounting, the recognition of the value of this estate at nominal prices, and mainly in the form of cards and books of fixed assets for management, tracking, and exploitation.

Clearly define the accounting of infrastructure and we recommend that the recording of the cost of infrastructure needs to be separated into components according to the function of the infrastructure, for example, roads need to record the historical cost of components such as: Foundation, Road surface, traffic works,... and especially components with different use times need to be separated, recorded and reflected in separate asset cards.

2.5. Supplementing regulations on fixed asset accounting in administrative accounting, with the following contents:

- Firstly, it is necessary to stipulate the useful time of use instead of the use time, avoiding the wasteful and inefficient use of fixed assets; Under current regulations, assets that are not in use but have expired will still be liquidated, regardless of the efficiency of using fixed assets, or there are assets that are overused or damaged before their expiry date but cannot be replaced because it has not expired. Therefore, the regulation of the useful life is very necessary, allowing economic units to manage and use fixed assets more effectively;
- Secondly, clearly identify the costs after the initial recognition are recorded as an increase in cost, and the expenses are not recorded as an increase in cost, this is a controversial content in the current practice in Vietnam. We propose to fully apply the provisions of Standard No. 17 for administrative accounting;
- Thirdly, remove the term amortization, and use the uniform term depreciation, then administrative accounting will adhere to the principle of full accrual for fixed assets.

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Circular 107/2017/TT-BTC, administrative and non-business accounting.

ASSESSING THE PERFORMANCE OF HEALTHCARE PUBLIC NON-BUSINESS UNITS IN CAO BANG IN AUTONOMY CONDITION

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Abstract: *Fundamentally, comprehensively and synchronously renovate public non-business units to achieve a reasonable structure, autonomy ability, advanced management and operate effectiveness and efficiency is an important goal set by the Vietnamese Party and government during the past time. Therefore, assessing the performance of public non-business units in the context of implementing the autonomy mechanism is one of the important parts to achieve the above mentioned goal. Currently, the healthcare sector of Cao Bang has been carrying out many fundamental and comprehensive reforms, especially the process of restructuring the network of healthcare public non-business units in the province and implementing autonomy mechanisms. Applying the DEA model, this paper aims to analyze and assess the performance healthcare public non-business units in Cao Bang in autonomy condition.*

Keywords: *Healthcare public non-business units, Cao Bang, operational efficiency, DEA.*

1. INTRODUCTION

In the process of strong development of the public healthcare service, along with extensive reforms in the public sector in Vietnam today, the operation of healthcare public non-business units is associated with the autonomy mechanisms, especially financial autonomy is an inevitable part, a necessary and sufficient condition for these units to develop. The autonomy of public service providers in general and public healthcare service units in particular can be understood as the right to decide on their activities within the framework of law. In other words, it is the right to freely determine the process of their existence and development according to the provisions of the law, not governed by the operational intervention of state administrative management agencies. On that basis, autonomy for a public healthcare service unit means that the State grants a public healthcare service unit the right to take the initiative in exploiting, managing and using its resources and make decisions on exploitation, management and use of such resources in order to improve the quality of health service provision activities, contributing to increase income for officials, employees and employees in the unit, that is towards the ultimate goal of improving the operational efficiency of the unit.

Over the years, Cao Bang health sector has constantly strived to improve the quality of service for the care and protection of people's health and has achieved many achievements. Up to now, the number of medical examination and treatment establishments in the province is 329;

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including 16 hospitals, 3 regional polyclinics, 199 commune, ward and township health stations and 111 private medical facilities. Implementing Project No. 12 of the Standing Committee of the Provincial Party Committee on rearrangement and reorganization of public non-business units in Cao Bang province, the Department of Health has coordinated with other departments, branches and districts to merge all related units since the end of 2018. In which, the units in charge of preventive medicine at the provincial level have become the Centers for Disease Control at all levels on the basis of reducing the bureaucracy, a unit with the same functions and tasks, the health sector has rearranged 7 centers for prevention tasks at the provincial level. After rearranging and consolidating, the organizational structure of the apparatus was reduced from 7 units to 1 unit, from 17 rooms to 3 rooms, from 30 faculties to 13 faculties. After the arrangement, consolidation and establishment of district health centers, the number of non-business units under the Department of Health at the district level has been reduced from 39 units to 13 units. Not only have there been major changes in the restructuring of the industry's apparatus, but the health sector of Cao Bang province has also had significant changes in the process of implementing the financial autonomy mechanism of healthcare public non-business units. Thus, whether the merger of district hospitals and health centers and the implementation of the autonomy mechanism really help to achieve operational efficiency and improve the quality of public health services in Cao Bang province.

Through the application of the DEA model and the database system provided by the Healthcare sector of Cao Bang province, the authors have obtained certain results to answer for the above statement.

2. THEORETICAL BACHGROUND

DEA model to evaluate hospital performance

Efficiency and measuring efficiency are mentioned early in the studies of Adam Smith. However, the concept and rigorous efficiency analysis approach only appeared after the research of Koopmans (1951), Debreu (1951), and was applied in the experimental research of Farrell (1957). One of the important issues when measuring performance is the distinction between efficiency and productivity. In the conventional sense, productivity is the ratio between the output and input of a production process. Accordingly, the methods that are widely used in research practice to calculate the effectiveness of public services provided by the government, including health services, are: Stochastics Frontier Analysis (SFA) and Data Envelopment Analysis (DEA). These are two commonly used methods of performance measurement with different usage characteristics and assumption requirements. Each method has its advantages and limitations in efficient calculation and estimation, and depending on the context and conditions, the effective calculation unit/individual decides which method to use and develop. effective badge.

Hospitals are a major cost factor of the global health system. Currently, hospitals are facing increasing pressure to improve operational efficiency. However, estimating hospital performance is also not straightforward. Currently, the DEA method as well as extended models (DEA and Malmquist index [1], [2] DEA with distance function [3]) are commonly used).

DEA is a non-parametric data-driven method first developed by Charnes et al (1978) with development from Farrell's (1957) measure of technical performance, DEA measures technical performance (TE) based on an integrated assessment of the inputs and outputs of the decision making unit (DMU). *The basic purpose of the DEA is to determine the best productive limit of efficient decision-making units (DMUs) including all inefficient DMUs. By measuring the distance to the limit, each DMU will have its own performance value* .

There are two commonly selected DEA models: (1) efficient allocation of inputs (the solution for each decision-making unit (DMU) is to use input types (Inputs) at the minimum necessary to produce a certain set of outputs (Outputs), (2) while output-oriented engineering efficiency is a measure of the potential output of a DMU from a given set of inputs (cite document this part).

3. MODEL TO ASSESS THE PERFORMANCE OF HEALTHCARE PUBLIC NON-BUSINESS UNITS IN CAO BANG IN AUTONOMY CONDITION

Survey data

Survey data: To assess the autonomy of hospitals, we have conducted a survey of 16 health care units in the province. Due to the specific socio-economic conditions of Cao Bang province, 100% of hospitals in the province are partially self-sufficient in recurrent expenditures.

The financial data group, the research team uses data from the Funding Status Report – providing detailed data on the unit's operating expenses; and a report on the assessment of the implementation of the autonomy mechanism – providing data on revenue sources, additional income and appropriation of funds of the public health care units in the period period from 2014 to 2019.

The data group on personnel, the research team uses data from the Department of Health to include information on the personnel structure by title, employment position and by professional qualifications of hospitals in the country, period from 2014 to 2019.

Data group on medical examination and treatment, the research team used data sources provided by the Department of Health, including information on hospital beds and information on the situation of medical examination and treatment at quality health care units in the period from 2014 to 2019.

Pretreatment

Data synchronization: because the information can be obtained from many different data sources, with many different formats, data synchronization is necessary. Data synchronization is done through the Python program including the following functions:

+ Encrypt hospitals.
+ Synchronize financial information, personnel information, medical examination and treatment information of health care units.

DEA analysis

Model selection

In order to evaluate the effectiveness of the quality prevention and control units in Cao Bang province to assess the role of autonomy and the effectiveness of the quality prevention and control units, the research team used the data envelopment analysis method (DEA). In this study, the research team focused on the effectiveness of the hospital's budget expenditure on the operation of the hospital as well as the efficiency in using the hospital's resources and the staff's income. Furthermore, because hospitals have social policy constraints, the variable effect of scale (VRS) assumption is appropriate.

Selection of input and output parameters

Input variables: include state budget , highly qualified labor variables represent the quality of human resources, the actual number of hospital beds to represent the facilities.

Output variables include: Non-business income, average additional income, number of medical visits, number of inpatient visits.

Table 1. Operational performance of healthcare public non-business units in Cao Bang in the period 2014-2019

Year	Number of days of treatment medium	Financial autonomy ratio	Capacity of using hospital beds
2014	7.033474222	0.576122659	0.94560402
2015	7.134924935	0.557166482	1.013200226
2016	7.06715558	0.653435796	1.085182969
2017	7.019799303	0.617960926	1.086979751
2018	6.786615273	0.629914429	1.324250036
2019	6.490057621	0.49713538	0.88945579

Source: research team

In general, the surveyed Cao Bang health care agencies have positive data about their activities. The average number of days of inpatient treatment at the hospital gradually decreased year by year from 7.03 in 2014 to 6.49 in 2019, showing that the quality of medical examination and treatment of hospitals gradually improved year by year. The degree of autonomy of hospitals increased year by year in the period from 2014 to 2019, only in 2019 decreased due to the merger of hospitals with district health centers causing many confusions in operation. Regarding the capacity of hospital beds in general, it has reached the limit, showing that the health care units have and are in need of investment in modernized facilities to perform on-demand medical examination and treatment services.

With the above analysis, it can be concluded that, given the condition of Cao Bang province in the period of 2014 - 2019, the quality health care units have made many efforts to help increase their economic efficiency and serve the community as well. as income generation for employees. From the above conclusions, in the opinion of the authors, these are the premise for the quality control units to gradually develop in the direction of autonomy in order to operate in a better way.

DEA analysis

To compare the effective operation of each quality health care unit in the province's socio-economic conditions. We choose an output-oriented envelope model with the assumption that hospital efficiency varies with scale.

We use the DEA model to calculate the performance index for each year from 2014 to 2018 to rank the healthcare public non-business units and the healthcare public non-business units performance index for each year. Table 4 describes the operational efficiency of the public health care units in 2019 - the year with the highest average degree of autonomy.

From Table 2 and Table 3, it is found that, in 2016 & 2017, there are generally 09 effective and 07 less effective quality control units. The ineffective health care units are mainly located in district level units, where socio-economic conditions are still facing many difficulties. The model also shows that the cause of inefficient units is that they have not taken advantage of the highly skilled workforce. Thus, the solution proposed for the health care units is to optimize this highly qualified workforce by opening more on-demand services to help improve the quality of medical examination and treatment of the unit. has just created a non-business source of income for the healthcare public non-business units.

Table 4 shows a comparison of unit performance in 2019 when district hospitals merged with health centers. The model shows that when there is a merger of hospitals and health centers. The number of effective units includes 9 units and the number of ineffective units includes 07 district level units. The model also shows that in 2019 the units were inefficient mainly due to excess human resources. This may originate from the merger of district health centers with hospitals, causing temporary redundancy.

Table 2. Ranking of quality healthcare public non-business units in Cao Bang in 2016

Unit	Rank	Efficiency Index	Payroll	Source State budget	Hospital bed	Specialized labor	Bed capacity	Medical examination	Income	Average income
BAO LAM	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
CO TRUYEN	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
HA QUANG	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
THANH PHO	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
THONG NONG	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
DA KHOA TINH	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
TINH TUC	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
TRA LINH	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
TRUNG KHANH	1	1.00	0.00	0.00	0.00	0.00	0.0	0	0.00	0.00
BAO LAC	10	0.98	0.00	0.00	0.00	0.00	1.6	0	0.00	0.20
NGUYEN BINH	11	0.95	0.00	0.00	0.00	2.05	0.0	1771	1135	3.50
HA LANG	12	0.94	0.00	428.78	0.00	0.89	0.0	2904	0.00	0.59
THACH AN	13	0.91	0.00	0.00	0.00	2.89	0.0	0	0.00	2.68
PHUC HOA	14	0.89	5.85	0.00	0.00	0.68	4.3	0	0.00	0.00
HOA AN	15	0.79	0.00	1213.08	0.00	1.24	14.8	0	0.00	0.00
QUANG UYEN	16	0.69	2.15	626.59	0.00	3.76	6.4	0	0.00	0.00

Source: Research team

Table 3. Ranking of quality healthcare public non-business units in Cao Bang in 2017

Unit	rank	Efficiency Index	Payroll	State budget	Hospital bed	Specialized labor	Bed capacity	Medical examination	Income	Average income
dmu:BAO LAC	1	1	0	0	0	0	0	0	0	0
dmu:BAO LAM	1	1	0	0	0	0	0	0	0	0
dmu:CO TRUYEN	1	1	0	0	0	0	0	0	0	0
dmu:HA LANG	1	1	0	0	0	0	0	0	0	0
dmu:NGUYEN BINH	1	1	0	0	0	0	0	0	0	0
dmu:PHUC HOA	1	1	0	0	0	0	0	0	0	0
dmu:THACH AN	1	1	0	0	0	0	0	0	0	0
dmu:THANH PHO	1	1	0	0	0	0	0	0	0	0
dmu:THONG NONG	1	1	0	0	0	0	0	0	0	0
dmu:DA KHOA TINH	1	1	0	0	0	0	0	0	0	0
dmu:TINH TUC	1	1	0	0	0	0	0	0	0	0
dmu:TRA LINH	1	1	0	0	0	0	0	0	0	0
dmu:TRUNG KHANH	1	1	0	0	0	0	0	0	0	0
dmu:HOA AN	14	0.985593	0	0	0	3.22734	27.325	0	0	3.2621
dmu:QUANG UYEN	15	0.838684	7.04734	146.757	0	3.6819	20.8601	0	0	0
dmu:HA QUANG	16	0.76322	4.05041	0	12.1494	0	11.2083	4851.9	0	0

Source: Research team

Table 4. Ranking of quality healthcare public non-business units in Cao Bang in 2019

Unit	Rank	Efficiency Index	Payroll	Source State budget	Hospital bed	Spe-cial-ized labor	Bed capacity	Medical examina-tion	Income	Average income	Perfor-mance Index 2016	Perfor-mance Index 2018
dmu:BAO LAM	1	1.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	1.00
dmu:CO TRUYEN	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:THACH AN	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	0.91	1.00
dmu:THANH PHO	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:THONG NONG	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:DA KHOA TINH	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:TINH TUC	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:TRA LINH	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:TRUNG KHANH	1	1.00	0.00	0.00	0	0	0.00	0.00	0.00	0.00	1.00	1.00
dmu:HA QUANG	10	0.97	27.45	0.00	16	0	0.00	886.11	0.00	1.19	1.00	0.76
dmu:PHUC HOA	11	0.95	8.03	4751.02	0	0	0.00	0.00	97.62	0.00	0.89	1.00
dmu:NGUYEN BINH	12	0.87	0.00	0.00	2	0	1.21	0.00	1732.01	0.00	0.95	1.00
dmu:HOA AN	13	0.77	9.17	0.00	0	0	0.00	0.00	0.00	7.86	0.79	0.99
dmu:BAO LAC	14	0.77	12.59	0.00	0	0	0.00	0.00	0.00	2.20	0.98	1.00
dmu:HA LANG	15	0.77	6.43	0.00	0	0	0.00	4596.62	1768.69	0.00	0.94	1.00
dmu:QUANG UYEN	16	0.64	4.32	3407.84	0	0	0.00	0.00	0.00	4.01	0.69	0.84

Source: Research team

Identify factors affecting efficiency

To determine the factors affecting the performance of the Cao Bang quality health care unit, the research team used a regression model. The dependent variable is the performance index of the unit (Thetha). Independent variables include: variables representing finance (state budget source, degree of autonomy). Personnel representative variables: percentage of doctors with high professional qualifications. Variables representing unit activity: number of medical visits, number of inpatients, number of outpatients. Representative variables for socio-economic conditions in Cao Bang province: population density, urban rate, national health index.

Table 5. Factors affecting the performance of healthcare public non-business units in Cao Bang

Linear regression			
	Number of obs	=	94
	F(6, 87)	=	5.29
	Prob > F	=	0.0001
	R-squared	=	0.7098
	Root MSE	=	.30471

thetha	Coef.	Robust Std. Err.	t	P>|t|	[95% Conf.	Interval]
tile_LĐCK	.9486352	.253102	-3.75	0.000	-1.451703	-.4455675
NguồnNSNN	-4.05e-06	1.03e-06	3.91	0.000	1.99e-06	6.11e-06
tỉlệthànhthị	.0030188	.0006326	4.77	0.000	.0017614	.0042762
mứcđộtựchủ	.1570586	.0647688	2.42	0.017	.0283236	.2857936
Sốngàydiềutrịnộitrútrungb	-.0059222	.0021271	2.78	0.007	.0016943	.0101501
ln_ngoaitru	.0262513	.0116219	-2.26	0.026	-.0493512	-.0031514
_cons	.9853553	.0668592	14.74	0.000	.8524655	1.118245

Source: Research team

P-value = 0 means that the model is statistically significant. Looking at the P-value of each variable, we see that the hospital's efficiency index is proportional to the proportion of qualified workers, the urban rate, the degree of autonomy, the number of outpatients. The hospital's efficiency index is inversely proportional to the state budget and the average number of days of inpatient treatment.

R-squared = 0.7098 means that this model only solves 70% of the significance of the dependent variable, the rest due to variables other than the model.

4. CONCLUSION

From the results of Cao Bang data-based models, it can be seen that, in order to improve the operational efficiency of public health service units, a number of important factors need to be improved:

Firstly, improving people's lives through socio-economic development in localities.

Secondly, promoting the implementation of the autonomy mechanism, especially financial autonomy, because the model results show that the performance of the unit is directly proportional to the degree of financial autonomy, and inversely proportional to the level of financial autonomy. state budget source for the unit.

Thirdly, change the people's health care mindset to restructure the rate of inpatient - outpatient treatment in the direction of increasing outpatient examination and treatment, and reducing the rate of inpatient treatment.

Fourthly, invest in developing high-quality human resources in order to improve the prestige, effectiveness and quality of medical examination and treatment of the unit.

Fifthly, invest in and modernize facilities, machinery and medical equipment because most of the unit's equipment has been used to the limit.

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RECOMMENDATIONS REGARDING ACCOUNTING FOR LEASES IN VIETNAM

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Ngo Duc Manh[2]

Abstract: *Leasing is an important financial solution used by many businesses because this allows businesses to use leased assets, plants and equipment without having to spend a large initial cash flow. This paper examines the IFRS 16 – Leases and generalizes the current Vietnamese regulations on accounting for leases, then analyzes limitations of related Vietnamese accounting treatments compared to international practices before proposing several recommendations to improve accounting treatment for leases in Vietnam in the coming years.*

Keywords: *Lease, Accounting for leases, IFRS.*

1. AN OVERVIEW ON IFRS 16 – LEASES

In April 2001, the International Accounting Standards Board adopted IAS 17 – Leases. In January 2016, the International Accounting Standards Board issued IFRS 16 – Leases to replace IAS 17 – Leases. The IFRS 16 prescribes the principles of recognition, valuation, presentation and explanation of lease transactions. The objective is to ensure that the lessee and lessor provide appropriate information in a manner that faithfully reflects the transaction. This information is the basis for users of financial statements to assess the impact of the lease on the financial position, business results and cash flow of the unit. The IFRS 16 mainly affects lessee who are currently of high value and large volume of lease operations, lessors are not affected much by the new standard.

Identifying a lease

A contract is, or contains, a lease if there are 3 factors: (i) The property is identified; (ii) The enterprise obtains economic benefits from the use of assets; (iii) Enterprises have the right to use and control the purpose of using assets.

An asset is usually identified in the contract but there is also an asset that is fully identified at the time the customer is ready to use it. However, if the provider has the right to significantly change the asset during use, then the customer no longer has such a right when using the asset. A provider's right to change is also only considered if they both have the actual ability to change the asset during use and gain economic benefits from that change.

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Individual parts of a property can also still be considered an identified asset if its physical state is separated (e.g. the floor of a building). If a part of an asset does not have its own physical state (e.g., part of a fiber optic cable) it is not considered a defined asset, unless it must demonstrate significant capacity from which the customer will gain significant economic benefits from the use of the asset.

Segregation of elements of a contract

With a contract containing both lease and other factors such as renting the property and providing maintenance services, the lessee will aggregate all amounts payable on the basis of the relevant independent prices, which, if these prices are not easily collected, may be estimated.

In fact, the lessee may choose not to separate the other service elements from the lease element and instead account for all the elements into a lease of the property. The lessor shall aggregate all amounts received from the lease transaction in accordance with IFRS 15 - Revenue from contracts with customers.

Accounting at the lessee

At the beginning of a lease transaction, the lessee will record the asset entitled to use and debt incurred in connection with the transaction of leasing that asset. Right-of-use assets are initially measured as the total rent payable plus any type of initial direct cost incurred by the lessee. If rent incentive terms arise or the lessee pays in advance or at the beginning of the lease period or there are other refund obligations, additional adjustments are required.

After the commencement of the lease, the lessee will determine the right of use asset using the original price model, except that: (i) the Right of Use property is the investment property and the lessee measures the fair value of the investment property in accordance with IAS 40; or (ii) Right-of-use assets relating to the type of property, machinery and equipment (PPE) to which the lessee applies a revaluation model under IAS 16, in which case all use rights assets relating to that type of PPE may be subject to revaluation.

According to the original price model, Right-of-Use Assets are determined by the integer formula minus accumulated depreciation and accumulated loss due to impairment in asset value. The total rent payable is determined initially by the present value of the rent payments during the lease period, which is discounted at the rate fixed under the lease if this rate can be determined easily. If this rate is unlikely to be determined then the lessee needs to use their borrowing margin interest rate. Variable rent payments depend on the indicator or rate determined in the initial measurement formula of the total rent of the property and at the date of commencement of the lease. The amount that the lessee expects to pay at the guaranteed residual value will also be determined. Variable rent payments that are not included in the formula for determining the total rent payable will be recognized in the profit and loss statement for the period in which the event or condition of payment arises, unless the cost is determined in the book value of another property in accordance with another standard. The total rent payable will then be redefined to reflect the change in: (i) The lease term (using the adjusted discount rate); (ii) Purchase option evaluation (using adjusted discount rates); (iii) The expected amount to be paid at the guaranteed residual value (using the old discount rate); or (iv) Future payments arising from a change in the index or rate used to determine these payments (using the old discount rate).

The above remembrance is treated as an adjustment of the leased right-of-use property. The modification of the lease is also a basis for re-measurement of the total rent payable, otherwise they will be treated as a separate lease.

Property sale and sublease transactions

In order to determine whether the transfer of an asset is considered a sale of assets, the business needs to apply the conditions in IFRS 15 to determine when an obligation to be performed is satisfied. If the transfer of assets meeting the conditions of IFRS 15 has been treated as a sale of assets, the seller determines the right-of-use assets as a proportion of the previous book value of the assets in relation to the current right-of-use assets. Accordingly, the seller only recognizes the profit or loss related to the rights transferred to the buyer. If the fair value of the sale amount is not equal to the fair value of the property, or if the rent payments are not at market value, then this sale amount will be adjusted to fair value by taking into account the upfront payment or additional financing.

Presentation of information

The objective of the presentation in IFRS 16 is that the information provided in the notes, along with the information in the balance sheet, the statement of results of operations and the Statement of Cash Flows help users obtain basic judgments to assess the impact of asset lease transactions.

Above are the summary contents of the international financial reporting standard on asset lease - IFRS16, through which the authors researched and applied international accounting standards to complete the contents related to Vietnamese accounting standards (VAS 06) and the Vietnamese accounting regime on asset lease respectively.

2. REGULATIONS ON ACCOUNTING FOR PROPERTY LEASE IN VIETNAM TODAY

The legal framework on asset rental accounting in Vietnam includes: Vietnamese accounting standard VAS 06-Asset lease (Issued and published according to Decision No. 165/2002/QD-BTC dated December 31, 2002 of the Minister of Finance) and Circular 200/2014/TT-BTC dated December 22, 2014 of the Minister of Finance. Vietnam Accounting Standard VAS 06 - Lease of assets issued on the basis of International Accounting Standard IAS 17 *(which has been replaced by IFRS 16).* According to VAS 06, Property Lease: *An agreement between the lessor and the lessee on the lessor transferring the right to use the property to the lessee for a certain period of time to receive the rental fee once or several times.*

Financial leasing is defined: *A lease of property in which the lessor has the transfer of most of the risks and benefits associated with the ownership of the property to the lessee. Ownership of the property is transferable at the end of the lease term.*

VAS 06 sets out the circumstances that often lead to a financial lease agreement, including: *(i) The lessor transfers ownership of the property to the lessee at the end of the lease term; (ii) At the beginning of the lease, the lessee has the right to purchase the leased property at a price expected to be lower than the fair price at the end of the lease term; (iii) The lease term accounts for the majority of the economic use of the property even if ownership is not transferred; (iv) At the time of the commencement of the* *lease of the property, the present value of the minimum rent payments constitutes a majority of the fair value of the leased property; and (vi) The leased property is a specialized type that can only be used by the lessee without any major changes or modifications.*

In addition, VAS 06 states the cases in which the lease will be considered a financial lease: *(i) If the lessee cancels the contract and compensates for related damages incurred related to the cancellation of the contract to the lessor; (ii) Income or loss resulting from a change in the fair value of the remaining value of the leased asset attached to the lessee; or (iii) The lessee is likely to continue to lease the property after the lease expires at a rent lower than the market rent.*

Operating lease: *A form of renting property, not a financial lease.*

Circular 200/2014/TT-BTC dated December 22, 2014 of the Minister of Finance promulgates a number of regulations when accounting for financial leased fixed assets as follows:

- It is necessary to monitor in detail each type and each fixed asset leased by the method of financial leasing.
- The cost of the financial leased fixed asset is recognized as the fair value of the leased asset or as the present value of the minimum rent payment (in case the fair value is higher than the present value of the minimum rent payment) plus the direct costs initially incurred in connection with the financial lease activity. If input VAT is deducted, the present value of the minimum rent payment does not include the amount of VAT payable to the lessor.

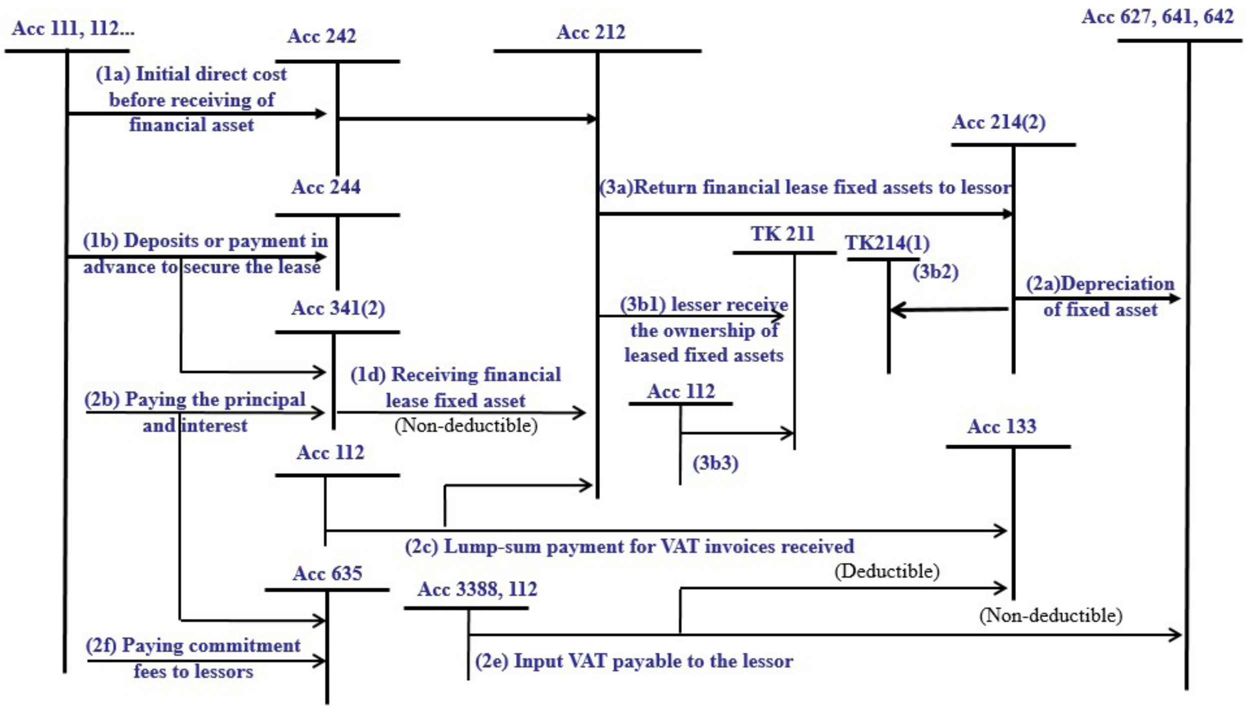
When calculating the present value of the minimum rent payment for the lease of the property, the enterprise can use the implicit interest rate, the interest rate stated in the lease or the borrowing margin interest rate of the lessee.

- The payment of rent for financial leased assets must be divided into financial operating expenses (the amount of financial lease interest) and the amount payable on principal each period. The amount of financial lease interest payable is accounted for in financial operating expenses. The amount of rental interest throughout the lease term and each period is determined by the remaining principal balance multiplied by (x) by the fixed periodic interest rate.
- In case the VAT paid by the lessor when buying fixed assets for lease is refunded by the lessee, the lessee must periodically refund to the lessor according to the data shown on the Rental Service Invoice sent by the lessor.
- The lessee is responsible for calculating and deducting the depreciation of fixed assets into production expenses periodically on the basis of applying a depreciation policy consistent with the depreciation policy of assets of the same type owned by the leased enterprise. If it is not certain that the lessee will have ownership of the leased asset at the expiration of the lease agreement, the leased asset will be depreciated according to the lease term if the lease term is shorter than the useful use period of the leased asset (Although managed as an asset owned by the enterprise, the lessee must not use the leased asset to pledge, collateral or to secure any financial obligations).

In case financial rental interest is eligible to be capitalized into the value of unfinished assets, it shall comply with the provisions of VAS 16-Borrowing costs.

Overview of the accounting order at the lessee of the property by the method of financial leasing is as follows:

Accounting procedures relating to financial lease fixed asset

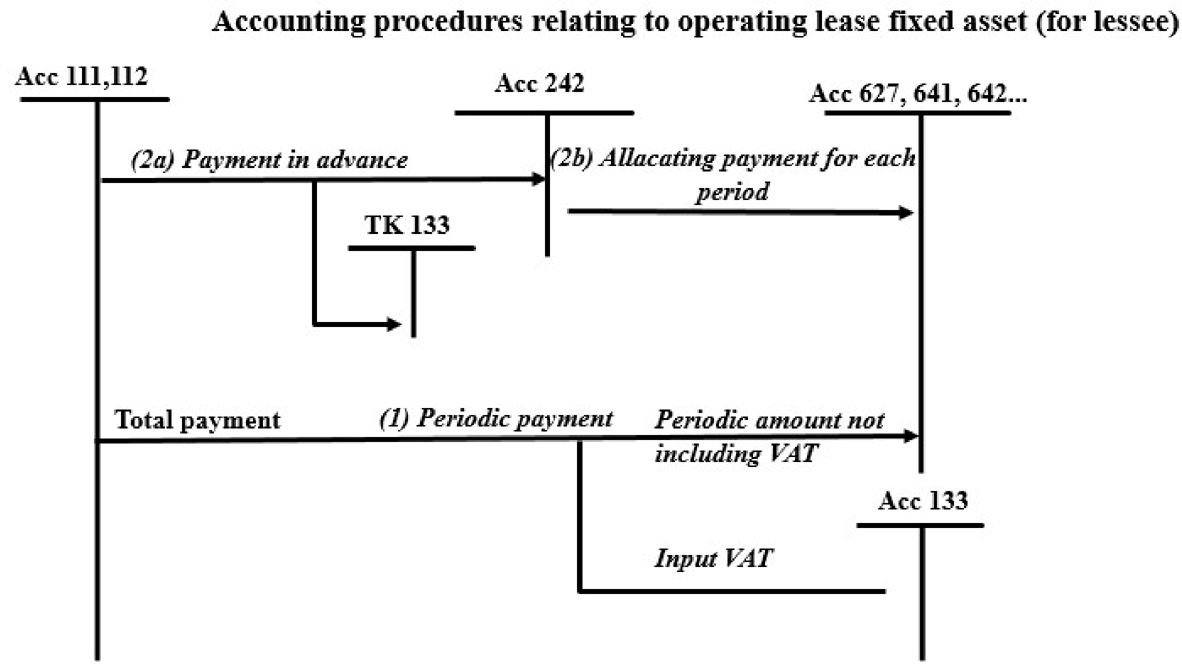


Circular 200/2014/TT-BTC stipulates: *Operating leased assets are asset leases that do not satisfy any terms of the financial lease agreement.*

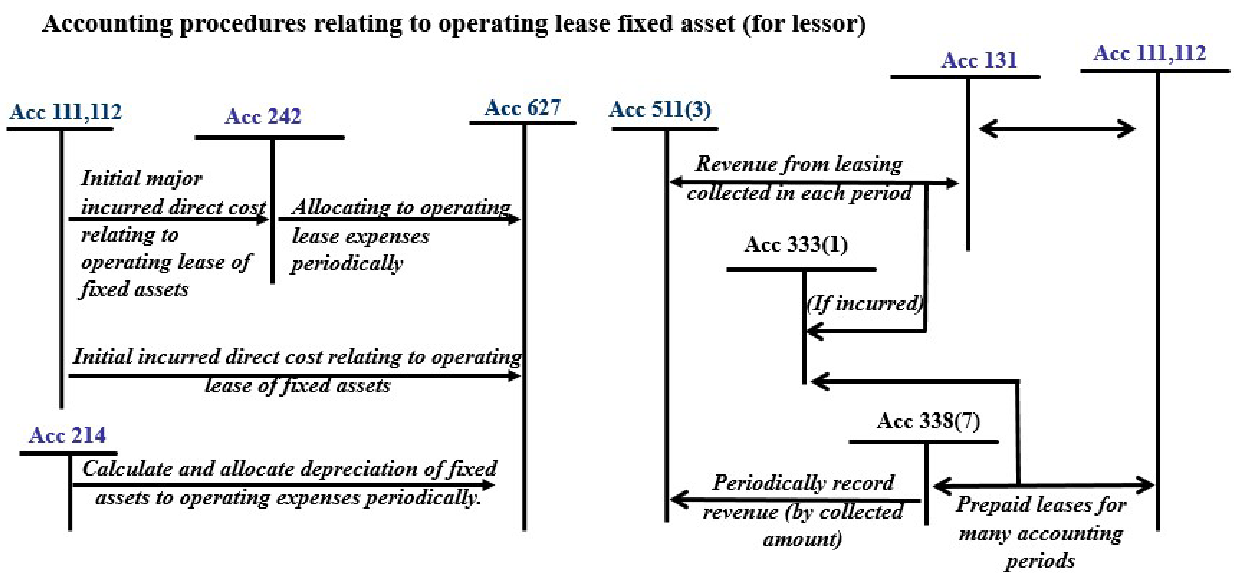
Accordingly, in the case of operating lease, the enterprise only manages and uses during the contract period and must be refunded at the end of the contract; The cost of operating lease for fixed asset (land use rights, factories, warehouses, offices, shops and other fixed assets) for production and business in many accounting periods is reflected as upfront costs. The enterprise does not reflect the value of leased assets on its Balance Sheet, but only reflects operating rent into production and business expenses in a straight-line method for the duration of the lease term of the property without depending on the method of rent payment (prepaid or postpaid).

Overview of the accounting procedure at the lessee and leaser of the property according to the method of operating lease as follows:

* At the lessee:



* At the lessor:



Comparison of accounting standards for leasing assets in Vietnam and international financial reporting standards for asset lease – IFRS 16

For accountants at the lessee, the difference between VAS 06 and IFRS 16 is as follows:

Criteria	IFRS 16	VAS 06
Classification of leases	According to IFRS 16: All leases are financial leases except for short-term property leases (Lease term less than 12 months); Lease of property in which the property is of low value; Recognition of expenses for the period or allocation.	According to VAS 06: The lessor and the lessee must determine whether the lease of the property is a financial lease or an operational lease at the beginning of the lease of the asset.
Initial attribution	* The right to use the property is initially recognized at full price, including: + The initial recorded value of the liabilities; + Rent payments incurred before or on the day of the start of the lease (prepayment) minus the rent discounts received; + Direct costs incurred initially to rent the property; + The cost of dismantling and restoring the current status of the premises when the lease ends; * Liabilities should be recognized at the start date of the lease at the present value of future rent payments unpaid at the present time. In other words: Determine future liabilities by applying a discounted cash flow method	* For financial leasing The lessee recognizes the financial leased asset as property and liabilities on the Balance Sheet at the same value equal to the fair value of the leased asset at the time of the commencement of the lease. If the fair value of the leased property is higher than the present value of the minimum rent payment for the lease of the property, write down the present value of the minimum rent payment. * For operating lease: Operational rent payments (excluding service, insurance and maintenance costs) must be recognized as straight-line production and business expenses for the duration of the lease period, regardless of the payment method, unless a more reasonable calculation method is applied.

Criteria	IFRS 16	VAS 06
Presentation of information	The lessee will recognize the Active Leased Assets as assets and liabilities on the Balance Sheet.	The lessee recognizes the Leased Assets operating off the Balance Sheet.
	The lessee must recognize depreciation expense for operating leased assets	The lessee recognizes the cost of operating lease in the cost of the period
	Only a portion of the rent payment reflecting the interest expense of the lease can be presented at the operating cash flow of the business (depending on the accounting policy of the enterprise regarding interest payments). The cash payment for the principal part of the lease debt is presented at the cash flow of financial operations. Short-term rental payments, low-value property leases, and variable rent payments not included in the value of the rental debt are still presented in the cash flow of operating activities.	The rent payment related to the lease classified as an operating lease is presented in its entirety in the section on cash flows from the business.
Post-initial recognition value of the lease to the lessee	IFRS 16 requires periodic assessment of losses to leased assets by applying IAS 36 – Property Loss.	VAS 06 does not have regulations to consider, evaluate and record asset losses.

The development of the market economy in Vietnam has entered a period of stability and development along with the influence of the world economic crisis with the trend of international accounting harmony - the convergence of accounting regulations and principles among countries around the world, The legal framework on asset rental accounting in Vietnam has not been updated with international practices and has not met the requirements of the market economy in Vietnam in the new period. However, in Vietnam, accounting standards on fair value have not been promulgated, so how the right to use leased assets is determined is a matter that needs to be discussed.

3. RECOMMENDATIONS TO IMPROVE ACCOUNTING FOR LEASES IN VIETNAM IN THE COMING YEARS

3.1. Completing Vietnamese accounting standards on property lease – VAS 06

About the form

- The number of standards in the System of Vietnamese accounting standards needs to be in accordance with IASs / IFRS, such as the standard for presenting international financial statements Lease assets denoted as IFRS 16, Vietnamese accounting standards will be denoted as VFRS 16- Lease of assets.
- The presentation of items and paragraphs in Vietnamese accounting standards on property lease should correspond to IFSR 16.

About the objectives of accounting standards Lease -VFRS 16

- The new Lease Standard stipulates the principles of recording, valuing, presenting and announcing the lease. The goal is to ensure that the lessee and lessor provide appropriate information in a manner that faithfully reflects the transaction. This information is the basis for users of financial statements to assess the impact of the lease on the financial position, business results and cash flow of the unit.
- The Entity should take into account the duration and conditions of the contract and all appropriate facts and circumstances when applying this Standard. The entity should consistently apply this Standard to contracts with similar characteristics and in similar situations.

On the scope of application of accounting standards for Lease -VFRS 16

VFRS 16 applies to all lease transactions, including leases in sublease, except:

a) Renting assets for exploitation or for the use of minerals, oil, natural gas and similar non-renewable resources;

b) Lease biological assets within the scope of accounting standards on agriculture held by the lessee;

c) Intellectual property license granted by the lessor within the scope of revenue standards from contracts with customers;

d) The right is held by the lessee under the license agreement within the scope of the Intangible Assets Accounting Standards.

About the content

Completing Vietnamese accounting standards on asset lease should be placed in the context that the System of Vietnamese Accounting Standards has not yet promulgated accounting standards on Fair Value, Accounting Standards on Asset Loss..., some Vietnamese accounting standards have not been completed according to international practices such as Accounting Standards for Revenue and Other Income (VAS 14), accounting standards construction contracts (VAS 15)...

therefore, the revision and completion of accounting standards for asset lease need to consider appropriate steps for the application of the contents of the Standards in the coming time.

Firstly, the new lease accounting standard gives a new definition of renting property

Accordingly, when amending the promulgation of accounting standards For new leases in Vietnam, it is necessary to give a definition: *Lease is a contract, or part of a contract, consisting of the exchange of payments for control over the use of a specified asset for a period of time.*

In order to assess whether the contract contains control over the use of the specified asset for a period of time, the entity should assess whether, for the duration of the use, the lessee has the following rights:

(a) Control over the enjoyment of economic benefits from the use of defined assets, and

(b) The right to decide on the use of the specified property.

Secondly, about rent recognition

The components of the property rent include: Fixed rents minus preferential amounts; The amount of rent varies according to the index or interest rate; The exercise value of the call option (if required); Penalty for termination of the contract (if certain); The amount payable for the residual value of the leased property is guaranteed. Besides, it should be determined: Fixed rent and Variable rent. Where the variable rent is part of the amount of rent that changes due to changes in conditions and context arising after the date of commencement of the lease and not due to time factors;

Thirdly, about determining the discount rate

When issuing the new Lease standard, the issuing agency noted the recognition of property leases on the financial statements affected by the discounted interest rate. If the discount rate is higher, then the lease obligation is lower, the depreciation rate is lower, and the financing costs are higher. Most of the rental costs will go into the early stages of the lease. One of the challenges when applying the new Lease standard is: how to determine the discount rate in situations where information is not available?

Implicit interest rate in the lease: Is the discounted interest rate to calculate the present value of the rent payments and the residual value of the leased asset is not guaranteed so that their sum is exactly equal to the fair value of the leased property and the initial direct costs at the lessor.

In case it is not possible to determine the implicit interest rate, the unit uses the equivalent borrowing interest rate of the lessee. The lessee's equivalent borrowing rate is the interest rate that the lessee would have to pay on a loan with the same term and security to acquire an asset of comparable value to the right-of-use property in a similar economic environment.

Fourthly, regarding the accounting method for the lessee of the property

The new lease standard requires the lessee to record all leases with a term greater than 12 months on the Balance Sheet. On the day the leased property begins to be ready for use, the lessee needs to recognize the right to use the leased property and the liabilities payable to the lease of the property.

3.2. Complete the Vietnamese accounting regime on property lease

Firstly, provide guidance on determining the initial value as well as after the initial recognition of the Right to use the leased property and the obligation to pay rent in accordance with the new standards on Renting property

Determine the initial value

The initial value of the Right to use the leased property is determined according to the principle of original price. The original price of the right to use the leased property (also known as the cost), including: The present value of unpaid rents; Payment before or at the start of the lease minus incentives received; Initial direct costs to be able to rent the property; Dismantling/restoration costs.

The obligation to pay rent should be recognized at the date of commencement of the lease at the present value of unpaid future rent payments, including: Fixed payment minus lease incentives; Variable rent payments depend on the rental interest rate in the market; Estimates payable to secure the residual value of the property at an agreed threshold at the end of the lease (residual value guarantees); The price of the option to buy the asset itself if it is firmly executed.

Determine the value after the initial recognition

For Right-of-use assets depreciated over time: If at the end of the lease period the lease transfers ownership of the property to the lessee or the cost of the lease already includes the right to purchase the property and the tenant intends to repurchase the leased asset, the Right to use the property is depreciated according to the estimated use period properties of assets; If at the end of the lease period, the property does not transfer ownership to the lessee, the Right to use the property is depreciated from the date of commencement of the lease to the earlier date between the useful use period of the property & the lease period under the contract; After initial recognition The right to use the leased property is evaluated at cost minus accumulated depreciation and impairments in value.

For Obligations to pay rent payable: Record the increase when interest expense is incurred on the remaining balance; Write down when making payments on rents.

Secondly, Renaming Account 212- Financial leased fixed assets and Account 341- Borrowing and financial lease debt

In order to comply with the new regulations on asset lease according to international practices, Vietnam's corporate accounting regime should be renamed Account 212- Asset financial lease to Account "Right to use leased assets" and ACC 341- Account and debts for financial lease to Account "Loans and obligations to pay property rent". Then the content of the accounts is as follows:

- Account 212: This account is used to reflect the existing value and the increase and decrease of the entire right to use the leased assets of the enterprise. This account is used for enterprises that are lessee accounting for the cost of the right to use the leased assets (which are fixed assets that are not yet owned by the enterprise, but the enterprise has obligations and liabilities to manage and use as assets of the enterprise).

- Account 341 - Loan and Property Rent Payment Obligations have 2 level 2 accounts:
- Account 3411 - Loans: This account reflects the value of borrowed funds and the payment of borrowed funds by the business (this account does not reflect loans in the form of bond issuance).
- Account 3412 - Obligation to pay property rent: This account reflects the value of the obligation to pay property rent and the situation of payment obligations to pay property rent of the enterprise.

Thirdly, Amending and supplementing operations at the lessee in accordance with the provisions of accounting standards for new asset lease

(1) At the beginning of a lease transaction, the lessee shall record the right to use the property and liabilities incurred in connection with the lease transaction:

Dr Acc Right-of-use Asset

Cr Acc Lease liability

Cr Acc Cash

(2) At the end of the year, depreciation of the right to use the property:

Dr Acc Depreciation expense

Cr Acc Accumulated Depreciation

(3) At the end of the year, the rental interest on the property is recorded:

Dr Acc Finance cost

Cr Acc Lease liability

Fourthly, Accounting guidelines for the right to use leased assets and the obligation to pay rent after initial recognition in accordance with the new standards on renting assets

After initial recognition, the right to use the property will be accounted for as follows:

DR Depreciation Expenses

CR Right-of-use Asset (ROU) - Accumulated Depreciation

After initial recognition, the obligation to pay rent is measured according to the book value of the "Amortized costs" lease debt:

- Write an increase when interest charge is incurred on the remaining balance. Accounting entries:

DR Finance cost

CR Lease liability

- Write down when making payment of rents. Accounting entries:

DR Lease liability

CR Cash

Fifthly, Present information about Lease on the Financial Statements

When applying accounting standards for new asset leases, the unit needs to decide which parts to add or remove at an appropriate level and evaluate the relevance of other information to ensure that the disclosure information is meaningful to users of the information, particularly for lessees. Specifically, the disclosure of information for the lessee is as follows:

On the Balance Sheet: Amend the indicator "Fixed assets for financial lease" to the indicator "Right to use leased assets" according to the type and nature in the assets section; Revise the indicator "Short-term/long-term financial lease loans and liabilities" to the indicator "Loans and obligations to pay property rent", which separates the detailed tracking of the indicator: "Obligation to pay short-term/ long-term property rent" in the liabilities section. Thus, transparency about the impact of asset lease obligations will be addressed and will provide information to readers of financial statements more clearly when comparing companies that rent assets and companies that borrow money to buy assets.

On the Income Statement: Supplement the following indicators: Interest on leased debt; Depreciation of the right to use the leased property; Impairment of the value of the right to use the leased property; Short-term rental costs; Renting low-value properties; Rent payments are not included in the lease debt; Sublease revenue; Profit/loss from selling and leasing.

On the Statement of Cash Flow: Supplement the following criteria: Payment of lease debt; short-term lease; lease of low-value assets and rent payments not included in the lease debt; Interest payments.

On the Notes to Financial Statements: Additional qualitative and quantitative information related to leasing activities.

3.3. Conditions for implementation

Regarding state agencies

The Ministry of Finance needs to fully study the provisions of IFRS16 and more fully survey the reality of asset lease contracts at enterprises, especially enterprises renting assets to be able to study IFRS16 to improve the standards of asset lease in accordance with specific

conditions in Vietnam. On the other hand, the completion of Vietnamese accounting standards on asset lease should be linked to the new promulgation of accounting standards on Fair Value, accounting standards Impairment of asset value along with the amendment of Vietnamese accounting standards related to asset leases such as VAS 14 – "Revenue and other income", VAS 15- "Construction contract" ... in the direction of approaching relevant international financial reporting standards, legal documents related to property leases, tax laws... needs to be studied and perfected in accordance with international practices.

Regarding businesses:

The accounting team needs to be trained and updated with knowledge about accounting standards in general and standards on property lease in particular in a systematic way to be able to identify, record and present information about asset lease transactions in a complete way, true in nature and reliable.

4. CONCLUSION

On the basis of studying the basic contents of IFRS16- Renting assets, studying the basic differences between the regulations and guidelines of IFRS16 and the corresponding Vietnamese accounting standards and the current accounting regime on property lease, the article has given some comments on the desire to improve the regulations on accounting for leasing property in Vietnam is in line with international practices.

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Section 3

ECONOMICS AND POLICIES

PROMOTING ESG PRACTICES: CURRENT SITUATION AND RECOMMENDATIONS FOR VIETNAM

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Abstract: *In recent years, ESG (Environmental – Social – Governance) has emerging as a leading trend for global investing. Global investors, especially institutional investors and investment funds, are shifting their investment strategies to sustainable investments which focus on ESG-related factors instead of traditional financial metrics. Besides, the outbreak of Covid-19 pandemic has also accelerated the transition process of corporates towards sustainable development. More and more businesses are approaching ESG standards with the goal of economic growth along with environmental protection and social development. ESG integration is definitely a challenging topic, however, once the Vietnamese Government made commitment on achieving net-zero carbon emissions by 2050 at the COP26, adopting ESG is no longer an option or responsibility, but a key factor to maintain business continuity and an opportunity for enterprises to develop sustainably. Given the importance of ESG practices, this research attempts to provide a quick overview of ESG framework as well as current situation of adopting ESG in Vietnam, then tries to propose several recommendations for promoting ESG practices in Vietnam.*

Keywords: *ESG, environmental social governance, sustainable reporting*

1. INTRODUCTION

ESG is an acronym for E – Environmental, S – Social, and G – Governance, which is a set of standards used to evaluate a variety of factors related to sustainable development and the impact of enterprises on the community. Among that, the environmental criteria refer to an organization's environmental impacts and risk management practices, which includes but not limited to greenhouse gas emissions, stewardship over natural resources, firm's overall resiliency against physical climate risks like rising temperatures, floods, droughts, etc. The social aspect considers the company's relationships with its stakeholders such as: safety-health and working conditions of employees; company's impacts on the community in which it operates; company's relationships with its partners, suppliers, customers, etc. Meanwhile, the governance pillar refers to the system by which an enterprise is directed and controlled. Under this criteria, the company will be assessed according to what types of mechanism exists to align the interests of managers and shareholders; how shareholder rights are assured; as well as whether the current internal controls help promote transparency and accountability of the company. As can be seen, ESG framework encompasses a wide variety of issues that are crucial to production and business activities. Therefore, ESG compliance is not merely the matter of meeting regulatory requirements or enhancing the company's reputation. More profoundly, having an ESG program in place provides companies

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competitive advantage, promotes sustainable growth, as well as helps these companies become more attractive to lenders and investors.

In reality, the compliance with ESG standards is still a controversial topic. Before the Covid-19 pandemic, investments in ESG-related aspects was not appreciated compared to the economic benefits that it brings. However, once the global pandemic broke out, sustainable business development is no longer an option but become a vital decision of enterprises. The Covid-19 pandemic has contributed to accelerating the trend of complying with ESG standards. In investment sector, global investors also pay more attention to ESG practices of companies instead of traditonal finacial metrics. Although many people are still doubtful about the ESG investments, more and more money are flowing into ESG-compliant companies than ever before. According to Morningstar, the ESG funds in United States continued to attract net inflows from investors in 2020, just as they did in 2019 and 2018. Net flows of 51 billion USD in 2020 were more than double the total for 2019 and nearly 10 times more than in 2018. This investment trend is not only happen in United States but also in other countries over the world. According to the Global Sustainable Investment Association, the global ESG assets have exceeded 35 trillion USD in 2020, up from 30.6 trillion USD in 2018 and 22.8 trillion USD in 2016, to become a third of the total global assets under management. In Vietnam, a variety of investment funds also start to incorporate ESG factors into their investment decision making process. For example, Vietnam Holding and Dragon Capital have adopted the United Nation's Principles for Responsible Investment, dedicated to promoting environmental and social responsibility among the world's investors, and apply these principles to all of their portfolio companies. These facts indicate that sustainable investing is becoming an inevitable trend over the world, and the company's ability to attract capital and resources will depend on how well it meets ESG criteria. Therefore, more thorough studies on current situation of adopting ESG standards are urgently needed for further enhancing the quality of sustainability reporting in Vietnamese listed companies.

2. OVERVIEW OF ESG

2.1. Definition of ESG

The term of ESG was mentioned for the first time a publication of United Nations Global Compact named "*Who Cares Wins*" in June 2004. It was the result of a joint effort of 20 leading financial institutions such as Deutsche Bank, HSBC, UBS, etc. to develop guidelines and recommendations on how to integrate Environmental, Social and Governance issues into asset management, securities brokerage services and associated research functions. After nearly two decades, ESG has evolved from a specialized reporting system dedicated to financial investors towards a general term describing how businesses or brands considering the impact of their activies on environment and society. In reality, there is no unified definition of what constitutes three pillars of ESG framework. It depends on the jurisdictions, as well as the standards that company decided to comply with. The UN Principles for Responsible Investment (PRI) has defined ESG issues as follows in one of their sustainable documents named "PRI Impact Investing Market Map":

> "**ENVIRONMENTAL, SOCIAL AND GOVERNANCE (ESG)**
>
> The environmental, social, and governance metrics that investors apply to measure the sustainability of, and risk associated with, their investments. These factors are:

Environmental: issues such as those connected to global warming, energy usage, and pollution.

Social: factors such as how a company treats its workers, health and safety considerations, and community outreach.

Governance: topics including business ethics, board structure and independence, executive compensation policies, and accounting."

As can be seen as above, the definition of ESG is generally very loose, given that the three topics are presented as "including" issues "such as" those listed. In fact, the detailed contents of ESG three pillars will depends on the standards or frameworks that an entity decided to adhere. The next section will provide a quick overview of current prevalent ESG reporting standards in the world.

2.2. Reporting Standards

To clarify the detailed components of ESG frameworks as well as facilitate the consistent disclosure, a number of organizations have emerged. The most frequently referenced reporting standards can be listed as follows:

- **SDG (Sustainable Development Goals):** This is a set of 17 interlinked global goals, which is designed to be a "*blueprint to achieve a better and more sustainable future for all*" by the UN General Assembly in 2015 and is intended to be achieved by 2030. These form the basic targets/indicators and are often referenced in ESG reporting.
- **GRI (Global Reporting Initiative):** The GRI is an international independent organization which was established in 1997 with the aim to create the first accountability mechanism to ensure companies adhere to social, economic and governance issues. In 2016, GRI has transitioned from providing guidelines to setting the first global standards for sustainability reporting with a multi-stakeholder audience – which is also known as the GRI Standards.
- **UNGC (United Nations Global Compact):** The UNGC is a voluntary initiative to encourage businesses and firms over the world to adopt sustainable and socially responsible policies and to report their related efforts accordingly. It includes 10 key principles in the areas of human rights, labor, the environment and anti-corruption. Since UNGC goals are intentionally set flexible and vague, in fact, it works as a forum for discussion and a network for communication among governments, companies and labor organizations, rather than a regulatory instrument.
- **TCFD (Task Force on Climate-Related Financial Disclosures):** TCFD was established in 2017, providing a voluntary reporting framework for companies to disclose climate-related information to companies' related-stakeholders more transparently. Although originally intended to be voluntary, in 2020, the governments of New Zealand and the UK became the first to mandate reporting of TCFD for implementation in the coming years. Finance ministers from the Group of Seven (G7) of the largest economies also announced in June 2021 the intention to mandate TCFD reporting in their respective jurisdictions.
- **IIRC (International Integrated Reporting Council):** The IIRC was formed in 2010 with the purpose of integrating traditional financial metrics and non-traditional non-financial information (such as ESG-related information) into a single corporate disclosure. By

consolidating these sources of information, IIRC can help companies present a more complete and transparent picture about their performance, utilization of resources, as well as their ability to create sustainable value over the long-term.

- **SASB (Sustainability Accounting Standards Board):** The SASB was founded in 2011 with the mission is to develop and disseminate sustainability accounting standards that help US public firms disclose decision-useful, non-financial information about financially material environmental, social, and governance topics to investors.
- **CDP (Carbon Disclosure Project):** CDP is a global disclosure system for companies (and also cities, states and regions), which is launched in 2000 with the purpose to help these entities making their environmental efforts more transparent to related stakeholders. These entities supply information to the CDP, and CDP will score them. These scores then feed into financial markets through rating agencies and rankings.

3. CURRENT SITUATION OF ESG PRACTICES IN VIETNAM

3.1. Vietnam's ESG-related legislation and policy

In recent years, Vietnamese goverment has made great effort to catch up with the global sustainable development trend, which can be seen in stricter regulations imposed on the obligations of the state and businesses regarding ESG practices. Setting the protection of the living environment and people's health as the most important goals, the government resolved to eliminate investment projects that harm the environment and to build a green and environmentally friendly economy. The ESG-related legislation include:

- On environmental protection, the Prime Minister issued Decision No. 1658/QD-TTg dated October 1 2021, approving the National Strategy on Green Growth for the 2021–2030 period, with a vision to 2050, which sets out 4 main objectives including: (i) Reduce the greenhouse gas emission intensity per unit of GDP; (ii) Greenify economic sectors; (iii) Greenify lifestyle and promote sustainable consumption; and (iv) Greenify the transformation process according to equality and inclusion principles and improve resilience. The Ministry of Planning and Investment is assigned the task of formulating specific incentive mechanisms for enterprises that provide green products and services.
- In an effort to fostering the ESG practices in enterprise, the Ministry of Finance issued the Circular No. 155/2015/TT-BTC dated October 06th 2015, providing guidelines on disclosure of information on the securities market. This sets out certain ESG reporting requirements for public and listed companies in Vietnam. More specifically, Vietnamese public and listed firms are required to declare in their Annual Reports their corporate objectives with regard to corporate environment, society and community sustainability. They also have to prepare a Report of related impacts of the company on the environment and society (including: (1) management of raw materials, (2) energy consumption, (3) water consumption, (4) compliance with the law on environmental protection, (5) policies related to employees, (6) report on responsibility for local community, and (7) report on green capital market activities under the guidance of the State Securities Commission), as well as include Assessments of the Board of Management

and the Board of Directors on the company's environmental and social responsibilities in their Annual Reports.

- In Foreign Direct Investment management, the Law on Investment No. 61/2020/QH14 dated June 17 2020 does not allow the extension of investment projects that use out-of-date technologies which may endanger the environment. Specifically, the Clause 4, Article 44 of the Law on Investment 2020 stipulates that investment projects using outdated technologies, potentially causing environmental pollution or being resource-intensive shall not be extended upon the expiration. This creates a motivation for foreign investors to continually improve their technology in regard to environment and resources if they want to continue their business in Vietnam.

In parallel with developments in legislation, various state bodies, especially the State Securities Commission of Vietnam (SSC), as well as non-governmental organizations such as International Finance Corporate (IFC), have gradually introduced guidance and policies to raise awareness and enhance the ESG practice of Vietnamese enterprises.

- In 2013, recognizing the urgent need for ESG reporting-related guidelines, the SSC collaborated with the IFC and the Association of Chartered Certified Accountants (ACCA) to produce "The Handbook on Sustainability Reporting" – a guide for listed companies in Vietnam to help them understand, manage and disclose their environmental and social performance. It provides public and listed firms with reporting procedures and key performance indicators for sustainability reports, and also introduces them to several global standards in ESG reporting. Following the guidelines presented in this thorough document was considered as one of the first steps towards meeting sustainable development goals for public and listed companies in Vietnam.

- In 2016, the SSC, in cooperation with the IFC, published the "Environmental and Social Disclosure Guide" to encourage public listed firms to adopt and better implement the disclosure of environmental and social information. This document can be seen as an additional guidance for listed companies to prepare reports in compliance with Circular 155/2015/TT-BTC of the Ministry of Finance dated 6 October 2015 on disclosure of information on the securities market.

- In July 24th 2017, the SSC, together with the Ho Chi Minh Stock Exchange (HOSE) and the German Agency for International Cooperation or (GIZ), launched the Sustainable Index (VNSI). The VNSI includes the top 20 companies with the highest sustainability scores listed on HOSE. These top 20 enterprises are selected from the VN100 index basket (which includes the 100 largest listed companies), and are comprehensively evaluated according to three aspects: Environment (E), Society (S), and Governance (G). There main objectives of VNSI are: (1) Recognize the best ESG practices implemented by public listed companies in Vietnam; (2) Promote the adoption of ESG standards and best practices among listed companies; and (3) Create investment products to attract responsible investors. VNSI's selection process requires careful preparation from companies for not only implementing the ESG practices but also reporting ESG in accordance with international and leading standards that represent a comprehensive picture of the company's business performance and future.

- In August 2019, the SSC launched the "Vietnam Corporate Governance Code of Best Practices" which was developed by themselves with supports from the IFC, the World Bank and the Swiss State Secretariat for Economic Affairs (SECO). This is the first corporate governance code researched and designed specifically for the Vietnamese market. Actually, the Code is a collection of recommendations for public and listed companies, covering best corporate governance practices and standards that go beyond the minimum requirements in current legislations. Enterprises are not required to adhere to the Corporate Governance Code, however, the SSC recommends that public firms should comply with practices and standards instructed in this document, and disclose the detailed level and roadmap of compliance in their annual report.

3.2. Current ESG practices in Vietnam

Although ESG standards and sustainability reporting requirements have become more prevalent in recent years, Vietnamese businesses are still in their early stages of the ESG journey.

A recent research taken by the PwC Asia Pacific and the Centre for Governance and Sustainability of NUS Business School in May 2022 has analyzed the sustainability reporting activities of the Top 50 listed companies by market capitalization in 2020 and 2021 across 13 Asia-Pacific economies, including Vietnam. The study shows that less than half (40%) of top 50 largest listed firm in Vietnam have identified climate change as a sustainability issue, and an even lower share (30%) disclosed the details of their climate-related risks or opportunities, and their processes for managing climate-related risks. Besides, only 6.7% reported how their businesses have integrated climate-related risks into overall risk management. Regarding governance aspects, the research reveals that approximately 95% of companies studied in Vietnam have established and disclosed sustainability targets, 40% have disclosed their board of directors' responsibilities over sustainability issues, and 32% have disclosed their ESG governance structure. The reported figures of board of directors training and linkage of ESG performance to remuneration was terribly low. Specifically, only 8% of firms researched have conducted ESG-related training courses for their board of directors, and even no companies have yet reported any linkages between the ESG performance and top executive remuneration. All these data have shown that Vietnamese companies are still in their early stages of adhering to ESG standards. Compared to other countries under the research in Asia Pacific, Vietnam is also behind the others in terms of complying with global sustainability reporting standards, which is illustrated in the Figure 3.1 below.

	SDG	GRI	TCFD	UNGC	IIRC	SASB	CDP
Overall	76%	75%	36%	23%	20%	18%	17%
Australia	80%	72%	80%	44%	4%	24%	30%
China	60%	78%	14%	18%	0%	2%	4%
Hong Kong	58%	70%	36%	26%	8%	20%	18%
India	62%	60%	12%	22%	50%	4%	8%
Indonesia	82%	78%	4%	8%	2%	14%	6%
Japan	94%	68%	64%	24%	36%	22%	24%
Malaysia	88%	80%	28%	16%	48%	10%	12%
New Zealand	52%	38%	40%	0%	28%	2%	14 %
Philippines	96%	88%	48%	24%	24%	42%	10%
Singapore	88%	96%	38%	36%	18%	20%	20%
Taiwan	94%	100%	80%	40%	14%	64%	46%
Thailand	94%	92%	24%	36%	12%	14%	32%
Vietnam	42%	58%	0%	2%	12%	2%	0%

0 to 25% of companies
>25% to 50% of companies
>50% to 75% of companies
>75% of companies

Figure 3.1. State of sustainability reporting standards and frameworks used in 13 Asia-Pacific countries

Source: PwC & CGS (NUS), 2022

Recently, the Vietnam Business Council for Sustainable Development (VBCSD), in corporation with IDH Vietnam, Suntory PepsiCo Vietnam, and Nestlé Vietnam, has published a research on the current situation of governance in industrial zones in Vietnam according to the Economic – Environmental – Social – Governance (EESG) framework. The study was carried out from January to June 2022 within the scope of the Sustainable Industrial Park Initiative with the respondents accounting for 30% of the total 397 operating industrial parks (IPs) across the country. The research results show that the rate of promulgating policies for economic, social, environmental development and sustainable governance is relatively low: 39% of IPs surveyed have policies on environmental risk management; 31% have a specialized department in charge of environmental issues; 12% have issued policies on the use of renewable energy, 26% have policies on saving water; 10% have policies to promote circular economy; 13% have policies on digital transformation; etc. The IPs are more concerned with risk management (or legal compliance) policies than policies that bring about sustainable development for IPs and participating businesses. Specifically, 21% of IPs studied concern about sales, 20% concern about taxes. However, only 13% concern about emissions and labor, and only 8% concern about resources. Among surveyed IPs, 54% have policies on workers' rights, and 24% have issued financial policies on houses and housing allowances for employees.

In summary, Vietnamese businesses' understanding and awareness of ESG standards have been enhanced remarkably in recent years. However, their efforts to translates that knowledge into actions in reality are not commensurate. It means that there is still room for improvement in various aspects of ESG standards, and Vietnamese companies need to keep pace with growing expectations of stakeholders for ESG practices as well as integrating ESG factors into their core business strategy.

In reality, there are several difficulties and barriers when considering ESG factors in Vietnamese listed companies, which can be listed as follows:

- From the perspective of the corporates, they concern about the cost of taking action; the lack of clarity around new regulations or requirements; as well as the lack of internal knowledge and capability to incorporate ESG factors into business activities. Among these challenges, the leading barrier making corporates delay ESG adoption is the lack of capital budget. Investment in sustainable alternative solutions is certainly not small and also not a one or two-day job. Besides, the majority of Vietnamese companies are still focus on business growth and financial performance rather than putting efforts on sustainable development goals.
- From the perspective of complying with current ESG-related regulations, there is a lack of guidance from authorities. Moreover, there are many laws and legal documents related to three pillars of the ESG framework, such as the Law on Environmental Protection, the Land Law, the Law on Economical and Efficient Use of Energy, the Labour Code, the Law on Anti-Bribery and Corruption, etc. However, these legislations mainly stop at the Central level and are single-sectoral in nature. Different ministries with different tasks are pursuing different goals. The inconsistence in classification of priorities and tasks by ministries/departments may reduce the degree of influence and effectiveness of legislations. Besides, the policies are promulgated slowly and do not keep up with the progressive development of science and technology, then have not made significant changes. Many policies are not incentive enough to promote businesses to adopting ESG standards.
- From the perspective of investors, especially institutional investors liked investment funds or asset management firms who seeking for ESG investments in Vietnam, one of the largest barriers is the lack of ESG data or corporates' ratings on ESG performance. In Vietnam, it has been seen the emergence of several sustainability indexes such as VNSI as mentioned above and CSI – Corporate Sustainability Index, which is jointly developed by VCCI (Vietnam Chamber of Commerce and Industry) and VBCSD (Vietnam Business Council for Sustainable Development). However, these ratings or scorings are normally not publicly disclosed, which causes difficulties for investors to access these kinds of non-traditional information and take it into consideration when making investment decisions. Moreover, the number of companies evaluated under these two sustainability indexes is also very limited. For example, in the case of VNSI, the index provider only examined ESG performance of the top 100 largest listed companies by market capitalization in Vietnam to select the company constituents. For CSI, the scoring and ranking process can only be conducted when the companies provide their ESG

data and information. Since these activities are voluntarily, we cannot expect this kind of index may cover all listed companies in Vietnam.

4. RECOMMENDATIONS FOR VIETNAM IN PROMOTING ESG PRACTICES

Based on the discussion above on the international experiences in promoting ESG practices as well as current situation of ESG compliance in Vietnam, the study attempts to propose several recommendations for Vietnam as following:

- ***First***, since the terms of ESG criteria is relatively new to Vietnamese businesses, there should be more regulations and additional guidance from the government. For example, policy-makers should develop taxonomies to clarify which economic activities would be considered sustainable. These kind of systems will help companies clear up the confusion over what is considered sustainable and what is not. Besides, the effective coordination among ministries and departments is also very crucial to strengthening the ESG practices in Vietnam.
- ***Second***, the government should have more policies to encourage businesses to adopt ESG framework such as tax incentives, licensing advantages, or favorable terms in credit granting activities, etc. These kinds of incentives would be very useful in prompting corporates to adhere ESG standards.
- ***Third***, given the context of accelerated growing funds flow into sustainable investments, Vietnam should put more effort into enhancing the quality and transparency of ESG-related information. There should have more agencies and organizations who provide data or ratings/scorings on ESG performance of listed companies. This not only help Vietnamese corporates in attracting capitals but also give them a reflection on their ESG performance against the other ones, thereby gradually improving their ESG practices.
- ***Last but not least***, the governmental agencies and bodies should continue to improve the corporates' awareness of ESG through holding workshops and training courses on implementing and adopting ESG standards. Besides, the banks and financial institutions, who play an important role in sourcing and distributing capitals, can act as a catalyst for the transition towards a more sustainable economy by incorporate ESG factors into their credit granting activities.

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THE THRESHOLD OF SHADOW ECONOMY FOR ECONOMIC GROWTH IN ASEAN COUNTRIES

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Abstract: *The study was conducted with the aim of testing the threshold of shadow economy size for economic growth in 8 ASEAN countries, including Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam, except Brunei and Myanmar, in the period 2002-2019. The methods used mainly are the method of threshold effects and the System - GMM approach for panel data to examine the impact of shadow economy on economic growth in the pre-threshold and post-threshold regions of shadow economy. The estimation results show that the threshold value of shadow economy is 42.5%. In the pre-threshold region, shadow economy has a negative impact (-0.013) on economic growth. In the post-threshold region, shadow economy has a negative impact on economic growth but this impact is lower (-0.011) than that in the pre-threshold region. This is a new finding of the study in comparison with previous studies within ASEAN countries.*

Key words: *ASEAN, economic growth, shadow economy, threshold of shadow economy.*

1. INTRODUCTION

Shadow economy is generally classified into two categories: the legal shadow economy and the illegal shadow economy. In this case, the legal shadow economy usually exists in the form of household businesses, handicrafts, small-scale individual economic activities, etc. These activities are creating a lot of jobs for laborers at different levels, especially low-skilled laborers, thereby reducing the unemployment rate and making significant contributions to the economy. Shadow economy can help the economy survive in times of crisis or recession (Asea, 1996); shadow economy creates high competition that promotes innovation in business methods or timely applications of scientific and technological development (Kraemer-Mbula & Wunsch-Vincent, 2016). Meanwhile, the illegal shadow economy is the economic activities that are prohibited by law and are not allowed to operate. In this case, shadow economy has a negative impact on most activities of society, causing loss of revenue for the State budget, disrupting economic and social activities. However, whether shadow economy is legal or illegal, shadow economy makes it impossible to estimate the data on national accounts accurately, causing the underestimation of the economic potential of countries. The size of shadow economy in ASEAN countries in particular and in Asia in general began to grow rapidly in 1989 when the East-West bipolar world order collapsed. That was the time when

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developing countries in this region reached out to occupy the market gap left by the superpowers after the Cold War.

According to the data published by Medina and Schneider (2018) at the IMF, the size of shadow economy accounted for an average of 30% of the GDP of ASEAN countries in the period 2002-2017, approximately equal to the average size of shadow economy in 157 countries around the world during the same period. Bolivia, Georgia, Nigeria, Tanzania and Zimbabwe are the countries with the highest proportion of shadow economies in the world, at over 50%. However, compared to the situation in other Asian countries such as China, Korea, and Japan, in which the size of the shadow economy is just above 20% of the GDP, the figure of ASEAN countries is significantly high. We observe that the size of shadow economy is higher in less developed countries, while it is lower in developed countries. The fact raises the concern among us that whether the size of the shadow economy negatively affects the economic development. In the current situation of ASEAN countries where the size of the shadow economy is at the world's average level, there will be some important questions remained: the size of the shadow economy will increase or decrease in ASEAN countries, how the size of the shadow economy diminishes opportunities of developing nations in this region.

Although there is not any recent data update for the size of the shadow economy in ASEAN countries, it can be inferred that the labour forces joining the shadow economy has increased due to the high unemployment rate as a consequence of Covid-19 pandemic. This shows that it is very urgent to study the impact of shadow economy size on economic growth.

However, previous studies have provided inconsistent results. Most studies indicate that shadow economy inhibits the economic development of each country because shadow economy causes imbalances in the economy, reducing tax revenue, leading to the volatility of the currency market and the labor market, and in the long-term decreasing the credibility of governments (Schneider et al, 2010; Buehn & Schneider, 2008a; Williams & Schneider, 2016; Buehn & Farzanegan, 2011). Nevertheless, a number of other empirical studies have revealed that shadow economy can have positive impacts on economic growth by creating more jobs for laborers, generating a defense mechanism in times of economic crisis, and contributing to the expansion of production and business (Schneider & Enste, 2003; Islam & Alam, 2019). A number of studies in recent times have discovered another development in the direction of the impact of shadow economy on economic growth. Accordingly, there may be a threshold and the possibility of reversing the direction of the impact of shadow economy on economic growth when shadow economy surpasses a certain threshold as mentioned in the studies of Wu and Schneider (2019), Goel et al (2019). This unveils that there may be a nonlinear relationship between shadow economy and economic growth in developing economies like most of ASEAN countries. If this nonlinear relationship is proven, this is the basis for policymakers to make appropriate decisions to control shadow economy and develop the economy in a sustainable way.

2. LITERATURE REVIEW

The theoretical framework for the shadow economy and economic growth has been explained by the following four schools of thought (Zolkover and Kovalenko, 2020).

According to *the modernization theory*, the shadow economy is considered to represent the underdeveloped part of the economy, and characterized by outdated production and lacked management. Therefore, the shadow economy negatively affects economic growth.

The neoliberal theory uses burdens from the government such as: tax regulation, state intervention etc. to explain the emergence of the shadow economy. Accordingly, the motivation of avoiding strict regulations in official sector is the cause of the shadow economy. It can be inferred that the size of the shadow economy weakens the efficiency of the government policy, lessening the economic development.

On the other hand, *the theory of political economy* believes that the shadow economy is the consequence of the decentralization in politics. This theory appreciates the shadow economy for its positive role in economic and social development.

Also, *the institutional theory* balances the role of both formal and informal economic sector. It explains the existence of the shadow economy as an alternative option, like another side of a coin. While many organizations and individuals believe in the rule compliance, the others choose to believe in norms, shared value, and acceptable practices which is not mentioned in official regulated. This theory can explain the situation in many developing countries where the shadow economy is significant although its output has not accounted in GDP yet.

The negative impact of shadow economy on economic growth: Shadow economy reduces tax revenue, and the distribution of income as well as social resources becomes unequal and inefficient (Alm and Embaye, 2013). According to Loayza (1996), the shortage of tax revenue due to the increase in shadow economy can cause the decrease in the quality of life and the quality of public goods and services (Broms, 2011; Kodila-Tedika and Mutascu, 2013). Elgin and Oztunali (2014) pointed out that there is the interaction impact of institutional quality on the relationship between the size of shadow economy and economic growth. Specifically, GDP per capita, which reflects economic growth, and the size of shadow economy have a negative relationship in countries with good institutional quality and vice versa. Some studies such as (Buehn & Farzanegan, 2011; Buehn & Schneider, 2008; Schneider, 2019; Schneider et al, 2010; Williams & Schneider, 2016) as well as (Dell'Anno, Gómez-Antonio and Pardo, 2006) in many countries in different parts of the world have come to the conclusion that the increase in the size of shadow economy will reduce the formal economic sector, namely GDP growth, due to the resources and factors of production absorbed by shadow economy have taken away the growth opportunities of the formal economy (Alañón & Gómez-Antonio, 2005; Medina & Schneider, 2018; Schneider & Enste, 2011).

The positive impact of shadow economy on economic growth: Shadow economy also has a positive impact on economic growth although this statement is still controversial. According to Schneider and Enste (2011), the income from shadow economy can be used for consumption and increase the aggregate demand in the formal economy. Zagoršek, Jaklič and Hribernik (2009) stated that the presence of shadow economy can also have beneficial impacts on national competitiveness in the international market, for example, in Slovenia. The evidence for the positive impact of shadow economy size on economic growth is also confirmed by Islam and Alam (2019) with the data on eight South Asian countries in the period 2017-2018.

The threshold of shadow economy for economic growth: Previous studies have not yet been consistent in the direction of the impact of shadow economy on economic growth. However, the view that shadow economy has a positive impact on economic growth has not been proven much. Wu and Schneider (2019) have concluded that the size of shadow economy and the level of economic development has an inverted U-shaped relationship. Additionally, the study of Goel et al (2019) using time series data when studying the role of shadow economy in the economic growth of the United States in the period 1870-2014 shows that this relationship reverses over time. Specifically, in the period before World War II, shadow economy had a negative impact on growth, but after the war, this impact was positive. The study by Elgin and Birinci (2016) demonstrated the inverted U-shaped relationship between the size of shadow economy and the growth of GDP per capita. Accordingly, the countries with very high and very low shadow economy size will have low economic growth, whereas the countries with medium shadow economy size will have high economic growth. The authors also show that shadow economy size is positively related to growth in high-income countries, and negatively related to growth in low-income countries.

The existence of a threshold for the size of the shadow economy, if proved, will leave a further explanation for the ambiguous empirical results mentioned above. The threshold can be reconciled with the current level of the shadow economy in ASEAN countries and give in-time recommendations for the governments whether they should take advantage of the shadow economy or avoid it at any expense.

3. RESEARCH MODELS AND METHODOLOGY

Most previous studies have found the negative impact of shadow economy on economic growth. Accordingly, shadow economy can reduce the government revenue and decrease the quantity and quality of public goods and services (Johnson et al, 1997; Loayza, 1996; De Soto, 1989). Furthermore, shadow economy can impede the technological innovation of enterprises, reducing their productivity (Friedman et al, 2000; Ihrig et al, 2004; La Porta and Shleifer, 2014). In addition, Schneider (2005) argued that shadow economy can have a negative impact on economic growth, and this impact is found mainly in developing countries. In this study, the authors conduct an analysis of the data sample from ASEAN countries, most of which are developing countries. Therefore, shadow economy may impede economic growth in the countries in the sample. Based on this, the authors expect the research result that shadow economy has a negative impact on economic growth.

According to Eilat and Zinnes (2000), when the ratio of shadow economy size to GDP exceeds a defined threshold, the negative impact of shadow economy on economic growth may be lower than that in the pre-threshold region. This is because the revenue generated from shadow economy is returned to the formal economy through consumption, which partially limits the negative impact of shadow economy on economic growth. Therefore, the authors expect to find the nonlinear impact of shadow economy on economic growth. In other words, there may be a threshold value of shadow economy, and before and after this threshold value, the impact of shadow economy on economic growth can change. Based on the framework, the authors propose the following hypotheses:

H_0: The threshold of the shadow economy exists, and the impact of the shadow economy on economic growth changes its direction when it passes the threshold.

In order to determine the threshold value of the independent variable of shadow economy, as well as determine the impact of this variable on economic growth in the pre-threshold and post-threshold regions, the authors build the research model with the following equation:

$$EG_{it} = \mu_0 + \mu_{11}SE_{it}(SE_{it} \leq \lambda_1) + \ldots + \mu_{1j}SE_{it}\,(SE_{it} > \lambda j) + \mu_2 DOL_{it} + \mu_3 FDI_{it} + \mu_4 PG_{it} + \mu_5 GOV_{it} + \mu_6 IQ_{it} + \varepsilon_{it} \quad (1)$$

Where EG is determined by the natural logarithm of GDP per capita. Independent variable: shadow economy (SE), measured by the shadow economy as a percentage of GDP. Control variables: dollarization (DOL), foreign direct investment (FDI), population growth (PG), government expenditure (GOV) and institutional quality (IQ). Accordingly, the variable of DOL is determined by the authors based on the studies of (Fry, 1997), Jameson (2003), Musse and Echchabi (2017). The variable of FDI has been used in the studies of Olofsdotter (1998) and Durham (2004). The variable of PG is defined according to the studies of Solow (1957), Romer (1990), Borensztein et al (1998), Olofsdotter (1998). The variable of GOV is determined according to the studies of Borensztein et al (1998), Broms (2011), Chen and Quang (2014). The variable of IQ is also found in the studies of Al-Sadig (2009), Chen and Quang (2014), Elgin and Oztunali (2014), Hoinaru et al (2020), Nicolae et al (2017), Borlea et al (2017), Peres et al (2018), Huynh (2020).

λ is the threshold value of SE; j is the threshold quantity of SE.

Table 1. The proposed research model

Variable	Code	Measurement	Source
Dependent variable			
Economic growth	EG	Natural logarithm of GDP per capita	World Bank
Independent variable			
Shadow economy	SE	Shadow economy size to official GDP	Medina and Schneider (2018), IMF
Control variable			
Dollarization	DOL	Foreign currency deposits to total domestic and foreign currency deposits in domestic banks	Levy-Yeyati (2021), IMF
Foreign direct investment	FDI	Foreign direct investment (net capital) to GDP	World Bank
Population growth	PG	Annual growth rate of total population in each country	World Bank

Variable	Code	Measurement	Source
Government expenditure	GOV	Government final consumption expenditure to GDP	World Bank
Institutional quality	IQ	IQ is the aggregate indicator, determined by the authors on the basis of 6 component indicators of the Worldwide Governance Indicators (WGI) from the World Bank, including: + Voice and Accountability; + Political Stability and Absence of Violence/Terrorism; + Government Effectiveness; + Regulatory Quality; + Rule of Law; + Control of Corruption.	World Bank

Source: The authors' synthesis and recommendation.

The authors mainly use the method of Threshold Effects and the approach of System – GMM (Generalized Method of Moments) for panel data to estimate the research model. The method of threshold effects for panel data was proposed by Hansen (1999), and then developed by Wang (2015) into the Fixed-Effect Panel Threshold Model. By using this method, the authors can test the existence of the threshold value of the variable of shadow economy. The method of threshold effects has the advantage of determining the existence of the threshold value in the research model; however, the nature of threshold effects proposed by Hansen (1999) and developed by Wang (2015) is based on the fixed effect threshold regression for balanced panel data. Therefore, this method encounters limitations when estimating the research model, especially the limitation in controlling the latent endogeneity in the research model. To overcome these limitations, the authors combined with the use of the System – GMM approach proposed by Arellano and Bond (1991). This approach has great advantages when it overcomes the violated regression hypothesis and controls the latent endogeneity in the research model (Doytch & Uctum, 2011). Through using a combination of the System - GMM approach and threshold effects, the authors expect that these two methods can support each other to obtain reliable estimation results.

The research data were collected in ASEAN countries. In order to ensure the balance in the data sample, the authors only collected the data from 8 ASEAN countries: Cambodia, Indonesia, Laos, Malaysia, the Philippines, Singapore, Thailand and Vietnam; except Brunei and Myanmar, in the period 2002-2019. This is because the World Bank's Global Governance Index (WGI) has released the full annual data since 2002. Also, data of the shadow economy of the sampled countries can be obtained in the studied period. As a result, the authors were only able to collect the data sample during this period.

Regarding the other secondary data, the authors collected from the publicly available sources by the World Bank (the data on the variables EG, FDI, PG, GOV and the component indicators of IQ), IMF (the data on the variables SE and DOL). Accordingly, the data on the SE variable are generally published 2 years later than the other data, which means that these data can only be collected until 2017. Consequently, the authors made a prediction of the two recent years' data on SE through the Box-Jenkins method, which was proposed by Box et al (2013).

Regarding the variable of IQ, the authors used the method of Principal Component Analysis (PCA), which combines a set of component variables into a single representative variable (Jolliffe, 2002). Therefore, the authors utilized the PCA method to determine the variable of IQ based on 6 component indicators of the World Bank's Global Governance Index (WGI). This implementation is also used in the study of Ullah and Khan (2017).

4. RESULTS AND DISCUSSION

Table 2. The description of the data sample

Variable	Mean	Standard Deviation	Min	Max
EG	3.50	0.57	2.51	4.82
SE	29.72	12.78	9.40	54.10
DOL	22.63	19.41	0.68	75.45
FDI	6.16	6.50	-0.25	28.60
PG	1.38	0.68	-1.48	5.32
GOV	9.97	3.37	3.46	17.12
IQ	43.81	21.11	9.31	90.01

Source: The authors' analytical results.

Table 2 shows that the highest EG of 4.82 belonged to Singapore in 2018, equivalent to 66,188.78 USD, and the lowest value of 2.51 belonged to Laos in 2002, equivalent to 320.06 USD. The average EG of eight countries in the sample was 3.5, equivalent to 8,540.37 USD. Regarding SE, the mean value of eight countries in the sample was 29.72%. Singapore has the lowest SE value (9.4%) in 2012, and Cambodia has the highest value (54.1%) in 2002.

Next, the authors tested the threshold effects in the research model. The results show that there is a threshold value of shadow economy for economic growth, with the following value:

Table 3. The test results of threshold effects

Model	Threshold	Lower	Upper
λ	42.50	33.40	42.66
Prob	0.01^{***}		

Note: **** indicates significance at the 1% level.*

Source: The authors' analytical results.

Table 3 shows that the model has a threshold value of SE at the significance level of 1%. Accordingly, the threshold value of SE is l = 42.5%. Therefore, the authors estimated the impact of SE in the the regions before and after the threshold value l on EG. Through the test steps, the model suffers from heteroscedasticity and autocorrelation between errors at the significance level of 1%. As explained in the content of the research methodology, the authors employed the System - GMM approach to estimate these models in the the pre-threshold and post-threshold regions, and the results are shown in Table 4 as follows:

Table 4. The estimation results of the model through the System – GMM approach

EG		Coef.	p > /t/
SE *(SE ≤ 42.5%)*		-0.013*	0.09
SE *(SE > 42.5%)*		-0.011*	0.06
DOL		-0.004***	0.01
FDI		0.019***	0.00
PG		0.052**	0.04
GOV		0.062***	0.00
IQ		0.013***	0.00
Constant		2.610***	0.00
Significance level		10,877.99***	0,00
Arellano-Bond test	AR(1)	-1.83*	0.07
	AR(2)	-0.31	0.76
Sargan test		0.00	0.97

Note: **, ** and *** indicate significance at the 10%, 5% and 1% levels, respectively.*

Source: The authors' analytical results

The estimation results through the System – GMM approach show that the model is statistically significant in the pre-threshold and post-threshold regions. At the same time, the Sargan test and the Arellano-Bond test in these models are suitable. According to the research results, SE has a negative impact on EG in the pre-threshold and post-threshold regions. Specifically, before the threshold value (SE ≤ 42.5%), SE has a negative impact (-0.013) on EG. When exceeding the threshold value (SE > 42.5%), SE has a negative impact on EG but at a lower level (-0.011). In addition, the authors also found the negative impact of DOL on economic growth, whereas the control variables (FDI, PG, GOV and IQ) have a positive impact on EG.

Based on the research results, the authors analyzed and compared the empirical evidence that the authors provided in section 2. The authors' results reaffirm the findings presented by 0, Williams and Schneider, 2016, as well as the recent studies by Nicolae et al (2017), Shahid and Ejaz Ali Khan (2020), Esaku (2021), Özgür et al (2021), which state that the size of shadow economy has a negative impact on a country's economic growth and is measured by GDP per capita.

One of the interesting findings from the authors' research results is the existence of a threshold point in the impact of shadow economy size on economic growth. Specifically, the impact of shadow economy on growth will change when the size of shadow economy exceeds 42.5% of GDP. Nonetheless, the trend of the impact of shadow economy on growth is still negative before and after the threshold point. In comparison with the previous studies of Elgin and Birinci (2016), Wu and Schneider (2019), the authors did not find the evidence to confirm the direction reversal of the impact of shadow economy size on economic growth. This can be explained from the nature of the research data that only include the countries in Southeast Asia, and most of these countries are developing countries, except Singapore. According to the conclusion of Wu and Schneider (2019), there is an inverted U-shaped relationship between the size of shadow economy and the country's development level, expressed through GDP per capita. In particular, the size of shadow economy of the least developed and most developed countries is often at a high level, whereas the countries with a medium development level have a low size of shadow economy. This implies that when GDP per capita exceedes a certain threshold, the increase in the size of shadow economy will be accompanied with the increase in the economic growth rate. Although previous studies have not shown the mechanism that causes the direction reversal of the impact of shadow economy on economic growth, proving the existence of a threshold point, even if it is theoretical, is still of great value when assessing policy implications in the long term. What the authors want to show here is that the relationship between the size of shadow economy and the growth of the formal economy can be reversed in the direction, depending on the development level of that economy. Accordingly, it is important to clearly determine what state the economy is in so that policymakers can navigate the right trend of the impact of shadow economy on growth, and thereby enact policies that are consistent with the current situation.

According to Wu and Schneider (2019), for an economy that is underdeveloped and is in the phase of high growth to catch up with developed countries, the relationship between shadow economy size and economic growth is negative, and ASEAN countries are going through this phase. However, the level of the negative impact of shadow economy size on growth is somewhat reduced in the countries where the size of shadow economy is greater than 42.5% as estimated in the model. According to the statistics in the study of Eilat and Zinnes (2000), the countries where the ratio of shadow economy size to GDP exceeds 40% are usually developing countries in Asia and Africa, with low per capita income. In these countries, the negative impact of shadow economy on economic growth is lower because the formal economy partly depends on it. The revenue generated from shadow economy is returned to the formal economy through consumption, helping to partially limit the negative impact. For more developed countries, including most countries in North America, Europe, and some of the most advanced countries in Asia, where shadow economy accounts for less than 40% of GDP, the negative impact of shadow economy on growth becomes more evident, as the revenue of these countries comes from industrial corporations and from well-organized and well-controlled services and business activities.

The cause of the change in the level and direction of the impact of shadow economy on economic growth in ASEAN countries is explained by a number of previous studies, specifically as follows:

(i) According to Elgin and Birinci (2016), the impact of shadow economy size on GDP growth is positive in developed countries, and is negative in developing countries. The author used the growth model of Solow (1957) to analyze economic growth including three components: total productivity factor (TPF), capital and labor. The author's analysis shows that growth driven by TPF has a positive reaction to the size of the informal economy, whereas growth driven by capital and labor responds has a negative reaction to the factors from the informal economy. Developed countries are those where the growth factor TPF dominates the growth driven by capital and labor while underdeveloped countries grow mainly through capital and labor. This argument explains the threshold impact of shadow economy size on economic growth in many countries, including ASEAN countries.

(ii) The cost of job search and job brokerage in the labor market of developed countries is often quite high; furthermore, the requirements for laborers' welfare are also increasingly demanding, causing business owners to employ low-wage migrant laborers. Moreover, laborers do not want to find jobs in the formal sector due to complicated administrative procedures and high-income taxes. Therefore, the countries with a high development level will also have a large shadow economy size. In contrast, the size of shadow economy is also quite large in poor countries with a high proportion of unskilled laborers and weak political institutions (Frank Wu and Schneider, 2019). This is consistent with the authors' research sample in ASEAN countries, most of which are developing countries.

(iii) According to Goldin (1995), the proportion of women in the labor force will gradually decrease with the level of economic development, but it will increase when exceeding the threshold. This is explained from a social perspective on the increasing role of women in more developed countries. Women's participation in the labor force has an indirect impact on the size of shadow economy because this sector often has a higher proportion of male laborers. Although there are no specific empirical studies showing the impact of labor force structure (classified by gender) on the size of shadow economy in economies with different development levels, it can be predicted that there is a non-linear relationship between the size of shadow economy and the level of economic development.

Overall, with the characteristic that the research data are limited to the countries in the ASEAN region, the threshold impact of shadow economy size on economic growth is expressed through the change in the impact level, without the reversal of the impact direction. In the long term, the negative impact of shadow economy on economic growth in ASEAN countries is likely to remain unchanged because developing countries have a high proportion of household businesses, self-production, and self-consumption; small and micro enterprises still make up the majority; and institutional quality is not high. Accordingly, it is necessary to have timely intervention policies to reduce the negative impact of shadow economy on the formal economy.

5. CONCLUSION

The study has achieved the research objective when examining the nonlinear impact of shadow economy on economic growth; accordingly, the threshold value of shadow economy (l) is 42.5 and exceeding the threshold value, the impact level decreases. Specifically, before the threshold value, shadow economy has a negative impact (-0.013) on economic growth; after the threshold value, shadow economy has a lower negative impact (-0.011) on economic growth. As analyzed above, shadow economy still is at a high level in ASEAN countries, showing the necessity for appropriate policies to limit the negative impact of the shadow economic sector on economic growth, at the same time gradually control shadow economy and transition to the formal economy. Although the negative impact of the shadow economy on economic growth tends to decline after passing the threshold λ, this negative impact is found before and after the threshold. In the other words, the shadow economy may disable the economic growth even in countries where the level of the shadow economy has not passed the threshold λ, such as Vietnam and other nations in the sample. Therefore, it is inevitable to make recommendations to lessen the negative impact of the shadow economy on economic growth in the countries under the study.

Some recommendations to be taken into consideration are as follows:

(i) Determine the scope of the shadow economic sector. The goal of policymakers should be towards the transition from the informal business sector to the formal sector and its contribution to GDP; therefore, the scope of shadow economy needs to be determined to have appropriate policies, helping policies for shadow economy to be promoted in accordance with the goal of policymakers.

(ii) Estimate the size of shadow economy. The data on shadow economy were published by (Medina & Schneider, 2018) at the IMF, and were calculated according to the MIMIC approach. This approach is now widely used and has many advantages in comparison with other methods such as: allowing the researcher to come up with any list of causes and indicators that are considered relevant and applied to a large sample of countries at a low cost of research. However, there are also disadvantages; for example, different input variables can lead to different estimation results of shadow economy size, and the input variables are not completely appropriate for all countries. Consequently, the estimation data of shadow economy may deviate from the reality, not accurately assessing the size of shadow economy. Therefore, countries need to do research on the solutions that are more suitable to the actual national situation in order to estimate the size of shadow economy more accurately and assess the potential of the economy properly.

(iii) In addition, there should be policies to improve the business environment to support enterprises and households to participate in the formal economic sector; improve tax management policies and social obligations towards the shadow economic sector; manage production and business activities on a digitized platform.

This study has achieved certain success, especially finding the threshold point in the impact of shadow economy on economic growth in ASEAN countries, which is a new point of the study in comparison with previous studies. Nevertheless, the study is also restricted in analyzing only eight ASEAN countries, except Brunei and Myanmar, due to the limitation of the research data.

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ASYMMETRIC EFFECTS OF GOVERNMENT DEBT ON SUPPLY BANK CREDIT FOR THE PRIVATE ECONOMY IN VIETNAM

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Abstract: *This study examines the short-term and long-term effects of government debt on bank credit provided to the private sector in Vietnam, quarterly data for the period 2000-2021. Methodology, based on NARDL model econometric approach, annual time series data were used, The study includes government debt, economic growth, loan interest rates, supply development M2 money affects bank credit to the private sector. The results indicate that real lending rates, M2 money supply and government debt have a significant impact on banks' credit to the private sector in the short and long run. A rapid adjustment process and shows that the imbalance of shocks in the previous period is adjusted to the long-run equilibrium in the current period. The long-term and short-term results strongly support the impact of macroeconomic fluctuations on the banking sector through the growth of bank credit that is responsive to the private sector in Vietnam.*

Keywords: *Bank credit, Government debt, Private sector economy, NARDL, Vietnam.*

1. INTRODUCTION

Investment by the private sector to promote economic development is an important factor. Finance is a factor influencing private sector investment and it is the backbone of every business. A growing company needs a financial source to support its production and business activities and other financial activities. Banks are an important source of credit for many different entities and sectors. Commercial banks provide lending services to individuals and businesses in the form of short-term, medium-term or long-term (Olokoyo, 2011). Commercial banks raise capital from surplus economic units (depositors) in the form of deposits and provide deficit economic units (borrowers of last resort) in the form of credits and deposits. This process led to the birth of the credit system. This system was originally characterized by direct financing (Afzal & Mirza, 2010), a system in which lenders and borrowers had to personally seek and transact directly. However, after the reform of financial institutions, the system has now been implemented indirectly. This means that deposits are aggregated from domestic savings of financial institutions such as commercial banks to be lent to deficit economic units. In developing countries, in an economy where the stock market is not highly developed like Vietnam, the banking industry has dominated the financial sector.

According to the global economic report, a country is said to have a well-developed financial system, then bank credit to the private sector as a percentage of GDP must account for 70% or more. In some very advanced economies, this number is even higher than 200%. However, in some poor countries, the amount of credit can be less than 15% of GDP. In general, credit to the private sector in Vietnam is limited and concentrated in urban centers and is mainly carried out by banking institutions. Bank credit to the private sector as a percentage of GDP in Vietnam is limited to less than 15%.

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Government debt can benefit the country if the rate of return on debt is higher than the rate of payment for services, and vice versa. Today, rising public debt is a worldwide phenomenon. A major concern that has long been raised by policymakers of both financial and monetary authorities is the issue of total public debt. In order to achieve rapid economic growth, the key role of public debt, especially the spending plan of debt, plays an important role. Whether public debt increases or decreases, the impact of public debt on bank credit provided to the private sector is still a matter of mixed results. For different economic conditions, some researchers found positive, some negative, and some found no significance between the relationship of public debt and private sector credit. According to economists, public debt is not seen as a negative, instead, the problem is the mismanagement of the debt. Empirical findings support that if the right policies are applied and can be used to support conditional lending, where aid is tied to policy reform, it can be effective.

The topic identifies the factors affecting the growth of bank credit provided to the private sector and explains the relationship between those factors, different studies have been carried out in different regions. In the world. However, the issue of factors affecting bank credit to the private economy has not attracted the attention of researchers in Vietnam, especially from a quantitative approach. Therefore, the main objective of this study is to try to empirically determine the extent to which government debt determines the provision of bank credit to the private sector from the NARDL model in the Vietnamese context by how to use time series datasets for the period 2000 to 2021. In the next section, the study presents background information to advance the research. Section 3 outlines the empirical approach of the research model. Specifically, the study uses the NARDL model. The estimated results are then presented and discussed in Section 4. Finally, Section 5 provides some conclusions and recommendations.

2. THEORY AND EMPIRICAL STUDIES BETWEEN GOVERNMENT DEBT AND PRIVATE SECTOR CREDIT

2.1. Theory of the relationship between government debt and credit provided to the private sector

Since the 1960s, neoclassical economists have noted that increasing taxes, to finance interest payments on the nation's growing domestic and foreign government debt, negatively affect to the formation of total capital. The various channels through which high and growing public debt adversely affects economic growth include (1) the domination of private investment as government borrowing competes for resources. capital on the national capital market; (2) higher long-term interest rates caused by the supply of outstanding government debt and larger credit risk premiums; (3) more distortionary taxes to finance future liabilities and increased repayments; and (4) an increase in the rate of inflation (Ricardo, 1960).

The increase in the budget deficit means that the government increases its demand for capital from the private sector, seeking to borrow money from its own citizens as well as from international investors. In a healthy economy, this means that the government begins to compete with private borrowers, and thus increases interest rates. These rate hikes could reduce efficiency and crowd out private sector investments in plant and equipment. This decline in investment means that the overall economy has a smaller amount of capital to operate, and this smaller amount of capital reduces the rate of future growth. On the other hand, rising debt levels can make investors wary that a country won't be able to make debt payments to its creditors. As a result, investors exiting the nation's debt can cause interest rates to spike as higher returns must be guaranteed to creditors to convince them to continue financing the nation's deficits. family. At that time, a sudden increase in interest rates will lead to "disturbing" the financial market and affect growth through this channel. Financial crises caused by excessive debt have caused large economic costs for many countries during the duration of the debt (Reinhart & Rogoff, 2010).

2.2. Empirical studies on factors affecting credit provided to the private sector

Imran and Nishat (2012) conducted a study on the determinants of bank credit in Pakistan, a supply-side approach for the period from 1971 to 2010 using ARDL model. The study concludes that in long-term debt abroad, domestic deposits, economic growth, exchange rates and monetary conditions (represented as M2 as a percentage of GDP) are related positively and significantly associated with private credit, while inflation and money market rates do not affect private credit. Likewise, in the short run, all variables are significant and positively related to private credit with the exception of domestic deposits and inflation which has no effect on private credit in Pakistan. According to the authors, the reason that the amount of domestic deposits does not affect bank credit in the short term may be that banks do not immediately provide credit from the current deposit of account holders. Finally, the researcher tried to find out the impact of financial liberalization on bank credit, using it as a dummy variable. However, the resulting dose did not show any impact of financial liberalization on bank credit in Pakistan.

Olokoyo (2011) conducted a study between 1980 and 2005 on the determinants of lending behavior of commercial banks in Nigeria. The study suggests that the deposit volume, portfolio, GDP and foreign exchange of commercial banks have a significant and positive relationship with bank loans. The author also adds variables that include other important variables such as lending rates, cash reserve requirements, and liquidity reserves. These variables are all positive but do not significantly affect the loan provided by the bank. The reason for the low impact of the cash reserve requirement on loans is that commercial banks may not necessarily convert the low percentage of bank capital available for lending.

Djiogap and Ngomsi (2012) studied the determinants of long-term bank lending behavior in the Central African Economic and Directors Community (CEMAC), between 2001 and 2010 using a model panel data for six countries. The study shows that bank size, bank capitalization, long-term debt and GDP have a positive effect on long-term bank credit to firms but inflation has a negligible effect.

Vodova's study (2008) examines the credit market and predicts its future development in the Czech Republic between 1994 and 2006, using disequilibrium models to identify variables. important influence on the supply and demand for credit. Vodova identified possible determinants of credit demand and credit supply function. Including factors that have a positive impact on the increase in bank loans: Expected fixed investments or industrial production; Expected inflation; GDP; Capital market index; Credit volume in the previous period; Deposits; Bank capital; Interest rates; Market capitalization of corporate bonds and stocks; Bank's lending capacity; Bank profitability; Credit volume in the previous period; The difference between lending rates and corporate bonds; Capital market index. factors that have a negative impact on the increase in bank loans: Short-term or long-term interest rates; Private sector debt; The difference between interest rates on loans and corporate bonds; Expected inflation; The volatility of bank stock prices; Minimum required reserve ratio; Reserves created and provision for lending risks for classified loans; Bank Deposit Costs Although Vodova (2008) summarized the potential determinants of credit supply and demand, he did not incorporate all the determinants in his study because only Several variables are suitable for analyzing the Czech credit market. Therefore, the researcher includes the lending capacity and GDP of the supply side. Empirical analysis of credit supply shows that the lending capacity of banks is positively related to bank credit. However, GDP is negatively affecting the real credit volume of banks. The author explains that the negative sign for GDP is that banks may be doing non-cyclical, if they expect output to fall in the future, they may be able to reduce the supply of credit in the present.

Mohammed (2014) examined the need and strategies of repositioning commercial banks to enhance the productive capacity of SMEs using Error Correction Model (ECM) and inspection. integrated co. The results show that there is a similarity between the repositioning of commercial banks with service provision capacity, lending conditions and macroeconomic variables. He said that loosening the lending conditions of banks through the central bank to contribute to economic growth.

Hyunggeun et al (2015) conducted an empirical analysis of the usefulness of the loan-to-deposit ratio using panel data regression. The results showed that the loan-to-deposit ratio acted as an efficient macro measure. Analysis of the impact of the loan-to-deposit ratio regulation on the monetary policy transmission channels shows that, among the different transmission channels. The loan-to-deposit ratio affects the efficiency of a bank's lending channel, by altering a bank's conditions for asset and funding management. This implies that the supervisory authorities and the central bank, which is responsible for regulating the loan-to-deposit ratio, need to maintain a closer cooperative relationship.

Anigbogu et al (2015) studied the influence of financial intermediation on the performance of small and medium enterprises in Nigeria from 1980-2013. Use the usual least squares (OLS) econometric model. The results show that except for the bank interest rate for small and medium enterprises, all other variables, namely the bank lending rate for small and medium enterprises, the exchange rate and Monetary policy has a positive and significant effect on the performance of small and medium enterprises in Nigeria. The study recommends that the regulator design a credit program for SMEs that is accessible and well-supervised for industry growth.

Zuzana et al (2015) examined how reserve requirements affect the transmission of monetary policy through the bank lending channel in China while taking into account the role of bank ownership. row. China's monetary policy performance is characterized by its reliance on reserve requirements as a permanent policy instrument with frequent adjustments. Using a large dataset of 170 Chinese banks for the period 2004–2013, they analyze the response of loan supply to changes in reserve requirements. The authors find no evidence that the bank's lending channel affects reserve requirements. However, they find that changes in reserve requirements affect banks' loan growth.

The same finding holds for other monetary policy instruments. Furthermore, they show that the form of bank ownership affects the transmission of monetary policy.

Ovat (2016) examined the role of credit by commercial banks in facilitating the development of small and medium enterprises in Nigeria. The study adopted the co-integration and error correction mechanism and based on the research results, the exchange rate and lending rate are statistically significant for credit of small and medium enterprises. In addition, the inflation rate is said to be significant but negative for SME credit. He suggested that policies should be created for small and medium enterprises to easily access credit from commercial banks. To achieve this, the monetary authority needs to ensure that the lending rates that commercial banks lend to small and medium-sized enterprises are kept to a minimum. Furthermore, devaluation of the national currency should not be encouraged because devaluation makes the cost of imported raw materials and means of production used by small and medium enterprises very expensive and thus hinders production activities. rather, local sourcing of raw materials should be encouraged to reduce pressure on the exchange rate.

D'Pola and Touk, (2016) empirically examined the impact of commercial bank credit on the performance of small and medium-sized enterprises (SMEs) in Cameroon from 1980 to 2014 using a method Ordinary least squares (OLS) method to estimate multiple regression models. The study uses the output of small and medium-sized enterprises approximated with wholesale and retail trade output as a component of GDP. The results show that commercial bank credit and real interest rates have a negative and significant impact on the performance of SMEs in Cameroon. Therefore, the study argues that the Cameroonian government should improve the business environment by providing the necessary infrastructure to reduce the cost of borrowing, and then promote the development of small and medium enterprises to achieve vision 2035.

Mitku (2018) determines the effect of cash reserve requirement on commercial bank lending in Ethiopia using panel data of eight selected commercial banks over an 11-year period. (2005 to 2015). The study examines the relationship between commercial bank lending and cash reserve requirements. The usual least squares model is applied to examine the impact of cash reserve requirements on commercial bank lending. The results show that there is no significant relationship between commercial bank lending and cash reserve requirement in Ethiopian commercial banks and recommend that commercial banks should pay less attention. to the cash reserve requirement as it does not lead to insolvency nor weaken the ability of banks to create credit.

William, Zehou and Hazimi (2019) investigated the factors affecting domestic credit to the private sector in Ghana. The study used Johansen's vector autoregression and cointegration model to analyze panel data spanning the years 1961 to 2016. The results from the study suggest that although there is no long-term association between the variables. variable, but a significant short-run relationship exists between domestic credit to the private sector, expanded money supply, and total capital. They conclude that money supply and total capital are essential factors to be addressed in the quest to develop the financial strength of domestic banks in providing credit to the private sector for economic growth. economic.

Olorunmade et al (2019) examined the determinants of private sector credit and its impact on economic growth in Nigeria. Fluctuations in the money and credit supply are fundamental causal factors in the process of cyclical activity; when money supply decreases, prices fall, profits fall, production becomes sluggish and production decreases and when money supply expands, prices rise, profits increase and total output increases and eventually growth . Sample regression analysis was used to analyze data obtained from the Central Bank of Nigeria between 2000 and 2017. In the determinants of credit supply, there is a significant relationship between total credit to the region. privatization and money supply in Nigeria. The study also shows that there is a significant relationship between private sector credit and economic growth in Nigeria. They recommend that a continuous increase in the money supply to the Nigerian economy is required to increase the flow of credit into the real sector of the Nigerian economy, financial institutions should distribute more credit to the region. for production purposes in order to increase gross domestic product.

Zaagha and Murray (2020) examined the impact of deposit banking policy on private sector capital in Nigeria. Time series data were obtained from the Central Bank of Nigeria from 1985-2018. Credit to the private sector, credit to the core private sector and credit to SME are used as dependent variables while liquidity ratio and loan-to-deposit ratio are used. used as independent variables. Ordinary least squares (OLS), Enhanced Dickey Fuller test, Johansen cointegration test, variance decay equation, parsing vector error correction model, and pairwise causality test are used. for investigation and analysis. Empirical findings show that the bank's deposit policy explains the 40.8% change in credit for the primary private sector, 28.1% and 58.9% respectively in the change in credit for the private sector. core private sector and credit to the SME sector. The study concludes that bank deposit policy has no significant relationship with credit to the private sector and credit to the core private sector but has a significant relationship with credit to the sector. small and medium enterprises. From these findings, the study recommends compliance with depositing bank policies; This will strengthen efficient financial intermediation and increase private sector funding. Regulators also need to harmonize different deposit-banking policies with the goal of enhancing private sector funding. It is necessary to decentralize the operation of depositing banks in urban areas. Policies need to be developed to expand the operation of deposit banks to rural communities, which will enable institutions to mobilize more deposits and increase credit to the private sector.

Domestic studies mainly examine the impact of public debt on economic growth (Hoang Khac Lich and Duong Cam Tu, 2018; Hoang Thi Hanh, 2020). However, this study examines the extent of public debt crowding out the credit provided to the private sector. In addition, instead of using linear models, this study uses asymmetric models to test the asymmetric effect of public debt. This model is consistent with the nature of the increase in public debt, which affects the elements of the economy in a nonlinear direction.

3. RESEARCH DATA AND MODELS

3.1. Data and empirical model

The study has 5 variables: including government debt, economic growth, lending interest rate, and money supply development. M2 affects bank credit to the private sector. In fact, there may be more variables that are deemed appropriate for the present analysis. However, the time series model requires a sufficient number of observations. An increase in a system variable can quickly render the regression inefficient.

Table 1. Summary of data description

Variable	Description	Unit	Notes
CBP	Credit banking private	Logarit	Dependent variable
GDP	Economic growth	%	Control variable
LIA	Total Liabilities of government	Logarit	Nonlinear
BMG	Money supply in the economy M2	%	Control variable
IRO	Interest Rate Offer	%	Control variable

Notes: *All the data sources are collected from IMF database.*

Studying the nonlinear effect of government debt on bank credit provided to the private sector of Vietnam, the data is taken on a quarterly basis from the first quarter of 2000 to the first quarter of 2021. Variables from the system IMF financial statements (IFS). National Product (GDP) of Vietnam; growth of expanded money supply (BMG) and lending rate (IRO) are taken as a percentage; Bank credit provided to the private sector (CBP) and public debt of the government (LIA) are trend variables without normal distribution, the deviation must be very high, this variable is converted to logarithmic base form. naturally so that the variable has a distribution close to the normal distribution, satisfying the input data condition of the model.

3.2. The symmetric analysis

This study uses the NARDL asymmetric model to determine the possible asymmetric link of government debt to bank credit provided to the private sector. The NARDL model with an equation representing the relationships of the series can be restated in the following form:

$$\Delta \mathrm{CBP}_t = \alpha + \beta_1 \mathrm{CBP}_{t-1} + \beta_2^+ BMG_{t-1}^+ + \beta_3^- BMG_{t-1}^- + \beta_4^+ \mathrm{IRO}_{t-1}^+ + \beta_5^- \mathrm{IRO}_{t-1}^- + \beta_6^+ LIA_{t-1}^+ + \beta_7^- LIA_{t-1}^- + \beta_8^+ GDP_{t-1}^+ + \beta_9^- GDP_{t-1}^- + \sum_{i=0}^{m}(\theta_i^+ \Delta BMG_{t-i}^+ + \theta_i^- \Delta BMG_{t-i}^-) + \sum_{i=0}^{m}(\theta_i^+ \Delta IRO_{t-i}^+ + \theta_i^- \Delta IRO_{t-i}^-) + \sum_{i=0}^{m}(\theta_i^+ \Delta LIA_{t-i}^+ + \theta_i^- \Delta LIA_{t-i}^-) + \sum_{i=0}^{m}(\theta_i^+ \Delta GDP_{t-i}^+ + \theta_i^- \Delta GDP_{t-i}^-) + \varepsilon_t$$

Then, $\beta_i^+(\sum_{i=0}^{m}\theta_i^+)$ và $\beta_i^-(\sum_{i=0}^{m}\theta_i^-)$ are the long-run (short-term) coefficients representing the positive and negative effects of BMG_t, IRO_t, GDP_t, LIA_t on CBP_t. For the NARDL model, the bound test is used to determine whether the variables have an asymmetric co-integration relationship. In addition, the Wald test to evaluate the long-run (short-run) symmetric link: $\beta_i = \beta_i^+ = \beta_i^+$ of government debt and private sector credit.

4. FINDINGS AND RESULTS

Unit root testing is the first and important step in time series regression modeling. Therefore, this study uses the Dickey-Fuller test to test the stationarity of the series. Table 2 shows the results of the original unit root. The results show that BMG, IRO, GDP, LIA and CBP stop at the difference of I(1). The results confirm that no series stops at the second order, this study can progress to the NARDL model.

Before continuing to estimate NARDL, various tests were performed such as Ramsey test for functional problem, Jarque-Bera test of residuals and Breusch/Pagan variable variance test. The NARDL model is presented in Table 2. The results confirm that the model does not have any of the problems mentioned; therefore, this study can be used to estimate NARDL.

Table 2. The NARDL model

Variables	Coef.	Std. Err.	t-Statistic	Sig.
DDCB(-1)	-0.547653	0.080173	-6.830877	0.0000
DGDP_POS	0.001547	0.004013	0.385617	0.7010
DGDP_POS(-1)	0.013075	0.003948	3.311380	0.0015
DGDP_NEG	0.014381	0.003741	3.844289	0.0003
DIRO_POS	-0.003654	0.002594	-1.408889	0.1636
DIRO_POS(-1)	-0.006026	0.003473	-1.735104	0.0874
DIRO_NEG	-0.011591	0.003411	-3.397847	0.0012
DLIA_POS	-0.069497	0.033975	-2.045528	0.0448
DLIA_NEG	0.100686	0.060762	1.657063	0.1023
DLIA_NEG(-1)	-0.208226	0.080360	-2.591159	0.0118
DLIA_NEG(-2)	0.080856	0.050858	1.589848	0.1166
DBMG_POS	0.000505	0.001310	0.385562	0.7011
DBMG_POS(-1)	0.001401	0.000839	1.670122	0.0996
DBMG_NEG	0.002351	0.001020	2.304003	0.0244
C	0.0076	0.0401	0.1905	0.8495
R-squared		0.6518		
Ramsey RESET test		P-value = 0.000		
Breusch/Pagan heteroskedasticity test		P-value = 0.002		

Notes: ** < 0.1; ** < 0.05; *** < 0.01.*

In addition, Table 3 presents the results of the nonlinear cointegration between the variables based on the F and t_BDM statistics. Hypothesis Ho: no cointegration. The F-statistic is larger than t_BDM, confirming that there is a long-term relationship between government debt and private sector credit. Therefore, the long-run relationship can be further analyzed when a nonlinear cointegration estimate is available.

Table 3. Cointegration test

Co-integrated test statistics:	F-stat: 4.506
	$t_{\_BDM}$: 2.122

To assess the non-linear effect of government debt on bank credit provided to the private sector economy, an asymmetric test is performed. The results of Table 4 show that WLR = 3.156 (with probability value of 0.001) and WLR = 1.99 (with corresponding probability value of 0.000) indicating that the government debt effect on bank credit provided to the private sector economy is statistically significant both in the long run and in the short run.

Table 4. Short-run and long-run asymmetric test

Wald test	Asymmetric relationship in the long run		Asymmetric relationship in the short run	
	F-stat	Sig.	F-stat	Sig.
	WLR = 1.85	0.000	WSR = 2.85	0.000
Result	An asymmetrical relationship		An asymmetrical relationship	

The modeling results in Table 5 show that credit supplied to the private sector can adjust to long-run equilibrium after each short-run shock to government debt. A one percent increase in government debt leads to negative fluctuations in the credit provided to the private sector of 6.949 percent. However, a one percent decrease in government debt leads to positive fluctuations in bank credit provided to the private sector economy of 2.668 percent.

Table 5. The asymmetrical impact of LIA on CBP in the long run

Variables	Coef.	Std. Err.	t-Statistic	Prob
C	0.0076	0.0401	0.1905	0.8495
DDCB(-1)*	-1.5476	0.0801	-19.3038	0.0000
DGDP_POS(-1)	0.014622	0.003770	3.878503	0.0002
DGDP_NEG**	0.014381	0.003741	3.844289	0.0003
DIRO_POS(-1)	-0.009681	0.003548	-2.728248	0.0082
DIRO_NEG**	-0.011591	0.003411	-3.397847	0.0012
DLIA_POS**	-0.069497	0.033975	-2.045528	0.0448
DLIA_NEG(-1)	-0.026684	0.034389	-0.775937	0.4406
DBMG_POS(-1)	0.001906	0.001256	1.517543	0.1339
DBMG_NEG**	0.002351	0.001020	2.304003	0.0244
D(DGDP_POS)	0.001547	0.004013	0.385617	0.7010
D(DIRO_POS)	-0.003654	0.002594	-1.408889	0.1636
D(DLIA_NEG)	0.100686	0.060762	1.657063	0.1023
D(DLIA_NEG(-1))	-0.080856	0.050858	-1.589848	0.1166
D(DBMG_POS)	0.000505	0.001310	0.385562	0.7011

***Notes:** * < 0.1; ** < 0.05; *** < 0.01.*

To test the statistical significance of NARDL, this study performed a stability test of the estimated parameters using Cusum in Figure 1. The results confirm that Cusum lies within the critical curves. with a significance factor of 5%, so the model is stable and does not suffer from sudden shocks or structural breaks.

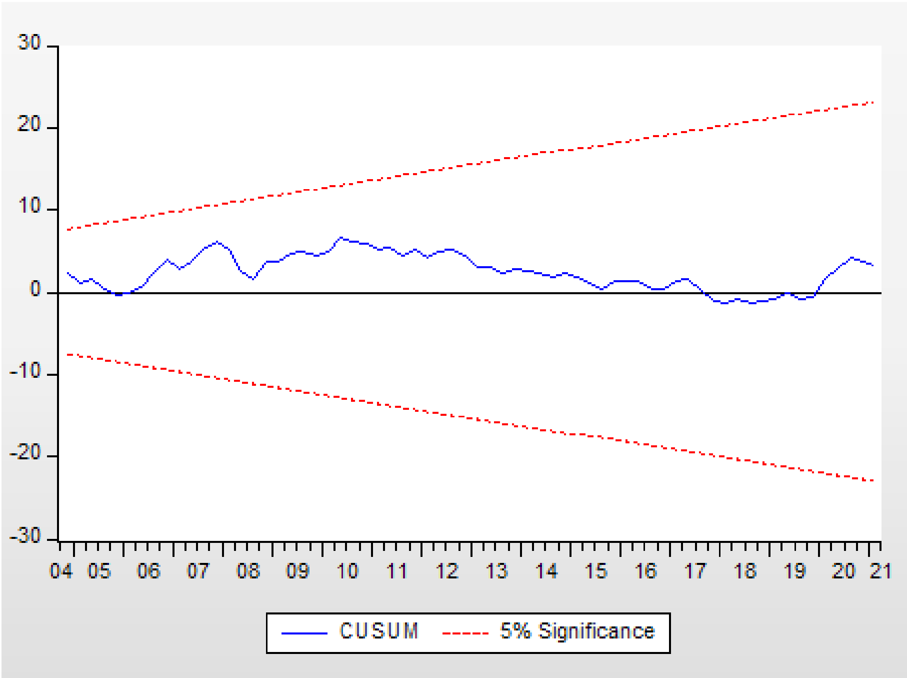

Figure 1. Cusum cumulative totality chart

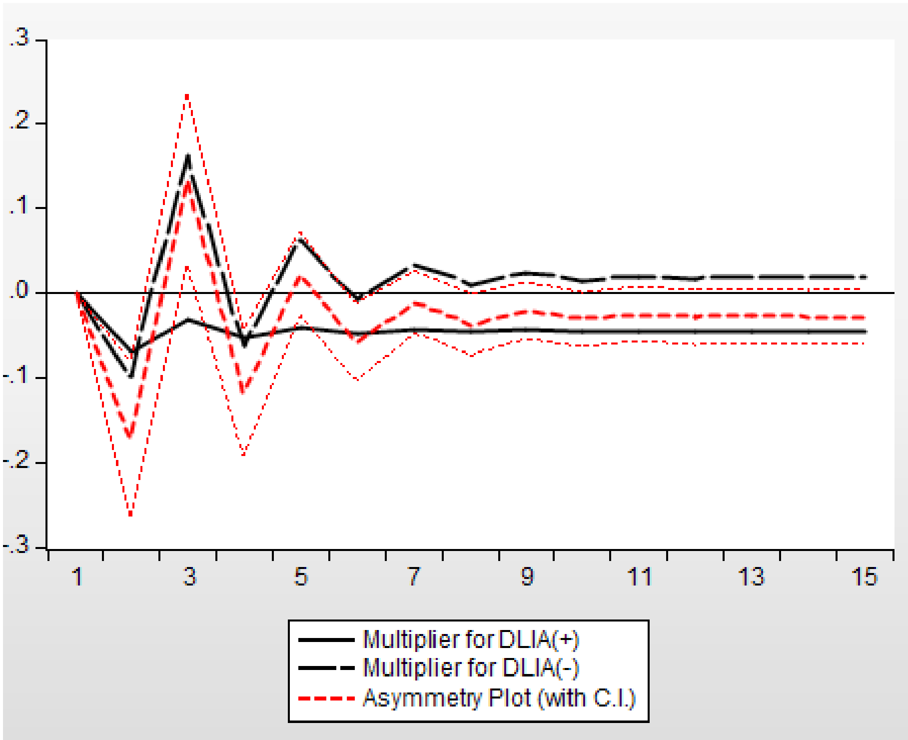

Figure 2. Asymmetric cumulative dynamic multiplier graph of government debt to private sector credit

The results show the impact of domestic public debt on private sector credit growth. The study established a significant negative effect between domestic public debt on private sector credit growth. The results show that an increase in public debt will reduce private sector credit growth.

The significant negative effect between public debt and private sector credit is found to be related to the banking sector's inefficiency in providing capital to the private sector when public debt increases. The study also found that when the economy stabilizes (GDP growth), liquidity at banks increases due to the increase in the amount of savings and deposits; This will lead to a decrease in lending rates.

5. CONCLUSION

This study provides evidence supporting the fact that government debt has a disproportionate effect on bank credit provided to the private sector. The development of banks along with stability in the economy will stimulate deposit growth and, by converting deposits into loans, promote economic growth and stabilize the market.

The efficient use of government loans promotes the provision of social facilities to the benefit of the private sector in the form of reduced business costs, output, employment and savings for citizens. However, it is necessary to consider the appropriate level of government debt to avoid causing negative effects on bank credit provided to the private sector. The State Bank of Vietnam should continue to design a robust monetary and credit policy to promote financial discipline and ensure the availability of loanable capital to the private sector. Government debt needs to be reduced, effective use of government debt will help fill the resource gap and promote growth of the private sector; This will ultimately help alleviate the negative impact on bank credit provided to the private sector.

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THE EFFECT OF GOVERNMENT SUPPORT PROGRAMS ON PERCEIVED EXPORT STIMULI: THE CASE OF VIETNAMESE AGRICULTURAL SMEs EXPORTING TO ASEAN+3

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Abstract: *This paper examines the effect of Government support programs on perceived internal and external export stimuli to increase the export to ASEAN+3 which leads to trade deficit reduce with these markets The Government support programs include e-commerce, information, training, trade mobility and finance. Based on survey data from 238 Vietnamese SMEs exporting agricultural products to ASEAN+3, this research adopted a mixed methodological approach of qualitative and quantitative methods. SmartPLS software was used to test the data. The results show that the Government support programs have positive effects on perceived internal and external export stimuli. In addition, the effect between Government support programs and perceived internal export stimuli is bigger than the effect between Government support programs and perceived external export stimuli. Besides, among five groups of Government support programs, the benefit level of e-commerce support has not yet assessed highly. Finally, some management and policy implications are suggested based on our study results.*

Key words: *Agricultural products, ASEAN+3, e-commerce, external, Government support programs, internal, stimuli.*

JEL code: P33

1. INTRODUCTION

Thanks to Free Trade Agreements (FTAs), the Vietnamese export to FTAs member countries has increased dramatically. Since 2012, Vietnam has shifted from a trade deficit to a trade surplus. However, Vietnam has a trade deficit in some markets, especially the ASEAN+3 with about 60 billion USD in the recent five years, from 2017 to 2021 (The author calculated from the Ministry of Industry and Trade import and export report data from 2017 to 2020 and Customs statistics 2021). Besides, as an agricultural country, agricultural products are Vietnamese traditional exports and ASEAN+3 are the main export markets. The trade deficit problem with ASEAN+3 can be solved by finding methods to boost Vietnamese SMEs agricultural exports to this market group. In addition, the increase in ASEAN+3 export also creates jobs for the majority of the population, suitable for SMEs with limited resources which have difficulties to export to far distance markets. In order to solve the trade deficit problem, export increase plays an important role, in which agricultural product export also contributes to reduce trade deficit. In addition, export to ASEAN+3 is appropriate for Vietnamese SMEs because SMEs lack resources to export to far distant markets.

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Therefore, they are far more dependent on external resources (Ramaswami & Yang, 1990) such as Government support programs. With resource limitation, SMEs need the support from the Government. Today with the strong growth rate of science and technology, e-commerce is also applied in international business and e-commerce adoption increases dramatically. E-commerce spans established processes such as bar code scanning and electronic data interchange (EDI) as well as newer arrivals, like e-mail, the Internet, the World Wide Web and mobile electronic commerce. E- commerce enables organizations of all sizes and in all market sectors to improve their competitiveness. It cuts across geographic boundaries and time zones to save time and costs, to open up new market opportunities and enable even the smallest of companies to compete globally (Ajay & Thobeng, 2015). Therefore, Government support programs should not be only traditional support such as information, training, trade mobility, financial support but it should also include the e-commerce support. However, now it is lack of the studies which combine the traditional supports and e-commerce support. In addition, the decision makers can perceive the export stimuli in specific selected market and the support programs can create perceived export stimuli. However, the study of Government support programs and export performance has attracted the interest of many international business researchers. There are not many studies finding out the relationship between the Government support programs and the perceived export stimuli. In addition, it is also lack of this kind of research in export businesses, in specific fields such as agriculture, in specific export markets such as ASEAN+3 and in developing countries with transmitting economies such as Vietnam. Because of all above reasons, it is essential to study the effect of Government support programs on perceived export stimuli to suggest some recommendations to support exporters to increase their export, especially for e-commerce support. Survey data was collected from 238 Vietnamese SMEs exporting agricultural products to ASEAN+3. SmartPLS software was used to test the data to find out the relationship between the Government support programs and the perceived export stimuli. Agricultural products export increase will help bring profit to exporters, income to farmers, create more jobs and reduce the country 's trade deficit. Therefore, the objectives of this paper are as follows:

- To test the effect of Government support on perceived export stimuli.
- To understand the importance of each group of Government support, especially e-commerce support.
- To suggest some management and policy implications related to Government support programs, especially e-commerce support.

2. LITERATURE REVIEW AND METHODOLOGY

2.1. Literature Review

Theoretical background

The Resource-Based View Theory (RBV) and Institutional Theory

The Resource-Based View (RBV) argued that a firm's competitive advantage comes primarily from its valuable tangible and intangible resources (Wernerfelt, 1984). In the context of internationalization, if a firm aspires to enter international markets and to export regularly, it should consider whether its resources can be a source of competitive advantage. More specifically, the firm should assess whether its resources are valuable, rare, and difficult to imitate or substitute (Barney, 1991). RBV is applicable to analyze the international activities of smaller firms because it helps to gauge how well positioned a firm is to succeed in expanding to foreign markets. Government support can contribute to the firm resource increase which effects firm performance. In addition, this research also approaches institutional theory in a formal way (North, 1990) or according to regulations (Scott, 1995). The institutional theory provides a theoretical base to explain the enhancing role of institutional interactions on firms' internationalization (Oparaocha, 2015). Such interactions would typically provide an access to additional resources that firms may use in their international development (Oparaocha, 2015). Government support is considered as formal institutions or regulations to guide businesses, provide knowledge, experience, reduce uncertainties... to achieve good performance. Government support is believed to be crucial for SMEs to overcome the hostile and uncertain environment which often associate with export markets (Seringhaus & Rosson, 1991).

Research model constructs

- *Government support programs*

Government support programs are public policy measures offered to business community with the aim to improve the international competitiveness of domestic firms (Lages & Montgomery 2005). Seringhaus (1986) suggested that Government support programs are designed to "motivate firms into export action" and to "stimulate the exporting process". According to Gençtürk and Kotabe (2001), Kotabe and Czinkota (1992), Singer and Czinkota (1994), Government support programs may be classified according to the nature of offered knowledge. The authors identified informational and experiential knowledge, with the former obtained through workshops and seminars and the latter acquired through direct contacts with foreign markets and clients. Some authors divided Government support programs based on real programs in their countries (Lages & Montgomery, 2005; Freixanet & Churakova, 2018). Leonidou et al, (2011) classified Government support programs into information support, training support, trade mobility and financial support. This such classification is clearer to understand the specific program groups, so this paper applies Leonidou et al 's taxonomy. While there is a wide coverage of potential growth for e-commerce, besides traditional support programs, some authors have researched the e-commerce support. SMEs will not be interested in e-commerce adoption or Information and Communication Technology (ICT) unless the benefits outweigh the cost of developing and system maintenance (Vatanasakdatul et al, 2004). However, with the increase in international e-commerce, SMEs are potentially not gaining competitive advantage which will eventually be shut out of the marketplace if they do not adopt e-commerce. Therefore, Government support in e-commerce plays an important role to motivate them to adopt e-commerce which helps increase their performance. Ajay & Thobeng (2015) stated that Government support is one of environmental factors which stimulate firms to adopt e-commerce. Chen et al (2021) suggested that the Government should provide training and digital course, provide digital services, promote digital technologies and tools, provide finding/ subsidies for digital transformation, guide the regulation and standard of e-commerce.

- *Perceived export stimuli*

Export stimuli, also called motives, incentives, or attention evokers, refer to all those factors triggering the decision of the firm to initiate and develop export activities. However, these factors can constitute a real driving force in exporting only to the extent with which they are brought to the attention of the key decision-maker(s) within the organization (Wiedersheim-Paul et al, 1978). Perceived export stimuli are the firm perception of the factors that influence a firm's decision to initiate, continue or develop export (Leonidou, 1995). The firm's engagement in exporting can be the result of a wide array of motives, which can be classified into internal and external. Internal stimuli are associated with influences endogenous to the firm, while external stimuli are derived from the environment within which the firm operates or intends to operate (Leonidou, 1995; Lenidou et al, 2007; Navarro-Garcıa, 2015). Alternatively, export stimuli may be categorized as proactive, denoting a firm's interest in exploiting a unique organizational competence or market opportunity, or reactive, indicating engagement in export activities as a response to internal or external pressures (Pett, 2004). The more popular classification was based on internal and external stimuli which are also applied for this paper.

SMEs usually lack necessary resources to successfully conduct exporting activities. Therefore, Government support programs can help SMEs acquire information, knowledge and gain more capital which turn into export stimuli to success in their business. According to Cheng and Yu (2008), for SMEs, penetration into the international market is not only from the opportunities taken to create export stimuli, but also from the Government support programs. Leonidou et al (2011) also believed that participating in the Government support programs helps SMEs to increase their awareness of their profits from exporting. The purpose of Government support programs is to create a more positive attitude for business owners about profit opportunities, growth in foreign markets (Leonidou et al, 1998), accumulation of positive export attitude (Shamsuddoha & Ali, 2006). The resources and capacity of most SMEs are limited, so the Government support will help increase the awareness of export stimuli for SMEs. There have been many studies proving that the Government support programs helps to increase resources for SMEs, thereby helping SMEs to increase their awareness of export stimuli (Leonidou et al, 2011; Njinyah, 2017). The empirical research of Francis and Collins-Dodd (2004) shows that the benefits of using more Government support programs will contribute to increasing knowledge of export markets, exporting products in the target market and promoting export promotion, strong capacity and competitiveness for SMEs. In addition, Haddoud et al (2017), through empirical research, also show that export support programs increase business relationships. Research by Wang et al (2017) also shows the existence of a relationship between the Government export support and the ability of SMEs to implement market strategies. Moreover, with each group of support programs will help increase awareness of specific export stimuli for SMEs. For example, trade shows provide firms with information and knowledge to decision makers which can create internal export stimuli and trade shows also help exporters understand opportunities to present their products and identify prospects (Seringhaus & Rosson, 1990) which can create external export stimuli. Recently, research by Ajay & Thobeng (2015), Chen et al (2021) also mentioned the important role of e-commerce support in digital transformation and e-commerce adoption. The Government support programs helps to improve the capacity of SMEs to initiate export activities, to satisfy export orders, to maintain and promote export activities. Durmusoglu et al, 2012). Wilkinson & Brouthers (2006) believed that attending exhibitions, fairs and seminars helps businesses increase their activities in markets which they lack experience. Durmusoglu et al (2012) mentioned that export support is the main factor that encourage businesses to increase their performance in new markets. Therefore, we posit that:

H1: Government support programs have a positive effect on internal export stimuli.

H2: Government support programs have a positive effect on external export stimuli.

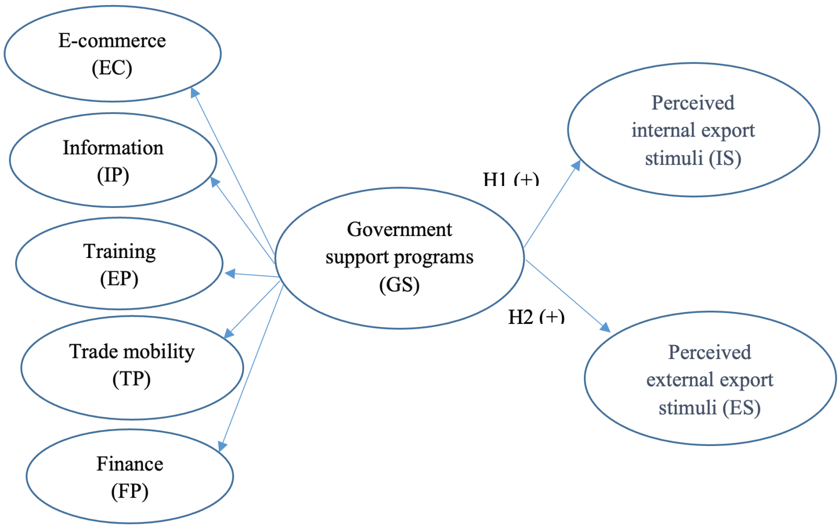

Figure 1. Proposed research model

Source: Authors proposal

2.2. Methodology

- ***Method***

The study applied mixed method of qualitative and quantity methods and was conducted into two phases: the pilot study and the main survey. The first phase used qualitative method to explore and found out the benefits of Government support perceived by Vietnamese agricultural export SMEs which increase the perceived internal export stimuli and the perceived external export stimuli. This method was conducted through in-depth interviews with senior executives, owners coming from Vietnamese agricultural export SMEs. This phase aimed to review whether the research questions were appropriate or not before executing the main survey. After this phase, the indicators for the factors of Government support programs, perceived internal export stimuli and the perceived external export stimuli were formed (Table 1). The second phase, the quantitative method was undertaken to assess measurement model and structure model. The main survey was implemented by using face to face interviews or online survey.

- ***Sample and data collection***

The population of this empirical study has been drawn from the decision-makers of Vietnamese agricultural export SMEs in some provinces in the North, the Centre and Highland and the South of Vietnam with the sample taking method is convenience.

- ***Statistical analysis***

We used PLS-SEM path modeling to test our hypothesis, specifically the software SmartPLS 3.0 (Hair et al, 2013; Sarstedt et al, 2014). We believe that the PLS-SEM path modeling is best suited to estimate our research model because of the following reasons:

- The sample (n = 238) is somewhat small.
- Lacking testing the relationship between Government support, perceived internal export stimuli and the perceived external export stimuli in previous studies in Vietnam so this study is also a kind of exploring study for which PLS-SEM is suitable.
- PLS-SEM path modeling is considered as new statistical modeling technique in Vietnam.

- ***Measures***

This study applies indicators from previous studies which were showed in the literature review and they are adjusted through the qualitative phase to suit condition in Vietnam for the case of Vietnamese agricultural export SMEs. Government support programs (GS) is a second order construct which is based on Leonidou et al (2011), Ajay and Thobeng (2015). Perceived internal export stimuli and the perceived external export stimuli are the first order constructs which are based on Leonidou et al (2007).

Table 1. The scale of Government support programs

Codes	Scales	Sources
EC	**E-commerce support programs**	Ajay & Thobeng (2015) and the phase of qualitative method
EC1	The Government is helping to lower the cost of using internet and setting up e-commerce in market X	
EC2	The Government is helping in providing assistance to help SMEs using e-commerce in market X	
EC3	The Government often informs SMEs about the good points of e-commerce and doing business using the internet in market X	
EC4	Support from the Government is important to encourage SMEs to use more of internet in business in market X	
IP	**Information support programs**	Leonidou et al, (2011) and the phase of qualitative method
IP1	The Government supports information about foreign market opportunities in market X	
IP2	The Government supports specific information about doing business with a particular firm	
IP3	The Government supports provision of marketing information/advice	
IP4	The Government issues export publications (export newsletters, special reports, mailing lists, and directories…)	
EP	**Training support programs**	
EP1	The Government organizes export seminars, conferences, workshops…	
EP2	The Government organizes free training programs specializing in exporting	

Codes	Scales	Sources
EP3	The Government provides counseling advice on export business	Leonidou et al, (2011) and the phase of qualitative method
TP	**Trade Mobility support programs**	
TP1	The Government assists in participating in trade shows/exhibitions	
TP2	The Government supports participation in trade missions which can have an inward (e.g., inviting in foreign markets foreign businesspeople, reporters, or others) or outward (e.g., visiting X markets)	
TP3	There is support by trade offices abroad	
TP4	Being supported in trademark set up	
TP5	Being supported in innovation, quality improvements	
TP6	Being supported in patent registration, geographical indication for agricultural products	
FP	**Financial support programs**	
FP1	Being supported in export credit	
FP2	Being supported in preferential loans with low interest rates	
FP3	Being capital borrowed from SMEs development fund	

X: a market in ASEAN+3 countries.

Source: Authors research

Table 2. The scales of perceived internal and external export stimuli

Code	Scales	Sources
IS	**Perceived internal export stimuli**	Leonidou et al, (2007) and the phase of qualitative method
IS1	Special managerial interest/urge to penetrate foreign market	
IS2	Utilization of special managerial talent/skills/time	
IS3	Products meet market demand in X	
IS4	Potential for extra sales/profits from exporting to X	
IS5	Potential for extra growth from exporting to X	
IS6	Close relationship in business	
ES	**Perceived external export stimuli**	
ES1	High demand in X market	
ES2	Close physical proximity to X market	
ES3	X market culture is similar to Vietnamese culture	
ES4	Stable politics in X market	
ES5	Relaxation of foreign rules and regulations in X market (in comparison with European/American markets)	
ES6	Favorable foreign exchange rates	
ES7	Reduction of tariffs in FTAs member countries	

X: a market in Asean+3 countries.

Source: Authors research

3. RESULTS AND DISCUSSION

3.1. Sample characteristic

Table 3. Sample characteristic

Characteristics		Number of participants	Percentage (%)
Area	North	38	16
	Centre and Highland	58	24
	South	142	60
Firm size (Number of employees)	Below 50	167	70
	From 50 to below 100	47	20
	From 100 to below 200	24	10
Number of export business years	Below 5 years	95	40
	From 5 to 10 years	95	40
	From 11 to 15 years	20	8
	Above 15 years	28	12
Export mode	Manufacture-export	120	50
	Trade-export	118	50
Total		**238**	**100**

Source: Authors calculation

3.2. Evaluation of measurement model

First, the second order construct of Government support programs (GS) is estimated**.** Applying repeated indicator approach, the reliability, convergent validity and discriminant validity of all indicators are valid.

Second, measurement model including second order construct Government support programs (GS) and first order constructs Perceived internal export stimuli (IS) and Perceived external export stimuli (ES) are estimated.

The result showed that most of constructs meet reliability, convergent validity and discriminant validity, except ES3, ES4, ES6, ES7 should be removed to meet the convergent validity.

Table 4. Measurement models results

Constructs	Indicators	Internal Consistency Reliability		Convergent Validity		Discriminant Validity
		Cronbach's Alpha	Composite Reliability	Loadings	AVE	HTMT
GS	**EC**	0.939	0.94		0.513	<1 (Yes)
	EC1			0.854		
	EC2			0.823		
	EC3			0.812		
	EC4			0.828		

Constructs	Indicators	Internal Consistency Reliability		Convergent Validity		Discriminant Validity
		Cronbach's Alpha	Composite Reliability	Loadings	AVE	HTMT
	IP					
	IP1			0.813		
	IP2			0.76		
	IP3			0.789		
	IP4			0.837		
	EP					
	EP1			0.846		
	EP2			0.885		
	EP3			0.873		
	TP					
	TP1			0.819		
	TP2			0.852		
	TP3			0.852		
	TP4			0.74		
	TP5			0.841		
	TP6			0.75		
	FP					
	FP1			0.918		
	FP2			0.91		
	FP3			0.894		
IS	IS1	0.826	0.86	0.683	0.512	<1 (Yes)
	IS2			0.549		
	IS3			0.677		
	IS4			0.848		
	IS5			0.845		
	IS6			0.639		
ES	ES1	0.6	0.774	0.729	0.534	<1 (Yes)
	ES2			0.669		
	ES5			0.791		

Source: Authors calculation

3.3. Evaluation of structural model

In this step, we followed the five steps of Hair et al (2013) to measure the structural model, namely:

- ➢ Collinearity assessment between constructs
- ➢ Structural model path coefficients

- Coefficient of determination (R^2 value)
- Effect size (f^2)
- Blindfolding and Predictive relevance (Q^2)
- Effect size (q^2)

Table 5. Structural model results

Relationship	Path Coefficients	Bootstrap	p Values	Significance ($p < 0.05$)
GS->IS	0.326	[0.252; 0.429]	0.000	Yes
GS->ES	0.263	[0.160; 0.383]	0.000	Yes
Criteria				
VIF	1			
R^2 value (GS->IS)	0.106			
R^2 value (GS->ES)	0.100			
f^2 (GS->IS)	0.119			
f^2 (GS->ES)	0.1			
Q^2 (GS->IS)	0.042			
Q^2 (GS->ES)	0.031			
q^2	-			

Source: Authors calculation

1) Collinearity assessment between constructs

To analyze possible collinearity, we used values from variance inflation factor (VIF). The results show that VIF values for the independent variables are below 5, indicating that, in line with Hair et al (2013), the results obtained are not negatively affected by collinearity (Table 5).

2) Structural model path coefficients

As the fundamental objective of PLS-SEM technique is the prediction of IS and ES, the quality of our theoretical model will be determined by measuring the strength of each path, which is the relationship between GS and IS, GS and ES in the predictability of the endogenous constructs IS and ES. The result of structural model path coefficients is shown in table 5 and figure 2. Table 5 indicates that the hypotheses are supported.

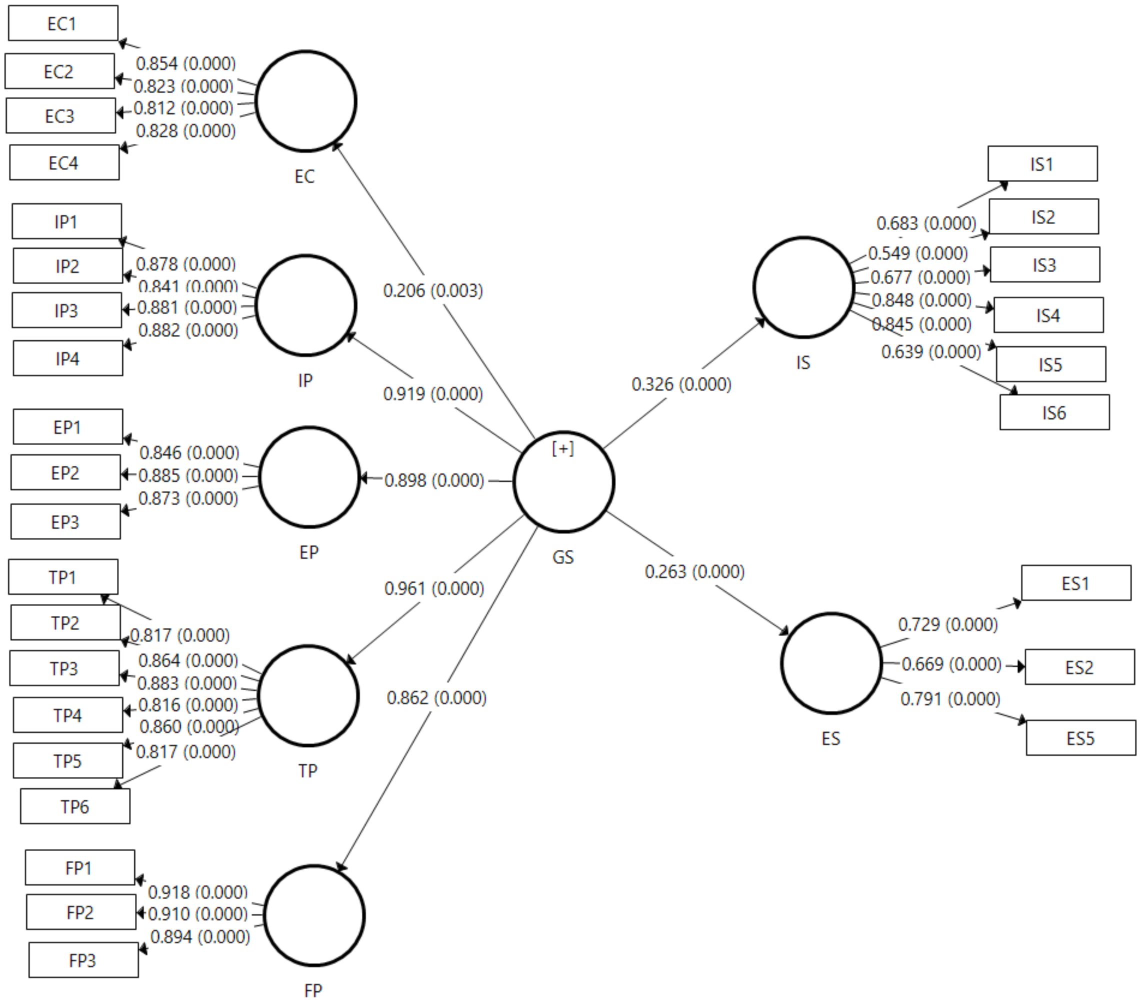

Figure 2. Structural model results

Source: Authors research result

The results show that the Government support programs including E-commerce support, Information support, Training support, Trade Mobility support and Financial support affect the perceived internal export stimuli and perceived external export stimuli. The results also show that the effect between Government support programs and perceived internal export stimuli (β=0.326) is bigger than the effect between Government support programs and perceived external export stimuli (β=0.263). This result is similar to studies of Crick & Jones (2000), Mencinger (2003) when it showed the benefits of Government support programs are to motivate the export. With limited knowledge and resources, the Government's support programs help SMEs increase their knowledge and increase the incentive to export to foreign markets. This result has shown the high appreciation of businesses about the benefits of government support programs if they receive support.

3) Coefficient of determination (R^2 value)

The coefficient represents the exogenous latent variables' combined effects on the endogenous latent variable. That is the coefficient represents the amount of variance in the endogenous constructs explained by all of the exogenous constructs linked to it, where values of 0.5 are considered to be moderate and 0.25 are weak (Hair et al, 2013 and Sarstedt et al, 2014). In our model, the mediators R^2 coefficient is 0.106 for IS and 0.1 for ES so we can assess that these values are weak.

4) Effect size (f^2)

In addition to evaluating the R^2 values of all endogenous constructs, the change in the R^2 value when a specified exogenous construct is omitted from the model can be used to evaluate whether the omitted construct has a substantive impact on the endogenous constructs or not. Guidelines for assessing f^2 are that values of 0.02, 0.15, and 0.35, respectively, represent small, medium, and large effects (Cohen, 1988) of the exogenous latent variable. Effect size values of less than 0.02 indicate that there is no effect. The result shows that these figures have medium effect of GS on IS and GS on ES.

5) Blindfolding and Predictive relevance (Q^2)

Geisser (Q^2) test indicates the predictive ability of the dependent variables.

The result shows that the dependent constructs are higher than 0 for IS and ES which supports the predictive capacity of our model.

6) Effect size (q^2)

The Q^2 values estimated by the blindfolding procedure represent a measure of how well the path model can predict the originally observed values. Similar to the f^2 effect size approach for assessing R^2 values, the relative impact of predictive relevance can be compared by means of the measure to the q^2 effect size. As a relative measure of predictive relevance, values of 0.02, 0.15, and 0.35 indicate that an exogenous construct has a small, medium, or large predictive relevance, respectively, for a certain endogenous construct. This figure must be computed manually because the SmartPLS software does not provide them. To compute the q^2 value of a selected endogenous latent variable, we need the Q^2included and Q^2 excluded values. The Q^2 included result from the previous blindfolding estimation is available from table 3. In this research q^2 can not calculate because there is just one independable construct.

4. CONCLUSIONS

This study allows us to conclude that there are positive effects of Government support programs on perceived internal export stimuli and Government support programs on perceived external export stimuli. The research results support the view that the Government support programs help to increase the perception of export stimuli of SMEs because their resources and capacity increase which originated from Government support, thereby leading to success in export activities (Czinkota, 1994). This result is similar to studies of Crick & Jones (2000), Mencinger (2003) when it showed the positive relationship between Government support programs and export stimuli. It is clear that SMEs assess highly the role of Government support which leads to the export motivation. The results also show that there is the exist of the benefits of five groups of Government support programs including e-commerce, information, training, trade mobility and finance and the benefit ranks of these program groups are trade mobility (0.961), information (0.919), training (0.898), finance (0.862) and e-commerce (0.206). The benefit of e-commerce support is smallest. It can be explained that e-commerce support is a new kind of Government support which is different from traditional support as information, training, trade mobility, finance, so it is difficult for SMEs to assess its benefits at once. In addition, many SMEs have not yet adopted e-commerce in their export, so they can not realize the benefits from Government support for this kind of support programs. In addition, the results show that the effect between Government support programs and perceived internal export stimuli is bigger than the effect between Government support programs and perceived external export stimuli. From SMEs point of view, with limited resources, the Government support programs are very important. These programs help increase SMEs resources which lead to SMEs export stimuli.

5. SOME MANAGEMENT AND POLICY IMPLICATIONS

This study shed light to some management and policy recommendations related to Government support programs which stimulate Vietnamese agricultural SMEs exporting to ASEAN+3 to reduce trade deficit with these markets.

Firstly, SMEs should be active in looking for Government support programs. Government support in trade mobility, information, training, finance and e-commerce are all necessary to contribute to the increase in SMEs export stimuli, including the internal stimuli and external stimuli.

Secondly, SMEs should focus on Government support programs which increase their export capability of information, knowledge, experience and finance. In addition, they should evaluate to choose support programs which are suitable for their conditions, export markets. Therefore, it is necessary to contact the agency that provides support programs to help SMEs know and get used to the support programs.

Thirdly, the Government should provide a variety of export support programs to help increase resources for businesses. With various support programs, the efficiency is higher. SMEs should not be limited to only using 1 or 2 support programs which are not suitable for them and can not help them to increase their resources.

Fouthly, the Government should increase support in providing information on export markets. When SMEs understand foreign rules and regulations in export markets very clearly, they are confident to export and they are motivated to export because of clear regulations in export markets. It is necessary to provide SMEs with effective and beneficial information, especially information on market penetration, information to connect to the right customers who have demand for the products of the enterprise. As the Governing ministry, the Ministry of Agriculture and Rural Development needs to promote its leading role in creating conditions for agricultural export enterprises to operate better by constantly updating market information. The market for agricultural products is related to quality, variety, price, market demand, new business opportunities, etc.

Fifthly, e-commerce support should be developed to encourage SMEs to adopt e-commerce in their business. The Government should focus on the important level of e-commerce support based on their loading (Table 2) is as follows: (1) The Government should lower the cost of using internet and setting up e-commerce (EC1: 0.854); (2) The Government should support SMEs because it is important to encourage SMEs to use more of internet in business (EC4:0.828); (3) Support from

Government is important to encourage SMEs to use more of internet in business (EC2: 0.823); (4) The Government should often inform SMEs about the good points of e-commerce and doing business using the internet (EC3:0.812).

This research has some limitation related to sample size and sample method because the difficulty in approaching the board of director members in SMEs.

The future research should be related to the level of knowing and using Government support programs. In addition, the future research can be involved in the various factors which have the effects on export stimuli. Beside that, the factors which affect SMEs to adopt e-commerce or use e-commerce support programs should be studied in the future.

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THRESHOLD EFFECTS IN THE RELATIONSHIP BETWEEN INSTITUTIONAL QUALITY AND ECONOMIC GROWTH: EMPIRICAL EVIDENCE IN DEVELOPING COUNTRIES

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Abstract: *The article assesses the threshold effect in the relationship between institutional quality and economic growth. Data is collected over the period 2000-2019 from 79 developing countries. Using the System Generalized Method of Moments (SGMM) for panel data, the results demonstrate an inverted U-shaped nonlinear relationship between institutional quality and economic growth in developing countries. The threshold of institutional quality was found to be 0.978. This result implies that improving institutional quality will contribute to boosting growth, however, when institutional quality is too high, economic growth slows down. We also found the impact of financial development, domestic and foreign investment, inflation, government spending, trade, and human resource development on economic growth. Based on the results of the analysis, we propose policy implications to promote economic growth.*

Keywords: *Developing countries, growth, institutions, threshold effects, nonlinear.*

JEL Classification: O43, O47

1. INTRODUCTION

National policymakers always face a dilemma: what is the source of growth? What causes differences in a country's economic growth and development? Why do some countries achieve economic success while others do not? Various studies, both theoretical and empirical, have reported that factors such as physical capital, human capital, technology, etc. have a direct impact on growth. Others, however, argue that the root cause of growth is the institutional element of a country (see, for example, North and Thomas, 1973; Knack and Keefer, 1995; Hall and Jones, 1999; Acemoglu et al, 2001, 2003, 2005; Rodrik et al, 2004; Easterly and Levine, 2003).

North and Thomas (1973) argued that institutions influenced economic growth by affecting property rights, incentive structures, and transaction costs. Rodrik (2000) explained the key role of various non-market institutions in creating complete and redundant markets. Institutions contribute to growth and development by minimizing risks in business operations, thus directing resources into innovation rather than protecting ownership.

Empirical documents have identified many institutional aspects affecting economic growth, including governance, law enforcement, justice, regulation, tax administration, and institutions governing monetary and fiscal policy. Moers (1999) found that wider institutional measures had

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the strongest impact on growth. Acemoglu et al (2001, 2002), Acemoglu and Johnson (2005) point out that institutional quality has a stronger influence on long-term than short-term growth. Distortion and Weill (2006) and Olson et al (1998) found evidence that institutional factors influenced the productivity of overall factors and that countries with better institutions exhibited higher productivity. Several studies have used tool variable techniques to show evidence of causal relationships that run from institutions to economic activity (Olson et al, 1998; Acemoglu et al, 2001; Rodrik et al, 2004).

While the importance of institutions in promoting economic growth and development remains debated, there has been much literature on the non-linear relationship between growth and institutions. An emerging view is that the impact of institutions on growth depends on the state of development of a given country. The implication of this is that there is a threshold of potential impact from institutions on growth, conditionally depending on the state of development of a country.

In this paper, we determine whether the relationship between economic growth and institutions is non-linear and whether threshold impacts exist. To be more explicit, we seek to figure out the level of institutional development that developing countries must achieve to influence growth, even if the effect may be zero or negative depending on the type of institution studied. Using data from 2000 to 2019 of developing countries with system-GMM estimation methods to solve the underlying endogenous problem, the main results of the paper show the existence of the institutional threshold effect on growth. This means that initially the institution positively impacts growth, then (when crossing the threshold) this influence decreases and becomes negative. Quantitatively, a change in institutional quality has a growing impact of about 7,007% and -3,582% below and above the estimated threshold, respectively. Sub-indicators of institutional quality such as Voice and Accountability (VA), and Government Effectiveness (GE) are good for growth while other aspects such as Political Stability and Absence of Violence/Terrorism (PS), Regulatory Quality (RQ), Rule of Law (RL) are harmful to economic growth after the estimated threshold.

The rest of the article is structured as follows. In Section 2, we present a theoretical overview and previous empirical studies on the relationship between institutions and economic growth. Models and methods as well as discussions of data types and sources, variable descriptions, and measurements are described in Section 3. Section 4 deals with the main analyses and discusses the results. In Section 5, we conclude the article with a summary of key findings and policy implications.

2. LITERATURE REVIEW

The notion that good institutions are important determinants of a country's economic performance is not new. The relationship between the quality of institutions and the rate of GDP growth has been clearly established, studied, and experimentally by many authors (North, 1990; Olson et al, 2000; Pedersen, 2010). Theoretically, institutions can impact economic growth in a variety of ways. First, institutions create a stable environment, reducing the uncertainty and risks of economic transactions (Nguyen, 2013). Kasper and Streit (1999) argue that commodity exchange transactions occur only when and only if the economic actors have a certain level of confidence that the agreements of the transaction will be made and if not done there will be sanctioned actions attached. North (1990) argues that transactions are costly and then institutions or the rules play an extremely important role to reduce transaction costs, enhance surveillance, and promote more efficient exchange of goods. Second, the market has its inherent defects and failures in resource allocation that cause social losses, even causing serious consequences for the economy. Good institutions will ensure market mechanisms take place effectively by eliminating or limiting market failures, increasing resource allocation efficiency, and promoting growth (Hasan, Wachtel, & Zhou, 2009). Third, the institution establishes regulations that protect legitimate rights and benefits for investors, creating a suitable atmosphere to promote creativity and development in addition to competing in society. North (1990) argues that the institutions of a given society influence the path of economic development by structuring political, economic, and social interactions between its members. Institutions create stimuli that determine the type, scope, and scale of wealth production activities, improve the efficiency of resource utilization and improve social welfare. Organizations and people only participate in productive activities when the institutional framework in which they operate gives them the incentive to actively participate in activities that create material goods for themselves and society.

Experimental studies have concretized the impact of institutions on growth. Tamilina & Tamilina (2014) emphasizes that most documents on the relationship between economic and official institutions assert that good formal institutions provide a favorable environment that promotes rapid economic growth. Previous work by Scully (1988), Aron (2000), Henisz (2000), Glaeser & Associates (2004), and Djankov & Associates (2006) indicates that good institutions will enhance economic growth. Institutional capacity can have an impact on the functioning of the economy through the redistribution of resources. The misallocation of resources can lead to inefficient investment, which in turn can hinder economic growth. Le (2009) concludes that institutions promote economic growth because they play a consistent and statistically significant role in stimulating real gross domestic product. The quality of institutions can catalyze boosting economic growth by attracting investment, so, if impaired, long-term economic growth may not be achieved (Dawson, 1998).

Knack & Keefer (1995) also asserted that better institutions converge for stable economic growth. Their investigations indicate that institutions that protect property rights play a crucial role in promoting economic growth. However, they suggest promoting institutions that protect property rights as they are most important to economic growth. Auty (2017) identifies the importance of institutions for reducing corruption (Isham et al, 2005; Robinson et al, 2006); reducing the risk of civil violent conflict (Collier & Hoeffler, 1998); and accelerating the efficient allocation of resources (Atkinson & Hamilton, 2003).

Research by Knack & Keefer (1995) has confirmed that registered economies that secure property ownership, the rule of law, and market-oriented economic structures tend to achieve growth rates of 1.5-3 times that of unregistered countries. Djankov et al (2006) also concluded that countries with better regulation noticed their annual growth rate increase by 2.3 percentage points. Similarly, Nawaz et al (2014) and Nawaz (2015) concluded that institutional quality impacts economic growth differently in countries that are at different stages of economic development. Also analyzing samples of 181 countries between 1950 and 2009, Valeriani & Peluso (2011) found that institutions were positively associated with economic growth for both developed and developing countries.

Nawaz et al (2014) attempted to develop a theoretical model that could better combine the role of institutions to explain economic growth because previous models hardly incorporated many of the roles of institutions in economic growth. When developing the model, they looked at data from 35 Asian countries between 1996 and 2012. They also try to conduct an empirical analysis to quantify the impact of institutional variations on economic growth. The results show that institutions in developed countries are more efficient than in developing countries. They argue that different countries require different sets of institutions to achieve long-term economic growth.

Acemoglu and Robinson (2005) attempted to figure out the main determinant that caused differences in prosperity between nations. They found that institutional differences caused differences in the economic growth of any given country. They argue that by reforming its institutions, a country can quickly move forward on more successful economic development paths. Ozpolat et al (2016) studied the effects of institutional efficiency on economic growth in three different groups of countries from 2002 to 2015. Using the GMM method, this study considers GDP to be a dependent variable and institutional variations as independent variables (the rule of law, control of corruption, voice, and accountability). This paper has attempted to explore the question of whether there is a positive relationship between the rule of law state and economic growth in high-income, middle- and low-income countries. The results found that the effectiveness of the institutional structure was not the reason but the result of growth.

Fundamentally, institutional quality is the foundation of socio-economic development, especially in places with factors such as corruption and freedom of expression, and in places where poorer institutional structures significantly impact economic growth (Ozpolat et al, 2016). Some empirical studies show that institutional quality promotes economic growth in developed countries, while it has no positive effect, and may even have a negative effect in developing countries (Haggard & Tiede, 2011; Ozpolat et al, 2016). Berggren et al (2012) studied the effects of institutional instability on the growth of 132 countries in the period 1984-2004. The results showed that institutional quality, especially for the legal system and the protection of property rights, was positively linked to growth. As for institutional instability, the study found evidence of positive relationships in rich countries but negative associations in poor countries. Similarly, Dickson et al (2021) used a two-step GMM estimation process to analyze the impact of institutional quality on the economic growth of sub-Saharan African countries between 2006 and 2018. The results showed that improvements in the quality of institutions positively and significantly improved the output of sub-Saharan African countries.

Although much of the literature tells us that well-defined and well-functioning institutions such as the rule of law, and property rights are guaranteed to be important issues for economic growth, however, according to Rodrik (2006) and Williamson (2009) in some cases, this is not accurate. Based on the transnational literature, Rodrik (2006) was unable to find a close causal link between institutional reform and economic growth. He further argues that there is little evidence that high institutional quality plays an important role in promoting economic growth. Empirical evidence shows that countries like China and India have high growth rates without institutional reform, but they target other constraints. Naim (2000) also argues that institutional weakness covers a range of issues that need to be addressed to promote economic growth. Rodrik (2006) further emphasizes that economic growth can be achieved if a combination of good policy is designed through a policy diagnostic approach that identifies limitations and offers viable solutions. In the same perspective, Williamson (2009) also suggests that different countries must follow different paths of development, so institutions should not be implanted and copied as a tool to enhance economic growth.

Nguyen et al (2018) used data for the period 2002-2015 of 29 emerging markets to examine the impact of institutional quality on economic growth. By conducting projections using system-GMM, the study finds that institutional quality has a positive impact on economic growth in emerging markets. In addition, improving institutional quality hurts economic growth efficiency when there exist open trade and FDI. The findings also demonstrate that competition due to trade openings can hinder the spillover impact of FDI. The results of this study indicate that improving institutional quality will have less of a positive impact on economic growth if the trading account is expanded. This confirms the increasing trade openness of emerging markets that create competition from foreign enterprises, especially from developed countries, and that demonstrates that institutional quality will further enhance competition, leading to slowing economic growth in the short term. However, the study's findings contradict those results from developed economies (Hadhek & Mrad, 2015). This can be explained because the competitiveness of emerging markets is still low, foreign enterprises have more advantages in competing with domestic enterprises when the quality of institutions is improving, therefore economic growth is lower.

Although the generality of the experimental literature confirms that there is a relationship between the quality of institutions and the results of economic activity from these studies is heterogeneous over time, countries and institutional perspectives. The mixed result is found depending on the number of explanatory variables present in the model, the applied model, and the sample size. Studies have yet to agree on the results that institutional quality has a positive or negative impact on economic growth. Therefore, a new view forms whether or not there is an institutional threshold at which its impact on growth will change. Abdulahi et al (2019) looked at the link between resource rents and the economic growth rate of resource rich SSA countries and viewed institutional quality as a threshold estimate. The study used a team of 14 countries, covering the period from 1998 to 2016. The study found a non-linear relationship between natural resource rents and economic growth due to the threshold impact of the institutional quality index, which divides all countries into three different threshold regimes. The impact of resource rent on economic growth is determined to be positive and significant when the threshold value of institutional quality is above −1,375 and when it decreases between −1,375 and −1.23. Meanwhile, below the threshold value of -1,375 (i.e. when the institutional quality index is lower), the impact of resource rents becomes negative and significant with a 95% confidence interval. Therefore, the nonlinear aspect of the institutional quality effect across the entire data confirms the extent of the impact of institutional quality to convert resource rent into a beneficial economic factor. Moreover, countries also differ greatly due to their dependence on resource revenues, depleted use of resources, types, and quantities of resources, institutional and administrative competencies, and governance standards (Lundgren et al, 2013). The discovery of different threshold levels is important because it helps countries determine the most reasonable threshold to be able to protect long-term economic growth. Marakbi and Turcu (2016) studied the impact of institutional quality and corruption on the economic growth of 128 developed and developing countries between 1984 and 2012 with a

Panel Smooth Transition Regression model (PSTR) and showed that a linear relationship exists between corruption and economic growth with changes in institutional quality. Ndjokou & Tsopmo (2017) looked at the relationship between institutional quality, natural resources, and economic growth in sub-Saharan Africa and helped define institutional quality thresholds in the relationship between natural resources and economic growth using the Panel Smooth Transition Regression (PSTR) and the GMM dynamic panel model. Chong (2020) found that the non-linear relationship between institutions and economic growth of countries that reached the Trans-Pacific Partnership agreement in 2002-2015 and better institutional quality helped promote economic activities and vice versa when institutional quality exceeded 0.638. Tran et al (2021) studied the impact of institutional quality on the economic growth of 48 countries in Asia between 2005 and 2018. By using quantitative regression on panel data, the results have shown that institutional quality is considered the main factor of economic development. Besides, the study also shows the existence of an institutional threshold for growth to reach the highest level. If the institutional index exceeds the threshold, it will have the opposite effect on growth.

Alexiou et al (2020) reviewed the relationship between institutional quality and economic growth for 27 post-socialist economies in the period 1996-2016. Using panel cointegration and causal analysis, the results showed that in the long run, economic growth is associated with the rule of law and voice and accountability. In the short term, regulatory quality still has a positive effect, but voice and accountability show a negative impact on economic growth. In addition, the results of the causal analysis also show a close relationship between institutional quality and economic growth.

Radulović (2020) studied the impact of institutional quality on economic growth in Southern Europe and compared these effects in EU and non-EU countries. Using the Worldwide Governance Indicators (WGI) to measure the quality of institutions with data from 1996 to 2017. The panel autoregressive distributed lag (ARDL) approach is used to analyze the relationship between institutional quality and economic growth. The results show that in EU countries there is a long-run relationship between institutional quality and economic growth for all significant variables, while in the non-EU countries only government effectiveness, political stability and absence of violence, regulatory quality, and voice and accountability are statistically significant. Furthermore, in EU countries there is no short-run relationship between institutional quality and economic growth, while in the non-EU countries of SEE, regulatory quality, voice and accountability are significant.

In general, studies of the impact of institutions on economic growth have not yet come to an accurate conclusion. The existence of an institutional threshold affecting economic growth and the non-linear relationship between institutions and economic growth has been identified. However, there is not much research on institutional innovation, and it is unclear whether there are institutional thresholds that affect economic growth. Besides, the results of the threshold value have not been agreed upon. Moreover, the topic related to institutions is quite new, especially studies on the threshold effect of institutional quality on economic growth. Therefore, the results of previous studies will be limited in application to serve as a basis for making reasonable policy suggestions for developing countries alone. Therefore, this study fills the gaps in previous studies and contributes to clarifying the threshold effect in the relationship between institutional quality and economic growth in developing countries.

3. METHODOLOGY

3.1. Model

Economic growth is influenced by many different factors. Based on previous studies, our research model is formulated as follows:

$$GDP_{it} = \beta_0 + \lambda GDP_{it-1} + \beta_1 IQ_{it} + \beta_2 \left[IQ_{it}\right]^2 + \delta_{it} X_{it} + (\mu_i + \varepsilon_{it}) \quad (1)$$

In which, GDP_{it} is a dependent variable representing economic growth, GDP_{it-1} is a 1-year lagged variable of GDP. IQ_{it} and $[IQ_{it}]^2$ is the independent variable representing institutional quality, X_{it} is a vector of the control variables including financial development (FD), income (INCOME), foreign direct investment (FDI), trade openness (TRADE), Gross capital formation (GCF), population (POP), inflation (INF), money supply M2 (M2), government spending (GCE) and human development index (HDI). Control variables are included in the model based on previous studies such as Romer (1986), Botev (2019), Zhu and Kim (2020). The coefficient β_0 is a constant, which δ_{it} is the regression coefficient before the control variables. Values i = 1, 2 , …, N (representing the country) and t = 1, 2, … T (representing the study period). Finally, μ_i is the fixed impact of the model and ε_{it} is the estimated error of the model with the assumption of being independent, having an independent random distribution and existing with zero mean and constant variace of σ^2 ($\varepsilon_{it} \backsim i.i.d(0, \sigma_\varepsilon)$.

From equation (1), by taking the first derivative of both sides concerning the variable IQ, we have:

$$\left(GDP_{it}\right)' = \beta_1 + 2\beta_2 CREDIT_{it} \quad (2)$$

GDP value reaches the maximum/minimum when $(GDP_{it})' = 0$ (first derivative of GDP = 0). Therefore, the threshold value (γ) of CREDIT is:

$$\gamma = \frac{-\beta_1}{2 * \beta_2} \quad (3)$$

3.2. Data

This study is based on data from developing countries for the period 2000 – 2019. Following North (1990), "Institutions are the rules of the game in a society or, more formally, are the humanly devised constraints that shape human interaction". The World Governance Index (WGI) (Kaufmann et al, 2008) is a widely used indicator to measure institutional quality across countries. These indicators have attempted to cover different aspects of institutions by categorizing six "governance indicators":

- Voice and accountability capture perceptions of the extent to which a country's citizens can participate in selecting their government, as well as freedom of expression, freedom of association, and free media.

- Political stability and absence of violence measures perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional or violent means, including politically motivated violence and terrorism.
- Government effectiveness captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies.
- Regulatory quality captures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.
- Rule of law captures perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence.
- Control of corruption captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as the "capture" of the state by elites and private interests.

There is a statistical limitation to the use of indicators in a single regression framework as the correlation between the indices creates the risk of multicollinearity (Moers, 1999). This may be why studies such as Méon and Sekkat (2004) and Acemoglu et al (2001) used different indices separately in different equations. In addition, different studies have attempted to synthesize different indicators by simple averaging. Francisco and Antonio (2004), Hall and Jones (1999), and Knack and Keefer (1995) standardized and took an average of five PRS and four similar indicators from BERI in two indicators, while Mauro (1995) averaged the eighth index from BI (now EIU) in two indicators. One advantage of aggregating indicators is that it eliminates specific sources of measurement error (Laura and Knack 2010; Knack and Nick 2000; Knack, 2002 and Mauro, 1995). The document acknowledges that compared to individuals, composite indicators are more reliable when these indicators organize and summarize very large and different information in a very concise way (Catrinescu et al, 2009, Kaufmann and Kraay 2008, Van de Walle, 2005).

Table 1. Variables description

Label	Variable name	Description	Sources
GDP	Economic growth	The annual percentage growth rate of GDP at constant prices 2010 U.S. dollars (%)	World Bank
IQ	Institutional quality	Average of 6 indicators in the Worldwide Governance Indicators (WGI)	World Bank
FD	Financial development	Domestic credit to the private sector by banks (% of GDP)	IMF
INCOME	Income	Natural logarithm of GDP per capita (constant 2010 US$)	World Bank
FDI	Foreign direct investment	Foreign direct investment, net inflows (% of GDP)	IMF

Label	Variable name	Description	Sources
TRADE	Trade open	Trade is the sum of exports and imports of goods and services measured as a share of gross domestic product.	World Bank
GCF	Investment	Gross capital formation (% of GDP)	World Bank
POP	Population	Population growth (annual %)	World Bank
INF	Inflation	Inflation as measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy.	World Bank
M2	Money supply	Broad money (% of GDP)	IMF
GCE	Government expenditure	General government final consumption expenditure (% of GDP)	World Bank
HDI	Human Development Index	The Human Development Index (HDI) is a summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living.	UNDP

In this study, we used a composite institutional quality index calculated from the average of component indicators to assess the impact of institutional quality on the economic growth of developing countries. In addition, to assess in more detail the impact of institutional aspects, we also assess the impact of each component indicator on economic growth.

3.3. Method

We use the system generalized moment method (SGMM) developed by Arellano & Bond (1991) and Blundell & Bond (1998) for dynamic panel data. Using the static equation of economic growth, which is estimated by the fixed effects of OLS (or GLS), has a biased tendency (Asamoah et al, 2016). The static OLS estimate means that economic growth changes immediately when one of its determinants changes. But in fact, economic growth can change gradually from year to year, and thus partial adjustment to the desired level is the rule of economic growth. To accurately estimate this relationship, it's necessary to add a dynamic component in economic growth and the first lag of the dependent variable as an independent variable to avoid misspecification. This is the basis of GMM as suggested by Arellano & Bond (1991). Furthermore, as noted by Bond (2002), even though the coefficient of the lagged dependent variable is not the main concern, the inclusion of dynamic factors in the estimation process is very important to figure out exactly the nature of the relationship among these parameters. In this case, those are the determinants of economic growth.

In addition, stemming from institutional measurement is difficult and sometimes problematic. Some of the underlying reasons are that certain countries have pursued specific reforms or institutional levels based on income levels and growth rates or political status as well as the initial level of economic institutions, and thus, raise concerns about endogenously. Of course, high-income countries can afford more to create good and quality institutions that lead to the opposite causal relationship between institutions and income levels/growth rates (see example Chong and

Calderon, 2000). Endogenous problems are primarily solved using other exogenous tool variables (see Hall & Jones, 1999; Acemoglu et al, 2001; Persson, 2004; Acemoglu & Robinson, 2010; Ashraf & Galor, 2013; Flachaire et al, 2014). Therefore, in this study, we applied the SGMM method to overcome latent endogenous phenomena in the research model.

The dynamic panel data model contains effects in which the unobserved object correlates with the lagged dependent variable. It means that the model has endogeneity which makes the standard estimators unsuitable. As suggested by Arellano and Bond (1991), the GMM estimator will provide a suitable estimate for such models. This estimator is called the "difference" GMM (or D-GMM) estimator takes the first difference of data and uses the lagged values of endogenous variables as the instrumental variables then. However, if the endogenous variables are persistent or follow a random walk, the D-GMM approach of Arellano-Bond is unsuitable. In this case, there exists a weak correlation between the lagged variables and the variable differences. Therefore, the systematic GMM (S-GMM) estimator developed by Blundell and Bond (1998) is often more appropriate. According to Blundell and Bond (1998), S-GMM corrects the lack of instrumental variables in D-GMM by adding moments. S-GMM optimizes the D-GMM by estimating the original variable and its difference simultaneously. Consequently, after selecting a suitable model, we perform a two-step SGMM estimation, an efficient and robust asymptotic estimator for all forms of heteroscedasticity, to identify the impact of institutional quality on economic growth in developing countries.

However, Carkovic and Ross (2002) note that the conformity of the GMM estimator depends on the validity of instrumental variables. To solve this problem, we perform the Hansen J test proposed by Blundell and Bond (1998) to test the overidentifying restrictions and check the instruments' overall validity by analyzing a similar sample of moment conditions in the estimation process. At the same time, we test the hypothesis that the error (ε_{it}) does not exist autocorrelation.

4. RESULTS

4.1. Descriptive statistics and Correlation

Statistics describe the variables presented in Table 2. Developing countries have an average GDP growth rate of 4.4% and per capita income at fixed prices in 2010 averaged $6,528 per person per year. Institutional quality in developing countries is quite low when the average value of IQ variables is only -0.3.

Developing countries have high levels of financial development with an average domestic credit-to-GDP ratio of 36.2%. It is also a group of countries with a high level of international integration, with their average trade openness and FDI inflow ratio to GDP of 78.8% and 4.19%, respectively. Other indicators such as gross domestic investment (GCF), population growth (POP), inflation rate (INF), money supply growth (M2), and government spending (GCE) are all positive averages, with high levels of volatility in inflation and money supply (expressed by standard deviations). The Resource Development Index (HDI) of developing countries reached 0.65, which is within the UNDP classification average (0.55-0.699).

Table 2. Descriptive statistic

	Mean	Maximum	Minimum	Std. Dev	Obs
GDP	4.4054	34.4662	-14.1	3.720	1,580
IQ	-0.2963	1.2870	-1.6569	0.5668	1,580
FD	36.2406	165.3904	1.9665	26.3906	1,580
INCOME	8.0923	11.1517	5.3379	1.1875	1,580
FDI	4.1884	60.0616	-40.081	6.077	1,580
TRADE	78.813	225.023	20.964	35.295	1,580
GCF	24.8711	79.401	2.781	7.901	1,580
POP	1.6402	17.5122	-3.8477	1.5189	1,580
INF	7.4691	418.019	-25.9584	15.6076	1,580
M2	50.7902	207.6738	6.5562	30.9814	1,580
GCE	14.4597	39.4506	3.4603	4.8466	1,580
HDI	0.6503	0.88	0.262	0.1353	1,580

To get an initial view of the relationship between institutional quality and economic growth, we showed an orthogonal relationship in two-dimensional space between average GDP growth (y-axis) and average summary institutional index (x-axis) in Figure 1. Holding all other factors constant, this plot exhibits a form of non-linearities in the relationship between institutional quality and growth. Among them, the countries that reported the lowest level of institutional development relative to their real GDP growth rate included Chad with -1.3 (6.5) and Tajikistan with -1.16 (7.69). On the other hand, those with the highest institutional scores include countries like Chile with 1.14 (3.75) and the Bahamas with 0.96 (1.13)[2].

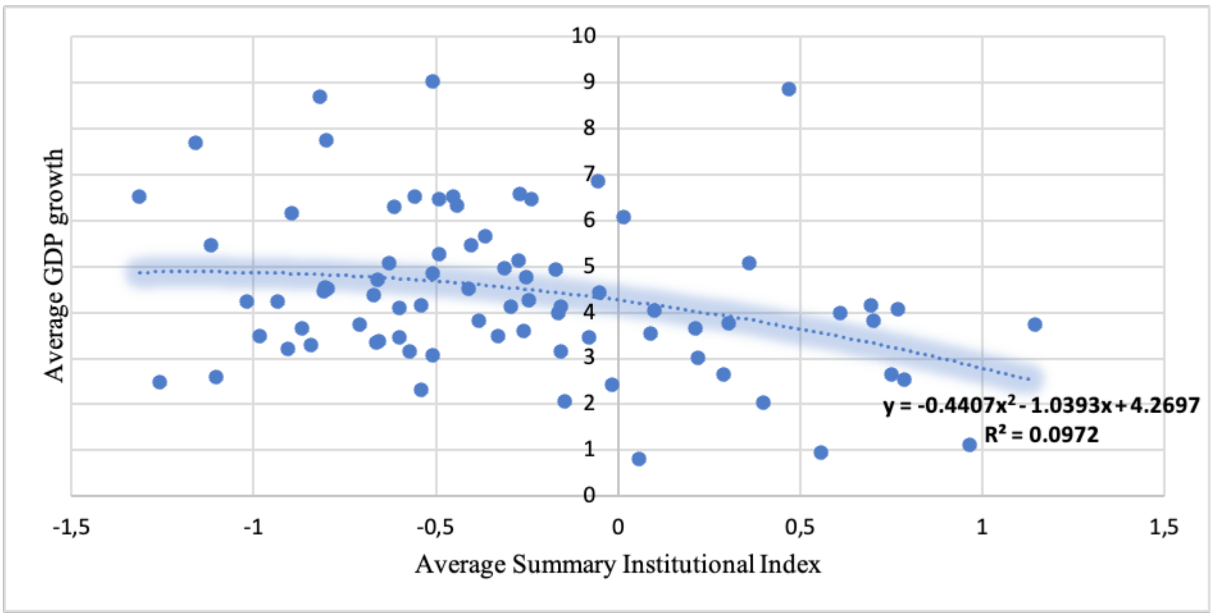

Figure 1. Average GDP growth and Institutions

[2] The value of real GDP growth is in brackets ().

One of the assumptions of the classical linear regression model is that independent variables do not have an exact linear relationship, or in other words, the model does not have the perfect multi-line phenomenon. If the model exists multi-line phenomenon, the regression result will be biased. We, therefore, tested the degree of correlation between independent variables to consider the multilinearity of the regression model. The correlation matrix between variables is presented in table 3. Most of the correlation coefficients between the main variables in the study were lower than 0.8, indicating that there is no serious multicollinearity in the regression model.

Table 3. Correlation amongst variables

	GDP	IQ	FD	INCOME	FDI	TRADE	GCF	POP	INF	M2	GCE	HDI
GDP	1.0000											
IQ	-0.126***	1.0000										
FD	-0.0545**	0.4215***	1.0000									
INCOME	-0.0490*	0.5107***	0.2510***	1.0000								
FDI	0.1350***	0.0512**	-0.0178	-0.0415*	1.0000							
TRADE	0.0401	0.2101***	0.2841***	0.1482***	0.3367***	1.0000						
GCF	0.2178***	-0.0071	0.1167***	0.0704***	0.3340***	0.2077***	1.0000					
POP	0.1683***	-0.214***	-0.1944***	0.2561***	-0.0483*	-0.107***	0.0241	1.0000				
INF	0.0839***	-0.151***	-0.1608***	-0.0604**	0.0596**	0.0857***	-0.0111	0.0053	1.0000			
M2	-0.0497**	0.3551***	0.8880***	0.2028***	-0.0222	0.2742***	0.1854***	-0.189***	-0.161***	1.0000		
GCE	-0.226***	0.2963***	0.1291***	0.2612***	0.1081***	0.2471***	0.0192	-0.067***	0.0142	0.1862***	1.0000	
HDI	-0.135***	0.5845***	0.4666***	0.5437***	0.0407	0.2851***	0.1080***	-0.416***	-0.069***	0.4365***	0.2189***	1.0000

Note: **, **, *** represent statistical significance at 10%, 5% and 1%, respectively.*

4.2. Unit Root Tests

To avoid the problem of spurious regression, the variables in the model must be stationary. We perform the IPS (Im-Pesaran-Shin), LLC (Levin, Lin & Chu), and Breitung unit root tests on the level and first-difference variables. The results in Table 4 show that GDP, FDI, TRADE, GCF, POP, and INF variables are stationary at level, while IQ, FD, INCOME, M2, GCE, and HDI variables are stationary at first difference.

Table 4. Panel unit root test results

		Im-Pesaran-Shin		Levin, Lin & Chu		Breitung	
		t-Stat	p-value	t-Stat	p-value	t-Stat	p-value
Level	GDP	-9.3792	0.0000	-9.2133	0.0000	-7.9119	0.0000
	IQ	3.2195	0.9994	0.8643	0.8063	0.6671	0.7476
	FD	2.5422	0.9945	-3.1677	0.0008	1.1246	0.8696
	INCOME	8.9812	1.0000	3.0806	0.9990	4.4984	1.0000
	FDI	-6.5619	0.0000	-7.9912	0.0000	-6.0025	0.0000
	TRADE	-1.7046	0.0441	-4.3674	0.0000	-1.9144	0.0278
	GCF	-2.2376	0.0126	-4.1980	0.0000	-4.3210	0.0000
	POP	-14.5328	0.0000	-10.7113	0.0000	-5.1788	0.0000
	INF	-12.1973	0.0000	-18.0142	0.0000	-5.0286	0.0000
	M2	3.5734	0.9998	-1.2502	0.1056	4.6169	1.0000
	GCE	-0.4883	0.3127	-3.3202	0.0004	-3.2936	0.0005
	HDI	0.4974	0.6906	-11.1177	0.0000	5.4837	1.0000
First difference	GDP	-27.0926	0.0000	-25.3721	0.0000	-10.6313	0.0000
	IQ	-16.1600	0.0000	-12.7722	0.0000	-10.5109	0.0000
	FD	-10.8108	0.0000	-10.3275	0.0000	-7.8428	0.0000
	INCOME	-8.2828	0.0000	-8.3710	0.0000	-5.5682	0.0000
	FDI	-20.4102	0.0000	-17.1666	0.0000	0.0000	0.0000
	TRADE	-17.4972	0.0000	-18.8603	0.0000	-11.9587	0.0000
	GCF	-16.2200	0.0000	-16.7110	0.0000	-13.3288	0.0000
	POP	-24.7618	0.0000	-26.4906	0.0000	-10.7506	0.0000
	INF	-28.4691	0.0000	-24.7547	0.0000	-8.1202	0.0000
	M2	-14.0980	0.0000	-11.4891	0.0000	-10.4008	0.0000
	GCE	-16.7379	0.0000	-17.1406	0.0000	-10.9418	0.0000
	HDI	-8.2895	0.0000	-8.1604	0.0000	-8.4599	0.0000

4.3. Regression results for the two-step System GMM estimation

We take the difference for non-stationary variables and regress the impact of the independent variables on the dependent variable of economic growth. The nature of the research data is tabular data. Panel data are usually tested using regression analysis with fixed effects (FEM) and random effects (REM) models or pooled OLS regression (Pooled OLS). However, as noted in the research methods section, the research model is a dynamic model that includes the lagged variable of the dependent variable. In addition, institutional measures pose potential endogenous problems. Therefore, we use SGMM estimation to resolve the defects of the static regression model. To identify the impact of the overall institutional quality and the different aspects of the institution, we in turn estimate the models with the main independent variables as overall institutional quality (IQ), Voice and Accountability (VA), Political Stability, and Absence of Violence/Terrorism (PS), Government Effectiveness (GE), Regulatory Quality (RQ), Rule of Law (RL), Control of Corruption (CC), the results are presented in Table 5.

The relevance of the regression results by the two-step S-GMM method was evaluated through Sargan and Arellano-Bond (AR) statistics. The results show that the S-GMM model does not have 2nd order autocorrelation in the residuals and the selected instrumental variables are suitable. Therefore, the S-GMM model results are reliable.

The results of Table 5 show that the variable IQ has a positive effect on economic growth, but the variable $[IQ]^2$ has a negative effect. This suggests that there exists an inverted U-shaped nonlinear relationship between institutional quality and economic growth. This result is consistent with Marakbi & Turcu (2016); Ndjokou and Tsopmo (2017); Abdulahi et al (2019); Chong (2020); Tran et al (2021). The cutoff value of institutional quality found in the study was 0.978, which is higher than the results of Chong (2020) (threshold level is 0.638). The difference between the results and previous studies is explained because our sample includes only developing countries, which is different from the sample of previous studies before including developed and developing countries. Research results have shown that in the early stage when the quality of institutions improves, the impact is positively contributing to the acceleration of economic growth through reducing transaction costs, reducing risks, and improving resource allocation efficiency… However, when the institutional quality is too high (beyond the threshold), better institutional conditions can limit risky investment activities, and at the same time, being more closely regulated and monitored in a better institutional environment reduces the lubrication of economic activities. This reduces the rate of economic growth. In fact, in countries with developed economies, the annual economic growth rate is lower than in developing or emerging countries (Hadhek & Mrad, 2015).

In addition, our study also assesses the impact of each indicator in the World Governance Index (WGI). Based on the regression results, the Voice and Accountability (VA) index has a positive impact on economic growth and according to the regression results, this index still has a positive impact on growth even when the quality of this index is at a high level. Next, based on the regression results, we show that the Index of Political Stability and Absence of Violence/Terrorism (PS) hurts economic growth. The Government Effectiveness (GE) index in the early, low stage has not yet clearly shown how the impact on economic growth (regression coefficient is not statistically significant), however when the index is improving and improving the quality, it has a positive effect on economic growth (regression coefficient is 5.286 and is statistically significant). In contrast, Regulatory Quality (RQ) hurts growth at low-quality levels. However, when the quality of this index is improved, there is still no clear sign of impact (regression coefficient is not statistically significant). Finally, the two indicators Rule of Law (RL) and Control of Corruption (CC) did not find statistical significance in this model.

Financial development (FD) positively affects economic growth in all models. Credit contributes to economic growth because credit activities will finance production and business activities, mobilize idle capital and effectively use this capital. Hung (2009) pointed out that credit development facilitates investment loans with a tendency to promote growth, while consumer loans have no productive purposes and tend to hinder growth. Schumpeter (1911) also asserted that credit services provided by financial institutions can stimulate technological innovation and economic growth by financing productive investments. Income variables (INCOME), and trade openness (TRADE) positively affect economic growth.

Table 5. System-GMM results

Dep. Var: GDP	(IQ)	(VA)	(PS)	(GE)	(RQ)	(RL)	(CC)
GDP_{t-1}	0.140***	0.0759**	0.183***	0.183***	0.175***	0.175***	0.128***
	[0.0247]	[0.0318]	[0.0280]	[0.0357]	[0.0274]	[0.0270]	[0.0333]
D.Inst	7.007***	5.145***	-1.289*	-0.512	-9.171***	0.767	2.057
	[2.047]	[1.283]	[0.782]	[1.762]	[2.076]	[1.594]	[1.340]
D.[Inst]^2	-3.582***	4.097***	-1.234***	5.286***	-1.624	-2.327***	-0.733
	[1.382]	[0.856]	[0.467]	[1.211]	[1.167]	[0.872]	[0.902]
D.FD	0.292***	0.315***	0.310***	0.338***	0.351***	0.344***	0.420***
	[0.0473]	[0.0459]	[0.0279]	[0.0449]	[0.0365]	[0.0497]	[0.0527]
D.INCOME	0.00485***	0.00683***	0.00461***	0.00490***	0.00466***	0.00378***	0.00298***
	[0.000386]	[0.000501]	[0.000410]	[0.000446]	[0.000348]	[0.000344]	[0.000378]
FDI	-0.177***	-0.198***	-0.202***	-0.193***	-0.115***	-0.130***	-0.104***
	[0.0290]	[0.0308]	[0.0305]	[0.0275]	[0.0241]	[0.0245]	[0.0276]
TRADE	0.00816***	0.0121***	0.0111***	0.00973***	0.00771***	0.00847***	0.00838***
	[0.00271]	[0.00265]	[0.00228]	[0.00271]	[0.00256]	[0.00240]	[0.00231]
GCF	0.103***	0.112***	0.104***	0.0972***	0.0752***	0.0784***	0.0679***
	[0.0119]	[0.0113]	[0.0133]	[0.00988]	[0.00963]	[0.00938]	[0.0121]
POP	0.326***	0.350***	0.258***	0.249***	0.236***	0.227***	0.242***
	[0.0417]	[0.0361]	[0.0448]	[0.0483]	[0.0478]	[0.0446]	[0.0423]
INF	0.0893***	0.0677***	0.0748***	0.0643***	0.0699***	0.0703***	0.0594***
	[0.00937]	[0.00826]	[0.0109]	[0.00735]	[0.0101]	[0.00774]	[0.00955]
D.M2	-0.161***	-0.175***	-0.164***	-0.229***	-0.177***	-0.237***	-0.276***
	[0.0463]	[0.0389]	[0.0324]	[0.0446]	[0.0340]	[0.0503]	[0.0543]
D. GCE	-0.232**	0.176**	-0.325***	-0.0689	-0.170	-0.0380	-0.115
	[0.0966]	[0.0716]	[0.0692]	[0.0949]	[0.111]	[0.0884]	[0.0929]
HDI	-5.427***	-7.188***	-5.870***	-5.333***	-6.287***	-5.323***	-5.494***
	[0.543]	[0.565]	[0.501]	[0.511]	[0.580]	[0.573]	[0.464]
Const	3.086***	4.005***	3.151***	3.240***	4.143***	3.665***	4.236***
	[0.377]	[0.365]	[0.333]	[0.348]	[0.415]	[0.396]	[0.378]
AR (1) test	-3.97	-2.09	-4.44	-4.04	-4.65	-5.15	-5.29
(p-value)	(0.000)	(0.037)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
AR (2) test	-0.43	0.15	-1.18	-0.83	0.54	-1.17	-1.40
(p-value)	(0.664)	(0.884)	(0.239)	(0.404)	(0.588)	(0.243)	(0.162)
Sargan test	135.27	125.26	133.78	115.18	118.34	154.61	150.86
(p-value)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Hansen test	56.78	52.88	55.67	60.42	58.99	61.61	56.99
(p-value)	(0.155)	(0.258)	(0.181)	(0.090)	(0.113)	(0.075)	(0.151)
Threshold	0.978	-0.628	0.522				

Note: *standard error in []; p-value in (); *, **, *** represent statistical significance at 10%, 5%, and 1%, respectively.*

Gross capital formation (GCF) has a positive effect on economic growth at a 1% significance level. It is explained that the increase in domestic investment contributes to the improvement of facilities, traffic conditions, etc., which can attract foreign investment. Population (POP) has a positive impact on economic growth. This result agrees with Nguyen et al (2018) and Slesman et al (2015). It is explained that the increasing population of a country can increase the national output, increase consumption, and save on the economy (Kuznets, 1960). Since then, population growth contributes to economic growth.

Inflation (INF) positively affects economic growth at a 1% significance level. This is explained that keeping inflation at an appropriate level is seen as a "lubricant" that contributes to economic growth. Many studies show that high inflation is the optimal choice for emerging countries (Khan et al, 2001; López-Villavicencio & Mignon, 2011; Kremer et al 2013). It is also pointed out by Khan & Hanif (2020) that in the absence of sound political and fiscal reforms, a very low inflation rate preference policy may not be so promising because The desired effects of price stability may be short-term and not consistent with higher economic growth in the long run.

However, variables such as foreign direct investment (FDI), and money supply (M2) hurt economic growth. In addition, the study also showed that Government Spending (GCE) negatively impacts economic growth. This is explained that capital invested in infrastructure in developing countries has not been effectively managed, and the investment is spread out, sometimes deviating from the target, so it hinders economic growth but also consumes national resources. Finally, the Human Development Index (HDI) negatively impacts economic growth at a significance level of 1%. This is explained that, in developing countries, the government's spending on education, health, schools, etc, is not good yet. Support measures and social security packages are still limited, not timely and timely when people need them. Therefore, human capital in these countries has not yet made a change that makes a positive impact on economic growth.

5. CONCLUSION

This study aims to evaluate the threshold effect in the relationship between institutional quality and economic growth in developing countries in the period 2000-2019. The results demonstrate that there exists an inverted U-shaped nonlinear relationship between institutional quality and economic growth in developing countries. The threshold for institutional quality found in this study was 0.978. Thereby, it shows that the impact of institutional quality on economic growth is positive to a certain extent. However, higher institutional quality does not necessarily mean the economic growth is higher but will have the opposite effect. Institutional quality only works up to a certain threshold, when it is over that threshold, it hinders economic growth. In addition, the study also assesses the impact of component institutional factors on economic growth. Specifically, Voice and Accountability (VA) and Government Effectiveness (GE) have a positive impact on economic growth. In contrast, Political Stability and the Absence of Violence/Terrorism (PS), Regulatory Quality (RQ), and Rule of Law (RL) negatively affect economic growth. However, research has yet to find an effect of Control of Corruption (CC) on growth.

From the research results, we suggest some policy implications. Firstly, improve and enhance the factors of Voice and Accountability (VA) and Government Effectiveness (GE). However, this does not mean that other institutional sub-factors should be ignored as all institutional components are equally important in achieving the overall governance index. Negative coefficients for other institutional components may suggest that economic growth requires a stable long-term institutional environment. Second, the contribution of institutions to economic growth is uneven across countries at different levels of development. Therefore, choosing the appropriate institutional quality development criteria because each country will fit a separate criterion that is not the same as the pattern of any other developed country. Third, countries that have not yet reached the threshold should still prioritize ensuring and improving institutional quality. Fourth, we find that the Rule of Law (RL) factor is an important factor showing a negative impact on economic growth. This implies that the provisions of the law have not been implemented well. Therefore, it is important to properly implement the rule of law at all levels of government with a commitment to implementation. Finally, policy measures aimed at promoting capital formation are more effective, controlled inflation or trade factors because these are important factors for economic development.

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GREEN INVESTMENT, FINANCIAL DEVELOPMENT, DIGITALIZATION AND ECONOMIC SUSTAINABILITY IN VIETNAM

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Abstract: *This study analyzes how economic sustainability in Vietnam could be promoted by realizing opportunities represented by green investment, digitalization, and financial development. The relationship between digitalization, green investment, financial development, and sustainable development has yet to be thoroughly investigated. In addition, no research has been conducted in Vietnam on the relationship between these indicators to the best of our knowledge. By doing so, we adopt a novel three-stage methodology comprising quantile-on-quantile regression developed by Sim and Zhou (2015) and Granger causality in quantiles proposed by Troster (2018). The findings demonstrate a strong positive effect of digitalization, green investment, and financial development on economic sustainability in Vietnam across most quantiles, indicating that investment in green resources, technology innovation, and financial development supports the country's transition to sustainable development. Overall, the empirical findings show that digitalization, green investment, and financial development can all play a significant role in significantly increasing the sustainability of Vietnam's current high economic growth trajectories. The findings could create a roadmap for developing countries to use technology innovation, green investment, and financial development in productive sectors to accomplish sustainable development goals.*

Keywords: *Digitalization, financial development, green investment, Vietnam, Quantile regression.*

1. INTRODUCTION

Academics, industry representatives, and policymakers have increased attention to sustainable development. Stable economic growth and energy efficiency are critical for attaining sustainable development in the digital era (Hosan et al, 2022). However, fostering sustainable economic growth and development should not come at the expense of future generations—that is, economic advancement and environmental sustainability should go hand in hand (Azam, 2019). Sustainable development has become a must for all economies worldwide (Musah et al, 2022). Economic development needs a high quantity of energy consumption, and the waste gas and wastewater created can pollute the environment. As a result, governments should opt for environmentally friendly green growth (Song et al, 2019).

The global economy has seen significant changes as a result of the rapid evolution of information and digital innovation (Vyshnevskyi et al, 2020). The growth of networks, the Internet, and the broad adoption of digital solutions have resulted in massive changes in practically every aspect of life (Aleksandrova et al, 2022). The Covid-19 pandemic has been occurring since the beginning of

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2020 and has expedited these developments even more (Brodny & Tutak, 2022). Because Covid-19 has accelerated almost all countries' digital transformation, it will positively impact their capacity for social innovation, which will benefit society as a whole (Nagy & Veresne Somosi, 2022). In light of Vietnam's situation during the pandemic, digital-based communication networks have played a significantly more significant part in defining the country's future development since 2019. Vietnam's commerce and economy had begun to transition digitally before the epidemic, as seen by the growth of technology-based applications and more online trading sites (Raeskyesa & Lukas, 2019). As a result, it is vital to evaluate the impact of digital innovation on economic development in this nation and several concerns in terms of potential and challenges that the Vietnamese government should take into account. Besides, Brodny and Tutak (2022) stated that digital technologies are rapidly being used in manufacturing and service processes, and they are quickly becoming associated with modernity and innovation. Hence, digitalization and the application of the Industry 4.0 concept are increasingly becoming a driver of economic growth for many firms, governments, and regions around the world. In light of this, the economic impact of digitalization has piqued the interest of many researchers in recent years.

This study is motivated by the aggravating trends in economic development and the poor renewable energy use scenarios in Vietnam. Against this background, the present study aims to analyze the considerable impacts of digitalization, green investment, and financial development on economic sustainability in Vietnam. Among the major relevant economic sustainability factors, our work explicitly emphasizes the impact of technology innovations, financial development, and green investment in the Vietnamese context. These indicators have been acknowledged in the literature to affect economic development around the world (Sun et al 2021; Gao & Zheng, 2017; Indriastuti & Chariri, 2021; Gao & Zheng, 2017; Ning et al 2022; Musah et al 2022; Mtar & Belazreg, 2021; Chen et al 2020). In addition, with the recent ratification of the Regional Comprehensive Economic Partnership, Vietnam can be expected to enhance its economic development (Zeraibi et al, 2021). However, given the nation's previous patterns of green growth, this predicted growth can also be accompanied by digital innovation, financial development, and green investment, allowing for sustainable development in the years ahead. More importantly, Vietnam has vowed to contribute to the global achievement of the Paris Agreement's sustainable development goals agenda. As a result, Vietnam must establish the most appropriate pathways to achieve long-term success. In this regard, the findings of this article are likely to reveal important policy implications that will help Vietnam attain economic sustainability.

As a result, the current study attempts to answer the question of whether Vietnam's digital innovation, green investment, and financial development policies have been successful attempts at enhancing economic growth, resulting in improved economic sustainability. Additionally, it is reasonable to assume that the greater the degree of financial development, digitization, and green investment, the more economically sustainable Vietnam will be. Both the research questions and the hypotheses compel us to look into the influences of digitization, financial development, and green investment on economic sustainability in Vietnam. This country is emerging and growing, reaching increasing economic growth rates while simultaneously consuming less renewable energy, putting pressure on environmental degradation (Nguyen et al 2021). This demonstrates that policies are aligned in favor of improving sustainable development through increased economic growth.

This paper contributes to the existing literature in several ways. Given that Vietnam is making progress towards attaining the objectives of SDGs 13, demand for conventional energy is dwindling, even though it is a primary engine of the country's economic growth. On the other hand, renewable energy options are gaining much traction. As a result, this work aims to analyze the complexities and asymmetric relationships between financial development, green investment, digitalization, and economic sustainability in Vietnam from 1995 to 2020. First, to the best of our knowledge, research into the relationship between these variables is still limited, particularly in Vietnam. We consider that the rate of economic growth in this country has continued to rise over time and that this research area is continuously developing. To put it another way, as far as we know, no studies on the green investment, financial development, digitization, and economic sustainability nexus have been implemented in Vietnam. For this purpose, we adopt a novel three-stage methodology consisting of Quantile-on-Quantile regression, Granger causality in quantiles, and Wavelet coherence models to highlight the dependence structure of the examined indicators and measure the asymmetry in the correlation structure and discover the lead-lag relationship between the variables, respectively. The proposed frameworks ensure robustness. These approaches also accommodate the problems of heterogeneity, non-normality, and asymmetry of the variables. Our analysis reveals that digitalization, green investment, and financial development positively impact economic sustainability in Vietnam, which will contribute to the related literature in terms of offering investment, technology innovation, and financial development policy implications at the country level.

2. THEORETICAL BACKGROUND

According to the Solow model, the rising standard of life can only be explained by advances in technology. Recent growth models identify technical improvement as a critical determinant in economic growth (Mentsiev et al, 2020). In contrast to the Solow growth model, which considers technology to be exogenous, a new growth model has arisen that considers technological advancement to be endogenous. Furthermore, it is said that modern technology rates affect not just expansion and development of the economy but also results like the average lifespan, democratic levels, health-related consequences, rates of poverty, and literacy. Many economists and scholars have concentrated on examining the influence of digitalization on the outputs of advanced and emerging nations as a result of the tremendous global advancement of technology in the previous three decades (Aleksandrova et al, 2022). According to the literature on technological innovation, it plays a critical role in fostering economic development in both developed and developing countries. Technological advancements contribute to economic development through meeting demand for digital items, including communication tools, software, and computers, and increasing productivity and investment in hi-tech industries. The relative pricing of high-tech equipment in rich countries may be falling more quickly than in underdeveloped countries, as the more hi-tech investment may lead to learning economies. Developed countries profit more economically from investment in technological innovation than emerging countries. In OECD countries, internet use promotes financial development and trade openness (Habibi & Zabardast, 2020).

Green investment (GRE) is defined by Musah et al (2022) as activity involving investment focused on projects or businesses that are dedicated to the conservation of natural resources, the generation and enhancement of alternative energy, the protection of air and water, and other environmentally friendly practices. GRE might also be considered a socially conscious investment since it prioritizes environmental rules, social duty, and substantial benefits. As per Porter and Claas (1995), GRE include all initiatives that improve environmental quality. This conclusion is in line with Xu et al (2017), who state that GRE can help minimize the use of harmful energy sources such as coal and other fossil fuels. As a result, any expenditure that improves the overall manufacturing process efficiency qualifies as a GRE. Such investments go beyond energy efficiency and renewable energy to encompass the processing and recycling of trash, the sanitation of water, the control of pollution from industry, the preservation of biodiversity, and the reduction of climate change. The amount of literature available on the role of GRE is limited (Shen et al 2021). Nevertheless, several prior publications are available that highlight the importance of GRE in promoting green growth, reducing environmental degradation, and achieving sustainable development (Sun et al, 2021; Gao & Zheng, 2017).

There has been a debate on the finance-growth relationship since Schumpeter (1911) introduced the concept of the requirement for financial sector expansion for economic growth. Economic success necessitates the expansion of the financial sector. Through technical advancements, it helps with economic prosperity. His idea is that financial development (FIN) influences GDP by supplying adequate funds to enterprises with the most productive use of capital. Furthermore, Patrick (1966) established two significant assumptions about the interplay between finance and economic growth, including the supply-leading and demand-following hypotheses. He claims that the financial system drives GDP in the early stages of a country's development. By contrast, the demand for a sophisticated financial sector develops as the country moves closer to being a developed country. Fetai (2018) discovers a positive association between FIN indices and economic growth, confirming the hypothesis that FIN drives GDP in transitional European countries like Russia and Turkey.

3. LITERATURE REVIEW

Although digitization is a fast-evolving field of national interest—particularly in emerging economies—with both benefits and drawbacks, scientists disagree on the direction of their perspectives (Filipiak, Dylewski, & Kalinowski, 2020). The appearance of new technology is the first sign of a shift in economic systems. The evolution of tourism research trends has revealed that the search for economic development determinants in the tourism sector has shifted. There is a pressing need to investigate the influence of a variety of factors on economic growth in emerging countries, together with the advent of industrialization and the development of society, environmental degradation, and macroeconomic determinants that swiftly impact sustainable economic development (Maiti & Kayal, 2017; Vyshnevskyi et al, 2020).

Habibi and Zabardast (2020) explore the influence of ICT and education on economic development in the Middle East countries and the OECD economies. The results imply that information and communication technology is positively related to economic growth in both countries. Aleksandrova et al (2022) use a three-pronged approach to exmaine the effect of digitalization on economic development. They find that the macroenvironment and population preparation for digital transformation does not allow digital technologies to impact economic growth rates significantly. According to Maiti and Kayal (2017), the services industry and MSME divisions, two of India's most vibrant and high-potential growth segments, are both significantly impacted by digitization, because digitization improves MSMEs' performance and helps them overcome financial barriers by providing alternative financing options.

Shibata (2021) argues that digitization can enhance working environments and contribute to more stable growth in Japan because it has resulted in deskilling, dispersion of labor responsibilities, a digital gap, labor intensification, and increased workplace surveillance. Brodny and Tutak (2022) demonstrate an approach introduced to investigate the degree of digitalization and use of innovative technologies among EU firms. The authors show how the EU countries differ greatly in terms of digitalization. Boikova et al (2021) confirm that the most important factors are macroeconomic stability, R&D, digitalization, foreign direct investment, and trade openness, which are the significant contributions of competitiveness indicators to economic development in EU countries. Nevertheless, Vyshnevskyi et al (2020) indicate that the level of economic digitalization in the EU countries at the current stage of technological and institutional development has no significant impact on economic growth.

Contradictory discoveries have extensively studied the lead-lag nexus between green investment and GDP. For example, Luukkanen et al (2019) look at sustainable development policy through the Sustainability Window and find that water and sanitation issues have been handled more sustainably than energy and GHG emission issues. Saunila et al (2018) investigate what motivates sustainability-related green innovation investment and utilization, concluding that the higher a company's value for economics, institutions, and society. Their findings imply that economic and institutional incentives promote green innovation and that such innovation can provide value in terms of social sustainability. In a similar fashion, for China, the same results can be established. According to Wang et al (2018), GRE benefits from the presence of a politically connected board chairperson. Furthermore, the association between political connection and green investment is negatively moderated by marketization degrees, which supports an institutional logic approach. During the same decade, Sun et al (2021) investigated the time-varying and causal connection between green investment, clean energy, economic expansion, and environmental sustainability, concluding that while both clean energy and green investment are significant pollution mitigants, their emissions-cutting effects differ depending on emissions quantile (low, middle, and high). Indriastuti and Chariri (2021) research the relationship between GRE and corporate social responsibility (CSR) investment, demonstrating that GRE and CSR investment have a positive impact on financial and sustainable development. At the same time, the impact of financial performance on long-term performance is negligible.

According to Gao and Zheng (2017), gigh levels of environmental concerns from regulators don not always lead to a company's decision to use green technology. Instead, the level of GRE depends on how market and operational factors work together for a given level of environmental concerns from regulators. The finding also demonstrates that raising customer environmental awareness is a powerful strategy for motivating a company's GRE. According to Azam (2019), the use of energy, the accumulation of physical capital, the cultivation of human capital, and the expansion of financial development all contribute to economic development. However, environmental degradation slows it down. Furthermore, energy use, pollution, investment, human capital, and the expansion and growth of the financial industry all have bidirectional and unidirectional causality. Similarly, GDP and energy use are positively correlated, with a 1% rise in renewable energy use resulting in a 0.193% reduction in carbon emissions (Mohsin et al 2021). Recently, Rokhmawati (2021) analyzed the direct effects of GRE, ownership from other countries, and exports on competitiveness and found that while green investment can reduce GHG emissions, it cannot improve competitiveness in Indonesia. Ning et al (2022) explore the impact that green bond financing has on the growth of the economy as well as investment in energy efficiency, finding that green banks invest both public and private capital in energy efficiency to stimulate economic growth, and bank loans are now the most popular source of finance for energy efficiency projects. In the Chinese context, Zahoor et al (2022) discovered that clean energy investment reduces CO_2 emissions, and ecological footprint while positively related to economic expansion in China. Shen et al (2021) investigate the impact of natural resource rent, GRE, financial development, and energy use on lowering carbon emissions and meeting the sustainable development goal of a clean environment. They show that energy consumption and financial development have a positive influence on CO_2 emissions, although green investment has a negative impact on CO_2, whereas national natural resource rent has a positive impact on carbon emissions. Despite the fact that GRE increased in all provinces from 2002 to 2017, Sheng et al (2021) documented GDP, GRE structure, homothetic regional rivalry, and regional allocation all had different regional and temporal effects.

The scope, stability, effectiveness of financial institutions, and increased access to such institutions, were outlined by Musah et al (2022), Levine (1997), and Arestis and Demetriades (1997), with the primary purpose of boosting economic sustainability. Bist (2018) examines the long-run nexus between FIN and GDP in 16 low-income African and non-African nations, finding that FIN has a positive and dramatic effect on GDP. In the long term, renewable energy consumption and GDP are driven by FIN, and there is a bidirectional correlation between renewable energy consumption and GDP in India, according to Eren et al (2019). Interestingly, in a different study, Ibrahim and Alagidede (2018) report that FIN supports GDP in 29 SSA countries from 1980 to 2014.

Asteriou and Spanos (2019) explore the nexus between GDP and FIN during the financial crisis for 26 European Union countries and document that FIN enhanced GDP before the crisis whilst it slowed down the economy after the crisis. In the same vein, Mtar and Belazreg (2021) use a panel VAR approach to look at the lead-lag nexus between innovation, FIN, and GDP for 27 OECD nations from 2001 to 2016. The data shows a one-way causal association between economic expansion and FIN. The neutrality theory is confirmed in the following ways: from FIN to GDP, between innovation and GDP, and between FIN and innovation. From 1985–to 2016, Zeraibi et al (2021) investigated the ecological footprints of Indonesia, Malaysia, the Philippines, Thailand, and Vietnam as a result of renewable electricity generation capability, technical innovation, FIN, and economic expansion. The authors reveal that more renewable electricity generation and technological innovation reduce ecological footprints, while more FIN and economic growth increase them. Similarly, according to Malarvizhi et al (2019), higher levels of FIN are strongly and remarkably connected with quicker present and future growth, capital accumulation, and efficiency. Gazdar et al (2019) conclude that the impact of oil prices on trade volatility on growth is increased by the expansion of the Islamic finance system, based on a sample of five GCC nations from 1996 to 2016.

Several empirical studies have concluded that the expansion of businesses within the financial sector contributes favorably to economic expansion (Wu et al 2020; Mohieldin et al 2019; Chen et al 2020; Belazreg & Mtar, 2020; Sharma & Kautish, 2020; Lenka & Sharma, 2020; Mohanty & Bhanumurthy, 2019). Mohieldin et al (2019) study the interplay between financial sector development and GDP in Egypt between 1980 and 2016, concluding that there is a substantial correlation between GDP and FIN as measured by the ratio of money supply to economic growth. Chen et al (2020) investigate the asymmetric effects of FIN on Kenyan economic growth. They demonstrate that short-term positive shocks to FIN and long-term negative shocks to FIN both boost or slow economic growth. Wang et al (2019) have the same findings as Mohieldin et al (2019) and Chen et al (2020), who indicate that FIN has a positive effect on regional GDP in China.

4. DATA

The central purpose of this paper aims to identify the asymmetric influences of digitalization, green investment, and financial development on Vietnam's economic sustainability. Annual data from 1995 to 2020 is collected because the data on these indicators for this country is only available until 2020. Vietnam, known as an emerging economy, is experiencing rapid financial development, concentrating on green development and rampant sustainable development too. The indicators employed in this study include digitalization (DI), which is measured using the principal components analysis (PCA) score based on mobile cellular subscriptions (per 100 people) and individuals using the internet (% of the total population). Just like Musah et al (2022), who measured green investment by an index, a PCA approach is adopted to calculate a green investment index (GRE) for the analysis, which distinguishes our research from previous studies that calculated GRE solely through investments in alternative forms of energy as well as energy conservation. The GRE was created by combining three indicators: renewable energy usage, technological innovation, and energy efficiency. To be sustainable, economic growth must be in line with the socioeconomic and environmental objectives which are necessary for development over the long run. Agriculture, forestry, and fishing; value-added as a percentage of GDP; trade as a percentage of GDP; inflation in consumer prices (annual%); population growth measured by annual percentage; exports of goods and services (% of GDP); and final consumption expenditure (constant 2015 US dollars) were used to create an economic sustainability index, according to Hosan et al (2022). We analyze these six socio-economic components for exploring the economic sustainability (SD) score using the PCA technique to evaluate its effect on economic growth in Vietnam rather than independently evaluating these six parameters under socio-economic sustainability. In the analysis, the economic sustainability (SD) indicator is employed to estimate the impact on economic growth. Finally, domestic credit to the private sector, domestic credit to the private sector by banks, broad money, and broad money growth were utilized to produce the financial development index (FIN). Similarly, the FIN index is calculated as a linear combination of the selected factors, just like the GRE, DI, and SD. The eigenvalues of the PCA estimates on DI, SD, GRE, and FIN are described in Figure 1.

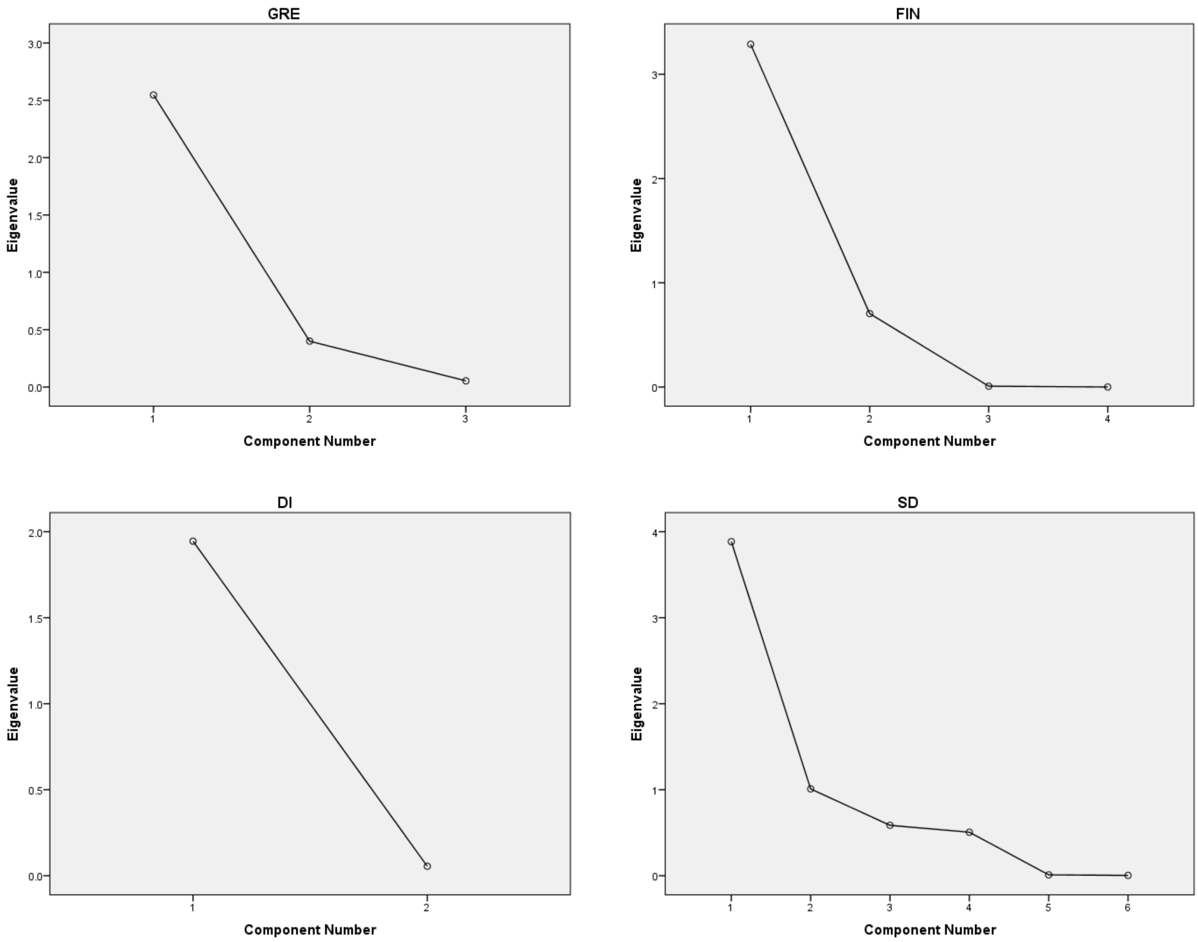

Figure 1. Plot of eigenvalues of the PCA

It is clear from Figure 1 that all the variables utilized for measuring the GRE, DI, FIN, and SD have significant eigenvalues, which means the whole variables are quantified to be employed in calculating the indexes. The World Development Indicators (2021) is used to collect all variables for the GRE, FIN, DI, and SD constructions. The selection of the examined series focuses on sustainable economic growth, modern and sustainable energy access, sustainable cities and societies, sustainable production, consumption patterns, green innovations, and sustainable industrialization (SDGs-13). Table 1 outlines all of the information on the indicators and their sources in detail.

The consequences of the descriptive statistics of the selected variables are reported in Table 2. It is clear that all analyzed data have positive meaning except for economic sustainability. GRE has the highest standard deviation, while the rest of the indicators have similar volatility. In addition, the statistical significance of the Jarque-Bera statistic for the selected indicators confirms that the issue of normal distribution exists.

Table 1. Data description and sources

Variable	Symbol	Measurement	Data source
Digitalization (PCA score)	DI	Individual using internet as % of the total population.	WDI
		Mobile cellular subscription as % of the total population	WDI
Green investment index	GRE	Renewable energy consumption (Percentage of total final energy)	WDI
		Technological innovations (Percentage of GDP)	WDI
		Energy efficiency (Ratio of energy consumption to GDP)	WDI
Economic sustainability index (PCA score)	SD	Trade as a % of GDP	WDI
		Agriculture, forestry, and fishing, value-added as a % of GDP	WDI
		Population growth as annual %	WDI
		Inflation, consumer price measured in annual %	WDI
		Final consumption expenditure measured in constant 2010 US $	WDI
		Exports of goods and services as % of GDP	WDI
Financial development index	FIN	Domestic credit to private sector (percentage of GDP)	WDI
		Domestic credit to private sector by banks (percentage of GDP)	WDI
		Broad money (percentage of GDP)	WDI
		Broad money growth (annual percentage)	WDI

Table 2. Descriptive statistics.

Variables	Mean	Minimum	Maximum	Std. Dev	Jarque-Bera
SD	-2.67E-17	-0.537419	0.451696	0.246713	3.387014*
FIN	1.07E-17	-0.428895	0.347065	0.246613	8.383857**
DI	9.62E-08	-0.608091	0.208314	0.246636	22.33911***
GRE	1.92E-07	-0.435545	0.414948	0.246876	9.563407**

Note: **** Statistical significance at 10% level.*

5. METHODOLOGY

The quantile-on-quantile approach (QQR)

The influence of distinct quantiles of X on different quantiles of Y was investigated using a nonparametric quantile regression model. The following is how the model is expressed:

$$Y_t = \beta^{\theta}(X_t) + \varepsilon_t^{\theta} \tag{1}$$

Where Y_t denotes the dependent indicator in period t and X_t presents the independent indicators in time t. θ is the θth quantile on the distribution of X. In addition, ε^{θ}_{t} presents quantile error term, where estimated θth quantile is equal to zero. $\beta^{\theta}(.)$ is an unknow parameter we do not have past information in connection with the connection between Y and X. Hence, we employ a first-order Taylor expansion of $\beta^{\theta}(.)$ around a quantile of X^{θ} to linearize the function $\beta^{\theta}(.)$, which can be rewritten as follows:

$$\beta^{\theta}(X) \approx \beta^{\theta}(X^{\tau}) + \beta^{\theta'}(X^{\tau})(X_t - X^{\tau}) \tag{2}$$

Where $\beta^{\theta'}$ is the partial derivative of $\beta^{\theta}(X_t)$.

Besides, as pointed out by Sim and Zhou (2015), equation (1) can be rewritten as:

$$Y_t = \beta_0(\theta,\tau) + \beta_1(\theta,\tau)\left(X_t - X^{\tau}\right) + \varepsilon_t^{\theta} \tag{3}$$

Specifically, when performing a nonparametric analysis, bandwidth selection is significant since it helps to simplify the goal point and shifts the speed of the outcome. When the bandwidth h is set to a large value, the variance decreases while the estimate deviation decreases, and vice versa. As a result, the bandwidth value of h = 0.05 was used in this investigation, as advised by Sim and Zhou (2015).

6. EMPIRICAL RESULTS

Prior to implementing the QQR technique, the quantile unit root test is used to exclude potentially biased results and provide a more robust inference to examine the stationarity qualities of the indicators in question (Çıtak et al 2021). The results of the quantile unit root test are depicted in **Table 3**. We employ 19 sub-quantiles spanning from 0.05 to 0.95. The critical values are compared with the estimated t-statistics value to determine the existence of the quantile unit root. If the critical value is greater than the estimated t-statistics value, we cannot reject the null hypothesis of α(τ) = 1 at the 5% significance level for each quantile. The outcomes of the quantile unit root test confirm that all selected indicators are not stationary at different quantiles at the 5% significance level.

Table 3. Quantile Autoregression Unit Root Analysis

τ	SD		DI		FIN		GRE	
	$\hat{\alpha}$	t-statistic	$\hat{\alpha}$	t-statistic	$\hat{\alpha}$	t-statistic	$\hat{\alpha}$	t-statistic
0.05	-2.9703	2.1332	-2.3307	-1.2605	-2.9883	2.6146	-2.6948	1.8162
0.10	-3.4100	-1.9796	-2.6440	0.7773	-3.3149	-0.7400	-2.9955	-1.7245
0.15	-3.4100	-1.8994	-2.6725	0.4442	-3.3888	-0.7174	-3.4100	-0.9221
0.20	-3.4100	-2.2619	-2.8022	-0.4657	-3.4100	-0.9553	-3.4100	-1.5204
0.25	-3.4100	-2.5277	-2.7818	-0.6370	-3.4100	-1.6960	-3.4100	-1.3399
0.30	-3.4100	-1.9404	-2.8819	-1.9562	-3.4100	0.3337	-3.4100	-1.3022
0.35	-3.4100	-2.3941	-2.8928	-2.5364	-3.4100	0.3312	-3.4100	-0.8443

τ	SD		DI		FIN		GRE	
	$\hat{\alpha}$	t-statistic	$\hat{\alpha}$	t-statistic	$\hat{\alpha}$	t-statistic	$\hat{\alpha}$	t-statistic
0.40	-3.4100	-1.8059	-2.8813	-3.6844	-3.4100	0.0773	-3.4100	-0.7988
0.45	-3.4100	-1.5686	-2.9409	-4.8474	-3.4100	0.0553	-3.4100	-0.3424
0.50	-3.4100	-1.2435	-2.8587	-4.5375	-3.4100	0.3017	-3.4100	0.2120
0.55	-3.4100	-1.6834	-2.9174	-4.7186	-3.4100	0.4416	-3.4100	-0.2649
0.60	-3.4100	-1.2357	-3.0146	-4.7505	-3.4100	0.4409	-3.4100	-0.3605
0.65	-3.4100	-0.7027	-2.7693	-4.9966	-3.4100	0.3100	-3.4100	-0.1843
0.70	-3.4100	-0.3687	-2.6453	-5.8560	-3.4100	0.7660	-3.4100	-0.0307
0.75	-3.4100	-0.4865	-2.7679	-3.5778	-3.4100	-0.2022	-3.4100	-0.1984
0.80	-3.4100	-0.3314	-2.7524	-4.0705	-3.4100	-0.5257	-3.4100	0.0511
0.85	-3.4100	-0.4173	-2.8114	-1.8867	-3.3267	-0.3547	-3.1644	0.2285
0.90	-3.4100	-0.5621	-2.4345	-1.7301	-3.1364	-0.3110	-2.9282	0.1651
0.95	-3.4100	0.0953	-2.3100	6.1876	-2.7107	0.6206	-2.5589	-0.2142

Notes: *The table shows point estimates and t-statistics values for the 5% significance level.*

Next, we employ the quantile cointegration test developed by Xiao (2009) to scrutinize the existence of cointegration between the examined indicators, and Table 4 reports these findings. The coefficients of β and γ suggest supremum norm values, and critical values are referred to as CV1, CV2, and CV10 at the significance levels of 1%, 5% and 10%, respectively. The findings of quantile cointegration highlight that the supremum norm values, the β and γ coefficients are greater than all critical values at 1% significance level, which uncovers the existence of the cointegration between the interested indicators. Put differently, these outcomes show the persistence of a non-linear long-term association between digitalization, financial development, green investment, and economic sustainability in Vietnam.

Table 4. Quantile Cointegration Test

Model	Coefficient	Supτ | $V_n(\tau)$ |	CV1	CV5	CV10
SD-DI	β	12.862501	12.735687	9.9308376	8.4763126
	γ	16.935524	11.953369	8.7044334	7.5350122
SD-FIN	β	32.272028	28.474953	16.271631	11.855581
	γ	43.7171	26.213665	15.667746	11.779469
SD-GRE	β	115.264821	101.60819	44.720299	33.398689
	γ	87.803768	80.379791	49.251408	37.110924

Note: *This table presents the results of the quantile cointegration test of Xiao (2009) for the logarithm of the selected variables and economic sustainability. We test the stability of the coefficients β and γ in the quantile cointegration model, and CV1, CV5, and CV10 are the critical values of statistical significance at 1%, 5%, and 10%, respectively.*

In this section, we empirically look into the asymmetric interplay between digitalization, FIN, green investment, and economic sustainability using data from 1995 to 2020 in Vietnam. Figures 3a,b, and c demonstrate the coefficients of slope $\beta_1(\sigma, \tau)$, suggesting the τ^{th} influence of the selected indicators on the σ^{th} quantile of economic sustainability. The pairwise graphs provide several exciting results. More specifically, we find an overall positive effect of digitalization, FIN, and green investment on economic sustainability in Vietnam, which suggests that the three independent variables will always be a significant determinant for achieving economic development in Vietnam under different economic conditions. In each pair, a marked variation in the slope coefficient is observed across the various quantiles of the selected indicators and sustainable development, which reveals that the interlinkages between the two indicators are asymmetric across the quantiles.

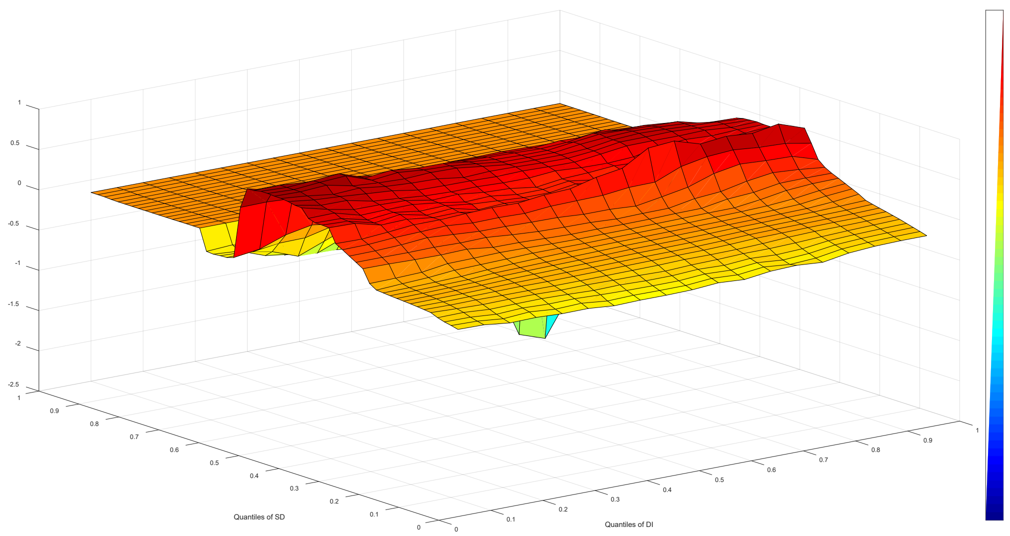

Figure 2a. The impact of digitalization on economic sustainability

Figure 2a shows the impact of different digitalization quantiles on divergent economic sustainability quantiles. The quantile estimation outcomes indicate a negative interaction between DI and SD at lower quantiles of digitalization and economic sustainability. The association between both indicators is consistent over the middle quantile of economic sustainability. In addition, there is a strong positive nexus between digitalization and economic development over the middle to high quantiles of both indicators. The results uncover that increasing digitalization is raising the economic development in Vietnam. The fact that a modern digital economy is founded on digital technology has been recognized in many countries for many years (Brodny and Tutak, 2022). For many years, it has been advocated that businesses grow through implementing and utilizing current technologies and solutions, including those based on the Internet. However, in Vietnam, the processes linked to this do not move simultaneously. These findings support the prior studies of Mentsiev et al (2020), Zabardast (2020), Shibata (2021), and Vyshnevskyi et al (2020).

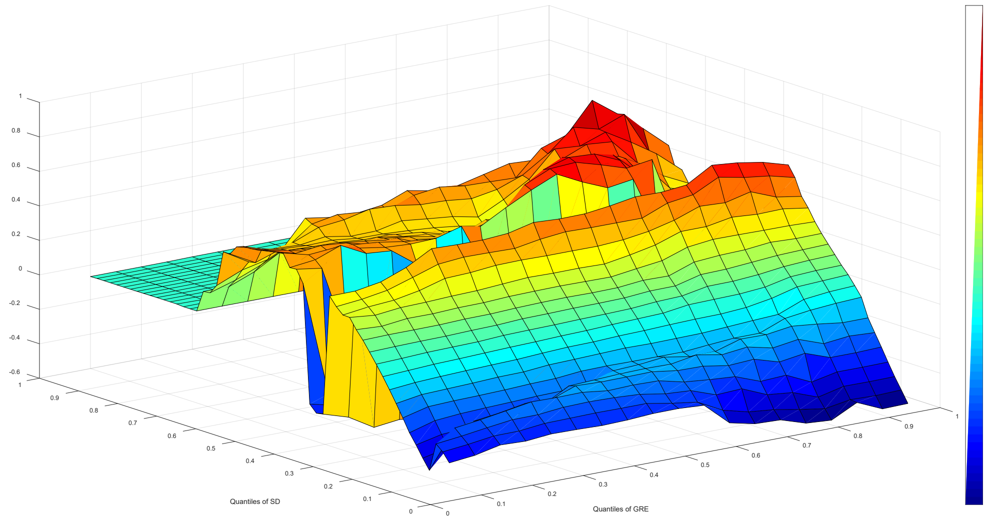

Figure 2b. The impact of green investment on economic sustainability

In the pair of GRE-SD as shown in Figure 2b, we find some interesting outcomes. In general, green investment was positively linked with economic sustainability over the sample period. The positive association between both indicators is substantial at the quantiles of SD (0.3-0.95) and all quantiles of GRE (0.05-0.95). Nevertheless, a negative nexus exists between lower quantiles of SD (0.05–0.3) and lower to higher quantiles of GRE. Green investment has an overall positive impact on economic sustainability, which is crucial in the middle to higher quantiles of SD and middle to high quantiles of GRE. These outcomes suggest that increasing green investment has a more significant impact on sustainable development in Vietnam than previously thought. Furthermore, there has been an overall trend toward this influence over the years. The findings of Vietnam are in line with prior studies by Saunila et al (2018), Wang et al (2018), Indriastuti and Chariri (2021), Zahoor et al (2022), and Sheng et al (2021), who report that a higher level of green investment results in more economic growth.

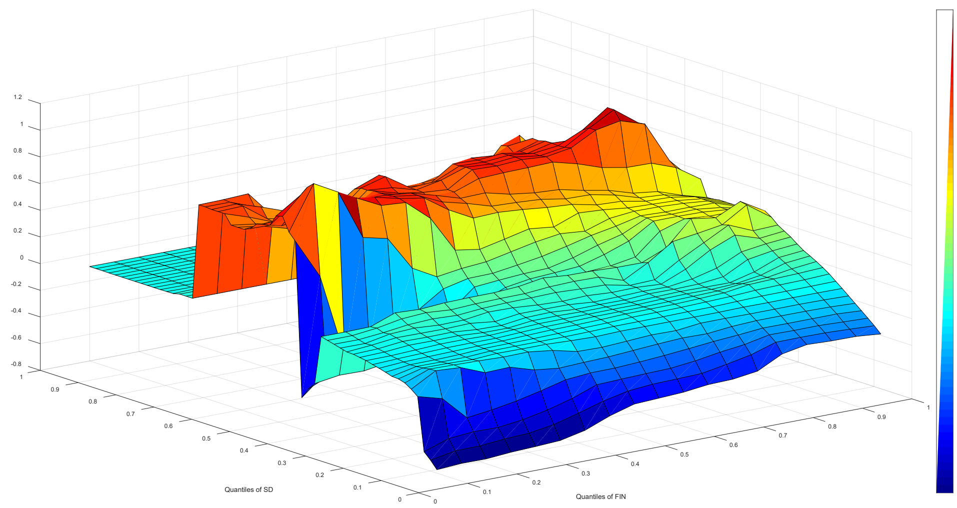

Figure 2c. The impact of financial development on economic sustainability

Figure 2c documents the influence of FIN on economic development. The slope coefficient of this impact is positive across all quantiles of SD (0.1-0.95) for all the quantiles of FIN. Nevertheless, the influence of FIN becomes negatively weak with a decline in the degree of steepness of the slope parameters for lower quantiles of FIN across all scattering of SD. Generally, FIN has a positive impact on SD, suggesting that a high level of FIN creates economic growth at higher rates compared with a lower level of FIN. Our results support the past studies that have also uncovered the considerable influence of FIN on economic growth (Asteriou & Spanos, 2019; Zeraibi et al, 2021; Malarvizhi et al, 2019, Gazdar et al, 2019, Wu et al, 2020; Mohieldin et al, 2019; Chen et al, 2020; Belazreg & Mtar, 2020; Sharma & Kautish, 2020; Lenka & Sharma, 2020).

We now use the Granger causality test in different quantiles proposed by Troster (2018) to examine the bidirectional relationship between digitalization, green investment, financial development, and sustainable development in Vietnam from 1995 to 2020. Table 5 summarizes the p-value for the log difference between digitalization, green investment, financial development, and sustainable development index series. The results uncover divergences in their significance. In Table 5, we observe that digitalization, green investment, and financial development on economic sustainability are heterogeneous, indicating that they do not uniformly impact economic development. Strong Granger causality is found for the top, median, and bottom quantiles. In other words, the outcomes from the quantile-based Granger causality approach illustrate that digitalization, green investment, financial development, and economic sustainability follow a bidirectional relationship in most of the quantiles of the interested indicators. These findings remain unchanged in the quantile-on-quantile regression model. As a result, greater variations (either positive or negative) in digitalization, green investment, or financial development cause changes in economic sustainability in Vietnam.

Table 5. Granger causality in quantile test results

Quantiles	**SD → DI**	**DI → SD**	**SD → FIN**	**FIN → SD**	**SD → GRE**	**GRE → SD**
0.05	0.0142**	0.2428	0.0285**	0.2428	1	0.2428
0.10	0.0142**	0.0714*	0.0142**	0.0714*	0.6	0.0714*
0.15	0.0142**	0.0142**	0.0142**	0.0142**	0.0428**	0.0142**
0.20	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**
0.25	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**
0.30	0.0142**	0.0142**	0.0142**	0.0142**	0.1714	0.0142**
0.35	0.0142**	0.1142**	0.0142**	0.1142**	0.0571**	0.1142
0.40	0.0142**	0.1142**	0.0142**	0.1142**	0.0142**	0.1142
0.45	0.0428**	0.5857	0.4142	0.5857	0.0285**	0.5857
0.50	0.0142**	0.4571	0.1	0.4571	0.3	0.4571
0.55	0.0142**	1	0.0142**	1	0.4285	1
0.60	0.0142**	0.1	0.0285**	0.1	0.0142**	0.1
0.65	0.0142**	0.1285	0.0142**	0.1285	0.07142**	0.1285
0.70	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**
0.75	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**
0.80	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**

Quantiles	SD → DI	DI → SD	SD → FIN	FIN → SD	SD → GRE	GRE → SD
0.85	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**	0.0142**
0.90	0.0142**	0.1	0.0142**	0.1	0.0142**	0.1
0.95	0.3714	0.4571	0.7428	0.4571	0.0714*	0.4571

Notes: **, ** presents the significant level of null hypothesis rejected at 10%, and 5%, respectively.*

7. CONCLUSION AND POLICY RECOMMENDATIONS

This study analyzes the impact of digitalization, green investment, and financial development on economic sustainability in Vietnam using a dataset spanning from 1995 to 2020. We employ nonparametric approaches such as quantile-on-quantile regression developed by Sim and Zhou (2015), Granger causality in different quantiles proposed by Troster (2018) and wavelet analysis to unravel the impact of various quantiles of digitalization, green investment, and financial development on different quantiles of economic sustainability. Our main contribution is to combine three lines of research to look at the relationship between all three factors at the same time, all in the context of one of the most important emerging economies. More so, our findings contribute to the literature in terms of policymaking by highlighting implementation pathways for achieving SDG targets and how green investment, digitization, and financial development can be used as catalysts in the process. The primary conclusions that emerged can be described as follows.

The key outcomes shed light on the asymmetric influence of digitalization, green investment, and financial development on economic sustainability. More importantly, the findings evidence a strong positive effect of digitalization, green investment, and financial development on economic sustainability in Vietnam across most of the quantiles and frequencies, which indicates that investment in green resources, technology innovation, and financial development supports the country's transition to sustainable development. Lastly, we employ Granger causality in quantiles, and their results show that in all quantiles, economic sustainability can be predicted by digitalization, green investment, and financial development. Overall, the empirical findings show that digitalization, green investment, and financial development can all play a significant role in significantly increasing the sustainability of Vietnam's current high economic growth trajectories. The findings could be utilized to create a roadmap for developing countries to use technology innovation, green investment, and financial development in productive sectors to accomplish sustainable development goals.

The following set of policies is recommended based on our empirical findings to help address the challenge of reaching the SDGs. Firstly, there is a positive influence of digitalization on economic sustainability. Importantly, the outcomes indicate a bi-directional causal nexus between DI and SD, which implies that the Vietnamese economy should concentrate more on enhancing digitalization in all productive sectors to keep the growth of the economy going. Vietnam needs to improve its digital infrastructure and introduce new technology. Businesses in Vietnam should make it a top priority to create innovative organizational practices in order to make it easier for their companies to incorporate innovative digital technology. The workforce has to be educated in digital skills in order to have a chance at the occupations of the future. Bridging the digital divide should be prioritized because digital inclusion drives economic development and growth.

Secondly, green investment is positively and remarkably related to economic sustainability. In this regard, the government should encourage more investment in green projects as well as the use of clean energy so that more positive outcomes are possible in the future. This means that increasing or decreasing green investment has an impact on financial sustainability performance. "Green investment" refers to volunteer initiatives undertaken by businesses in order to achieve social and ethical objectives. Based on these outcomes, this paper argues that renewable energy, energy efficiency, agricultural growth, the insurance market, and SMEs' productivity are financially viable but confront inadequate supply and demand constraints. Policymakers should unleash these investment opportunities. They are also advised to promote green finance strategies for the financial sector in order to achieve broader sustainable development goals.

Thirdly, the findings suggest that FIN is connected positively to economic sustainability, which implies that the level of FIN and economic growth are mutually influenced and that an increase in FIN will result in a rise in economic development and vice versa. These outcomes suggest that FIN and economic growth are endogenous processes. As a result, in order to encourage financial development, the Vietnamese government would continue to engage in financial integration, reduce government meddling in financial systems, and elevate the stature of financial institutions, among other things. Furthermore, the government must maintain high economic growth in order to increase demand for financial services, which will eventually lead to financial development in Vietnam.

In summary, these empirical findings suggest that, in order to boost growth and development, Vietnam's policymakers should formulate policies that favor the provision of energy and international investment and improve the health sector through increased investment, developing the financial sector, and limiting uncontrolled pollution in the environment. To promote long-term economic development, the Vietnamese government should maintain checks and balances on the actions of multinational corporations in other nations in order to address environmental degradation issues and enhance long-term economic development.

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IMPACTS OF MACROECONOMIC FACTORS ON STOCK PRICES IN THE TIME OF COVID-19 PANDEMIC: A CASE STUDY OF OIL AND GAS INDUSTRY IN VIETNAM

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Abstract: *Using regression methods of static panel data model, this article examined the effects of macroeconomic factors on stock prices for 31 companies in the oil and gas industry that are listed on stock exchanges in Vietnam during a period of 18 quarters from the fourth quarter of 2017 to the second quater of 2022. The results showed that interest rate (rate) and USD/VND exchange rate (exch) had negative effects on stock prices. On the other hand, there were significantly positive impacts of three factors including economic growth (gdp), inflation (inf) and trading volume (vol) on the stock prices' volatility of Vietnamese oil and gas industry. Besides, the research results also showed that Vietnamese oil and gas stock market became more sensitive to the fluctuations of macroeconomic factors during the epidemic period. Moreover, the article also suggested some policy implications relating to forecasting the volatility of oil and gas stock prices on the Vietnamese stock market.*

Keywords: *Macroeconomic factor, stock prices, oil and gas industry.*

JEL Classification: E44, F62, M21

1. INTRODUCTION

The security market has played a very important role in the financial system of each country for a long time. Moreover, stock price in the market is considered as a factor that investors pay special attention to make investment decisions. The efficient market hypothesis states that asset prices in financial markets should reflect all available information of stocks (Fama, 1970). In other words, if the market is efficient, the stock price will be affected by many factors, through the study of those factors, investors can make forecasting of daily stock price changes in future, and have specific stock trading strategies in each period.

In an emerging economy like Vietnam, the changes in macroeconomic policies often occur abruptly, especially when the epidemic breaks out globally, greatly affecting the psychology of investors, the stock market and the general functioning of the economy. Therefore, it is necessary and useful to analyze the impact of macro factors on the economy in general and the stock market in particular. Hussainey and Le (2009); Phan Thi Bich Nguyet and Pham Duong Phuong Thao (2013) conducted studies on factors affecting the stock prices of companies listed on the Vietnamese stock market.

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However, these studies are still limited in the number of research variables, macro factors have not been analyzed in detail, especially for a specific business field.

In the recent Resolution No. 55-NQ/TW dated February 11, 2020 issued by the Politburo, the government has oriented Vietnam's national energy development strategy to 2030 and outlook to 2045. Accordingly, the industry of oil and gas is considered as a main development goal, focusing on applying the achievements of the industrial revolution 4.0 in all sub-sectors and promoting digital transformation in the energy sector as well as the oil and gas industry. The study of Bui and Nguyen (2021) showed that the oil and gas industry has gradually expanded, which primarily contributed to energy security, exportation, foreign incomes and national budget, motivating industrialization and modernization of the society in general during its nearly 35-year operation in Vietnam. As a result, this allows Vietnam to become a middle-income country, increasingly contributing to strengthening national sovereignty.

Therefore, the content of the article aims to examine how macroeconomic factors affect the stock prices of Vietnamese oil and gas industry during the outbreak of Covid-19 pandemic and contribute to help investors have more rational investment behavior in the digital transformation period. Thereby, the research results can also be used to orient financial investors in the oil and gas industry, in order to attract investment scientifically and serve as a basis for proposals for equivalent scientific studies in the field of finance.

2. LITERATURE REVIEW

A value of stock market reflects investors' expectations of a company's future performance, which is closely followed by investors, analysts, and companies. The market value of share changes when investors buy and sell stocks making the stock value become higher or lower. When identifying the macroeconomic factors affecting stock prices, businesses can find out some solutions to cope with negative impact on the stock market as well as help develop the stock market in accordance with the economic situation. Some previous studies have investigated the impact of macroeconomic factors on the stock market such as: Al-Qenae et al (2002) studied the informational content of increasing income and other macroeconomic variables for stock prices in the "earnings lead price" framework. They found evidence supporting the "price-earnings lead" phenomenon for the Kuwait Stock Exchange (KSE) after controlling for fundamental macroeconomic indicators. Tsoukalas (2003) examined the relationship between macroeconomic factors and stock prices in Cyprus. The vector automatic regression (VAR) model estimator was used to determine the Granger causality between stock prices and predictor variables. He found a strong evidence for predictability in stock prices, similar to the pattern observed in mature stock markets. The regression model in the study of Al-Tamimi et al (2011) performed the financial market sample of the United Arab Emirates (UAE) from 1990 to 2005. Their research results indicate a strong and positive impact of EPS (earnings per share), money supply and GDP on the UAE stock prices. Liu and Shrestha (2008) investigated the relationship between the Chinese stock market and a set of macro-economic variables including money supply, industrial production, inflation, exchange rate and interest rates. The results showed that the cointegrating relationship existed between stock prices and the macro-economic variables in the highly speculative Chinese stock market. Hussainey and Le (2009) examined the effects of macroeconomic indicators consisting interest rate and industrial production on Vietnamese stock prices. They investigated how US macroeconomic indicators affected Vietnamese stock prices through monthly time series data covering the period from January 2001 to April 2008. The results provided the first empirical evidence that there were statistically significant associations among the domestic production sector, money markets, and stock prices in Viet Nam. Another novel finding is that the US macroeconomic fundamentals significantly affect Vietnamese stock prices. The study of Nisa and Nishat (2011) examined the empirical relationship among stock prices, financial fundamentals and macroeconomic factors at the Karachi Stock Exchange. By applying the Generalized Method of Moments (GMM) technique on the data of 221 companies in the period from 1995 to 2006, the results showed that macroeconomic indicators such as, GDP growth, interest rate and volatility, financial depth had a significant relationship with stock prices. Eita (2012) analyzed the macroeconomic determinants of stock prices in Namibia. The investigation was conducted by using a VECM econometric methodology, which revealed that Namibian stock market prices were chiefly determined by economic activity, interest rates, inflation, money supply and exchange rates. An increase in economic activity and the money supply caused a rise in stock market prices while inflation and interest rates play a key role in making stock prices decrease. The results suggested that equities were not a hedge against inflation in Namibia, and contractionary monetary policy generally depressed stock prices. Moreover, increasing economic activity promoted stock market price development. Aurangzeb (2012) attempted to identify the factor affecting performance of stock market in selected three South Asian countries namely Pakistan, India and Sri Lanka by using the data in the period from 1997 to 2010. The regression results indicated that foreign direct investment and exchange rate had significant positive impacts on performance of stock market in South Asian countries while interest rate had a negative and significant impact on performance of stock market in South Asia. Furthermore, this study also indicated the negative insignificant impact of inflation on stock market performance in South Asia. Truong Dong Loc (2014) proved a number of factors affecting the price change of stocks listed on the Ho Chi Minh Stock Exchange (HOSE) in the period from 31 December 2006 to 31 December 2012. Accordingly, EPS and USD/VND exchange rate were positively correlated with the price change of stocks while the opposite correlation was true for the volatility of gold prices and inflation rate. Phan and Pham (2013) studied the impact of macroeconomic factors on the Vietnamese stock market. The results showed that the variables including money supply, inflation, industrial output (representing real economic activity) and world oil price had a positive correlation with the stock market while the other variables of interest rate and exchange rate between VND/USD were shown a negative correlation with the stock market.

The review process of empirical studies relating to the impact of macroeconomic factors on the stock market shows that in each stage and various contexts, the influencing factors as well as the level and direction impact on the stock market are different. Most studies have found that factors such as inflation, interest rates, and VND/USD exchange rates affect the stock price index significantly. However, not many previous studies have analyzed the impact of macroeconomic factors on stock prices of a particular industry. On the other hand, in Vietnam's development strategy to 2030, the oil and gas industry is emphasized as having an indispensable role in the development of the country (Bui & Nguyen, 2021).

Therefore, this article will establish research models in order to evaluate the macroeconomic factors affecting the oil and gas industry market in Vietnam. Thereby, some policy implications relating to the impact of macroeconomic factors on the stock price volatility of Vietnamese oil and gas industry were suggested based on the research results.

3. RESEARCH MODEL AND METHOD

In this paper, we utilize the static panel regression techniques, and perform several tests to choose an appropriate estimation method. Based on the previous experimental studies of Al-Tamimi et al (2011); Gunu and Idris (2009); Nisa and Nishat (2011); Eita (2012); Truong Dong Loc (2014); Vo and Dang (2016), the research model with a static multiple regression model on panel data to analyze the impact of macroeconomic factors on stock price volatility of oil and gas companies has been established as follows:

$$price_{it} = \beta_0 + \beta_1 gdp_{it} + \beta_2 inf_{it} + \beta_3 rate_{it} + \beta_4 exch_{it} + \beta_5 \mathrm{vol}_{it} + e_{it} \quad (1)$$

where i = 1, 2,..., N; t = 1, 2, …, T (i presents Vietnamese oil and gas company and t represents the time period observed in the model); e_{it} is the error term in the research model. Details of variables in model (1) are presented in Table 1.

Table 1. Description of Variables

Code	Variables	Symbol	unit	Measures of variables	The previous studies	Sign
	Dependent variable:					
1	The stock price of the oil and gas enterprises listedon Vietnam's stock market	price	VND	Closing price of Oil and Gas company stocks, quarterly average, take logarithm (Source: Financevietstock)		
	Independent variables:					
2	Gross domestic product	gdp	%	Quarterly real GDP growth rate (Source: GSO)	Al-Tamimi et al (2011); Nisa and Nishat (2011); Eita (2012)	(+)
3	Inflation	inf	%	Quarterly CPI growth rate (Source: GSO)	Al-Tamimi et al (2011); Gunu and Idris (2009); Truong Dong Loc (2014)	(+)
4	Interest rate	rate	%	Quarterly averages of loan rates (Source: GSO)	Al-Tamimi et al (2011); Gunu and Idris (2009); Nisa and Nishat (2011); Eita (2012); Aurangzeb (2012); Truong Dong Loc (2014)	(-)

Code	Variables	Symbol	unit	Measures of variables	The previous studies	Sign
5	USD/VND exchange rate	exch	VND	Quarterly average USD/VND exchange rate, take the logarithm (Source: GSO, World Bank)	Liu and Shrestha (2008); Eita (2012); Aurangzeb (2012); Truong Dong Loc (2014); Vo and Dang (2016)	(-)
6	Trading volume	vol	Stock	Total stock market trading volume at quarterly, take the logarithm (Source: Financevietstock)	Vo and Dang (2016)	(+)

Note:
"(+)" means that it is expected there is a positive impact on the dependent variable.
"(-)" means that it is expected there is a negative impact on the dependent variable.

Source: The authors' synthesis

Besides, in order to examine the impact of the global Covid-19 pandemic on stock price volatility in relation to macro variables, we added a dummy variable (time) to the research model (1) to create model (2) as the following:

$$price_{it} = \beta_0 + \beta_1 gdp_{it} + \beta_2 inf_{it} + \beta_3 rate_{it} + \beta_4 exch_{it} + \beta_5 vol_{it} + \beta_6 time_{it} + e_{it} \qquad (2)$$

Where the time dummy variable takes the value of one (1) if the variables observed in the period from the fourth quarter of 2019 to the end of the research period in the second quarter of 2022 when the pandemic began to break out worldwide. For the observations at the remaining time points, the dummy variable takes the value of zero (0).

In addition, based on previous empirical studies as well as expectation signs of variables, the research hypotheses were established corresponding to the expected signs in order to examine the effects of macroeconomic factors.

Firstly, the amount of Gross domestic product (GDP) might reflect the wealth of residents in a country. Therefore, it is expected that people are likely to require a higher living standard when the rate of GDP increases, which encourages the demand of investment to earn profit and exerts the stock price rises up. In this way, the first hypothesis relating to the effect of GDP factor on the stock price as follows:

H1: Gross domestic product has a positive effect on the stock price of Oil and Gas Industry.

Secondly, high rates of inflation tend to increase the cost of living and resources in consumption. Moreover, the monetary policy responds to a rise in the rate of inflation with some economic tightening policies. On the one hand, some investors are likely to sell the shares leading to a drop in their market price. However, in some fields, investors are optimistic about the company making profits in future when a rising inflation rate encourage an improvement in GDP as long-term benefits. In this way, this might lead to a higher demand of private investment and also in the volume of stock traded in the long-term. Therefore, it is expected that there exists a positive relationship between inflation and stock price in the market as the study of Vo and Dang (2016).

H2: Inflation has a positive impact on the stock price of Oil and Gas industry.

Thirdly, the effect of interest rates on stock prices is explained that a rise in the rate of interest might increase the cost of holding money or holding interest securities for share. This might cause a fall in the amount of stock price as the demand in investment by stocks decreases. Therefore, it is predicted that there is a negative relationship between the interest rate and stock prices.

H3: The interest rate has a negative effect on stock prices of the Oil and Gas Industry.

Fourthly, if the exchange rate increases, the value of the stock portfolio tends to decrease in USD. The foreign investors will sell their own stocks to prevent the loss, which affects negatively on the price of stocks in the market.

H4: The USD/VND exchange rate has a negative impact on share prices of the Oil and Gas Industry.

Furthermore, based on the law of supply and demand in the market, the stock price might be affected be the trading volume in the market. Hence, it is supposed that when the amount of trading volume increases, a growth in stock price is expected.

H5: Trading volume has a positive effect on stock prices of the Oil and Gas Industry.

Besides, in order to examine whether the outbreak of Covid-19 pandemic has created influences on stock prices of Vietnamese oil and gas industries, the last hypothesis is supposed as H6: The time of Covid-19 pandemic has an impact on stock prices of the Oil and Gas Industry.

This study focuses on collecting data taken from the databases of Vietnamese Stock Exchange, the World Bank and the General Statistics Office. With the data of 31 oil and gas companies listed on stock market in the period from Q4 2017 to Q1 2022 (18 quarters), the total sample consists of 558 observations. The sample size is consistent with the formula of Tabachnick and Fidell (1996); Green (1991) and Al-Tamimi et al (2011) which are qualified to conduct regression analysis and the analysis results are reliable enough for scientific conclusions. The collected dependent and independent variables are organized into panel data for each company, distributed on a quarterly basis. Research data is aggregated in the form of a panel.

4. RESEARCH RESULTS

4.1. Descriptive statistics and correlation analysis

After collecting data of 31 firms in oil and gas industry listed on the Ho Chi Minh City Stock Exchange during the period from Q4 2017 to Q1 2022 (18 quarters), corresponding to 558 observations. Based on the number of observations, data on stock prices of companies were collected, we conducted descriptive statistical analysis with the results in Table 2:

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
price	558	3,77298	0,59170	2,35683	5,05323
gdp	558	5,02167	3,28003	-6,02	7,65
inf	558	1,999167	1,073146	0,68	5,77
rate	558	5,490556	1,38960	2,04	6,8
exch	558	4.364.005	0,0034635	4,35633	4,368163
vol	558	6.463.551	1,235479	2	8,882525
time	558	0,5555556	0,4973498	0	1

Source: The authors' synthesis

Table 2 presents descriptive statistics showing the mean, minimum and maximum values with standard deviations of the variables included in the model during the period from Q4 2017 to Q1 2022.

Table 3. Cross Correlations Among Independent Variables

	price	gdp	inf	rate	exch	vol	time
price	1,0000						
gdp	0,0024	1,0000					
inf	0,0002	-0,2692	1,0000				
rate	-0,0675	0,5751	-0,4245	1,0000			
exch	-0,0553	-0,2746	0,2754	-0,085	1,0000		
vol	0,3872	-0,1068	0,0208	-0,1989	-0,095	1,0000	
time	0,0169	-0,5679	0,357	-0,5021	0,2734	0,1437	1,0000

Source: The authors' synthesis

In Table 3, the results show that the correlation between the independent variables is quite low, less than 0.8. Thus, the results do not cause serious multicollinearity because the correlation coefficients are quite low (Farrar & Glauber, 1967).

4.2. Testing for stationarity of variables

Before considering the impact of factors in the research model, we examined the stationarity of the variables by using the unit root test of Im et al (2003). The results are shown in Table 4.

Table 4. Stationarity test results

Variables	Statistic	p-value
price	-4.4794	0.0000
gdp	-9.2220	0.0000
inf	-9.9460	0.0000
rate	-4.4510	0.0000
exch	-6.1138	0.0000
vol	-1.5177	0.0646

Source: The authors' synthesis

The results in table 4 illustrate that all the explanatory variables in the research model are stationary because the p-value is less than 0.1. Therefore, all variables in the research model have been further considered to examine their effects on stock prices of the oil and gas industry in Vietnam.

4.3. Regression analysis results

Firstly, we use model regression processing technique to model (1) on static panel data of 31 listed oil and gas companies in Vietnam in the period from Q4 2017 to Q1 2022 (558 observations) with 3 estimation methods including Pooled-OLS, fixed effects model (FEM) and random effects model (REM).

We has carried out the steps of testing multicollinearity in the model. The result of VIF value is quite small, the average value of VIF test is 1.36 (<10) which is less than the reference value of 10. So we can confirm that there is no serious problem with multicollinearity in model (1).

Next, the F-test steps show that the p-value is very small, so it is concluded that the FEM model is more suitable than the Pooled-OLS model. To choose the more reasonable model between FEM and REM, we have used Hausman test. The Hausman result indicates that the more appropriate one is REM model because the p-value is more than 1% significance level. However, the defect test results show that there is the existence of heteroscedasticity and autocorrelation through Breusch and Pagan Lagrangian multiplier test and Serial Correlation test in the REM model. Therefore, the article has preferred to use the FGLS (Feasible generalized least squares) method in order to improve the efficiency of the estimate (Gujarati & Porter, 2009). The results of regression and model (1) testing are summarized in Table 5 as follows:

Table 5. Regression result for model (1)

	Pooled-OLS	FEM	REM	FGLS
gdp	0.00882	0.00811**	0.00813**	0.00385**
	(0.96)	(4.08)	(4.08)	(4.38)
inf	0.000592	0.000123	0.000130	0.000171*
	(0.58)	(0.55)	(0.58)	(1.85)
rate	-0.0115	-0.0359**	-0.0355**	-0.0106**
	(-0.55)	(-7.53)	(-7.44)	(-2.33)
exch	0.0790	-7.107**	-6.997**	-4.077**
	(0.01)	(-4.39)	(-4.31)	(-3.00)
vol	0.187**	0.0351**	0.0374**	0.0314**
	(9.66)	(3.45)	(3.69)	(4.68)
_cons	2.230	34.72**	34.22**	21.48**
	(0.07)	(4.90)	(4.82)	(3.61)
N	558	558	558	558
VIF	1.36			
F-test	Prob>F = 0.0000			
Hausman test	Prob>chi2 = 0.2013			

	Pooled-OLS	FEM	REM	FGLS
Breusch and Pagan Lagrangian multiplier test		Prob>chi2 = 0.0000		
Serial Correlation test		Prob>chi2 = 0.0082		

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$.

Source: The authors' synthesis

Regression results of model (1) when using Feasible generalized least squares model (FGLS) in Table 5 show that the stock price of the oil and gas industry in Vietnam is influenced by 5 main macroeconomic factors including economic growth (gdp); interest rate (rate); exchange rate (exch); trading volume (vol) and inflation (inf) because their regression coefficients are statistically significant at the 5% and 10% confidence level.

While there was negative impacts of the exchange rate (exch) and interest rate (rate) on stock prices, the opposite trend was true for the figure of inflation (inf) and trading volume (vol). These research results are consistent with the hypothesis proposed and previous research results of Al-Tamimi et al (2011); Gunu and Idris (2009); Nisa and Nishat (2011); Eita (2012); Truong Dong Loc (2014); Vo and Dang (2016).

After considering the regression results of model (1), this paper continues to evaluate the influence of macroeconomic factors on stock prices of the oil and gas industry, taking into account the context of the global pandemic through dummy variable (time) is included in the model (2). The results for regression model (2) are detailed in Table 6 below:

Table 6. Regression result for model (2)

	Pooled-OLS	FEM	REM	FGLS
gdp	0.00609	0.00836**	0.00832**	0.00383**
	(0.61)	(3.87)	(3.84)	(4.38)
inf	0.000753	0.000107	0.000117	0.000207*
	(0.72)	(0.47)	(0.51)	(1.95)
rate	-0.0161	-0.0355**	-0.0352**	-0.0108**
	(-0.73)	(-7.26)	(-7.18)	(-2.37)
exch	1.323	-7.248**	-7.109**	-3.897**
	(0.18)	(-4.28)	(-4.19)	(-2.82)
vol	0.188**	0.0343**	0.0368**	0.0308**
	(9.68)	(3.28)	(3.53)	(4.59)
time	-0.0436	0.00391	0.00314*	-0.00969*
	(-0.71)	(0.29)	(0.23)	(-0.68)
_cons	-3.147	35.33**	34.71**	20.70**
	(-0.10)	(4.77)	(4.68)	(3.43)
N	558	558	558	558
VIF	1.52			

	Pooled-OLS	FEM	REM	FGLS
F-test		Prob>F = 0.0000		
Hausman test		Prob>chi2 = 0.3153		
Breusch and Pagan Lagrangian multiplier test		Prob>chi2 = 0.0000		
Serial Correlation test		Prob>chi2 = 0.0086		

t statistics in parentheses
* $p < 0.10$, ** $p < 0.05$.

Source: The authors' synthesis

Similar to the process of performing regression for static panel data in model (1), we also performed three estimation methods including Pooled-OLS, fixed-effects model (FEM) and random effects (REM) for model (2). Simultaneously, the model selection tests as well as the model's defect tests including: multicollinearity, heteroscedasticity and autocorrelation tests are also performed to find the suitable model.

Finally, the results in Table 6 illustrate that multicollinearity in model (2) is not too serious as the average value of VIF is quite low with 1.52 (less than 10). Moreover, according to results of F-test and Hausman test, the random-effects estimation model (REM) is more suitable for the research data rather than the fixed-effect model (FEM). However, FGLS model is used in order to solve some defects of the REM. The results indicate that similar to model (1), all 5 factors including economic growth (gdp); interest rate (rate); exchange rate (exch); trading volume (vol) and inflation (inf) have influences on stock prices of oil and gas industry at the 5% and 10% confidence level. Nevertheless, the impact of interest rate (rate) and exchange rate (exch) is negative, whereas three remaining elements have positive effects on stock prices in oil and gas industry.

Furthermore, the time dummy variable (time) in FGLS model is statistically significant at the 10% level and the regression coefficient of the variable (time) has a negative sign. This means that under the condition other macroeconomic factors remain constantly, the stock prices in Vietnamese oil and gas industry during the pandemic period are likely to decrease significantly, compared to the previous period.

5. CONCLUSIONS AND POLICY IMPLICATIONS

Based on the results of two models above, there are 5 variables that affect the listed stock prices of the Oil and Gas Industry in Vietnam, including economic growth (gdp); interest rate (rate); exchange rate (exch); trading volume (vol) and inflation (inf). Meanwhile, interest rate (rate) and exchange rate (exch) have negative influences on stock prices, it has been shown that economic growth (gdp), trading volume (vol) and inflation (inf) have positive relations with stock prices in oil and gas industry. Besides, the research results also show that the stock prices of the oil and gas industry tend to decline noticeably during the epidemic period.

Firstly, the impact of economic growth (gdp) on the stock price of the oil and gas industry is proven through the research results showing that the higher level the growth of GDP achieve, the higher the stock price of the oil and gas industry attain. This result is consistent with the study of Nisa and Nishat (2011); Eita (2012). This shows that if Vietnam's economic growth is more and more positive, the stock price of the oil and gas industry will be forecasted to increase in the future.

Secondly, interest rates (rate) have a negative effect on stock prices of the Oil and Gas Industry. This result is consistent with the studies of Al-Tamimi et al (2011); Gunu and Idris (2009). This shows that if interest rates increase, the stock price of oil and gas industry will tend to decrease.

Thirdly, the exchange rate (exch) has a negative impact on stock prices of the oil and gas industry, which is concluded in accordance with the hypothesis and previous studies such as: Liu and Shrestha (2008), Vo and Dang (2016). This shows that when the exchange rate volatility increases, the stock price of the oil and gas industry will be at risk of falling.

Fourthly, transaction volume (vol) is considered as a macroeconomic variable, showing the demand in the market reflected in the behavior of investors. Although this variable has not been mentioned by many prior studies, the research results of this paper show that the positive impact of trading volume on stock prices is consistent with the research results of Vo and Dang (2016). This indicates that if the trading volume is increasing, it will have an influence on the price of oil and gas stocks to increase.

Finally, inflation (inf) also plays a primary role in making the stock prices in oil and gas industry increase significantly. This result is also in accordance with the hypothesis and previous studies such as: Liu and Shrestha (2008), Vo and Dang (2016).

In general, the research results show that if there is an adjustment to the State's macroeconomic policies or due to external shocks affecting the economy, Vietnamese oil and gas industry in the stock market will be affected in two different directions. Accordingly, stock prices will increase or decrease when there is the impacts of macroeconomic factors. Consequently, some policy implications relating to the research results can be mentioned as follows:

Economic growth is a factor that has a positive influence on stock prices and this is an important factor for a country, which is interested by many authorities, giving orientations and forecasts quite a lot. Therefore, investors and business managers of the oil and gas industry need to update this information in order to adjust their behavior to suit market fluctuations to bring investment profits as well as best corporate profits. Besides, the factor of trading volume which represents the supply and demand level in the market, is also positively related to the share price of the oil and gas industry. This further strengthens the position and prospect of the oil and gas industry in the market if the transaction volume is increasing. However, controlling inflation is also required to limit soaring fluctuations of stock prices in Vietnamese oil and gas industry. In addition, since two factors of interest rate and exchange rate have a negative impact on stock prices, investors should establish forecasting models or update information to predict the domestic macroeconomic situation quickly and appropriately adjust their investment behavior in a timely manner.

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THE STATE OF PRIVATE ECONOMIC DEVELOPMENT IN VIETNAM AND POTENTIAL SOLUTIONS

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Abtract: *The private economy has been acknowledged as one of the major drivers influencing the growth of Vietnam's economy, but this does not imply that all practical obstacles have been removed. It is true to say that, in comparison to other economic sectors, the private sector has historically contributed more actively to Vietnam's successes in economic development over the decade 2010–2021. All resources and potentials of the nation will be better mobilized and utilised by the private economic sector in particular or all economic sectors in Vietnam in general if the State's management policies are handled consistently, which will aid in the achievement of the national goal: "Rich people, powerful countries, democracy, justice, and civilization".*

Keyword: *Private economy, economic growth.*

1. RESEARCH OBJECTIVES

The purpose of this article is to clarify how the private sector contributes to the acceleration of economic growth in Vietnam.

As a result, the research goals of this paper are explained in detail with respect to the following aspects:

- Firstly, the private economy has participated in creating jobs, contributing to poverty reduction for the society;
- Second, the private economy contributes to the state budget, increasing government revenues;
- Third, participate in investment contributions, increase investment capital for society
- Fourth, participate in production and business activities of essential products of the industry, increasing the supply of products for society.

2. THE SITUATION OF VIETNAM'S PRIVATE ECONOMIC DEVELOPMENT IN THE PERIOD OF 2010-2021

2.1. Participating in job creation and societal poverty alleviation

The number of people of working age of the whole country in 2021 is 49,072 thousand people, accounting for 49.82% of the national population. Labor data over the years in Table 1.1 shows that the structure of labor in economic sectors is relatively stable in the state sector and it has

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marginally changed in the foreign investment and private sectors. For instance, there were only 42,370 employees in 2010, but this number will rise to 44,777.4 by 2020 in the private sector. However, until 2021, employment in all three economic sectors will decline, mostly because to the post-Covid-19 pandemic that is hitting the labor force nationwide. Data from Table 1.1 generally demonstrates that the private sector has made a significant contribution to job creation in recent years, helping to lower unemployment rates of the country.

Table 1.1. Total number of employees working by economic sector nationwide in the period 2010-2021

Unit: thousand people

Year	Total number of employees (thousand people)	Public sector		Private Sector[2]		Foreign Investment Sector	
		Employees (thousand people)	Labor's Structure %	Employees (thousand people)	Labor's Structure %	Employees (thousand people)	Labor's Structure %
2010	49.124,4	5.025,2	10,2	42.370,0	86,3	1.729,2	3,5
2011	50.547,2	5.024,8	9,9	43.423,8	85,9	2.098,6	4,2
2012	51.690,5	5.017,4	9,7	44.423,3	85,9	2.249,8	4,4
2013	52.507,8	4.994,9	9,5	44.994,6	85,7	2.518,3	4,8
2014	53.030,6	4.893,2	9,2	45.269,3	85,4	2.868,1	5,4
2015	53.110,5	4.779,9	9,0	45.132,8	85,0	3.197,8	6,0
2016	53.345,5	4.702,3	8,8	45.052,2	84,5	3.591,0	6,7
2017	53.708,6	4.595,4	8,6	44.905,4	83,6	4.207,8	7,8
2018	54.282,5	4.525,9	8,3	45.215,4	83,3	4.541,2	8,4
2019	54.659,2	4.226,2	7,7	45.664,6	83,6	4.768,4	8,7
2020	53.609,6	4.098,4	7,6	44.777,4	83,6	4.733,8	8,8
2021	49.072,0	3.951,7	8,1	40.534,0	82,6	4.586,3	9,4

Source: Vietnam Statistical Yearbook 2021

2.2. Contributing to the government budget, increasing government revenues

Along with economic contributions, the private sector has made a significant financial contribution to the national budget. Table 1.2 reveals that in 2010, out of a total of 599,974 billion VND in budget revenue, the private sector contributed 70,023 billion VND (11.67% of the total national budget revenue), surpassing the economic sector with foreign investment (10.82%) but it still belows the state economic sector (18.69%). By 2021, the total contribution from the private sector to the state budget was 289,895 billion VND, accounting for 22.22% of the state budget (Table 1.2). Between 2010 and 2021, the private sector's share of the overall national budget income climbed consistently, from 11.67% to 22.22%; however, the state economic sector's share of the state budget decreased, from 18.69% to 12.56%, and the FDI sector gradually expanded, from 10.82% to 16.65%. In 2010, the private sector only contributed 70,023 billion in the state budget, by 2021 it has contributed

[2] Private Sector Data = Non-Public Sector Data

more than 289,895 trillion; 4.14 times in 12 years. This shows that the private economic sector is increasingly occupying an extremely important position in the country's economic development, especially in the period when the revenue from the state economic sector is decreasing, as it is now. It may be stated that the private sector has been and will continue to be the primary contributor to the state budget in recent years (table 1.2).

Table 1.2. Economic sectors contributing to the national budget for the period 2010-2021

Unit: Billion VND

Year	Total Government Budget Revenue	Public sector		Private Sector[3]		Foreign Investment Sector	
		Budget contribution	%	Budget contribution	%	Budget contribution	%
2010	599.974	112.143	18,69	70.023	11,67	64.915	10,82
2011	721.804	126.418	17,51	84.503	11,71	77.076	10,68
2012	734.883	142.838	19,43	92.086	12,53	82.546	11,23
2013	828.348	189.076	22,83	105.456	12,73	111.241	13,43
2014	877.697	188.062	21,43	112.196	12,78	123.802	14,11
2015	1.020.589	159.907	15,67	129.582	12,70	140.979	13,81
2016	1.131.498	152.975	13,52	157.082	13,88	162.934	14,40
2017	1.293.627	147.238	11,38	181.001	13,99	172.166	13,31
2018	1.431.662	153.324	10,71	209.624	14,64	190.309	13,29
2019	1.277.988	165.055	12,92	238.228	18,64	212.199	16,60
2020	1.293.728	148.183	11,45	247.134	19,10	209.090	16,16
2021	1.304.619	163.898	12,56	289.895	22,22	217.259	16,65

Source: Vietnam Statistical Yearbook 2021

2.3. Participating in investment contributions, increase investment capital for society

The total investment capital of the whole country in 2021 had reached 2,891,912 billion VND, an increase of 276.77% compared to 2010. The state economic sector has the highest average total investment capital, with 364,286 billion VND in 2010, rising to 713,571 billion dong by 2021, and an investment capital structure of 24.7%. When compared to other economic sectors, the private sector has the greatest total investment capital. In 2010, total investment capital was 466,083 billion VND; by 2021, total investment capital would be 1,720,254 billion VND, with investment capital structure accounting for 59.5%. The foreign-invested economic sector has the lowest total investment capital; in 2010, it was 214,506 billion VND; by 2021, it will be 458,081 billion VND, with an investment capital structure of 15.8% (Table 1.3). This demonstrates that the overall investment capital of the country is heavily reliant on the investment capital of the private and public sectors, rather than the economic sector with foreign investment.

[3] Private sector data = Revenue from public, commercial, and non-state services

Table 1.3. Investment capital for development in the period 2010-2021

Unit: Billion VND

Year	Total Investment Capital	Public sector		Private Sector[4]		Foreign Investment Sector	
		Investment Capital	Weight (%)	Investment Capital	Weight (%)	Investment Capital	Weight (%)
2010	1.044.875	364.286	34,9	466.083	44,6	214.506	20,5
2011	1.160.185	387.576	33,4	545.718	47	226.891	19,6
2012	1.274.196	459.504	36,1	596.119	46,8	218.573	17,2
2013	1.389.036	493.724	35,5	655.200	47,2	240.112	17,3
2014	1.560.135	529.468	33,9	765.267	49,1	265.400	17
2015	1.756.240	556.380	31,7	881.760	50,2	318.100	18,1
2016	1.926.864	587.110	30,5	988.651	51,3	351.103	18,2
2017	2.186.560	616.459	28,2	1.173.901	53,7	396.200	18,1
2018	2.426.400	630.142	26	1.361.156	56,1	435.102	17,9
2019	2.670.471	643.094	24,1	1.557.937	58,3	469.440	17,6
2020	2.803.065	734.735	26,2	1.605.050	57,3	463.280	16,5
2021	2.891.912	713.577	24,7	1.720.254	59,5	458.081	15,8

Source: Vietnam Statistical Yearbook 2021

2.4. Participating in the production of essential products, increasing the supply of products for society

Industry is identified as one of the factors creating the driving force for economic growth, contributing to turning the country into a modern industrialized country. Important products for the economy are produced by industry in a certain period of time, these products have a great position and role for domestic consumption, export, storage needs, and contribute to the budget. Over the years, the private sector has strongly participated in the creation of key industrial products, contributing to the growth of the Vietnamese economy in terms of quality and quantity; Specifically:

- Clean coal products: in 2010, the total production of clean coal was 577 thousand tons, in 2015 it reached 698 thousand tons, in 2019 the production of clean coal was 857.22 thousand tons; the proportion of clean coal produced by the private sector from 2010 to 2018 has always remained stable from 1.29%, by 2019 it will increase to 1.82% of the total clean coal output of the country; but through 2021 the private sector has reduced mining output, and returned to a stable level as in previous years, reaching 453.8 thousand tons, accounting for 0.94% of the total amount of clean coal of the country (table 1.4). The main reasons are: (i) the global price of clean coal has skyrocketed, (ii) the supply of coal and other fuels has recovered slowly due to the complicated situation of the Covid-19 epidemic, (iii) demand domestic coal for thermal

[4] Private sector data = Non-Public Sector Data at actual price

power has increased. These are the main reasons driving the private sector to increase clean coal production in 2019 to supply for export and domestic consumption; Mining and production will be stable again in the years 2020 and 2021.

- Crude oil products: The State-owned Oil and Gas Group (PVN) has the exclusive right to exploit crude oil, this is a key economic sector for national economic development coupled with the protection of national sovereignty. Therefore, up to now, the state has not had a policy for the private sector to participate in crude oil exploitation; at the same time, due to the high technical level in the mineral exploration - crude oil extraction industry, the investment capital is very large, so the private sector is not currently eligible to participate.

- Sea salt products: is an irreplaceable food in daily meals, and an important source of raw materials in the food industry, the number of consuming and annual growth of this material is one of the most important criteria for assessing the level of economic development of a country. With a coastline of 3,260 km extending from Ca Mau cape to Mong Cai headland, along with a tropical climate, hot sea water, and high salinity, therefore, Vietnam is a country with great potential to develop the salt manufacturing industry to export. Salt production in Vietnam is a traditional profession for a long time; Vietnamese people are industrious, hardworking, and experienced in salt production, which is a favorable condition for the private sector to participate in production. In 2010 the output of salt produced by this economic sector was 929.40 thousand tons, accounting for 95.29% of the total salt production of the country; by 2015, salt production will be 983 thousand tons, accounting for 92.65%; By 2021, salt production by the private sector will be 1,174.84 thousand tons, accounting for 91.27% of the total salt production of the country (table 1.4). During the period 2010-2021, the private sector has always played an important role, making the largest contribution to Vietnam's sea salt production (always accounting for an average share of about 95% in gross domestic product), meeting the quality requirements of fastidious countries such as Japan, Australia, Korea, etc..

- Sugar products: like salt products, sugar is an irreplaceable food, and also an important source of raw materials in the food industry; in the period 2010-2021, the private sector has outstripped other economic sectors in production of sugar. Table 1.4 shows that, in 2010, the total sugar product produced by the private sector production reached 609.20 thousand tons (accounting for about 53.37% of the total sugar product of the whole country); By 2021, the total sugar product of this area will continue to increase to 1,363.56 thousand tons (accounting for 88.45% of the whole country). During the whole period of 2010-2021, the private sector has always played the most important role, making a great contribution to Vietnam's sugar manufacturing industry (always accounting for nearly 90% of the total GDP in Vietnam).

- Chemical fertilizers, NPK fertilizers: Vietnam is an agricultural country with a total cultivated area of 14,487.70 (thousand hectares), so the demand for chemical fertilizers and NPK fertilizers for the crop industry is very huge. With this advantage, the private sector has participated in the production of chemical fertilizers and NPK fertilizers with the proportion following an increasing trend over the years. Specifically, in 2010, the production of chemical fertilizers and NPK fertilizers was 11.20 thousand tons and 412.10 thousand tons, respectively, accounting for 0.46% and 15.58% of the total production chemical fertilizers and NPK fertilizers of the whole country; By 2021, the output of chemical fertilizers and NPK fertilizers will be 555.5 thousand tons and 1,779.67 thousand tons, respectively, accounting for 13.04% and 48.69% of the total fertilizer production, respectively chemicals and NPK fertilizers of the whole country (table 1.4); after 12 years of the private sector's participation in the production of chemical fertilizers and NPK fertilizers, the output of these two commodities has skyrocketed in recent years; this once again confirms the important role of the private sector in contributing to the overall growth of the economy.

- Cement: The cement industry plays an important role in the development of the national economy and is an urgent need associated with urban development; in the period 2010-2021, the private sector has played a very important role in the national economy when participating in the production of this commodity; in 2010, this economic sector produced 10,644 thousand tons of cement, accounting for 19.07% of the total cement production nationwide; By 2021, cement production will continue to be produced by this economic sector to 51,195.9 thousand tons, accounting for 44.64% of the country's cement production in 2021 (table 1.4).

- Iron, raw steel, rolled steel and section steel: Vietnam's steel industry has made significant progress in the region and plays an increasingly important role in the Southeast Asian steel industry; Contributing to this important role, the private sector has had a strong transformation to improve the quantity and quality of steel produced; The quantity is improved, reflected in the increasing production of steel. In 2010, the output of crude steel, rolled steel and section steel was 1,899.90 thousand tons and 3,482 thousand tons, respectively; by 2021, these two products will be produced at 10,276.82 thousand tons and 17,527 thousand tons, respectively (table 1.4); Rolled steel and section steel have a higher economic value than crude steel, so the private sector has focused on producing superior rolled and section steel compared to crude steel, which shows the increasing quality of steel which enhanced to help Vietnam's steel industry play an increasingly important role in the region's steel industry.

- Electricity: in the context of economic growth, electricity demand is always high, the electricity industry has made great efforts and basically met the electricity demand for socio-economic development, national security and defense. In addition, the Government has issued many mechanisms to encourage the private sector to invest in the development of the power generation industry. In the period 2010-2021, this economic sector has participated in generating electricity with an increasing trend; in 2010, electricity generated from the private economic sector was 1,721 thousand kWh, accounting for 1.88% of the country's electricity generation; By 2021, electricity generated from the private sector will be 44,204 thousand kWh, accounting for 18.05% (table 1.4).

Thus, with the achievements of creating the main products of the industry, contributing to the growth of the Vietnamese economy in terms of quality and quantity of the private sector in the period 2010-2021, This further affirms the great role of this economic sector in contributing positively to the economic growth of Vietnam in general during the past time.

Table 1.4. Output of some major industrial products of the private sector[5]

Unit: Thousand tons

Products	2010	2015	2016	2017	2018	2019	2020	2021
Coal	577,00	698,00	514,00	496,00	547,93	857,22	418,94	453,8
	1,29%	1,68%	1,33%	1,29%	1,29%	1,82%	0,94%	0,94%
Crude Oil	…	…	…	…	…	…	…	…
	0%	0%	0%	0%	0%	0%	0%	0%
Sea Salt	929,40	983,00	943,80	631,90	945,63	892,47	1.047,13	1.174,84
	95,29%	92,65%	96,11%	97,44%	94,89%	94,44%	92,29%	91,27%
Sugar	609,20	1.463,70	1.391,70	1.501,10	1.637,43	1.623,50	1.510,03	1.363,56
	53,37%	79,46%	82,09%	85,90%	86,06%	87,58%	88,25%	88,45%
Chemical fertilizers	11,20	104,10	172,00	242,60	298,37	509,36	538,75	555,50
	0,46%	2,79%	4,86%	6,60%	7,38%	12,89%	12,97%	13,04%
NPK fertilizers	412,10	981,90	966,90	1.038,10	1.049,91	1.586,75	1.703,04	1.779,67
	15,58%	29,72%	31,38%	32,03%	31,59%	46,60%	48,69%	48,69%
Cement	10.644,00	18.161,00	23.055,00	28.508,00	35.365,00	43.734,14	50.096,28	51.195,90
	19,07%	26,85%	30,96%	34,98%	39,68%	41,44%	44,62%	44,64%
Raw iron, crude steel	1.899,90	1.775,00	2.463,00	2.937,00	3.219,95	3.319,00	8.376,56	10.276,82
	65,37%	43,37%	45,01%	37,92%	25,24%	18,09%	35,02%	39,21%
Rolled steel and section steel	3.482,00	6.257,00	7.803,00	8.777,00	10.639,31	11.504,75	15.672,51	17.527,05
	41,38%	49,88%	50,27%	49,00%	52,57%	52,37%	50,10%	49,91%
Electricity	1.721,00	7.333,00	8.927,00	12.613,00	14.269,00	19.713,03	24.100,00	44.204,00
	1,88%	4,64%	5,08%	6,58%	6,82%	8,67%	10,24%	18,05%

Source: Vietnam Statistical Yearbook 2021, Weight: Author's calculation[6].

2.5. The cost of lending rate

Lending rate is one of the factors that directly affect the cost of capital of enterprises; loan interest rates greatly affect investment decisions, production and business decisions, as well as business performance of enterprises; When enterprises have to borrow at high interest rates, the interest payment will be large, which will cause the efficiency of production and business activities to be significantly reduced or loss. Therefore, the lending rate is the main factor that determines whether the enterprise's financial leverage is high or low, and directly affects the business performance when the enterprise uses this leverage. To explain why the performance of enterprises in the private sector has been very low in recent years compared to those in the state economic sector and the foreign invested economic sector, authors consider lending interest rates in the period 2015-2021 as follows:

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[5] Private sector data = Non-Public Sector Data

[6] The weight of product i in year t = output of product i in year t/total national output of product i in year t

Table 1.5. The lending rate

Unit: %

Year	2015	2016	2017	2018	2019	2020	2021
Medium-term and long-term Vietnamese Dong lending rate	10,10	9,73	9,99	10,12	10,52	10,25	9,23
Short-term Vietnamese Dong lending rate	8,66	8,39	8,90	8,76	9,24	9,13	8,18
Medium-term and long-term US Dollar lending rate	5,26	4,16	4,43	4,81	5,25	5,31	4,36
Short-term US Dollar lending rate	3,85	3,23	3,32	3,65	4,06	3,87	3,55
Comparison of medium and long-term loan interest rates between Vietnam dong and US dollar (times)	1,9	2,3	2,3	2,1	2,0	1,9	2,1
Comparison of short-term loan interest rates between Vietnam dong and US dollar (times)	2,2	2,6	2,7	2,4	2,3	2,4	2,3

Source: Vietnam Statistical Yearbook 2021

According to Article 3 of Circular 24/2015/TT-NHNN, and amendments in Clause 1, Article 1 of Circular 42/2018/TT-NHNN, the State has issued a policy to gradually shift the mobilizing – lending foreign currency relationship to buy - sell foreign currency; Therefore, from 2019 commercial banks only provide short-term loans in foreign currencies, and are applied to businesses in imported goods or services to meet production and domestic consumption; and exporting goods and services. Previously, from 2009 to 2019, the foreign currency lending policy was expanded by the State, enterprises were allowed to borrow foreign currency in both long term and short term to pay for the import of goods and services, investment projects, implementation of production and business plans for exported goods and services, loans for overseas investment, etc.

Table 1.5 shows that the gap in lending interest rates between Vietnam dong and US dollar is very large; Specifically, when comparing medium and long-term lending interest rates between these two currencies, the lending interest rate in Vietnam dong is on average 2 times higher than the US dollar, and for short-term lending rates the average lending interest rate of Vietnam dong is 2.4 times higher than the US dollar.

Meanwhile, enterprises that have access to US dollar loans are mainly foreign-invested enterprises, and state-owned enterprises. Because, these are large-scale enterprises, have advanced management and production techniques, have many opportunities to access and trade with the international market. Thus they are eligible to borrow foreign currency with low interest rates. On another hand, the enterprises in the private economic sector, which mainly operate in the small domestic market (there are few large enterprises in this economic sector that have access to the world market), almost only borrow in Vietnam dong at twice the interest rate, so that the cost of financial activities of enterprises in the private sector increased. This is one of the main reasons why the efficiency of production and business activities of enterprises in the private sector is very low compared to the state economic sector and the foreign-invested economic sector.

2.6. Profit before Tax on Revenue Ratio

This is the profit ratio that compares the total pre-tax profit earned from production and business activities and other activities in the year with the total revenue of the enterprise, reflecting a dollar of revenue in the period that will generate how much profit before tax in the period. Like other economic sectors, the profits of the private sector play an important role affecting all matters of an enterprise; this is the capital flow to help the enterprise carry out the reinvestment process, serve the solvency and directly affect the financial resources of the enterprise; Making profits is the only way for businesses development and expanding their operations, and are a lever for socio-economic development, creating conditions to create more wealth for society, and satisfying a higher need of consumers. In the period 2010-2021, the profit-to-revenue ratio of enterprises in the private sector is still modest, and is gradually decreasing, reaching less than 2% in 2021. This profit margin is quite low compared to the state economic sector (average 6%) and the foreign invested economic sector (average 6.5%) (table 2.5). The private sector's recent financial performance has not been favorable, mostly as a result of the low market share of high-value products on both domestic and international markets, as well as their subpar quality and productivity. Furthermore, low worker productivity and high production costs in the private sector lower the profit margin. Because the efficiency of production and business activities of the private sector is still low, this economic sector still faces many difficulties in terms of capital to stimulate investment, technology transfer, and technical progress in order to improve the efficiency of production and business activities and increase labour productivity.

Table 1.6. Pre-tax profit-to-revenue ratio of operating enterprises with business results by type of enterprise

Unit: percent (%)

Year	Ratio of pre-tax profit to revenue of enterprises in the State economic sector (%)	Ratio of pre-tax profit to revenue of enterprises in the private economic sector (%)[7]	Ratio of pre-tax profit to revenue of enterprises in the foreign invested economic sector (%)
2010	5,31	2,71	8,84
2015	5,57	1,84	5,80
2016	6,62	1,88	6,68
2017	6,43	2,48	6,64
2018	5,58	2,41	5,60
2019	5,76	1,84	5,33
2020	5,67	1,87	5,68

Source: Vietnam Statistical Yearbook 2021

2.7. The average income of employees

The private sector has created many new jobs for society. Specifically, in 2010, the number of employees in the private economic sector accounted for 86.3% of the total number of workers,

[7] Private sector data = Non-Public Sector Data

equivalent to 42,370 thousand people; In 2021, the number of employees in this sector is 40,534 thousand people, accounting for 82.6% of the country's labor force (table 1.2), and net revenue increases by 11714.11 (15,782.31–4,068.20) trillion VND (table 2.4).

Although the private economy has affirmed its position and important role in the economy, it still has certain limitations from practice. Business results of the private sector are still not good; High value products have not captured much market share in domestic and international markets due to low product quality. Labor productivity of the private sector is low, reflected in the average labor productivity of enterprises in the private economic sector of Vietnam in the period 2010-2020 reaching about 8.3 million VND/person/ month. While FDI enterprises in Vietnam are over 10 million VND/person/month, and state-owned enterprises are 15 million VND/person/month (table 2.6). The degree and capacity of enterprise organization and management in Vietnam's private sector are still insufficient. The majority of senior staff members overseeing Vietnamese private companies currently lack adequate training in a methodical approach to business management, which prevents them from being well-adjusted to the realities of production and business, particularly the business level in the context of globalization and high-level international economic integration. This results in a lack of regional and global business strategies, a lack of variety in the items offered, a limited capacity to offer goods and services, a failure to meet the needs of customers, and inappropriate pricing.

Table 1.7. Average monthly income of employees in operating enterprises with production and business results by type of enterprise

Unit: thousand VND

Year	Average mothly income of each employee in the state economic sector	Average mothly income of each employee in the private economic sector[8]	Average mothly income of each employee in the foreign invested economic sector
2010	6.553,00	3.420,00	4.252,00
2015	9.509,00	6.225,00	7.502,00
2016	11.411,00	6.405,00	8.504,00
2017	11.887,00	7.369,00	9.035,00
2018	12.556,16	7.868,35	9.763,89
2019	14.209,74	8.311,60	10.065,61
2020	15.329,58	8.272,15	10.516,05

Source: Vietnam Statistical Yearbook 2021

Overall, from the perspective of contributing to the country's economic development, the private sector not only accounts for a large proportion of the gross domestic product, but also the economic growth rate of the private sector that always reached a high level during the period 2010-2021, which is reflected in the increase in production and business capital, increase in net revenue, increase in key industrial products over the years... This once again affirms that the private sector is increasingly proving its important position in the economic development of the country.

[8] Private sector data = Non-Public Sector Data

Summary

In the period 2010-2021, the private sector has achieved some remarkable achievements as follows: (i) created more than 2.4 million new jobs; (xi) the total contribution to the state budget from the private sector is 289,895 billion VND, accounting for 22.22% of the total state budget revenue, and far exceeding the rest of the economic sectors; (xii) private investment capital reached 1,720,254 billion VND, accounting for 59.5% of the total investment capital of the whole country; (vi) the amount of clean coal production stabilized again, reaching 453.8 thousand tons, accounting for 0.44% of the total amount of clean coal of the country; (vii) salt production was 1,174.84 thousand tons, accounting for 91.27% of the total salt production of the country; (viii) the production of chemical fertilizers and NPK fertilizers was 555.5 thousand tons and 1,779.67 thousand tons, respectively, accounting for 13.04% and 48.69% of the total chemical fertilizer production of the whole country; (ix) electricity generated from the private sector is 44,204 thousand kWh, accounting for 18.05%; This result shows that the private sector participates very strongly in the field of production and trading of essential industrial products. This once again affirms that the private sector is increasingly proving its important position in the economic development of the country.

However, besides the achievements, the private sector still faces many challenges such as: (i) the profit-to-revenue ratio of enterprises in the private sector is quite low compared to the state economic sector, with an average of nearly 2%; (ii) The average labor productivity of enterprises in the private sector of Vietnam in the period of 2010-2020 has just reached over 8.3 million VND/person/month, which is still low compared to other economic sectors; (iii) high value products have not yet gained much market share in domestic and international markets due to low product quality; (iv) often bear higher loan interest rates than other economic sectors; (v) the level and capacity of organization and management of enterprises in the private sector in Vietnam are still limited. Currently, most senior employees in charge of Vietnamese private businesses currently lack adequate training in a methodical approach to business management and are therefore not well-versed in the realities of production and business, particularly at the business level in the context of globalization and high-level international economic integration. This results in a lack of regional and global business strategies, a narrow range of goods, a limited capacity to produce goods and render services, a failure to satisfy consumer wants, and inappropriate pricing. Therefore, to overcome these challenges, the private sector urgently needs the support of the state through the issuance of ease policies to improve all types of enterprises in this economic sector.

3. RECOMMENDATIONS AND SOLUTIONS FOR PRIVATE ECONOMY DEVELOPMENT

After more than two years of the Covid -19 pandemic along with the influence of wars in the world (Russia - Ukraine, the Taliban regained control,...), world economic activities experienced many uncertainties and plummeted, which has greatly affected the Vietnamese economy. Therefore, in order to support the Vietnamese economy to maintain its growth rate during this difficult period, the private sector has played a significant role in promoting access to the world market, increase exports of advantageous products in order to participate in the global value chain. In addition, the private sector also actively participates in social poverty alleviation activities, such as creating jobs for workers, contributing to reducing people's unemployment. Furthermore, it is the contribution of human and material resources to economic development, specifically the creation of industrial products.

In general, the contribution of the private sector in the period 2010-2021 has maintained a relatively high growth rate, making an important contribution to promoting economic growth, economic restructuring, increase state budget revenue. In the future, in order for the private economic sector to really develop, and to avoid being tied down, the State needs to implement specific and highly feasible policies; thus the perceptions, views, and advocates not only stop in theory, but must be highly practical.

Therefore, the authors would like to propose some solutions to support the private sector to develop quickly and sustainably in the integration process as follows:

3.1. The State continues to innovate and perfect the legal environment, creating a favorable and equal business environment

A favorable and equal business environment for businesses of all economic types is an urgent requirement, and is decisive for the development of all economic types in general, and private economic sector in particular; Therefore, in order to increase equality for the private economic sector, the business environment of Vietnam in the future will move towards eliminating biases and favors for enterprises in the state economic sector; especially transparency in accessing policies; remove institutional barriers that make it difficult for private sector enterprises to access development resources (such as capital, investment,...). Japan's experience, when building institutions, they pay great attention to the depth of each industry so that businesses can easily apply and implement, in accordance with the endogenous capacity of these enterprises. is an experiential learning cover that is worth learning.

3.2. Continue to stabilize the macro environment

In recent times, the private sector has faced many difficulties due to unstable investment psychology: a large part has transferred investment capital to overseas real estate; other divisions narrow down the scope of activities; These are very alarming issues. When the macro environment is stable, it will create a stable psychology for investors, and affect investment decisions and expansion of production and business.

In order to retain current investors, and entice old investors to return to the market, the State should have clearer forms of incentives and incentives; It is necessary to have clear and stable mechanisms and policies to create peace of mind among investors in the stability of the macro-economy, for investors to promote investment, and to expand active tissue.

The pre-tax profit-to-revenue ratio of the economic sector in recent years is quite low and tends to be lower (2010: 2.71%; 2020: 1.87%), while investment capital is high. (in 2020 the investment capital of the private sector accounts for 44.92% of the total investment capital of the whole country). With such a low profit margin, it is difficult for many private enterprises to fully comply with the law to bear the current average interest rate of 10%. The decrease in the profit rate of the private sector does not exclude the impact from the macro environment of the state, mainly due to the unstable currency itself (exchange rates, interest rates).

To improve the macro environment and create peace of mind for investors, the State needs to develop long-term, stable, transparent, and clear policies, and avoid frequent policy changes in governance. macroeconomics when using monetary policy.

3.3. Continue to create a stable socio-political environment

In the past long time, Vietnam's socio-political environment has been completely stable, which is a great advantage of Vietnam in terms of competition in attracting foreign investment, and greatly influences the decision to invest by domestic investors.

In the trend of globalization, the Vietnamese economy, with its starting point, still lacks many factors to be able to actively develop, and to avoid increasing dependence on foreign factors, the State needs to adopt key policies. promote integration, promote positive factors, limit negative factors to take advantage of development opportunities brought by integration.

The socio-political environment is stable, creating great peace of mind for domestic and foreign investors, because the economic interests of investors are guaranteed. Therefore, actively integrating deeply and widely, participating in the global production and distribution network is also a form of protecting territorial sovereignty; Therefore, stabilizing socio-political, ensuring economic benefits for investors is a suitable and correct strategy in the current globalization integration trend.

3.4. Enhance the endogenous capacity of private sector enterprises

The internal weakness of each enterprise will constrain the private sector's role as a driving force in economic development; when the enterprise size is small, this weakness is more evident; Therefore, in order to get rid of this weakness and to be able to develop, there is no other way, businesses in the private sector need to link and coordinate to cooperate to build successful businesses in medium or large scale, so that it can take on the role of a development engine for the economy. Therefore, solutions to promote strengths and overcome weaknesses in the endogenous capacity of enterprises in the private sector are very important to assess whether this economic sector has sufficient capacity to act as a driving force for economic development.

For the State:

- It is necessary to focus on promoting the equitization of large-scale state-owned enterprises specializing in economic activities, in order to create large private economic groups in the whole country; Because when state-owned enterprises are large-scale, when equitized, they will have strong financial potential and high technology level, so that together with other corporations in the private sector, they will take on the role of leader in the economy. Recently, the State has not drastically equitized large-scale state-owned enterprises specializing in economic activities, leading to the following harms: (i) the absence of the private economic sector leading enterprises with large capital and high technical level, this is the biggest limitation of this economic sector when taking on the role of driving force for development; (ii) corruption occurs to these state-owned enterprises, which should make these enterprises even more degraded, and lose their position as the economic locomotive of the country for this enterprise, causing wastefulness huge costs of human and financial resources of the society (for example, MobiFone Corporation,...).

- Adopt the policy system; transparent and clear macroeconomic management; it is necessary to create confidence in domestic and foreign investors, so that they can rest assured for long-term investment and expansion of operations; The State should have preferential policies and create favorable conditions to attract private investors into selected strategic industries;
- The Government develops urgent programs, such as: training of human resources, consulting and providing information to investors; technology development support; financial support.
- Support policies must be very synchronous, specific and clear; from technical support to capital support, credit guarantee, for businesses to expand their operation scale, convenient in approaching partners, market access... so, supporting policies will have the conditions to take effect.

For enterprises in the private economic sector:

- Enterprises themselves also have to mobilize themselves to innovate, improve their competitiveness, and make the most of their available internal resources; link and cooperate to raise the level of business activities in the market; Only then can private enterprises really promote their role as a driving force for development.
- Each enterprise needs to identify its own advantages for investment; proactively and actively approach international markets to participate in global value chains; proactively select strategic partners to absorb advanced technology and management techniques.

3.5. Strengthening links between enterprises

State management agencies build networks linking non-state enterprises and industry associations, and act as focal points to promote the development of linkages between multinational and domestic companies.

The Government builds a database on all types of businesses, so that domestic and foreign companies can easily search for information about each other to facilitate the connection, joint venture and association between businesses. ; At the same time, this database needs to be updated regularly, so that domestic and foreign enterprises can easily participate in mutual support in the global value chain.

3.6. Market solution

Focus on developing the domestic market in combination with export, in order to promote the development of the domestic economy, and to spread risks when supplying products to the market of enterprises.

When enterprises participate in developing the domestic market, enterprises will increase their competitiveness and autonomy in the domestic market. At the same time, this is also a form of encouraging people to consume and use domestic goods.

To do this, the State needs to coordinate with large domestic associations, industries and suppliers to focus on implementing solutions, such as propaganda, advertising, and organizing regular fairs. Regularly and periodically, open promotions with the participation of domestic enterprises.

4. CONCLUSION

Any economy needs a driving force to promote development; that is the combined and harmonious impact of policies, the factors that create the total force that indirectly affect economic factors. In order to contribute to the development of Vietnam's economy, the private sector has the opportunity and potential to promote its key role as the driving force of the economy's development; The basic factors affecting the ability of the private sector to truly become a driving force for development are: (i) The State continues to innovate, perfect the legal environment, create a favorable economic environment, and improve the legal and favorable environment; and equal business opportunities, (ii) continue to stabilize the macro environment, (iii) continue to create a stable socio-political environment; (iv) improving the endogenous capacity of private sector enterprises; (v) strengthening linkages between enterprises; (vi) market solutions.

Identifying the above basic solutions, and when implementing these solutions will certainly promote the role of the private sector as the driving force for economic development.

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GROWTH DRIVERS OF VIETNAM'S MEDICAL EQUIPMENT INDUSTRY AFTER COVID-19

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Abstract: *By method of scientific abstraction of political economy, on the basis of summarizing data from the Ministry of Health and the Global Medical Device Market Report 2018-2023, the article points out the driving forces behind the device industry. Faster and more sustainable growth in healthcare in the post-Covid period are: (1) Great potential of the global and Vietnamese medical device markets; (2) Medical equipment production capacity of Vietnamese enterprises; (3) Medical device management policies in Vietnam; (4) Recommendations and suggestions.*

Keywords: *Medical equipment, Covid-19, growth drivers.*

1. RESEARCH INTRODUCTION

Research problem

The Covid-19 pandemic has negatively impacted most economic sectors, however, the medical equipment industry has the opportunity to grow strongly. In fact, it is not thanks to the pandemic that increases the demand for medical care, but Vietnam has always been evaluated as an extremely potential medical equipment market. The average growth rate of this market in the period 2016 - 2020 is about 20%/year. Especially, this industry group is now not only attractive to foreign direct investment (FDI), but also to domestic investment. However, the limitations of technology, experience, and financial capacity of the Vietnamese medical device industry have allowed foreign companies to dominate Vietnam's medical device market, over 90%. Medical equipment in Vietnam must be imported. The Government has many policies to improve the health network, promote investment, and produce medical equipment, but to meet the local supply of Made in Vietnam products is still a dilemma. On the basis of analyzing the advantages and disadvantages of the medical device industry, the article points out the driving forces for this industry to grow faster and more sustainably in the post-Covid period.

Methods and limitations of the study

The article is about practice, the author is not able to use quantitative methods, put research hypotheses and research questions, give an overview of the research and build a full theoretical basis for research. The article uses qualitative research methods, reviews secondary documents, uses secondary data sources, provides an overview of the current situation of medical device enterprises in Vietnam, and reviews some basic indicators proof of this fact. This is a big and complicated issue, the author only focuses on clarifying the advantages and disadvantages from current medical

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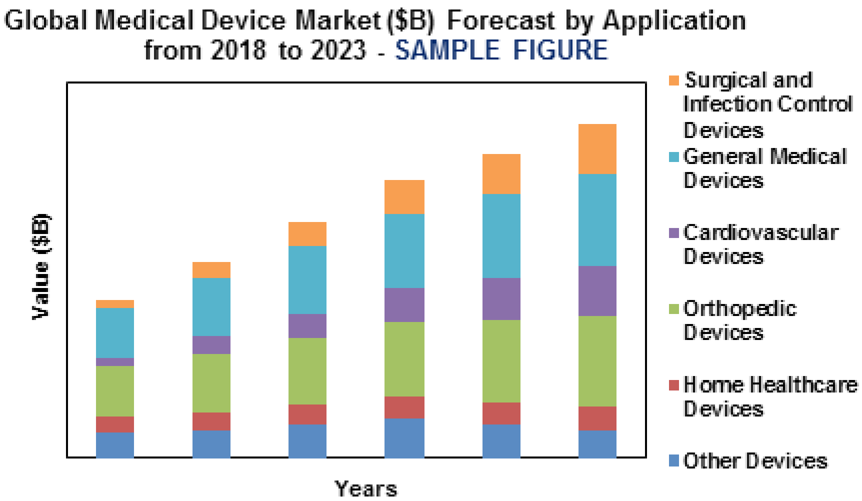
equipment management policies, making some comments, assessments and recommendations that can be used relate to.

2. GLOBAL AND VIETNAMESE MEDICAL DEVICE MARKET

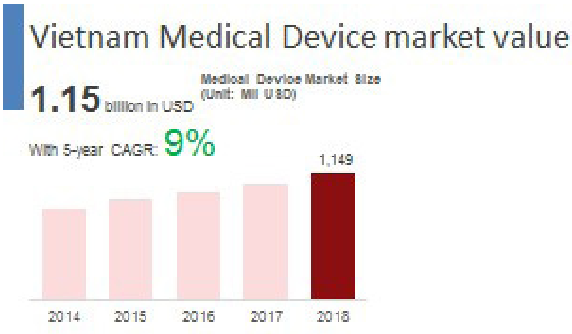
The global medical device market is expected to reach 409.5 billion USD by 2023 and is forecast to growgrowing at a CAGR of 4.5% from 2018 to 2023.



Source: Global Medical Device Market Report 2018-2023: Trends, Forecast and Competitive Analysis - ResearchAndMarkets.com

Vietnam is a large medical equipment market in the Asia-Pacific region with a size of about $1.5276 billion (in 2019) and $1.6831 billion in 2020 with a compound annual growth rate of 9% (CAGR).

According to the Ministry of Health of Vietnam, the total investment capital in medical equipment in Vietnam in 2010 is estimated at 515 million USD, in 2016 the total investment capital is 950 million USD and in 2017 this figure increases. to $1.1 billion. However, 90% of products on the current market are imported, especially in high-end segments such as diagnostic imaging products (mainly from Japan and Germany). In addition, Vietnam also imports many self-consumable medical equipment from Singapore (accounting for the largest share of 19% of the total import value of the industry). Domestic manufacturers can only meet the demand for basic medical supplies such as hospital beds or self-consumable devices. The US is the main export market of Vietnam's medical equipment - accounting for 23% of the total export value of this market. Japan, accounting for 20% of total export value, is Vietnam's second largest market and mainly imports self-consumable medical supplies.



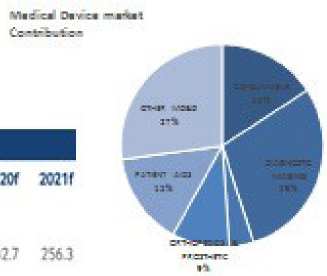
PROJECTED MEDICAL DEVICE MARKET, 2019-2024	2019e	2020f	2021f
Total (Local Currency mn)	35,212,132	39,510,355	42,892,196
Per Capita (Local Currency)	365,036	405,906	436,923
Total (USDmn)	1,527.6	1,683.1	1,813.6
Per Capita (USD)	15.8	17.3	18.5
Exchange Rate (Local Currency/USD)	23,050.2	23,475.0	23,650.0

e/f = Fitch Solutions estimate/forecast. Source: National Statistics, Fitch Solutions

Country	% Total (2018)
1. US	17.9
2.Germany	14.4
3.Japan	12.8
4.China	10.6
5.South Korea	7
6.France	4.6
7. Ireland	4.3
8.Switzerland	3.7
9.UK	2.8
10.Italy	2.4
11.India	1.8
12.Thailand	1.7
13.Malaysia	1.6
14.Taiwan	1.5

Figure 1. Market size and import share by country

Vietnam Medical Device market value



MEDICAL DEVICE MARKET BY PRODUCT AREA, 2014-2024 (USDMN)	2014	2015	2016	2017	2018	2019e	2020f	2021f
CONSUMABLES	137.3	137.7	155.5	189.3	200.9	217.3	242.7	256.3
DIAGNOSTIC IMAGING	232.4	270.1	338.0	369.2	344.4	404.1	446.5	479.9
DENTAL PRODUCTS	29.8	35.0	42.9	54.7	66.0	74.6	78.3	87.9
ORTHOPAEDICS & PROSTHETICS	64.8	80.7	93.6	141.8	120.4	148.6	163.1	183.5
PATIENT AIDS	126.3	128.8	162.9	213.4	225.3	258.4	280.6	300.0
OTHER MEDICAL DEVICES	223.1	251.7	301.7	362.1	366.9	424.6	471.9	506.1
TOTAL	813.8	904.0	1,094.6	1,330.6	1,323.8	1,527.6	1,683.1	1,813.6

e/f = Fitch Solutions estimate/forecast. Source: National Statistics, Fitch Solutions

Figure 2. Market size by type of medical device

During the Covid-19 pandemic, Vietnam is among the top suppliers of epidemic prevention products to the world. For the whole year of 2020, Vietnamese enterprises have exported more than 1.37 billion medical masks of all kinds. In the first month of 2021, the whole country had 28 main enterprises participating in exporting medical masks of all kinds with the number of 64.7 million units, down 8.7% compared to the export volume in December 20212 .Through 3 outbreaks,

[2] January 2021, Vietnam exported nearly 65 million medical masks, Financial Times (thoibaotaichinhvietnam.vn)

many domestic enterprises have participated in the production of ventilators, SARS-CoV-2 test kits, masks, and costumes for epidemic prevention and control. According to the Department of Medical Equipment and Construction (Ministry of Health), as of January 2021, Vietnam will produce Nitrile examination gloves with a maximum capacity of 60 million units/month (in case of sufficient production materials). export). Anti-epidemic clothing has 10 production units, the maximum capacity is 100,000 pieces/day. Regarding ventilators, Vietnam has 2 manufacturers of invasive ventilators with a maximum capacity of 65,000 units/year and 2 production units of non-invasive ventilators with a maximum capacity of 55,000 units/year. A number of domestic units are also involved in the production of SARS-CoV-2 diagnostic biological products, including 2 manufacturers of test biological products, 1 manufacturer of immunobiological products and 1 manufacturer of SARS-CoV-2 test strips. These equipment and supplies are basically enough to supply the domestic and export markets, contributing to Vietnam's success in Covid-19 prevention and control. Statistics of the Ministry of Health also show that every year, about 50,000 Vietnamese go abroad for medical examination and treatment and spend about 2.5 billion USD on these services. In Vietnam, before the Covid-19 pandemic, investors focused on building hospitals, manufacturing and distributing drugs, but when the pandemic occurred, investors began to pay attention and promote investment. into the medical device market with billions of dollars in revenue. The Covid-19 pandemic has helped the pharmaceutical and medical equipment manufacturing industry grow, and at the same time restructured production towards applying high technology. Especially, this industry group is now not only attractive to foreign direct investment (FDI), but also to domestic investment. Investment in medical equipment using high technology, focusing on large medical facilities in Hanoi, Ho Chi Minh City, Quang Ninh, Da Nang, Can Tho... is very attractive to many strong potential investors in the world. world. The average growth rate of this market in the period 2016 - 2020 is about 20%/year. Besides, investors are also convinced by the following factors:

Firstly, the population statistics show that the Vietnamese people are aging the fastest ever, the age of 65 and older is about 7.4 million people in 2020 - accounting for nearly 7.9% of the country's population. 2019-2029 will increase by more than 20 million people over the age of 60. This means that the demand for medical examination will increase as well as require more modern medical equipment to be used in diagnostic work treat.

Second, rapid urbanization and improved living standards with the willingness to spend more on health of the middle and wealthy classes increase sharply,

Third, the State invests more in medical equipment, strengthens satellite hospitals, and focuses on promoting the development of health sector infrastructure. With private capital, through many appropriate incentive policies, the number of hospital beds in private medical facilities has increased sharply, most of which are equipped with modern and advanced equipment.

In addition, the influence of Covid-19 also suggests a strategic production direction for drugs, equipment, supplies... Many essential products that fully meet international standards have been exported by Vietnamese enterprises to other countries. It can be said that the medical device industry will continue to grow at double digits in the next few years.

3. CURRENT STATUS OF MEDICAL EQUIPMENT PRODUCTION IN VIETNAM

According to a report of the Ministry of Health (2018), there are more than 1,400 enterprises operating in the field of medical equipment trading across the country. In which, there are 232 domestic enterprises producing medical equipment, foreign-invested enterprises: 40 enterprises, domestic-invested enterprises: 192 enterprises concentrated in Hanoi, Bac Ninh, Hung Yen, Hai Duong, Hai Phong, Da Nang, Ho Chi Minh, Binh Duong, Dong Nai, Binh Phuoc.

On a large scale, for FDI enterprises, the main market is the foreign market, producing industrial-scale production and benefiting from research results from the investing country, taking advantage of cheap labor and other policies. preferences of the host country. For enterprises with 100% domestic capital, mainly small and medium-sized enterprises, including very small enterprises, most of them are still weak in research and development. renew. The competitiveness is still low, far behind countries in the region and the continent, the ability to participate in the regional and global value chains of products is still very limited, mainly involved in the outsourcing and assembling stage. assemble. Labor productivity quality is still low, there is a long gap compared to other countries. The supporting industry is underdeveloped, the localization rate is low, the number of investment projects in high technology is not many.

During the recent Covid-19 pandemic, businesses manufacturing anti-epidemic medical equipment have faced challenges such as:

- Risks and challenges in the supply chain: domestic production capacity is still limited, raw materials are mainly dependent on Chinese suppliers, leading to a situation of "broken" supply chain when partners "congested" supply.
- Vietnamese enterprises are still weak in terms of: product labels, equipment, sales and marketing skills, especially quality control. Most of the certifications, certificates, test results in Vietnam, according to Vietnamese standards, very few tests according to international standards. Many enterprises do not have enough CE and FDA3 certifications to export, and some enterprises have certifications, but the assessment organization has not been widely recognized around the world.
- The scarcity of inputs is also creating upward pressure on inputs such as: non-woven fabrics increase in price weekly; air freight costs increased from 3 - 4 USD/kg to 13 USD/kg; production line costs for personal protective nonwovens increased from 1 million USD to 10 million USD; carbon layer materials for surgical masks increased from 3 USD/m2 to 13 USD/m4.There are times when the market is scarce for input materials, investment in the production line is also subject to high costs and transportation costs. transfer increased 3-4 times before, potentially high risk.
- The situation of "surfing" puts businesses at risk when the market changes after the epidemic. It can be said that Covid-19 has created an unprecedented medical device market. The market

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[3] European market with CE mark (Conformité Européenne), US market and countries accept US FDA standards (FDA - Food and Drug Administration)

[4] Data from Mr. Nguyen Tien - Head of Market Connection Component - USAID LinkSME Project (USA) in the Workshop "Strengthening quality, production capacity and answering, supporting the export of materials and equipment" Covid-19 prevention and control" was held in Hanoi on May 23, 2020.

witnessed the participation of companies that have never set foot in the field of medical equipment such as Prada (Italy), LVMH Group (France), Inditex - owning Zara, Kering (collective) The group owns the Balenciaga and Saint Laurent brands), the Coty Group (which owns the Gucci, Burberry and Clairol brands) and L'Oréa or Foxconn - a major Taiwanese electronics company, Sinopec Petroleum Corporation, an auto manufacturer. SAIC-GM-Wuling…

For domestic medical device enterprises, the Covid-19 pandemic is an opportunity to strengthen production capacity, develop brands, and capture market share.Medical equipment production becomes the "salvation" of textile enterprises, compensating for export garment orders that are delayed or canceled by partners. For Garment 10 Company, mask export orders account for nearly 30% of revenue in 2020, contributing to ensuring enough jobs for nearly 12,000 employees. Similar to Thai Nguyen Garment Company (TNG), domestic sales in the first quarter reached more than 63 billion dong, up 10% over the same period and masks are an item that helps the company compensate for the loss main cover. TNG collected VND 288 billion in February 2020, an increase of 65% over the same period, most of which came from mask orders. Export accounts for 76% of the revenue structure, the rest is consumed in the domestic market.

Businesses can take advantage of exploiting the market during the epidemic, but to consider this as a long-term product and large-scale investment, it is necessary to carefully calculate the real market demand. When the epidemic declines, the pandemic passes, market demand also decreases, the level of competition among businesses will be higher, standards will be tightened, businesses "surf" for short-term demand will difficulty.

The reasons for the above limitations are:

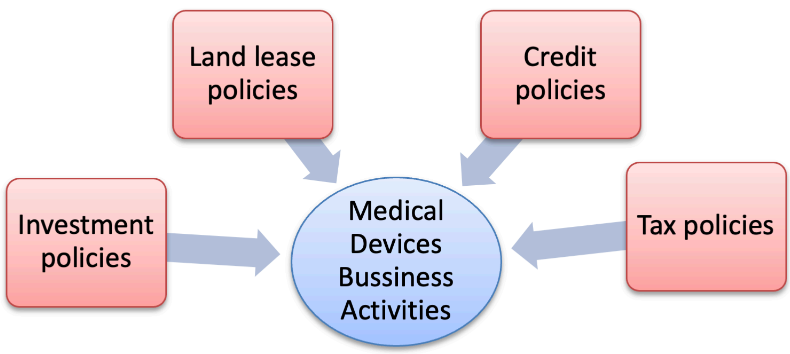
+ The quality of labor in the medical equipment industry has not met the requirements.
+ The system of supporting industry enterprises is underdeveloped; the degree of linkage and business cooperation between enterprises in the same industry and between industries is still limited (the link between enterprises with foreign direct investment (FDI) and domestic enterprises is still weak. In each supply chain of FDI enterprises, Vietnamese enterprises only participate in low value creation stages.
+ Medical equipment industry groups of regional scale have not yet been formed to create spillover effects for Vietnam's industry.
+ Raw materials depend on foreign countries, the output is not sustainable, it is difficult to compete with imported products.
+ Policy on development of medical equipment enterprises is still limited.

4. MEDICAL EQUIPMENT MANAGEMENT IN VIETNAM: ADVANTAGES, DISADVANTAGES AND SOME SUGGESTIONS AND RECOMMENDATION

The Government and the Ministry of Health have many policies to support the production of medical equipment to meet domestic and export demand.

Favorable:

- Bidding Law: Priority is given to domestically produced products with specific regulations
- Decrees 36 and 98 of the Government give priority to domestic manufactured goods in bidding such as restricting imports, giving priority to land rent exemption and reduction when investing in the production of medical equipment.
- Health insurance: Health insurance policies have also stated "priority to use domestically produced consumables...."
- Product circulation license and appraisal process are quick and timely, creating conditions and confidence for investors.
- Support policies to stimulate demand and Tax policies for enterprises investing in high-tech production are recognized.



Policy	Content
Investment Law 2014	**Investment policy:** The production of medical equipment is on the list of industries and trades eligible for investment incentives under the Investment Law and detailed regulations in Appendix I of Decree No. 118/2015/ND-CP dated November 12, 2015 of the Government. government **Credit policy:** According to the provisions of Decree No. 75/2011/ND-CP dated August 30, 2011 on investment credit and export credit of the State, infrastructure investment projects, expansion, upgrading and new construction and equipment in the field of medical socialization that are on the list of beneficiaries of development incentive policies under the Prime Minister's Decision (belonging to groups A, B) are eligible for state investment credit loans. **Land rental policy:** According to Decree No. 46/2014/ND-CP dated May 15, 2014 on land rent and water surface rent, investment projects in the field of medical equipment production are entitled to rent incentives.

Policy	Content
Policy of tax	**Policy on export tax and import tax:** According to the provisions of Decree No. 118/2015/ND-CP, “manufacturing medical equipment” is in point 2, section IV, Part B, List of industries eligible for investment incentives. **Corporate income tax policy**: From July 1, 2013, if a medical equipment manufacturing enterprise has a total annual turnover of not more than 20 billion VND, the tax rate of 20% will be applied. **Value added tax policy**: According to the provisions of the Law on Value-Added Tax in 2008, the Law amending and supplementing a number of articles of the Law on Value-Added Tax dated June 19, 2013, medical equipment and instruments are goods subject to the tax rate. value-added tax rate of 5% (which is the lowest rate compared to normal goods that apply 10%).
Law on Import Tax and Export Tax (effective from September 1, 2016)	**Clause 14, Article 16** of the Law on Import Tax and Export Tax Raw materials, supplies and components imported into the country that cannot be produced in the country of investment projects for the production and assembly of medical equipment prioritized for research and manufacture are exempt from import tax for a period of 5 years. , since the beginning of production.
Decree No. 36/2016/NĐ-CP 2016 of the Government on the management of medical equipment; the Government issued Decree No. 98/2021/ND-CP on Medical Equipment Management to replace previous Decrees (effective from January 1, 2022)	Decree No. 98/2021/ND-CP fundamentally changes the operation of licensing circulation of medical equipment in the direction of changing the management mechanism from pre-inspection to post-inspection; strengthening decentralization, focusing on thoroughly implementing reform of administrative procedures; at the same time, supplementing measures to control the price of medical equipment, whereby medical equipment is a commodity subject to price declaration and allowing competent state management agencies the right to request enterprises to solve the problem. presentation of price components when necessary.
Project “Development of domestically produced medical equipment industry to 2025 with a vision to 2030”	Develop a synchronous and modern domestic medical equipment manufacturing industry, meeting international integration, in line with the country’s production capacity of strong products and socio-economic conditions; promote socialization, mobilize diverse resources in society to develop the medical equipment manufacturing industry domestic.

Source : Compilation author

Existing policies have fully regulated both the scope of policies and the level of incentives for the field of medical equipment manufacturing. However, the reality shows that the medical device industry still faces challenges such as:

Difficulties in technology, costs and investment time, policies:

- Production technology requires our R&D to be strong and practical.
- Investment in high-tech products will take a lot of time and investment costs, clinical implementation before being allowed to circulate.
- Experienced personnel in the industry are lacking in practice.
- The coordination between hospitals and research units is still difficult.
- Distinguishing domestic and FDI enterprises in tax support policies and investment incentives.

Difficulties about support policies:

- The law to apply in practice, down to each locality, the basis is not uniform, some places apply, some places don't.
- Tax calculation for the list of medical supplies or equipment that can be produced domestically is not reasonable. For example: Import tax rate is 0%. Importing production materials is subject to very high tax because it is a "uncategorized" raw material, causing the production cost to be greatly inflated.

5. RECOMMENDATIONS, SUGGESTIONS

To support domestic manufacturing enterprises in the most specific and practical way, it is necessary to:

- Tax incentives: Corporate income, personal income tax in the production of medical equipment, reasonable policies on import tax on components and raw materials for production.
- Incentives for land rent with reasonable costs and proposed to put Decree 36/TTCP into practice.
- Adjust import tax on domestically produced medical equipment products, in line with international commitments, but must comply with the criteria to support the development of domestic production.
- Proposing the Ministry of Health to make a list of manufactured medical equipment items.
- Launching the movement "Priority to use Vietnamese goods" in the industry with products licensed by the Ministry of Health for circulation and meeting international standards.

Request the Ministry of Health to consider completing the bidding process for standard medical equipment according to regulations, in which the bidding criteria for medical equipment will be standardized according to the general process, avoiding the case that the The department bids each place differently, some hospitals make it difficult for domestically produced goods

- Proposing the Ministry of Health to come up with a specific, practical and strategic roadmap to encourage businesses to boldly invest in the industry, so that Vietnamese businesses have the opportunity to master technology, create jobs and create new jobs.

Completing policies to support domestic production

- Formulate and finalize policies and laws to create a favorable environment for domestic production, promote the commercialization of domestically produced products from the results of research, manufacture, application and production development domestic.
- Develop and promulgate regulations on procurement of medical equipment suitable to the level of use and needs of each medical line, assigning autonomy and self-responsibility for the type, configuration, and country of manufacture. of equipment for the heads of organizations using medical equipment, with priority given to domestically produced medical equipment.
- Develop and issue guidelines for medical facilities in inspection, maintenance and repair of medical equipment.
- Developing and promulgating national standards on medical equipment; standardize the capacity and operation of medical device testing service providers.

Strengthening the development of testing system for medical devices

- Building and developing a modern and synchronous testing system for medical equipment to meet international integration.
- Maintain medical device testing system, ensure accuracy and traceability to international standards.
- To foster and improve professional expertise in testing medical equipment at home and abroad for professional officials of ministries, sectors, localities, testing service providers and enterprises.

Building scientific and technical infrastructure

- Create conditions for localities to establish medical-tech industrial parks, form research zones and high-tech export processing zones with links with science and technology fields of other industries/fields related.
- Establishing Technology Business Incubation Centers (CIC).

Strengthening international cooperation

- Promote exchange and cooperation in research, training and technology transfer with countries in the region and the world.
- To encourage and attract FDI enterprises to enter into joint ventures with domestic companies; raise the localization rate, prevent environmentally unfriendly investment.
- Expand participation in negotiations and signing of bilateral and multilateral agreements aimed at mutual recognition and facilitating trade activities.

Promote communication work

- Promote information, propagate policies and laws, raise awareness of enterprises and society about medical equipment manufacturing activities.
- Promote communication to raise public awareness about the superiority, quality, efficiency of medical equipment and production capacity of domestic research and equipment manufacturing

organizations, thereby creating a habit of using domestically produced medical equipment instead of imported products.

Concentrating resources and directing the implementation of a number of key projects

- Project to develop policies and legal corridors to promote research and production of medical equipment in the country.
- Project to build a system of standards - quality measurement.
- Project on research and production of medical equipment in the country.
- Project to build an industrial park for domestic research, testing and production of medical equipment.
- Project on human resource development on medical equipment.

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EFFECTIVE ASSESSMENT OF AGRIBANK'S SUPPORT POLICIES FOR PRIVATE SECTOR

M.Fin Hoang Minh Tuan[1]

Abstract: *This article aims to analyze the effectiveness of the support policies of the Bank for Agriculture and Rural Development of Vietnam (Agribank) towards the private sector. By using the comparative method, the author has used two factors affecting the effectiveness of the above support policies, namely total outstanding loans and overdue loans. The results of this study will be the basis for proposals for Agribank to continue extending or building preference credit packages to promote the development of private sector in terms of scale, quality and efficiency, "really become an driving force in economic development".*

Keywords: *Agribank, small and medium-sized enterprises, SMEs, preferred products, private sector.*

1. INTRODUCTION

The private sector continuously maintained a good growth rate, accounting for 39-40% of GDP; attracting about 85% of the labor force of the economy (Resolution No. 10-NQ/TW dated June 3, 2017 of the Fifth Conference of the 12th Party Central Committee). Due to the impact of the Covid-19 pandemic and political conflicts in Europe, over 90% of businesses in the private sector, most of which are SMEs, have been affected. Although by the beginning of 2022, Vietnam has reopened most of the industries and introduced many supportive policies, creating conditions for the private sector to recover after a long period of being heavily affected by the Covid-19 pandemic, but the private sector has not been able to revive strongly in the context of the economic and political situation with many great changes, so it is necessary to have more policies on specific mechanisms, financial policies, preferential credit... for this business sector. As one of the state-owned commercial banks playing a key role in the banking system, Agribank always promotes the pioneering and exemplary role of a State-owned commercial bank in leading the system of credit institutions, seriously and effectively implement the national monetary policy and the Party's and State's guidelines and policies on currency and banking, especially credit policies to meet the needs of SMEs, and orient to building relationships with businesses is a sustainable, long-term partnership, for the benefit and development of the business. In the middle of 2020, when the situation of the Covid-19 pandemic became complicated, Agribank promptly implemented preferential credit programs for SMEs. This has initially shown its effectiveness, but it is still necessary to have a specific study on the effectiveness of the support policies that Agribank has applied in the past time to more accurately assess, thereby forming a basis to propose extending the application period or developing other preferential credit programs for private sector and SMEs.

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2. RESEARCH METHODOLOGY

The research method used by the author to evaluate the effectiveness of Agribank's preferential credit policies for the private sector is the comparative method. This method is widely used in general economic analysis. Commonly used comparison techniques are absolute numerical comparison, relative numerical comparison, vertical comparison and horizontal comparison. The absolute numerical comparison is the result of subtracting data between the periods of analysis, it represents the variability of the economic phenomenon. The relative numerical comparison is the result of dividing the absolute comparison value by the base period value, which reflects the rate or rate of change of the analytic indicator. Vertical comparison is the relative numerical comparison of each part to the whole or one part to another. The technique of vertical comparison reflects the structure of the whole. Horizontal comparison is a comparison of quantity on the same criterion, used to reflect the growth and development of events and phenomena.

3. CREDIT STATUS OF THE PRIVATE SECTOR AT AGRIBANK

3.1. The period before the support policy

3.1.1. SMEs outstanding balance at Agribank

Table 1. SMEs outstanding balance at Agribank in 2019, 2020

Unit: Billion VND

Time	Total outstanding balance of Agribank	SMEs outstanding balance	SMEs Amount	Short-term	Medium, long-term	Overdue outstanding
2019/12/31	1,121,970	282,072	21,874	210,818	71,254	13,699
2020/6/30	1,135,632	287,477	21,407	215,080	72,417	16,511

Source: Agribank internal data

- As of December 31, 2019, total outstanding loans at Agribank reached VND 1,121,970 billion, of which outstanding loans to business customers were VND 338,902 billion, accounting for 30.2% of Agribank's total outstanding loans.

Outstanding loans to SMEs reached VND 282,072 billion with 21,874 customers, accounting for 25.1%/Total outstanding loans of Agribank and accounted for 83.2%/ outstanding loans to business customers, of which short-term loans reached 210,818 billion VND, accounting for 74.7%/outstanding loans to SMEs, outstanding loans for medium-term and long-term loans reached VND 71,254 billion, accounting for 25.3%/SMEs.

Overdue loans for SMEs are VND 13,699 billion, accounting for 4.8% of the total outstanding loans of SMEs, accounting for 1.2% of the total outstanding loans of Agribank.

- As of June 30, 2020, total outstanding loans at Agribank reached VND 1,135,632 billion, of which outstanding loans to business customers were VND 349,315 billion, accounting for 30.8% of total outstanding loans at Agribank.

Outstanding loans to SMEs reached VND 287,477 billion with 21,407 customers, accounting for 25.3% of total outstanding loans at Agribank and 82.3% of outstanding loans to business customers, of which short-term loans reached VND 215,080 billion, accounting for 74.8% of outstanding loans to SMEs, medium and long-term loans reaching VND 72,417 billion, accounting for 25.2% of outstanding loans to SMEs.

Overdue loans for SMEs are VND 16,511 billion, accounting for 5.7% of the total outstanding loans of SMEs, accounting for 1.5% of the total outstanding loans of Agribank.

3.1.2. Agribank's SME lending market share

Table 2. Statistics on Agribank's SME market share

Unit: Billion VND

STT	Targets	2019/12/31		2020/6/30	
		SME loan balance	Market share	SME loan balance	Market share
1	Agribank	282.072	17.6%	287,477	17.7%
2	Vietcombank	66,663	4.2%	69,571	4.3%
3	Vietinbank	181.537	11.3%	183.440	11.3%
4	BIDV	288,241	18.0%	265,444	16.3%
5	Banking system	1.601,964	100%	1,628,725	100%

Source: Agribank internal data

According to collected data, as of December 31, 2019, Agribank's loans to SMEs reached VND 282,072 billion, accounting for 17.6% / Outstanding loans to SMEs in the whole banking system, just after BIDV (18%). Meanwhile, the SME loan balance at Vietinbank was only VND 181,537 billion, accounting for 11.3% of the total SME loan balance, Vietcombank has the lowest SME lending market share, only 4.2% of the market share with the total outstanding SME loans reaching 4.2%, VND 66,663 billion.

As of June 30, 2020, while Vietcombank and Vietinbank almost kept their outstanding loans for SMEs with 4.3% and 11.3% market share, respectively, Agribank rose to the No.1 with outstanding loans to SMEs reached VND 287,477 billion, accounting for 17.7% of the total outstanding loans to SMEs. BIDV dropped to second place with only VND 265,444 billion, accounting for 16.3% of the SME lending market share.

3.2. The period after the support policy

In the first months of 2020, in the face of complicated developments of the Covid-19 epidemic, the State Bank of Vietnam (SBV) issued many flexible and synchronous operating policies with monetary policy tools to stabilize the market, foreign exchange, control inflation, ensure liquidity for the economy, support businesses to overcome difficulties affected by the Covid-19 epidemic.

On June 5, 2020, the Politburo issued Conclusion No. 77 - KL/TW on the policy of overcoming the impact of the Covid-19 pandemic to recover and develop the country's economy. At this conclusion, the Politburo said that the Covid-19 pandemic has comprehensively and deeply affected all countries in the world, including Vietnam. In that context, in addition to urgent tasks and solutions, it is necessary to continue to implement synchronously long-term tasks and solutions to recover and develop the country's economy.

On September 28, 2020, in order to realize the "dual goal" of repelling the epidemic and developing the economy of the Government, contributing to helping SMEs take advantage of opportunities, promote production and business in the context of the affected by the Covid-19 pandemic, Agribank has launched a preferential credit program for SMEs with a total capital of VND 30,000 billion, of which VND 10,000 billion is for short-term loans and VND 20,000 billion for medium and long-term loans.

Figure 1. Agribank's SME preferential credit program

Source: www.agribank.com.vn

The application period for disbursements is from October 1, 2020 to the end of December 31, 2020 for short-term loans and from October 1, 2020 to the end of June 30, 2021 for medium and long term loans. The preferential interest rates offered by Agribank are very attractive: 4.8%/year for short-term loans and 7.5%/year for medium and long-term loans.

Table 3. Statistics on SME loan balance at Agribank in 2021

Unit: Billion VND

Time	Total outstanding balance of Agribank	SMEs outstanding balance	SMEs Amount	Short-term	Medium, long-term	Overdue outstanding
2021/6/30	1,232,083	307,715	20,610	218,116	89,599	22,622
2021/12/31	1,314,226	331,205	20,825	237,073	94,132	15,573

Source: Agribank internal data

- As of June 30, 2021, Agribank's total outstanding loans reached VND 1,232,083 billion, of which outstanding loans to business customers were VND 378,258 billion, accounting for 30.7% of Agribank's total outstanding loans.

Outstanding loans to SMEs reached VND 307,715 billion with 20,610 customers, accounting for 25% of Agribank's total outstanding loans and 81.4% of outstanding loans to business customers, of which short-term loans reached VND 218,116 billion accounted for 70.9% of the loan balance for SMEs, the balance of medium and long-term loans reached VND 89,599 billion, accounting for 29.1%/SME.

Overdue loans for SMEs are VND 22,622 billion, accounting for 7.4%/SMEs outstanding balance, accounting for 1.8% /total outstanding balance of Agribank.

- As of December 31, 2021, total outstanding loans at Agribank reached VND 1,314,226 billion, of which outstanding loans to business customers were VND 406,093 billion, accounting for 30.9% of total outstanding loans at Agribank.

Outstanding loans to SMEs reached VND 331,205 billion with 20,825 customers, accounting for 25.2% of total outstanding loans at Agribank and 81.6% of outstanding loans to business customers, of which short-term loans reached VND 237,073 billion, accounting for 71.6% of the outstanding loans to SMEs, the balance of medium and long-term loans reached VND 94,132 billion, accounting for 28.4% of the outstanding loans to SMEs.

Overdue loans for SMEs are VND 15,573 billion, accounting for 4.7%/SMEs outstanding balance, accounting for 1.2% /total outstanding balance of Agribank.

4. EFFECTIVE ASSESSMENT OF AGRIBANK'S SUPPORT POLICIES FOR THE PRIVATE SECTOR

As the Covid-19 epidemic reached its worst level since the beginning of the pandemic, the downturn in Vietnam's manufacturing industry became even more severe. This is also the main reason why the number of SMEs at Agribank has decreased from 21,407 as of June 30, 2020 to 20,610 as of June 30, 2021 and 20,825 as of December 31, 2021, but the capital that SMEs have access to at Agribank increased from VND 287,477 billion on June 30, 2020 to VND 307,715 billion on June 30, 2021 and reached VND 331,205 billion on December 31, 2021.

Overdue loan for SMEs as of December 31, 2019 and June 30, 2020 respectively reached VND 13,699 billion and VND 16,511 billion, corresponding to the SME overdue loan ratio of 1.2% and 1.5%. Through the process of disbursing preferential credit capital to help SMEs overcome the difficult period, SME's overdue loan balance also increased in proportion to the amount of capital that SMEs have access to, reaching 22,622 billion VND at the same time. On June 30, 2021, the overdue loan ratio for SMEs was 7.4%, an increase of 37.0% compared to the time of June 30, 2020. This is also reasonable because at that time, Agribank accelerated disbursement so that SMEs could quickly access capital and solve temporary difficulties of businesses due to the impact of the Covid 19 pandemic. As of December 31, 2021, when the Covid-19 pandemic was basically under control, businesses had restored production and business, Agribank also applied measures to control, restructure disbursement capital, and overdue loans for SMEs has decreased to 15,573 billion VND, corresponding to the SME overdue loan ratio of 4.7%, a decrease of 31.2% compared to June 30, 2021.

After 9 months of implementing support policies for SMEs, by the end of June 30, 2021, 119 SMEs had access to this preferential credit program of Agribank, lending sales reached nearly VND 1,200 billion. As soon as this credit program ended on June 30, 2021, realizing that SMEs are still heavily affected by the Covid-19 pandemic, Agribank continued to spend VND 30,000 billion to implement the preferential credit program. "Agribank accompanies and develops with SMEs", in which VND 10,000 billion is for short-term loans and VND 20,000 billion is for medium and long-term loans with more incentives such as reduced preferential interest rates for short-term loans down to 4.5%/year and the preferential interest rate for medium and long-term loans to 6.5%/year. In addition, Agribank has organized many practical surveys at branches that have implemented the program, thereby, extending the validity of the preferential credit program for SMEs, in addition to reducing the preferential interest rates. In addition, Agribank also loosened many lending conditions to increase the ability of SMEs to access preferential capital. By September 30, 2021, Agribank has disbursed VND 700 billion to 110 SME customers.

The SME force currently accounts for about 98% of the total number of enterprises in the country, is the core force of the economy with a large role in creating material wealth for the society, employment and income for workers, make a positive contribution to the country's annual economic growth results. Thus, with the identification of potential SME customers, it is necessary to continue developing this customer group at Agribank, targeting good customers, improving credit investment capital structure, and growing outstanding loans, increasing Agribank's market share and competitiveness, and accompanying SMEs, contributing to helping SMEs take advantage of opportunities and promote production and business in the new normal.

5. CONCLUSION

Show the pioneering and exemplary role in seriously and effectively implementing the national monetary policy and the Party and State's guidelines and policies on currency and banking, especially credit policy; Right from the beginning of 2020 when the Covid-19 epidemic began to break out in the country, following the direction of the Government, the SBV, Agribank quickly stepped in to support and remove difficulties for businesses, customers affected by the Covid-19 epidemic including restructuring the repayment term, exempting and reducing interest, fees, new loans... according to Circular 01/2020/TT-NHNN and Circular 03/2021/ TT-NHNN. As of September 23, 2021, Agribank's outstanding loans affected by the Covid-19 epidemic are more than VND 222,000 billion. Up to now, Agribank has restructured the repayment term for 10,714 customers with outstanding balance (principal and interest) of VND 26,086 billion; exempted and reduced interest for 1,466 customers with a loan balance of VND 3,717 billion.

Despite being a commercial bank that has to compete for capital mobilization according to the market mechanism, each year with the Bank's finance, Agribank still spends thousands of VND billions to support low-interest loans to customers, together with customers to solve difficulties, recover and develop production and business. In the face of the situation of "exhaustion", the risk of difficult recovery of businesses, joining hands with the Government, the State Bank and the community to implement the Resolution of the 13th Party Congress, Agribank has been active and proactive, promptly implemented many solutions to support the private sector, especially SMEs, becoming a solid fulcrum for businesses and entrepreneurs. In 2020 alone, Agribank has pioneered 7 reductions in lending interest rates, including 4 reductions in lending rates for priority sectors; 9 times service fee reduction; at the same time, deploying credit programs with lower lending rates from 0.5% to 2.5% compared to before the Covid-19 epidemic to meet the needs of each customer group. Since 2020, Agribank has simultaneously implemented many credit programs with preferential interest rates, so far, the disbursement of these programs is promoting effectively. Tens of thousands of customers across the country have had access to Agribank's preferential loans to continue their production and business activities. In the coming time, Agribank is committed to focusing resources to continue supporting the private sector to solve difficulties, especially difficulties in accessing preferential credit capital, contributing to strongly promote the development of private sector in terms of quantity, quality and efficiency, "really becomes an important driving force in economic development".

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REMIDIES TO ADDRESS EU'S NON-TARIFF BARRIERS FOR VIETNAMESE GOODS IN THE CONTEXT OF EVFTA IMPLEMENTATION

PhD Nguyen Dinh Dung[1]

Abstract: *The EU-Vietnam Free Trade Agreement (EVFTA) officially took effect on August 1, 2020, promising to bring great prospects for Vietnamese goods to dominate the EU market. However, to take advantage of this valuable opportunity, Vietnamese goods need to deal with non-tariff barriers. The article aims to analyze the current status of major barriers applied by the EU to Vietnamese goods when accessing this market and propose some solutions for Vietnamese goods to overcome these tariff obstacles set by the EU.*

Keywords: *EU, EVFTA, non-tariff barriers, export of goods.*

1. CURRENT STATUS OF TRADE RELATIONS BETWEEN VIETNAM AND EU AFTER EVFTA COMES INTO EFFECT

After the implementation of the EVFTA, Vietnam's trade activities with the EU encountered significant obstacles because this period coincided with the outbreak of the Covid-19 epidemic, causing many negative consequences. Overall, in the first year, the total export turnover of Vietnam to the EU market increased only 6.2% over the same period in 2020, reaching 39.75 billion USD. In particular, the turnover of traditional key export products of Vietnam to the EU market (before the EVFTA came into effect) such as phones, electronic components, and textiles all decreased, showing heavy consequences of the Covid-19 epidemic (Figure 1). However, based on the fact that the total turnover still increased, it proves that there has been a diversification effect of export products thanks to the Agreement. Some industries are exempted from almost all import tax rates into the EU market with strong growth, such as iron and steel products; plastic or rubber products. Particularly for iron and steel products, in addition to benefiting from the tax rate reduction, with the particular increase in the price of raw iron, resulting in the price of finished steel nearly doubling in 2021, the export turnover of the commodity has increased. This increase noticeably, contributing to offset the decrease in turnover due to the Covid-19 epidemic.

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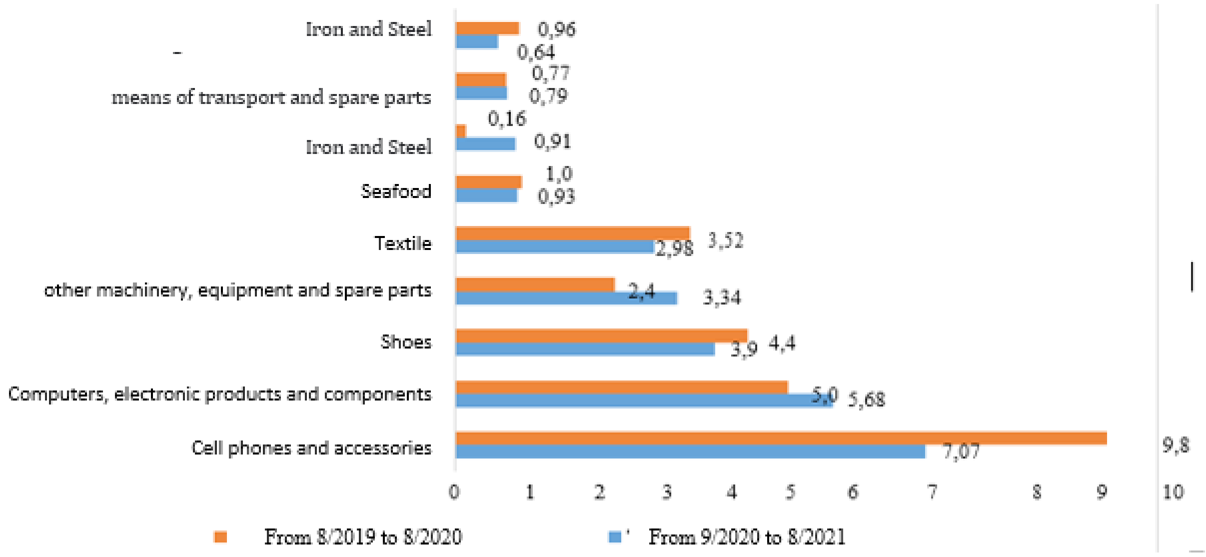

Figure 1. Export turnover of traditional key products to the EU in the first 12 months of EVFTA implementation from August 2020 to August 2021 (Unit: billion USD)

Source: General Department of Customs

Vietnam's exports to the EU market must compete with other exporting countries. For textiles and garments, in 2020, Vietnam will only account for 4% of the EU's total market share due to intense competitive pressure from strong textile exporters in Asia such as Bangladesh and China. For footwear, Vietnam holds the second largest market share, accounting for 20% of the total market share of shoes and sandals in the EU. Vietnam's seafood market share in the EU market reached 7% and is one of the 6 countries exporting seafood to the EU market the most in 2020. Vietnam's coffee products account for 13% of the total market share of the EU and second only to Brazil in export turnover to the EU market. However, the average export value per ton of Vietnamese coffee is only US$1,592. This is the lowest export value in the top five largest coffee exporting countries in the world (Brazil, Vietnam, Indonesia, Colombia and Chile). Compared to the world's second-largest rice export turnover (IMF, 2020), Vietnam's rice market share in the EU is only 3%, much lower than other countries in the same ASEAN region such as Cambodia, with a market share of only 3%, accounting for more than 11%; Myanmar accounts for 13% of the market share and that of Thailand is 16% of the EU market share. In terms of the average value of 1 ton of rice, the value of Vietnamese rice is only 495.5 USD/ton, much lower than the value of rice in Thailand and Cambodia (653 USD/ton and 719 USD/ton, respectively).

Among the 27 EU countries, the Netherlands and Germany are the two markets where Vietnam has high export turnover in 2020. In which, the Dutch market has imported about 7 billion USD of goods, accounting for 20% of Vietnam's total export value in 2020. The German market imports about 6.64 billion USD of Vietnamese goods, accounting for 19% of the export turnover. The Brexit event that forced Britain to leave the EU in early 2020 helped France become the third largest import market for Vietnamese goods with a market share of more than 9%, equivalent to $ 3.3 billion in 2020. Vietnam's export turnover to the Italian market in 2020 will reach more than 3.12 billion USD, equivalent to 9% of Vietnam's total export turnover to the EU. In addition to the markets mentioned above, other markets with an import volume of goods from Vietnam of over

1 billion USD include: Austria (accounting for 8% of export turnover, equivalent to 2.88 billion USD); Belgium market (accounting for 7% of export turnover, equivalent to 2.31 billion USD); the Spanish market (accounting for 6% of export turnover, equivalent to 2.13 billion USD); Polish market (accounting for 5% of export turnover, equivalent to 1.78 billion USD); markets of Slovakia (accounting for 3% of export turnover, equivalent to USD 1.17 billion) and Sweden (accounting for 3% of export turnover, equivalent to USD 1.13 billion).

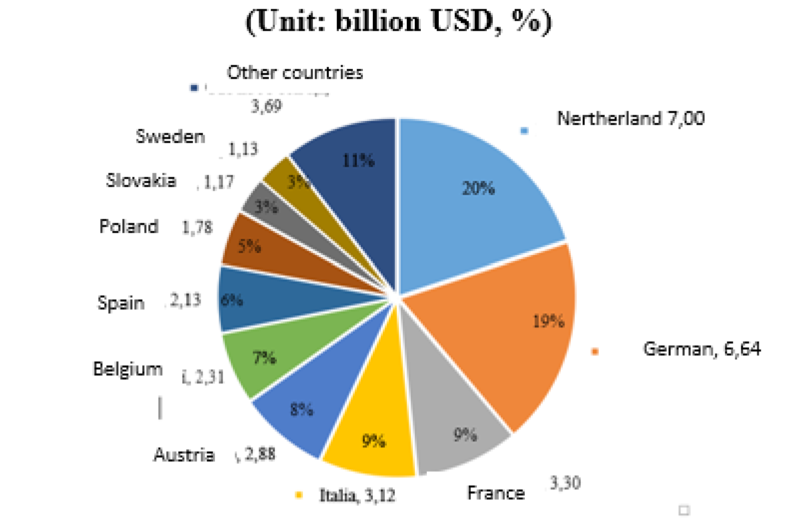

Figure 2. Share of Vietnam's exports to EU countries in 2020

Source: Calculation from the data of the General Department of Customs

2. THE CURRENT STATUS OF APPLYING EU NON-TARIFF BARRIERS TO VIETNAMESE GOODS

Issues related to SPS and TBT

Along with the great benefits that the EVFTA Agreement brings to Vietnam in terms of socio-economic aspects and institutional reform are the challenges that Vietnam will face in complying with origin regulations, sanitary and phytosanitary (SPS) requirements when implementing EVFTA.

The fact is that Vietnam is still dependent on raw materials for production from countries outside the EU. Figure 3 shows that Vietnam's key manufacturing industries use higher value added from abroad than the value added directly generated in the country, especially this gap is larger for manufacturing industries. require technological and technical factors such as electronic goods (62% of added value is generated from abroad compared to 29% of added value created directly in the country) and the automobile manufacturing industry (53% of value added comes from abroad compared to 31% of value added generated domestically). With the strict rules of origin in the EVFTA Agreement, businesses operating and manufacturing in Vietnam will face many difficulties in making the most of the tariff exemption benefits from the EVFTA.

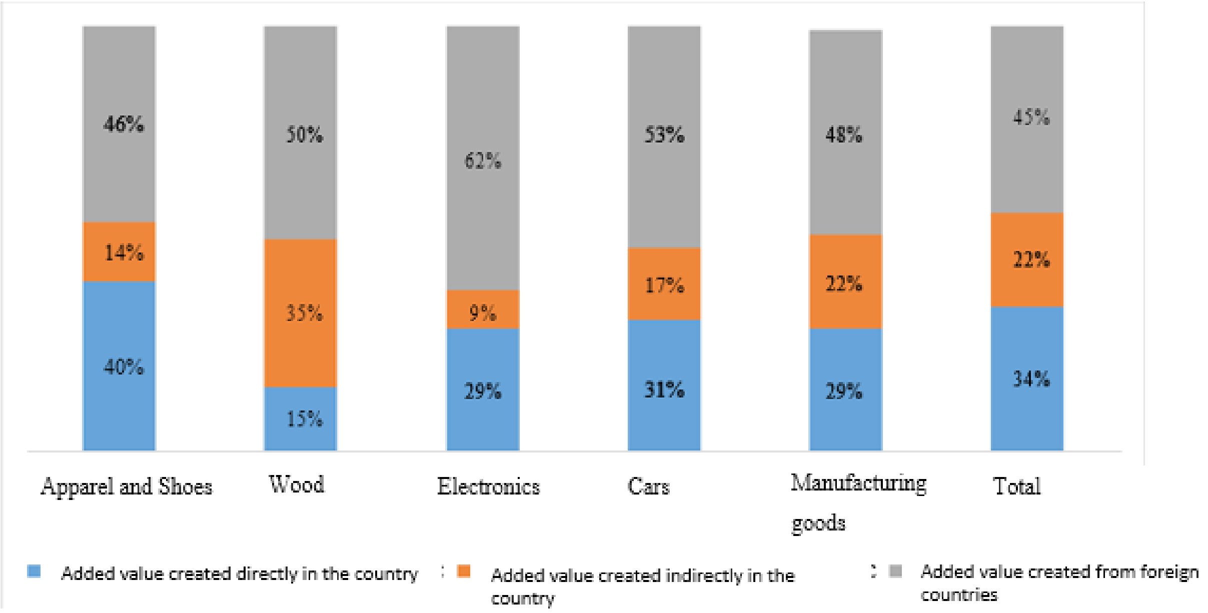

Figure 3. Foreign added value compared to domestic value added, 2019 (Unit:%)

Source: World Bank, 2019

In recent years, the status of Vietnamese agricultural and seafood exporters not meeting the requirements of food safety and hygiene conditions of importing countries has reduced the prestige of Vietnam's export position in the world market.

Table 1. Vietnam's SPS Violation Cases, 2015-2021

Time	Content
From 25/08/2021 to 27/08/2021	Instant noodles originating from Vietnam were recalled in the EU because of ethylene oxide residues
From 01/01/2021 to 30/03/2021	15/40 seafood shipments exported to China were returned because they did not meet SPS
10/2020	About 20% of the value of fruit exports to Thailand has a pesticide content exceeding the permitted level
From 01/05/2019 to 05/05/2019	17 shipments of agricultural and aquatic products from Vietnam were returned
06/2018	Dragon fruit exported from Vietnam is subject to quality supervision due to the content of pesticides and food protection drugs exceeding the allowable content.
From 01/01/2015 to 31/12/2015	More than 32,000 tons of seafood were returned because of antibiotic residues exceeding the allowed limit

Source: Compiled by the author

In the study of Pham et al (2018), SPS measures and technical barriers to trade (TBT) in Vietnam account for a high proportion (64% of the total number of non-tariff measures). The results of the study also show that the technical costs in Vietnam are quite high, specifically: the cost of loading and unloading at the port is the item with the highest cost (39.5%). In more detail, total import costs include document compliance costs (25%), customs clearance costs (11%), costs for non-customs clearance procedures (0% - for items selected for the 2018 Vietnam Business case study only), inland transportation costs (24.5%) and port handling time (39.5%).

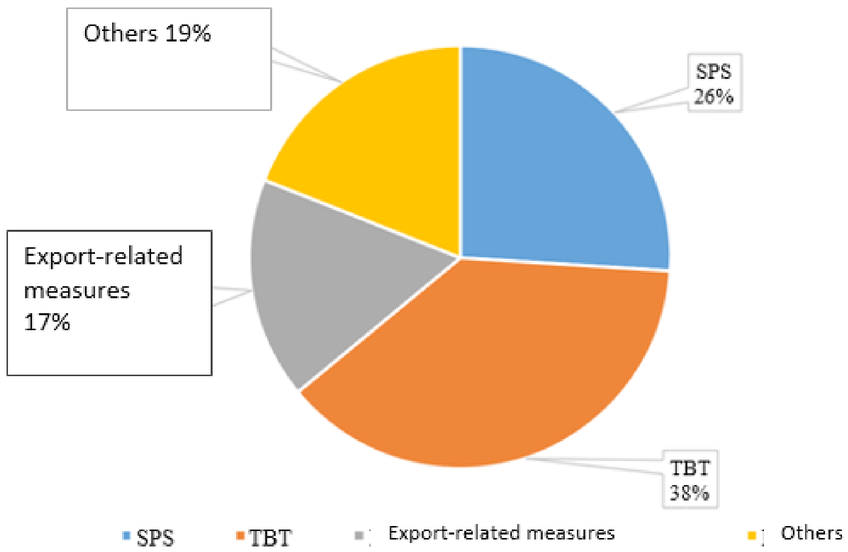

Figure 4. Structure of non-tariff measures in Vietnam, 2018

Source: Pham, Artuso and Mtonva (2018)

2.2. SPS measures from EU for agricultural, forestry and fishery products

About 98% of EU SPS measures are harmonized and regulated at the Union level (USDA, 2016), with only a small number of other measures applied exclusively at the Member State level and for certain products. Specifically. EU regulations follow the WTO SPS Agreement, and are based on international standards and recommendations (WTO, 2016). The EU and its member states are members of the Codex International Food Standards Committee and the World Organization for Animal Health, and are also parties to the International Plant Protection Convention (IPPC) (WTO, 2016).

However, in fact, the EU often applies higher standards than recommended by the above-mentioned international organizations and also has higher food safety regulations than other countries. In addition, in addition to the SPS measures issued by the EU Commission (and in some cases by EU member states), exporters of agricultural, forestry and fishery products must also comply with regulations, additional requirements of EU importers or buyers. Together these requirements make EU SPS measures one of the most difficult barriers for foreign exporters of agricultural, forestry and fishery products, especially for exporters from other countries. developing country.

2.3. For food safety requirements

The regulation that directly affects foreign exporters is the regulation of food safety management procedures based on the Hazard Analysis and Critical Control Point principles - HACCP. EU members are required to ensure that foreign food businesses comply with HACCP principles in the production of food exported to the EU. The HACCP requirements do not apply to the input production process, meaning that the growing stage of fresh fruit is not subject to these requirements. However, all post-harvest production processes need to adhere to the following principles HACCP.

Although foreign exporters are not required to provide HACCP certification at the import border, they are still required to maintain all records and evidence to demonstrate compliance with the HACCP principles. Also, as a precaution, EU importers are often required to provide a HACCP certificate with the processed fruit product (CBI, 2016b). For fresh fruit, EU importers also often require some sort of food safety certification; the most popular is GLOBAL G.A.P (CBI, 2016a). Although some other food export markets of Vietnam also require HACCP certification. Although HACCP, GLOBAL G.A.P and other product quality management systems are becoming more and more popular, it is mainly large enterprises that meet these systems. For SMEs, especially from LDCs and developing countries, compliance with the principles and requirements of these systems remains a challenge (Taylor and Kane, 2005). To be able to implement an effective HACCP system, a business needs to invest in both human and financial resources to develop and operate the system (Marques, Matias, Teixira & Brojo, 2012). In Vietnam, the HACCP and GLOBAL G.A.P systems are still new to many food manufacturers. In recent years, these systems have been used more commonly but mainly by large companies exporting to markets that require such certifications, such as the EU (WB, 2017).

2.4. For regulations on pesticide residues and impurities

Most countries have maximum residue level (MRL) regulations for pesticides in or on food products, to protect consumer health and the environment. Imported products must also meet pesticide residue requirements to be able to access and sell in import markets. However, since there is currently no international MRL standard system, different countries often apply different MRL standards to the same product. Although Codex has developed the Codex MRL for pesticides as a reference standard for countries, there is currently no international consensus on compliance with the Codex MRL.

The EU has its own set of MRLs, and is adhered to by many countries with large exports to the EU (Neff et al, 2012). In 2008, the EU harmonized the pesticide residue regulation of its Member States, and established common MRL regulations in EC Regulation No 396/2005 (and its amendments). All food products, including imported products, will be expelled from the EU market if they contain illegal pesticides or the amount of pesticide residue is higher than the limit set by the Regulation. The EU MRLs for pesticides apply to both fresh and processed food products. For processed products, the MRL is considered based on the MRL of the fresh ingredients and takes into account the concentration or dilution of the product during processing.

The EU's regulatory system for pesticide residues is still complicated because it is regularly updated. Each year, Regulation 396/2005 is revised several times. MRL standards of some pesticides are reviewed and revised continuously, making it difficult for foreign exporters to update and comply. In addition, the EU MRL levels applied to certain products are very different from those applied by Codex or other countries. As products are not only exported to the EU market but also to many other markets, the differences in the standards of each market can make it more confusing for exporters and more difficult to comply with. For example, Vietnamese mangoes exported to the EU, US and Japan are subject to different levels of MRLs with some pesticides, of which most EU MRLs are stricter than those of other countries.

Although the content of impurities in food is usually low and harmless to the consumer, most countries have regulations on food impurities as a precaution. The EU's principles for the control of food impurities are detailed in Council Regulation 35/93/EEC, and specify maximum levels for specified food impurities in the Commission Regulations. Commission No. 1881/2006 (EC, 2017a). As with pesticides, the content limit with impurities is updated regularly. Besides the general limits for foods, there are also limits for some specific products. The most common impurities in fruit products (fresh, dried and frozen) are mycotoxins (aflatoxins, ochratoxin A, patulin), heavy metals (lead, tin and cadmium) and microbiological impurities (salmonella, norovirus, hepatitis A virus) (CBI, 2016b).

Like many other importing countries, the EU has regulations on the quarantine of animals and plants and plant products from outside the EU, which aim to protect crops from harmful organisms such as pests. Directive 2000/29/EC of the EU Commission establishes a uniform set of regulations on phytosanitary conditions and is applicable to all EU trading partners. Imported plants and plant products are not allowed to contain dangerous harmful organisms specified in this Directive. The above measures are similar to animal quarantine when exporting to the EU market.

The directive also establishes a list of products that are prohibited from being imported into the EU, and a list of products that are subject to control at the EU border and require a phytosanitary certificate to confirm compliance with EU regulations. EU. Once entering the EU territory, imported products are granted a botanical passport and can be freely circulated to EU member states. Of the 9 potential export fruit groups of Vietnam, no products are banned and only 4 products (mango, lemon, passion fruit and guava - only in fresh form) must have a certificate of food quarantine. object

2.5. Origin issues

Similar to the WTO and many other agreements, the EVFTA stipulates that goods are considered originating when:

(1) the good is wholly obtained in a Member State; (2) A non-originating good is created in a Member State from a non-originating material, provided that such material has undergone adequate processing, also referred to as manufacturing. basic processing and processing.

For goods of pure origin EVFTA applies as follows:

- Goods of pure origin are mainly basic agricultural products such as crops, vegetables, fruits, pigs and chickens, eggs, milk, honey, etc. These products are grown, harvested, gathered, raised, and exploited entirely in the member countries.
- EVFTA stipulates that aquatic products are still considered to be of pure origin when fish, crustaceans and molluscs are born or raised in a Member State. In some other Agreements, fishery products are considered to be of pure origin when they were born and raised in a

member country. Thus, there is a difference between the EVFTA and other Agreements in the provisions on being born or raised and the provisions on being born and raised in a Member State.

- For caught fishery products, the EVFTA also stipulates on fishing fleets, including specific requirements on vessel registration, flag flying and fishing vessel owners.

For goods of non-pure origin, they shall be determined according to the following main criteria:

- The basic conversion criterion or sometimes called the commodity code conversion criterion (CTC) has the following examples: Rice has a commodity classification code, also known as a HS code of chapter 07, after harvesting, the product of rice is a grain of rice with HS code 70 in Chapter 10. Rice used to make vermicelli has HS code in Chapter 19. Thus, input materials and output products are those where there is a fundamental change in the nature of goods, there is a transformation from rice to rice grain and then to vermicelli. The HS code of the input material is 07, which is also different from the HS code of the output product, which is 19. In this case, the country where the processing takes place to change the nature of the goods is called the country of origin of goods.
- Criteria for quota of non-originating materials: This is the difference in the thinking about determining origin of EVFTA compared to other agreements when EVFTA considers the maximum amount of non-originating materials used. Meanwhile, other Agreements determine the origin of goods based on the total content of value created in the bloc. The basis for determining the limit in the EVFTA is based on the ex-factory price, while most other agreements determine the content based on the FOB price.
- The specific processing, processing or specific manufacturing process (SP) criterion in the EVFTA stipulates that non-originating materials must undergo a specific manufacturing, processing or processing process in a Party. FTA members.
- In addition, the rules of origin of the EVFTA allow Vietnam to be extended to apply to (1) some seafood originating from ASEAN countries that are FTA partners of the EU and (2) lychees. of Korean origin, provided that Vietnam, ASEAN and Korea have written notices to the EU about the application of the principle of extended accumulation and ensuring administrative cooperation in the case of origin verification. Specifically:
- For aquatic products: it is allowed to grow some aquatic products from imported breeds (sturgeon, salmon) and flexible raw materials for processed squid and octopus from Vietnam are allowed to use originating materials. ASEAN is an FTA partner of the EU.
- For textiles: fabric of Korean origin is allowed. EVFTA allows Korean materials to be considered as originating fabrics for the production of textiles and garments because Korea has both an Agreement with the EU and an Agreement with Vietnam. To implement this additive principle, Vietnam, Korea and the EU need to agree on a number of technical contents and mechanisms for verifying the origin of raw fabrics. After reaching agreement with Korea and the EU, the Ministry of Industry and Trade will issue guidelines. Currently, the Ministry of Industry and Trade is actively negotiating with the parties to soon apply this cumulative principle.

3. SOME RECOMMENDATIONS FOR SOLUTIONS TO MEET NON-TARIFF BARRIERS TO BOOST VIETNAM'S EXPORTS TO THE EU IN THE CONTEXT OF EVFTA IMPLEMENTATION

Firstly, businesses should actively learn the law, especially changes in EU regulations. Failure to regularly update information will put businesses in a passive position and will be at high risk. In addition, businesses must also take active measures to deal with every time a trade dispute occurs. Enterprises should go through their associations, professional agencies to capture information about the technical barriers of the market, and therefore when doing business in this market, it is necessary to consult with local partners. in.

Second, enterprises need to pay attention to improving the quality of export products. The EU market is still a fastidious market with strict requirements on product quality, so businesses need to follow market research results on consumer tastes and factors related to human health. people, thereby offering safe products for users with innovative designs, quality, multi-utilities, competitive prices.

Third, meet the requirements of food hygiene and safety right from the production facility (including infrastructure and production processes according to HACCP standards. In addition, processing and exporting enterprises need to understand a number of EU's general regulations related to food hygiene rules of animal origin, and the allowable residues of certain substances in agricultural and aquatic products.

Fourth, master and understand the rules of origin of products. It should be noted that Vietnamese exports are considered to be of pure origin if the products are produced and grown in the country. Enterprises need to coordinate well with suppliers in complying with the rules of origin. Enterprises need to pay attention to purchasing raw materials that are farmed and exploited legally, with clear origin and origin, not buying infringing products, from unlicensed, unregistered exploitation activities. signed and not reported as required or prohibited.

Fifth, prepare conditions for overcoming anti-dumping, anti-subsidy and trade safeguard measures. In addition to the requirements on SPS, TBT, and ROO, the EU market still has the ability to continue to apply trade remedies such as anti-dumping and anti-subsidy.

Sixth, make efforts to take advantage of the EVFTA. The EVFTA is expected to reduce unreasonable trade barriers, increase publicity, transparency and predictability when implementing trade remedies, animal and plant quarantine, and as technical barriers. Therefore, businesses can take advantage of these commitments to avoid or minimize the risk of facing non-tariff trade barriers that the EU is and will apply to Vietnamese imports.

Seventhly, the Government should have policies to encourage and support enterprises in applying and building international quality standard systems through measures to support consultancy and training; Promulgating policies to encourage research and training institutions to associate with businesses, farms and production facilities to quickly bring technical advances and new technologies into production; Increase the dissemination of scientific knowledge and information; Strengthening support for businesses in terms of capital, application of science and technology, market development and trade promotion...

Eighth, the Ministry of Industry and Trade and the Vietnam Chamber of Commerce and Industry (VCCI) need to help businesses understand the benefits of certification of origin and continue to create conditions for businesses to prove their origin, as well as self-certify. origin of goods. Small businesses can also participate in self-certification of origin of goods and there are no requirements of a conditional nature that businesses cannot meet. This helps businesses get used to a new method, bringing direct benefits to businesses.

Ninth, the management agencies need to strengthen the channels of information, dissemination, guidance and awareness raising for exporters about non-tariff trade barriers of the EU and member countries. Vietnamese enterprises are mostly small-scale, quite limited in understanding and dealing with such barriers. Therefore, supporting and helping businesses in preparing for ways to cope with challenges derived from non-tariff barriers is the initial decisive factor to help businesses overcome and thrive.

CONCLUSION

In the coming time, when implementing commitments according to the roadmap of the EVFTA Agreement, Vietnamese goods will benefit from tariffs, but will be the object for markets to increase the application of non-tariff measures. . Barriers such as anti-dumping duties, anti-subsidy duties, chemical and antibiotic control regulations, resource protection or separate inspection programs are and will likely be increased. Therefore, exporters need to prepare carefully, make efforts to improve product quality, improve competitiveness in the direction of sustainability and responsibility, especially in compliance with the provisions of the law. Besides the self-effort of businesses, the role of the State and the Association is very important in supporting, encouraging and creating the best conditions for businesses to comply with the principles and requirements of the market. market, as well as commitments in the EVFTA.

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GREEN FINANCE FOR SUSTAINABLE DEVELOPMENT

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Abstract: *International organizations and nations' main priorities when pursuing sustainable development objectives are promoting green growth and addressing climate change. In 2012, the Prime Minister of Vietnam approved Decision No. 1393/QD-TTg on the National Strategy on Green Growth, designating it as a key component of sustainable development and assuring rapid, effective, and long-lasting economic growth. However, to achieve this goal, significant financial resources must first be mobilized to support initiatives and policies for green growth and climate change. The green financial system will be crucial in creating a sustainable economic ecology since it acts as a conduit and regulator of capital. This study focuses on a broad overview of the green financial system's function, situating it within the global and Vietnamese green economies. The research team also evaluated the current state of the development of the green system in Vietnam, providing some recommendations to enhance the green financial system and others to stakeholders involved in the green financial system to achieve long-term objectives.*

Keywords: *Green growth, green economy, sustainable development.*

1. INTRODUCTION

Vietnam is one of the fastest growing economies in Southeast Asia with an average GDP growth rate of 7.5% (2001-2005). However, some downward trendto 7.01% (2006-2010), 5.81% (2011-2015) and 5.9% (2016-2020) proved an extensive and unsustainable development situation. The process of economic development in Vietnam has relied heavily on natural resources and exporting of raw materials and preliminary processing. These factorscause damages to the environment and increase the impact of climate change. Therefore, the conversion of economic model is the urgent need of Vietnam in the current period.

Building a green economy is the process of restructuring economic activities and infrastructure to improve the performanceof investments for resources, human resources and finance, as well as reduce greenhouse emissionslessen natural resources exploitation, create less waste and social inequality. However, the green economy model, as all other economic models , is in need for capital to serve the development. At that time, the financial system plays the role of coordinating capital resources. This is an important and indispensable part in any economy.

Promotion of green finance can be defined as enhancing the level of financial flow from the state, private and non-profit sector to sustaithe development of priority areas. Thus, green finance involves attracting traditional capital markets in creating and distributing financial products and services that bring both investment and positive results about the environment. Green financial policies provide low-interest credit for low emission industries to meet financial needs, thereby

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creating favorable conditions for the rapid development of these industries. It is believed that Green Finance encourages businesses in protecting the environment, investing in new energy, researching new materials while helping businesses create many low emission products or services.

In addition, green financial development is considered as one of the methods to eradicate poverty and improve the overall living standard. The development of new technology systems as renewable energy technologyincluding solar energy, wind energy and energy support policies promises to contribute significantly in improving living and health condition for low -income people, especially for people who are currently unable to access energy.

In Vietnam, the legal framework for green financing has received attention and development. The Ministry of Finance released Decision No. 2183/QD-BTC on October 20, 2015, on the action plan of the financial sector to implement the National Strategy on Green Growth until 2020, following the Prime Minister's Decision No. 403/QD-TTg dated 20/3/2014 approving the National Action Plan on Green Growth for the period 2014-2020. The State Bank has also released policies to promote green banking, such as the Action Plan of the Banking Sector to Implement the National Strategy on Green Growth until 2020 (Decision No. 1552/QD-NHNN dated August 6, 2015) and the Proposal No. Green Bank Development Project in Vietnam (Decision No. 1604/QD-NHNN dated 7/8/2018).

Additionally, commercial banks initially have policies for green credit, such as credit programs that support resource efficiency, create jobs and raise living standards for people, and address environmental and social problems in a step-by-step manner; they also give priority to the development of a number of industries and fields in order to make in-depth investments using high technology. Vietnam's legal framework for green financing is still in its infancy and has not yet been fully developed.

2. LITERATURE REVIEW

Green finance is a term connecting with the development of the "green economy" trend in the world in recent years. To carry out this process, it requires substantial resources because the application of green technologies in many cases has higher costs than ordinary technologies. Therefore, to facilitate the construction of a green economy, it is necessary to establish a green financial system. Although the term "Green Finance" is no longer a new term for researchers, this term has many different approaches according to the inner level of this phrase.

In accoradance with the United Nations Development Program (2011), the Green Finance is understood as follows: "Green finance is related to the diversification of financial products and services provided by financial institutions towards the toward. national development". Accordingly, green finance is financial support towards green growth through the reduction of greenhouse gas emissions and environmental pollution in a significant manner. Green finance encourages the development and use of new energy sources, produces green products, ecological agricultural production through preferential interest loans for businesses; at the same time limit the new projects of polluting businesses along with the application of high-interest rates.

Meanwhile, Asian Development Bank (ADB)sated that "Green Finance" is: "Financial supply, aiming at creating a sustainable living environment, includes financial services, financial institutions, ideas and policies at national levels and financial products (bonds, stocks, insurance...) which assist the cash flow into economic projects to improve the environment, reduce the impact of climate change and enhance the efficiency of resource use". Thus, green finance requires businesses to announce what they have done with the ecosystem and disclose the level of environmental impact from their business project.

According to economic cooperation and development (OECD): Green finance is financial for "achieving economic growth, minimizing pollution and emissions of greenhouse gases as well as waste and improving the efficiency ofusing natural resources".

Although there are different concepts, the researchers agree that: Green finance expresses a number of tools and implementing resource to allocatr resources to apply national financial system into the process of transforming economic growth model towards a low carbon economy and resource efficiency in the context of adapting to environmental changes. Therefore, it can be understood that green finance, at its nature, is to provde cash flow for the development needs of the economy. Instead of heading towards the goals of profitability green finance will maintain sustainable development by sponsoring projects, which ensure the balance between two factors: environmental protection and profit.

3. METHODOLOGY

In the article, the author has used many theoretical research methods - this is a group of methods of collecting scientific information based on studying existing documents and manipulating logical thinking. To draw necessary scientific conclusions, which can be mentioned as: Method of analysis and synthesis, method of classification and systematization to clarify theoretical and practical issues of the topic.

Analytical and synthetic method: Through this method, the author conducts research on various documents related to green finance development by analyzing the content of each aspect of green finance development to find out as well clarify the reality of green finance development in Vietnam in the period 2012-2019.

Classification and systematization method: In the article, the author has used the method of classification and systematization to classify aspects of green finance development according to the achieving goals. thereafter that, the author arranges the research contents into an orderly and logical system to explain the contents of green finance development thoroughly and comprehensively.

4. ASSESSMENT OF THE STATUS QUO OF GREEN FINANCE IN VIETNAM

Vietnam is one of the fastest growing economies in Southeast Asia with an average GDP growth rate of 7.5% (2001-2005). However, some decrease to 7.01% (2006-2010). 5.81% (2011-2015) and 5.9% (2016-2020) show an extensive and unsustainable development situation. The economic development in Vietnam in recent years has relied heavily on natural resource exploitation, raw material export and preliminarymanufacturing. Those activities cause damage to the environment and increases the impact of climate change.

On April 12, 2012, the Government issued Decision No. 432/QD-TTg on "Approving the Vietnam Sustainable Development Strategy for the period 2011-2020", which mentioned mechanisms, policies, financial resources mobilisation to realize sustainable development. On September 25, 2012, the Prime Minister continued to release Decision No. 1393/QD-TTg, approving the "National strategy on green growth for the period 2011-2020 and a vision to 2050", which identifies green growth as a mean of development in line with the requirements of renovating the growth model and restructuring the economy in the coming period inVietnam. This decision also proposes the solution of "Mobilizing resources to implement the green growth strategy", in which "promulgate mechanisms and policies to encourage financial institutions and enterprises to deploy production activities toward green growth criteria".

Now, there is no unified methodology and criteria to measure and classify green financial developmen both in the world as well as in Vietnam t. In general, the assessment of green finance development is merely through basic economic indicators, including the size of the green financial market, and the proportion of green financial market in the entire economy and the number of projects funded by green financial markets. To get a clearer view of the green financial market development, the author chooses toapproach through two basic components of this market, including the green capital market and the system of intermediate institutions ofgreen credit.

4.1. Situation of green capital market development in Vietnam

According to the Hanoi Stock Exchange (HNX, 2019), by the end of 2018, the total scale of the stock market, including government bonds and corporate bonds, equivalent to 112% of GDP, while outstanding credit is at 137% GDP. This result shows that the capital market is one of the main channels of investment in economic development, not under the credit system.. Therefore, the operation of this market should recieve the orientation and adjustment of the law and legal documents. In particular, having a clear guidance from lawmakers is extremely important in order for a green capital market

Vietnamese Government has a relatively sufficient legal framework and policies to support the development of the green capital market, including environmental laws, laws on environment protection law national strategy on green growth, national action plans for green growth during the period 2014-2020.. The above regulations and policies contribute to the creation of a solid legal platform and orientation for the development of green capital market in Vietnam.

Regarding infrastructure for the development of a green capital market, information technology is well-invested to ensure the implementation of orders, clearing and paying in large volumes. Hanoi Stock Exchange has completely digitalization the government bond bidding, therefore the bidding time has significantly shortened, as well as enhanced the ability to access information and participation in the bidding of investors. In addition, the development of central clearing partners (CCP), within the framework of the solutions to develop the derivative securities market, contributes to modernize the technological infrastructure of the market. , The stock market of Vietnam has currently implemented the Information Disclosure System (IDS), whereby public companies, except for securities companies and securities investment fund management companies, send digital reports and published information via IDS to SSC. This greatly reduces costs and increases the efficiency of disclosuring of companies in the market.

Following the global trend, Vietnam is attempting to reseasrch and offer financial initiatives to support capital mobilization effortsin order to implement strategies against climate change. The increasing demand for development of green financial products on the capital market stems from both capital mobilisaiton side as well as investor side.However, in general, the green capital market in Vietnam is still in the initial shaping phase. Therefore, the development of other green security products is at the testing phase, mainly focusing on 2 products, named (green bonds and green stocks).

Green bond products

Under international standard, Vietnam does not have concept of green financial products or environmental-friendly securities. However, depending on the nature of these products, the Vietnamese stock market has begun to have bond products for green projects. They are state bonds, guaranteed by the Government, and local state bonds, the source of financial mobilisation for projects of irrigation, environmental protection, wind, and solar energy...At the end of 2015, the cooperation program between the National Securities Commission, German Agency for International Cooperation (GIZ), and Hanoi Stock Exchange (HNX) have had a project to develop the green bond market. On that basis, on October 20, 2016, Minister of the Ministry of Finance approved the project of pilot issuance of green bonds of the local authorities and directed the relevant units to pilot the main green bond. The first two cities, Ho Chi Minh city and Ba Ria - Vung Tau agreed to implement this project. In 2016, HCM city issued 523.5 billion VND (equivalent to 24 million USD) bonds for 15 years to fund 11 green projects. The government of Ba Ria Vung Tau province raised 80 billion VND (equivalent to 3.7 million USD) 5-year bonds to fund a project on water resource management (Ministry of Finance, 2019)

Tgreen bond tool has begun to be used, providing an efficient channel for raising capital for local governments in the financing of green projects.. However, the issuance value of green bonds compared to the scale of the Vietnamese bond market is approximately US$ 51 billion (2018) is too small and insignificant.In terms of structure, green bonds in Vietnam today are mainly local government bonds to sponsor green projects, almost all businesses that have not participated in the issuance of green bonds to raise capital.

For the green stock market

The Vietnamese stock market has been operating since 2000, and so far, after over 20 years of operation has become a channel for mobilizing long-term capital for investment in development. The scale of capital mobilization through the stock market for the period of 2011-2020 reaches about VND 2.9 million, nearly 10 times higher than the period of 2000-2010, the average contribution of 19.5% of the total social investment, contributing to restructuring the Vietnamese financial system in a more balanced and sustainable way.

The stock market is more and more diversified in the trade of commodities. In the stock market, there are more than 1,000 listed shares and transactions registration (were (745 listed shares and 910 trading stocks) by the end of 2020, including a variety of stocks from the fields. The total value of stock market capitalization and outstanding loans of the bond market at the end of 2020 is estimated at 131.95% of GDP, accounting for 47% of total financial system assets. By the end of 2020, market capitalization was 64.1% of GDP, 7.3 times what it was in 2010.

On October 6, 2015, the Ministry of Finance issued Circular No. 155/2015/TT-BTC to replace Circular No. 52/2012/TT-BTC guiding the information disclosure on the stock market, in which rpublic companies must publish information related to sustainable development. The amendment of regulations related to sustainable development is under international practices, strengthening the company's responsibility for the environment and society. This is a legal basis and important data source for constructing a green index as a green economy tracking index. However, the regulations are suggestion and guide companies in increasing awareness and accountability for disclosing information. There were no penalties for offences related to the disclosure of sustainability information. On 24 July 2017, the first Vietnam Stock Exchange Sustainability Index (VNSI) was officially launched by the Ho Chi Minh City Stock Exchange. The VNSI is a tool to measure the level of growth of quoted company stock prices, with a focus on sustainability and the creation of additional reference tools for investors. The VNSI is calculated using the price index method, showing the most durable inventory price movements of VNI 100. The process of selecting stocks into the VNSI index is taken through many steps, including screening for business lines, law compliance and consulting market members.

4.2. The situation of developing green financial intermediaries in Vietnam

According to the World Bank, Vietnam is one of the countries most affected by climate change. The impact of climate change in Vietnam seriously threatens the process of hunger eradication and poverty reduction, realizing the millennium goals and the country's sustainable development. Facing these issues, the Government has implemented the National Strategy on Climate Change and updated the scenarios responding to climate change and rising sea water, emphasizing the relationship between changes in climate and sustainable development. The strategy acknowledged climate change as a common challenge that requires the cooperation of the whole society. In particular, the financial intermediary system, a link in deciding the investment capital for socio-economic development projects, plays an important role in supporting planning economic sectors to develop sustainable economic development.

In term of the executive's system for green monetary go-betweens, the SBV leads and facilitates with green monetary mediators to create and carry out solutions advancing green credit development as indicated by the direction, public key objectives on the endorsed green development; being the lead for education, training in green credit, environmental and social risk management; Guiding credit institution in creating and deploying environmental and social risk management system…

To orient activities for green financial intermediaries, on March 20, 2014, the Prime Minister issued Decision No. 403/QD-TTg approving the National Action Plan on Green Growth Phase 2014-2020 to implement the National Strategy on Green Growth specified in Decision 1393/QD-TTg; On March 24, 2015, the Governor of the State Bank of Vietnam issued Directive No. 03/CT-NHNN on promoting green credit growth and managing environmental and social risks in credit extension activities. Therefore, to execute the National plan for green development, right from the year 2015, the banking sector need to take environment protection, rise in efficiency of natural resource usage, power, improving the quality of the environment and safeguarding human wellbeing, securing sustainable development into account when providing credit. Simultaneously, investigating, changing and consummating credit institutes to suit the objective of green development; Centering assets to concede credit for tasks and plans which are harmless to the ecosystem and society, thus providing aid to business, executing the objective of green development and sustainable development.

Based on the State's direction, monetary mediators, with the trailblazers of commercial banks, have been progressively moving their work, on one hand, building green credit items to help business development. On another hand, commercial banks tighten the credit for speculation projects, and requires more severe ecological assurance factors.

Essentially in Vietnam, the monetary institutions that partake in the green monetary area are commercial banks. No unadulterated green monetary foundation has been laid out in Vietnam. Insurance agencies and fund management companies have taken part, however, it is still very limited. Through the job of funding the economy, the banking system plays an essential part in green financial advancement with the encouraging mechanism of investment in environmental friendly projects.

Between 2015-2021, few commercial banks started to focus on green credit operations because the advantages of turning into a green bank are not exactly clear. Toward the finish of 2018, just around 24% of green projects had their credit appraisal process created by commercial banks. These projects were predominantly executed at the bank's head office of and their branches like BIDV, Vietcombank, VietinBank, Sacombank, Agribank, SHB, ACB, Viet A Bank, OCB, Kien Long Bank, HSBC... Furthermore, just 26% of banks have fabricated and executed the environmental and social risk management process in credit granting activities, including wholly foreign-owned banks such as Standard Chartered and HSBC.

4.3. Some recommendations to develop green finance in Vietnam

Green growth is an important content in Vietnam's sustainable development policies to ensure fast, effective, and sustainable economic development and makes an important contribution to the implementation of the National Strategy on Climate Change. Therefore, the author proposes the following recommendations to promote the development of a green financial system in Vietnam:

Firstly, consummate the Government's policy system on green finance.

The greening of the financial system is of great interest to many countries around the world in order to overcome and limit the negative impacts of economic development on the environment, and to improve the environment through greening the economy. Although this is a new field, recognizing the important role of green financial system development, Vietnam is initially moving towards the development of a green financial system towards sustainable development. The role of the Government in the development of the green financial system is the leading role, creating conditions for the system's activities to take place smoothly and effectively. Only in this way can the green financial system play a pivotal role, contributing to the green economic development towards sustainable growth in Vietnam. In order to achieve the goal of developing a green financial system, the leading role of the government will be reflected in the following aspects:

+ The government should consider adjusting the current legal system and develop appropriate regulations to develop green finance. Developing a green financial system is a long-term process that may not bring benefits in the short term, so it should be combined with the government's overall development strategy. On the other hand, the green financial system has many different characteristics compared to the current financial system, so the Government also needs to improve the management capacity of state agencies and investments to support the management of the green financial system.

+ The government needs to develop strategies, create markets and create conditions for green finance development. The Government is responsible for creating conditions for all economic components and sectors to promote their full potential in the competitive environment and international integration. National and natural resources must be allocated to those who have the ability to use them with the highest efficiency for society towards the goal of building a green economy.

+ The government needs to forecast, share and guide in green financial development. This is reflected in the policy making process with a systematic vision, enabling the discover of possibilities that can harmonize and balance the different requirements of resources. Starting from sharing and guiding, the Government will understand the activities of business and the harmful effects that activities may have on the environment.

Secondly, promote the work of raising social awareness about green finance.

Community awareness has a significant impact on the implementation of policies to deploy green financial products. Currently, green economic development and green finance are still new contents in socio-economic development in Vietnam. Therefore, in order to receive the response and participation of the investment public and market members, it is necessary to further promote the propaganda, implementation of conference programs, training and dissemination of knowledge, policies, environmental and social responsibilities of enterprises, introduction of green financial products to the investment public, etc. In addition, the propaganda should be carried out synchronously with the combination of ministries and sectors, aiming to spread awareness to the whole community about environmental and social protection.

Thirdly, reduce dependence on state financial resources and promote corporate finance, support from international organizations to ensure the sustainability of the green financial system.

In fact, if the financial source for the development of the green economy depends on the state financial source, it will increase the burden of public spending and may also be the cause of the increase in public debt. The main cause of this phenomenon is that Vietnam does not have a unified and clear concept of whether green economic development is a mandatory requirement or just an incentive policy from the state. Therefore, the state needs to develop and announce a roadmap for the implementation of a green economy in Vietnam in the coming time, in which it is necessary to identify the sectors and fields that are prioritized for development in the direction of a green economy.

5. DISCUSSION AND CONCLUSION

The funding source for green economic development in our nation is described in numerous legal documents and is intended to be included into programs for a number of sectors that are thought to be environmentally friendly. This is a state incentive and preferential measure for businesses taking part in the green, environmentally friendly manufacturing and commercial program that has not been codified in a coherent legislative framework. When it comes to green economic development, the reliance on public funding is evident, and businesses have not been sufficiently encouraged to move to green growth in terms of production or business practices. The conflict between the need for corporations to maximize profits and the interests of the nation and the community in production and business practice has not been fully resolved. These are major challenges that need to be addressed if we're going to restructure the economy of our nation and move it toward a sustainable, environmentally friendly development. Additionally, we need to build a coherent, concise, and comprehensible legal framework for the green financial system.

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PREPARATION OF SMALL AND MEDIUM ENTERPRISES IN INDUSTRIAL REVOLUTION ENVIRONMENT 4.0 IN HO CHI MINH CITY (VIETNAM)

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Abstract: *Small and medium enterprises (SMEs) in Ho Chi Minh City (Vietnam) need to be well prepared when the 4th industrial revolution is taking place globally, greatly affecting how consumers consume. Therefore, it strongly affects the supply chain and production and business activities.The study also helps to identify managers' perspectives in the application and deployment of computerization and automation technology in the industrial age 4.0, helping policy makers have an overview and select choose appropriate technology solutions to respond to crises and quickly integrate into the world economy. The research method used in the study was analyzed by sampling using questionnaires as a tool to collect data from managers of 106 firms. Using data analysis tools (SPSS) and cross data tables to analyze and evaluate factors affecting the preparation of technology 4.0 (TE4.0) in Vietnamese SMEs. From the research results, the major contribution from this study highlights the fact that SMEs in Ho Chi Minh City (Vietnam) are in the process of rapidly transitioning from industry 2.0 to industry. 4.0.*

Keywords: *SMEs, industry 4.0 (I4.0), ttechnology 4.0, internet of things, mass customization, barriers, digitalization, managers, flexible systems.*

1. INTRODUCTION

Industry 4.0 is a term commonly used to describe development processes in production management and chain production, so it is important for industrialized countries to rely heavily on production (Hermann et al, 2015). Most developing countries, such as Bangladesh, India, Pakistan, Philippines and Vietnam, depend on outsourcing for foreign companies (Nikkei, 2017). Therefore, if these countries can develop production management and supply chain production, the ratio of current unit production will increase significantly, a strong indicator that Industry 4.0 is important for these countries to advance (UNIDO, 2018). There have been many studies related to Industry 4.0, which is considered the fourth industrial revolution. However, there is a lack of empirical studies related to the preparation of small and medium enterprises when the Industrial Revolution 4.0 is strongly impacting production and business activities of Small and Medium-sized Enterprises (SMEs) in the global supply chain.

Vietnam is a country with low labor productivity in Southeast Asia (ADBI, 2014). In addition, although there are many activities to learn about the Industrial Revolution 4.0 and the media is quite strong but the awareness and the preparation to apply 4.0 technology to production and business activities in Vietnamese enterprises are considered quite slow (Vu Hong Nhung, 2019).

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To have a basis for assessing the level of awareness and preparation in the case of SMEs before the Industrial Revolution 4.0, it is necessary to conduct practical survey studies on this preparation so that they can identify the shortcomings and challenges that SMEs of Vietnam are facing, and have appropriate solutions to promote the application technology 4.0 into production and business activities, participating in global production and supply chains.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

2.1. Industry 4.0

The term Industry 4.0 was first introduced in 2011 at the Hannover Messe Fair indicating the 4th industrial revolution, which the German Government has applied in improving the production environment related to technology and creation. new efficiencies (Wolfgang Wahlster et al, 2011). The Fourth Industrial Revolution will redefine organization and control the entire value stream throughout the product life cycle (World Economic Forum, 2018). If IoT (Internet of things) components are considered as a prerequisite, industry 4.0 environment will mean the physical and network levels unified (Andreja Rojko, 2017). The fourth industrial revolution applies the principles of cyber-physical systems (CPS), intelligent systems and future-oriented technologies related to human-machine interaction (Deloitte, 2017). The In dustry 4.0 environment will also allow every entity in the value chain to self-identify and communicate resulting in mass customization in manufacturing and business, with regards to efficiency focused on cost savings and reduced complex (Deloitte, 2017).

Industry 4.0 aims to reduce costs and create a more efficient environment and process. However, to achieve this, it is necessary to invest a lot of initial costs in the operation of the business. The question for businesses is whether the results are worth the effort of deploying Industry 4.0, especially for SMEs.

2.2. Internet of things (IoT)

The Internet of Things (IoT) is an integrated part of the Future Internet, and can be defined as a dynamic global network infrastructure with the ability to configure itself based on consumer communications protocols. standard and interoperable, in which physical and virtual interactions can be identified, through physical and virtual properties, using intelligent interfaces and fully integrated into information network (Jonathan Holdowsky, Monika Mahto, & Mark Cotteleer, 2015). Wireless sensors (WSN) allow you to sense and analyze data and data collected from multiple locations, providing the ability to understand measurements and infer specific processes and environments (A. Flammini, & E. Sisinni, 2014). The idea of the Internet of Things has also been applied in part by households to create a smart home, but although specific devices have not yet been connected properly (Huichen Lin, & Neil W. Bergmann, 2016). It is now possible to expect businesses to be able to use IoT, but to apply new technologies will require a more sophisticated, well-planned approach to application processes. The main obstacle for both households and IoT application industries is cost (Brian Buntz, 2016).

2.3. Mass customization

The process of globalization and the 4th industrial revolution forces researchers to look for new flexible business organizational structures. It is clear that the classic view of the business and its activities no longer correspond to changes in this revolution; Today's production and business enterprises must have a high degree of specialization in different fields and understand how to operate a flexible production and business system, always learning and adapting to the needs. of customers (Helena Leurent & Francisco Betti, 2019).

Mass-customization is a combination of personalization and flexibility of the production process that can be manipulated, implemented, leads to a level of mass production, and costs an expense. unit cost is lower than individualization; Therefore, a mass group of people will target instead of a single customer (James H. Gilmore, & B. Joseph Pine II, 1997).

3. METHODOLOGY AND PROPOSED MODEL

Because of the growing importance of the deployment of Industry 4.0 technologies that promote business growth, this study was conducted for small and medium enterprises in Ho Chi Minh City. The question raised in this study: How are SMEs in Ho Chi Minh City prepared to deploy Industry 4.0 technology?

By focusing on the business with the types of technologies used, the benefits created, the views and perceptions of SME managers on the deployment of these digital business development technologies, The author has asked questions related to production and business activities of enterprises:

a. Q1: Knowledge of Industry 4.0 and identifying the need for cooperation to implement specific technologies;

b. Q2: Identifing the types of technology to be implemented by businesses and their level of training;

c. Q3: Evaluation of business operation after application of Technology 4.0 (TE4.0);

d. Q4: Identifing barriers that enterprises may encounter when implementing TE4.0;

e. Q5: The relationship between human resource development and the application of TE4.0.

The question designed in the survey is as follows: (1) Knowledge of the concept of Industry 4.0 for managers of enterprises; (2) Search or not seek technical partners to help deploy the TE4.0; (3) Identify the types of technology that will be implemented in enterprises; (4) Establishing joint training programs of enterprises for implementation; (5) Evaluate the business operation after applying Technology 4.0 (TE4.0); (6) Identify barriers that enterprises may encounter when implementing TE4.0; (7) Building a team of experts in the enterprise; (8) Train employees to use digital tools to collaborate and connect remotely; and (9) Encourage employees to propose new ideas to implement TE4.0.

The study was conducted with the support of a team of 20 trained students before sending emails and interviewing business managers. The survey process lasted from May 15, 2019 to July 15, 2019.

The process ended with 106 valid responses on a total of 106 businesses surveyed in Ho Chi Minh City. The response rate was 30.2%, the managers provided a complete and useful answer to this study. Data collected were analyzed with SPSS package (regression method).

4. RESULTS AND DISCUSSION

4.1. Overview of SMEs in Vietnam

The number of small, medium and micro enterprises (collectively referred to as small and medium enterprises - SME) is 507.86 thousand, up 52.1%. (equivalent to 174 thousand enterprises) compared to January 1, 2012, accounting for 98.1%; of which, there were nearly 8.5 thousand medium enterprises, up 23.6% (equivalent to an increase of nearly 1.6 thousand enterprises), accounting for 1.6%; Small businesses were 114.1 thousand enterprises, accounting for 22.0%, increasing by 21.2% (corresponding to an increase of nearly 20 thousand enterprises); microenterprise is 385.3 thousand, accounting for the highest with 74.4%, up 65.5% (152 thousand enterprises) (GSO, 2018).

The labor force in large enterprises has grown faster than the growth rate of SMEs working in large firms. an increase of 33.8% while employment in SMEs only increased by 22.1% compared to January 1, 2012; In the period 2012-2017, on average, the labor force in large enterprises increased by 6% and that of SMEs only increased 4.1% (GSO, 2018).

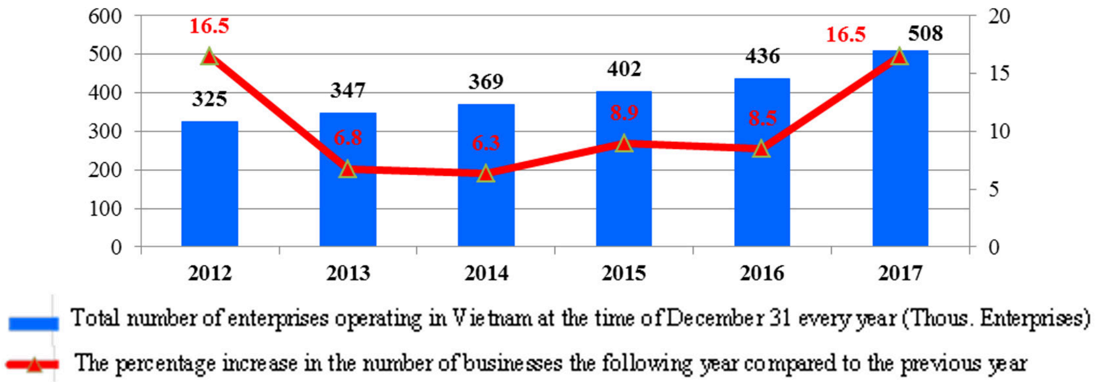

Figure 1. The actual number of enterprises operating over years, period 2012-2017

Source: GSO, 2018

(i) On the advantage

Telecommunications and IT infrastructure of Vietnam has developed strongly and is ranked in the top of ASEAN countries (Community Relations Division (CRD) of the ASEAN, 2016). In 2018, the number of people using fixed broadband Internet was 54.7 million people, accounting for 69.85% of Vietnam's population (Data World Bank, 2018). The number of internet users in Vietnam in 2018 reached 64 million users, accounting for 67% of the population (DAMMIO, 2018). Total international Internet bandwidth is 3,816 Gbps, equivalent to 79.66 bps/user (VNNIC, 2018). In January 2019, the number of 3G and 4G mobile subscribers was 63.5 million (VNNIC, 2018). The number of mobile subscribers with 2G phone, text messages and data is 75.2 million; The number of mobile land subscribers is 138.7 million [9]. Regarding the progress of technology acquisition, Vietnam has also achieved many achievements: The Global Adaptation Index ranks Vietnam on a scale of 4.6/10, higher than the world average (World Economic Forum, 2018). Statista data shows that internet penetration in Vietnam is currently in the top 13 in the world, with Internet coverage currently reaching 54% and social networking rates of 40% of the population (Statista database (2018). Thus, it can be said that the technological infrastructure as well as the level of access to and use of ICT, plus the current young and dynamic human resources are great advantages for Vietnam to participate in I4.0.

(ii) On the challenge

On the institutional side, although indicators of institutional quality have improved, they are still at low levels. For example, the Competitiveness score of 4.0, Vietnam just reached 51.2 points on the 100-point scale, ranked 70/120 countries (World Economic Forum, 2018). In addition, the issue of intellectual property protection has been shown to be poor and the institutions for startup ecosystem and e-commerce are not adequate (VCCI, 2019).

Regarding the readiness level, according to the 2018 report on preparing for future production published by the World Economic Forum (WEF), out of 100 countries assessed, Vietnam is in the group of countries with I4.0 readiness level is low, but potential; Among the foundational standards for assessing future production readiness, human resource development and technological innovation - is directly related to I4 preparation. Vietnam's scores are all low (World Economic Forum, 2018).

Regarding production potential, the WEF assessment shows that Vietnam's I4.0 ready level is quite low, only in the preliminary group (Nascent). Production structure reached 4.96/10 points (ranked 48/100); Production motivation reached 4.93/10 points (ranked 53/100) (World Economic Forum, 2018).

Regarding S&T capacity of Vietnam, according to the Global Competitiveness Report 2017-2018, two pillars related to S&T are: Technology Readiness and change new has lowdendered match (79 and 71 respectively); in that the only element of the important section of the important to generally very weak like the ability to absorb 99-level technology; New grade 79 creative capacity; Composite level of the output process 87; Quality of 90 organization level scientific research; S&T human resources ranked 78th; The rate of the light mode and application on 1 million of 91; Regarding S&T resources, more than 1/3 of R&D organizations operating in S&T field (35%) are mainly small-scale (World Economic Forum, 2018). Regarding the ranking of skilled skills, Vietnamese workers are only ranked in the middle group (World Economic Forum, 2018).

Regarding the speed of technological innovation, the 2017-2018 global competitiveness ranking shows that the pillar of Vietnam's technology readiness is only 71/137. In which, the component index of the readiness level of new technology in Vietnam ranked 112; Enterprise-grade technology absorption ranks 93; Technology transfer from FDI enterprises ranks 89th (World Economic Forum, 2018). The Institute of Science and Technology Valuation stated that only 23% of enterprises surveyed had technology innovation and improvement activities (MOST, 2018). Only 6.23% of enterprises engage in R&D activities (GSO, 2014). And only about 10% of Vietnamese enterprises have an R&D department with about 8-9 researchers (World Economic Forum, 2017).

4.2. Assessing from the survey

Regarding awareness of Industry 4.0 (Q1), the survey results show that up to 15.1% of managers have not learned about the Industry 4.0; 84.7% of managers have learned about this revolution. Among the businesses surveyed, medium enterprises are the most concerned with 88.9% of managers surveyed as interested.

Table 1. The level of awareness about Industry 4.0 of SMEs

Criteria		Micro Enterprises	Small Enterprises	Medium Enterprises	Total
Not found out	*Amount*	9	5	2	**16**
	Percentage	15.8%	17.2%	10.0%	**15.1%**
Found out	*Amount*	48	24	18	**90**
	Percentage	84.2%	82.8%	88.9%	**84.7%**
Total	*Amount*	57	29	20	**106**
	Percentage	53.8%	27.4%	18.9%	**100%**

Source: Data surved by authors, 7/2019

Survey results (Q1) showed that 23.9% of SME managers are looking for partners to: implement information and communication technology; digitizing information and integrating systems into the process of product formation, development, manufacture and use; applying new software technologies in model production, simulation, virtualization and digital; and to develop physical network systems for monitoring and controlling physical processes. About 26.1% of all small and medium businesses have collaborated with experts to use iCloud, Big Data or design some kind of automated robot to develop products from prototypes to production. single for production line. About 22.7% of surveyed SME managers also said that their employees have skills in using and communicating with 3G/4G mobile network technology to operate with android and iOS smartphones. Operating system, web operating system, iOS, Symbian, Windows Mobile Professional, Windows Mobile Standard and Bada or using smart devices that can detect temperature or light, etc. Nearly 27.3% of SMEs are still hesitant to find technology partners in TE4 application. 09.

Table 2. Preparation for finding partners to implement TE4.0 in SMEs

Level of performance		Mechanical engineering	Textile	Chemical product	IT	Food Processing	Plastic	Total
In seeking	*Amount*	16	5	2	1	0	1	**25**
	% per total	14.8%	5.1%	2.3%	0.6%	0.0%	1.1%	**23.9%**
Already partners	*Amount*	16	7	2	2	1	1	**29**
	% per total	14.8%	6.2%	2.3%	1.7%	0.6%	0.6%	**26.1%**
Have done	*Amount*	8	6	4	2	2	3	**25**
	% per total	7.4%	5.7%	3.4%	1.7%	1.7%	2.8%	**22.7%**
In hesitating	*Amount*	11	7	3	0	5	1	**27**
	% per total	10.4%	6.8%	2.8%	0.0%	4.5%	1.1%	**27.3%**

Level of performance		Mechanical engineering	Textile	Chemical product	IT	Food Processing	Plastic	Total
Total	*Amount*	**51**	**25**	**11**	**5**	**8**	**6**	**106**
	% per total	**48.9%**	**23.9%**	**10.8%**	**4.0%**	**6.8%**	**5.7%**	**100 %**

Source: Data surved by authors, 7/2019

In terms of determining the type of technology the firm will implement and the level of training (Q2), through management surveys on 106 SMEs, the validity of the approach is recognized for self-technology. public sector automation for users, with 37 responses, accounting for 17.5% of the total. Another type of technology that SMEs are interested in implementing are the development of Big Data & Data Analysis products (13.7%), Horizontal and Vertical Integrated Systems (13.7%), objects (IoT - 10.8%) and Network security on database (9.0%)). The least reported responses were Artificial Intelligence (1.9%), RFID and RTLS (2.8%).

Table 3. Future types of technology are implemented by SMEs

TT	Application type TE4.0	Amount	Percentage
1	Big Data & Analytics	29	13.7%
2	Automation	37	17.5%
3	Simulation	23	10.8%
4	Integrated horizontal and vertical systems	29	13.7%
5	Internet of Things (IoT)	23	10.8%
6	Network security on database	19	9.0%
7	Additive manufacturing	12	5.7%
8	Realistic expansion	8	3.8%
9	Cloud computing	8	3.8%
10	Mobile technology	14	6.6%
11	Artificial intelligence	4	1.9%
12	Radio frequency identification (RFID) and Real-time positioning technology (RTLS)	6	2.8%

Source: Data surved by authors, 7/2019

In terms of determining the type of technology the firm will implement and the level of training (Q2), through management surveys on 106 SMEs, the validity of the approach is recognized for self-technology. public sector automation for users, with 37 responses, accounting for 17.5% of the total. This technology will be deployed by small and medium enterprises in the future. Another type of technology that SMEs are interested in implementing are the development of Big Data & Data Analysis products (13.7%), Horizontal and Vertical Integrated Systems (13.7%), objects (IoT - 10.8%) and Network security on database (9.0%)). The least reported responses were Artificial Intelligence (1.9%), RFID and RTLS (2.8%).

Table 4. The level of training on TE4.0 in SMEs

Lvel of training		Micro Enterprises	Small Enterprises	Medium Enterprises	Total
Level 0	*Amount*	41	23	13	**77**
	% per total	38.7%	21.7%	12.3%	**72.6%**
Level 1	*Amount*	10	4	5	**19**
	% per total	9.4%	4.0%	5.1%	**18.5%**
Level 2	*Amount*	5	2	2	**9**
	% per total	4.7%	1.7%	2.3%	**8.7%**
Level 3	*Amount*	0	0	1	**1**
	% per total	0.0%	0.0%	0.9%	**0.9%**
Total	*Amount*	**55**	**29**	**22**	**106**
	% per total	**51.9%**	**27.4%**	**20.8%**	**100%**

Note: *Level 0: Awareness training; Level 1: Basic application; Level 2: Using database software; Level 3: Automation, system integration, IoT; Level 4: Cloud computing, Network security, Mobile technology; Level 5: RTLS, Artificial Intelligence.*

Source: Data surved by authors, 7/2019

Regarding the evaluation of enterprise operation after applying Technology 4.0 (TE4.0) (Q3), with the implication of assessing business operation after applying TE4.0, using the analysis of key components and interdependence among five variables in which SME managers expressed their agreement or disagreement about the implementation of TE4.0. The results showed that of the 106 SMEs surveyed, factors affecting the decision to apply TE4.0 include Demand from customers (DEC), Application competitors TE4.0 (CT4), Reduce costs (REC), Improving time to market (ITM), and Change in the rule of law (CRL) (Pham Xuan Thu, 2019).

Table 5. Factors affecting the application of SMEs decision making by SMEs

Impact factors	Mean	Median	Mode	Std. Deviation	N
Demand from customers (DEC)	2.16	2.00	2	1.053	106
Application competitors TE4.0 (CT4)	2.22	2.00	2	1.094	106
Reduce costs (REC)	3.19	3.00	3	3.210	106
Improving time to market (ITM)	2.98	3.00	3	1.119	106
Change in the regulations of law (CRL)	2.74	3.00	3	1.183	106

Source: Surveyed and processed data of the authors, July 2019

Table 7 shows a relatively high correlation between the Demand from customers (DEC) and Change in the rule of law (CRL). A small correlation is found between Reduce costs (REC) and Application competitors TE4.0 (CT4). Further analysis from the correlation run results when dividing the factors affecting the TE4.0 application decision of SMEs into two groups: the first is micro and small enterprises; the second group is medium enterprises. For the first group: The correlation levels of variables are Demand from Customers (DEC) (0.623), Improving Time to Market (ITM) (0.616), and Changes in regulations of laws (CRL) (0.351). For the second group were determined in the following order: Application competitors TE4.0 (CT4) (0.678), Change in the rule of law (CRL) (0.513) and Reduce costs (REC) (0.428).

Attitudes of medium-sized businesses responded positively to Competitors Applying TE4.0 (CT4), Change in the regulations of law (CRL), and Reduce costs (REC), and countered negative response to Demand from customers (DEC). For micro and small businesses, there is a positive attitude towards Demand from customers (DEC), Change in the regulations of law (CRL), and negative Improving time to market (ITM).

Table 6. The correlation of factors affecting TE4.0 application decision

Correlation matrix					
Impact factors	**DEC**	**CT4**	**REC**	**ITM**	**CRL**
DEC	**1.000**	-0.013	-0.020	-0.129	0.110
CT4	-0.013	**1.000**	0.023	-0.021	0.112
REC	-0.020	0.023	**1.000**	-0.017	0.026
ITM	-0.129	-0.021	-0.017	**1.000**	-0.051
CRL	0.110	0.112	0.026	-0.051	**1.000**

Source: Surveyed and processed data of the authors, July 2019

Regarding the identification of barriers that businesses may encounter when implementing TE4.0 (Q4), the research results showed that the average value of the scores of SMEs analyzed are of different sizes for all. all six variables. Lack of applicable standards (LAS) is a unique variable that has a value of 2 for both Median and Mode values. Average score recorded by the variable Lack of knowledge about TE4.0 (LOK) (3.55), Focus on operating costs and business development (OCD) only (3.34), Lack of awareness of the importance of the implementation strategy of TE4.0 (LIS) (3.27), Weak human resources (WHR) (3.19), Pressure on regular professional skills training (PST), which ranges between "Neutral" levels and "Agree" levels.

Table 7. Factors affecting the not yet implemented TE4.0 in the enterprises

Impact factors	Mean	Median	Mode	Std. Dev.	N
Lack of knowledge about TE4.0 (LOK)	3.55	3.00	3	1.304	106
Lack of applicable standards (LAS)	2.94	2.00	2	1.177	106
Focus on operating costs and business development (OCD) only	3.34	3.00	3	1.093	106
Lack of awareness of the importance of the implementation strategy of TE4.0 (LIS)	3.27	3.00	3	1.225	106
Weak human resources (WHR)	3.19	3.00	3	1.158	106
Pressure on regular professional skills training (PST)	3.03	3.00	3	1.110	106

Source: Surveyed and processed data of the authors, July 2019

The results also showed that there are 3 small correlations between: "Lack of knowledge about TE4.0 (LOK)" and "Weak human resources (WHR)" (0.177); "Lack of knowledge about TE4.0 (LOK)" and "Lack of awareness of the importance of the strategy for implementing TE4.0 (LIS)" (0.094);

and between “Focus on operating costs and business development (OCD) only” and “Pressure on continuing professional skills training (PST)” (0.085). In addition to the above factors, the lowest correlation encountered for the firms surveyed was “Focusing only on operating costs and business development (OCD)” and “Lack of awareness of the importance of the strategy for implementing TE4.0 (LIS) implementation strategy (0.001).

Table 8. The correlation of factors affecting the not yet implemented TE4.0

Correlation matrix						
Impact factors	**LOK**	**LAS**	**OCD**	**LIS**	**WHR**	**PST**
LOK	**1.000**	-0.078	-0.057	0.094	0.117	0.023
LAS	-0.078	**1.000**	-0.072	-0.044	0.063	0.050
OCD	-0.057	-0.072	**1.000**	0.001	-0.068	0.085
LIS	0.094	-0.044	0.001	**1.000**	-0.104	0.002
WHR	0.117	0.063	-0.068	-0.104	**1.000**	0.039
PST	0.023	0.050	0.085	0.002	0.039	**1.000**

Source: Surveyed and processed data of the authors, July 2019

Regarding the relationship between human resource development and the application of TE4.0 (Q5), the survey results show the extent to which SMEs have established expert teams to digitize company-level levels of strategy. Enterprise development and application of TE4.0. Out of 106 SMEs, only 31.1% of enterprises have organized expert groups on enterprise digitization, while the remaining 73 enterprises have not yet implemented it. Approximately more than two-thirds (2/3) of medium-sized businesses have established expert groups on digitization, while only about two-fifths (2/5) of small businesses and more than one-tenth (1/10)) micro businesses are building these groups.

Table 9. The relationship between human resource development and the application of TE4.0

Criteria		**Micro Enterprises**	**Small Enterprises**	**Medium Enterprises**	**Total**
Not yes	*Amount*	48	17	7	**73**
	% per total	45.3%	16.0%	6.6%	**68.9%**
Yes	*Amount*	7	12	15	**33**
	% per total	6.6%	10.4%	14.2%	**31.1%**
Total	*Amount*	55	29	22	**106**
	% per total	53.8%	27.4%	18.9%	**100%**

Source: Surveyed and processed data of the authors, July 2019

The results of the fifth criterion survey (Q5) also showed the extent to which SMEs train their staff to become experts in applying digital tools for remote collaboration and connectivity in their operations. production and business activities in the enterprise. Only 43.4% of SMEs have trained their own staff, while 56.6% of SMEs have not developed an annual budget for training or other training courses on digitalization. Only 68.2% of medium enterprises have allocated resources to increase their digital application skills, the remaining 7 entities have not performed such actions. 44.8% of small businesses and 32.7% of micro enterprises have an annual budget for training their employees in the digital field.

Table 10. Deploying a team of digital experts at SMEs

Criteria		Micro Enterprises	Small Enterprises	Medium Enterprises	Total
Not yes	*Amount*	37	16	7	**60**
	% per total	34.9%	15.1%	6.6%	**56.6%**
Yes	*Amount*	18	13	15	**46**
	% per total	17.0%	12.3%	14.2%	**43.4%**
Total	*Amount*	**55**	**29**	**22**	**106**
	% per total	**53.8%**	**27.4%**	**18.9%**	**100%**

Source: Data surved by authors, 7/2019 [25]

There are 11 managers who encourage their employees to spend 20% to 30% of their time working on creative and creative projects related to the development of digital technology at the enterprise level. Employees from microenterprises (47.2%) and small businesses (23.6%) are more encouraged to develop TE4.0 applications at the enterprise; medium-sized enterprises (18.9%) have a lower proportion that can be explained by enterprises having TE4.0 applications and avoiding disruption in business.

Table 11. Encouraging employees to deploy TE4.0 applications in enterprises

Criteria		Micro Enterprises	Small Enterprises	Medium Enterprises	Total
Not yes	*Amount*	5	4	2	**11**
	% per total	4.7%	3.8%	1.9%	**10.4%**
Yes	*Amount*	50	25	20	**95**
	% per total	47.2%	23.6%	18.9%	**89.6%**
Total	*Amount*	**57**	**29**	**22**	**106**
	% per total	**53.8%**	**27.4%**	**18.9%**	**100%**

Source: Data surved by authors, 7/2019

5. DISCUSSION AND CONCLUSION

The purpose of this paper is to analyze and evaluate perceptions and preparedness by managers of SMEs in Ho Chi Minh City (Vietnam) in business organization and review. approaches to the business model as the Industry 4.0 revolution is taking place globally. The research results are intended to recommend SMEs in Ho Chi Minh City in the early stage of implementing I4.0. The results of the study also concluded that with regard to production and business activities for both new and existing enterprises, that the SME managers in Ho Chi Minh City have understood. clearly about the impacts of Industry 4.0 (84.7%), they think that it is necessary to apply software, cloud computing, add-ons from the IoT as well as use Big Data. The research results also showed that the biggest barrier that SMEs in Ho Chi Minh City face is lack of capital, most of them focus on operating costs and business development and less concentration. focus on the application of technologies in the direction of 4.0. Due to the lack of investment capital for small businesses, the training in application and preparation for new 4.0 technologies in these enterprises is still low.

The findings in this research on awareness and preparation for the application of technology 4.0 are the basis for proposing supportive solutions for SMEs in Ho Chi Minh City in the coming time. The authors also research and inherit solutions from other studies. Some specific recommendations for businesses are:

(i) The government needs to promote the development of technology enterprises, implement solutions to develop the digital economy, especially the ecommerce development ecosystem and new digital-based business models. It is necessary to invest methodically and effectively to improve the quality of education and training in order to build creative and highly skilled human resources. The government needs to mobilize resources to increase investment in R&D, research investments, and faster access to science and technology trends in areas such as new materials, new energy, digital, and IT, automation and AI, biotechnology... (Miranda Kwong , 2018).

(ii) Vietnamese small and medium enterprises need to flexibly adjust products according to consumers' needs, integrate advanced technologies to minimize production processes, reduce delivery times, and shorten production life. product but still ensure production management and product quality, increase competitiveness [5].

(iii) The enterprises need to focus on integrating digital technology: integrating sensor systems, control systems and communication networks for business and customer care; store and efficiently use big data on the cloud computing platform; collect, analyze and process big data to generate new knowledge and assist decision-making, creating competitive advantage (Leos Safar, Jakub Sopko, Slavomir Bednar, and Robert Poklemba, 2018).

(iv) The human resource development strategy must be in the long-term development strategy of the business. In particular, first of all, it is necessary to have solutions to improve the quality of the existing human resources of the enterprise, especially the contingent of key officials and experts through training, updating knowledge and equipping activities. carefully skills to improve labor productivity; attach importance to recruitment and have a strategy of "headhunting" to supplement high quality human resources for businesses [2].

(v) Vietnamese SMEs need to deploy enterprise management software: Enterprises will gradually deploy and apply management software for their production and business activities at the grassroots level. Initially can use the customer management software (CRM), sales management (POS), warehouse management (WM) (Nguyen Hoang Tien & Nguyen Dang The Vinh, 2019).

(vi) Vietnamese SMEs need to immediately apply new technology. Deploying new technology is a real challenge for businesses. However, without awareness of early deployment of I.4.0 technologies, businesses may face more challenges in terms of production, business and management, and lose business opportunities when not exploiting the volume of customer data is increasingly large (Truong Minh Vu & Nguyen Vu Nhat Anh, 2017).

Given the limited research situation, any conclusions or recommendations derived from this article are only considered to be expected, relatively short-term forecasts. Further studies on a larger number of enterprises will provide SMEs in Vietnam with a basis for making better decisions, while providing some useful guidance for policy makers in to move the economy in the direction of the 4.0 technology revolution to catch up with the rapid changes of the world in the near future.

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PROMOTION OF HIGH-TECH AGRICULTURE PRODUCTION IN VIETNAM'S PRIVATE ECONOMIC SECTOR

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Abstract: *Developing high-tech agriculture is considered a solution to develop Vietnam's agriculture in the direction of sustainability and agriculturalization. In fact, the application of high technology to agricultural production in Vietnam in recent years has made significant changes, initially achieving high economic efficiency and contributing to improving the quality of life. In this report, using data income methods, research meta-analysis shows that in recent years, Vietnam's private sector in the agricultural sector is shifting towards progress, developing both quantitatively and qualitatively, creating a new breakthrough in agriculture, industrialize the agricultural production industry, minimizing Vietnam's long-standing dependence on nature. However, there are still to be addressed such as barriers to capital, policy, human resources and climate change, so with theoretical and practical issues on promoting the private economy of highly applied agricultural production in Vietnam, the study proposes some solutions to promote the industrial revolution 4.0 in the agricultural sector.*

Keywords: *Private economy, agricultural production, high technology, application, Vietnam.*

1. INTRODUCTION

According to the Ministry of Agriculture and Rural Development: "High-tech agriculture is an agriculture in which new technologies are applied to production, including: agricultural industrialization (mechanization of all stages of the production process, automation, information technology, new material technology, biotechnology and high-quality plants and animals, advanced farming processes, organic farming to enhance economic efficiency per unit of production".

Thus, the ultimate goal of high-tech agriculture is to solve the problems of low yield, high cost. In other words, it heads to save costs, enhance productivity and farm product quality, lower prices, protect environment, and at the same time ensure sustainable development of agriculture, reduce the dependence of farming practices on natural factors.

Getting started from agriculture, agricultural values are increasingly making important contributions to economic development of Vietnam. The contributions of Agriculture are not only in ensuring food security and adding profits to the economy, but also as an important biological-technical system, requiring research effort and long-term vision.

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However, the fact that Vietnam is a country with a population of nearly 100 million people, the area of agricultural land per capita is among the lowest in the world and is increasingly shrinking due to urbanization, climate change, epidemics, population explosion; together with increasing demand for food are posing great challenges to agricultural production. If we keep small production, do not restructure our agriculture and do not develop high-tech agriculture, our country will not grow and lag further behind in the region and the world. Therefore, to solve these problems, developing high-tech agriculture is an inevitable trend for Vietnam today.

Realizing the importance of the agriculture, the Government is always interested and focused on promoting fields related to agricultural sector, especially the private sector - with more than 85% of the economy's workforce to participate in agricultural industrialization. In the past time, the Communist Party and the State have issued many guidelines and policies to promote the development of high-tech agriculture such as the project on building a high-tech agricultural production model in the 2021-2025 period, the high-tech agricultural development program under the National High-tech Development Program to 2030, etc. Although many initial achievements have been achieved, there are still many difficulties limiting the number of units applying high technology in agricultural production. As of July 2022, the whole country has 34 high -tech agricultural zones in 19 provinces and centrally-run cities. In particular, there are 6 new large-scale hi-tech agricultural zones with an area of over 400ha. Therefore, in the coming time, high-tech agriculture is always one of the Government's top priorities to promote private economic growth in the country.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

In recent years, related to the research on agricultural development, there have been some articles and studies related to the topic of high technology application in agricultural production in Vietnam such as:

The article "A review of theory and practice on promoting a high-tech application in agricultural production in Vietnam" (2021) by Nguyen Xuan Dinh and Nguyen Mau Dung shows that high-tech application is an inevitable trend essential for Vietnam's agricultural industry in the era of industrial revolution 4.0. The article also highlights the difficulties and inadequacies in Vietnam in applying High-tech to agricultural production.

The article "The role of high technology in the development of high-tech agriculture in the context of current economic, ecological and social transformation of Vietnam" (2020) by Nguyen Thi Ngoc Anh assesses the necessity of The development of high-tech agriculture and the affirmation of the role of technology in agricultural development in the domestic and international context containing many challenges as well as opportunities.

The article "Sustainable high-tech agricultural development" (2019) by Nguyen Xuan Cuong points out the importance of developing high-tech agriculture in turning our country's agriculture into modern agriculture. The development of general supporting policies such as Resolution No. 30/NQ-CP dated March 7, 2017, and policies to attract investment in agriculture and hi-tech agriculture are positive solutions in the development of sustainable agriculture.

Through the research and study of related studies published by scholars, it can be seen that most of the articles focus on reflecting the role of high-technology applications in agricultural production in agriculture the increase of productivity, sustainable agricultural development; studying theoretical issues with different views and judgments on the development of high-tech agriculture and sustainable agriculture; explaining the legality, characteristics, constituent elements, evaluation criteria through the assessment of the current situation, effectiveness, achievements, as well as limitations, existing in hi-tech agriculture....

It can be seen that the topic of agriculture and high-tech agricultural development is an attractive topic that needs to be continued by scholars and researchers to contribute to promoting high-tech agricultural production.

However, most of the articles have not systematically analyzed and evaluated the content specifically promoting economic sectors, especially the private sector, applying high technology to agriculture in Vietnam. This paper aims to summarize data and the current situation of some contents to promote the private economy in agricultural production using high technology, thereby proposing some recommendations to promote the application of 4.0 in agricultural production in Vietnam in the future.

3. METHODOLOGY

In order to have an objective and accurate assessment of the situation of hi-tech agricultural production, the article has applied many different research methods such as: using the method of collecting information, data, and data from secondary sources: statistics, reports, policy documents of the ministries and the Government of Vietnam, from relevant paper on the situation of agricultural development in Vietnam through the periods, plan, and so on. In addition, the article also uses the method of synthesis and inheritance, which are the main methods used in the research process. On that basis, the paper makes an assessment of the current situation of the private sector in high-tech agricultural production in Vietnam and proposes some recommendations for further development in the coming years.

4. RESEARCH RESULTS

4.1. High-tech agriculture production in Vietnam today

4.1.1. The situation of the private economy in high-tech agricultural production in Vietnam today

Scientific breakthroughs and technological advances have brought to the world a series of new tools to help agricultural production improve agricultural productivity, while minimizing impact on the natural environment. Currently, the application of bio-high technology in crop cultivation has contributed to accelerating the development of crop yield and quality. In the field of plant varieties, there is creation of transgenic plant varieties with characteristics of resistance to herbicides and pests. The area of GM crops worldwide has increased rapidly, from 90 million hectares in 2015 to nearly 200 million hectares (as of July 2022). To date, 67 countries have used GM crops. The situation of high-tech agricultural production in Vietnam has changed dramatically in recent years. But there are still many difficulties that need to be solved.

4.1.1.1. Variation in quantity and structure

Vietnam is a country with long and traditional agriculture (agriculture contributes about 23% of GDP), the majority of Vietnamese people live on agriculture and animal husbandry. According to the Ministry of Agriculture and Rural Development, our country currently has more than 4,000 enterprises investing in the agricultural sector. With the amount of investment in agriculture is still too small, the participation of the private sector is expected to open a "new chapter" for Vietnam's agricultural production in the next coming time.

As for the form of private economic enterprises in agriculture, it is still very limited, there are very few private enterprises operating in this area, only about 6,000 out of 500,000 enterprises currently operate in the agricultural sector.

Currently, high-tech agricultural zones in Vietnam are mainly concentrated in big cities, in fact, mainly in Ho Chi Minh City, Lam Dong Province and Hanoi. But all of them are still in the construction and early stages of the project.

According to the press release on the results of the 2020 mid-term rural and agricultural survey by the General Statistics Office [3], the whole country has 9,123,018 agricultural, forestry and fishery production units, down 1.82% compared to 2016. Of which, 9,108,129 farmer households, down 1.86 %; 7,418 cooperatives, up 6.80%; 7,471 enterprises, up 94.25%. The fluctuation in the number of production units has many objective and subjective reasons, including the reorganization of production, prioritizing the development of productive forms and scales of high quality, efficiency and value of goods.

Machinery and equipment are used in a variety of ways at all stages of the production process with a significant increase in quantity. On average, 100 households engaged in agricultural, forestry and fishery activities use 0.74 cars for production, 3.89 times higher than in 2016; 1.93 generators, 5.36 times more. On average, 100 rice-growing households use 28.87 motorized pesticide sprayers, 2.23 times higher; 0.44 combine harvesters, 1.61 times more; 2.84 other reapers, 1.32 times more; 4.02 motorized thresher, 1.25 times higher. In recent years, agricultural, forestry and fishery production has also been enhanced with the application of advanced and modern science and technology, including the increasingly popular use of agriculture greenhouses, net houses, and agriculture film houses. As of July 1, 2020, the total area of land for cultivation and aquaculture using greenhouses, net houses and agriculture film houses in rural areas reached 56.01 thousand hectares, 13.70 times higher than in 2016 (General Statistics Office, 2020).

The results of the random survey of farmer households show that most of the households carry out farming of multi-cropping, intercropping and intercropping with a variety of crops and livestock according to the model for VAC farming (VAC is an acronym formed from the three Vietnamese words Vuon, garden or orchard, Ao, fish pond, and Chuong, pigsty or poultry shed. It refers to a form of domestic agriculture in which food gardening, fish rearing and animal husbandry are wholly integrated, and stems from farming methods developed in the Red River delta of Vietnam.), very few households only specialize in the growing of some particular plants or livestock. The main crops and livestock produced by households are: rice, fruit trees, vegetables, pigs, chickens, ducks, fish.

4.1.1.2. Investment capital

In 2017, the Vietnamese Government started high-tech agriculture production at Ha Nam VinEco Farm, invested by VinGroup. According to VinGroup, the Ha Nam VinEco project has an area of 180 hectares with a total investment of nearly 300 billion VND, of which a large sample field area of nearly 130 hectares, a high-tech Israel greenhouse area of 5 hectares and other facilities production support area in the entire area.

Besides, other private corporations such as Hoa Phat, Truong Hai, FPT,... also poured capital into high-tech agriculture with the expectation of completely changing the way of agricultural practices and the quality of agricultural products in the country. The shift to bring science and technology, technical progress to develop high-tech agriculture will be a springboard for a strong breakthrough in agriculture.

In Vietnam, to build a medium-sized livestock farm in the form of high technology requires 4-5 times more capital than a traditional livestock farm. Israel technology for farming of 1 hectare smart greenhouse needs at least 15-20 billion VND.

In agricultural development, in order to promote high-tech agriculture production, the strategic orientation for agriculture development suitable to each stage of the economy plays a huge role. This is shown through the State management promulgating guidelines and policies on agricultural and rural development; Policy objectives focusing on increasing agriculture production through improved productivity, quality and competitiveness.

In recent years, Vietnam has issued many specific guidelines and policies to promote the application of high technology in agriculture production. Following the introduction of the High-Tech Law in 2008, the Prime Minister approved the high-tech agricultural development program under the National High-tech Development Program to 2030. At the same time, introduced loan programs to encourage the development of high-tech agriculture.

Table 1. Content of capital support policy for high-quality agriculture development

Policy Document	High-tech agricultural sector	Agricultural enterprise application high-tech	Agricultural cooperative application high-tech	Farming household
Decision No. 1895/2012/ QD-TTg	Support max to 70% of expenses from The Government budget to build infrastructures	The Government budget supports the enterprise that researches and creates high-technology to invest in high-tech equipment, import machinery, etc.		
Resolution No. 30/2017/ NQ-CP	The State Bank of Vietnam directs Commercial Banks to spend at least VND 100 trillion from mobilized sources to make loans for the agricultural sector applying by high-tech			

Policy Document	High-tech agricultural sector	Agricultural enterprise application high-tech	Agricultural cooperative application high-tech	Farming household
Decree No. 57/2018/ ND-CP		Supports 80% of implementation cost but not more than VND 300 million for the enterprise that research, transfer, and use high-tech agricultural		
Decree No. 55/2015/ ND-CP		80% of the value of high-tech production and business projects.	70% of the contract value for product transfer or consumption.	From VND 100 to 500 million.
Decision No. 813/2017/ QD-NHNN	Lending interest rates are not more than 0,5% to 1,5% compared to standard lending rates of Commercial Banks	Lending interest rates are 0,5% to 1,5% lower than the average lending rates of Commercial Banks		
Decree No. 96/2018/ ND-CP		Enterprises (the owner of the association) are supported by The Government with 100% of consulting costs of associated construction (but no more than VND 300 million); Affiliate projects are supported with 30% of investment costs (not more than VND 10 billion)	The Cooperative (the owner of the association) is supported by the Government with 100% of consulting costs of associated construction (but no more than VND 300 million); Affiliate projects are supported with 30% of investment costs (not more than VND 10 billion)	

Source: Nguyen Xuan Dinh & Nguyen Mau Dung (2021)

However, the implementation of these policies in practice is facing many shortcomings. Access to loans for agriculture development is still difficult; lack of policies to encourage farmer households, private sector enterprises to apply high technology in agriculture production.

4.1.1.3. The issue of promoting linkages in the production and consumption of high-quality agricultural products

In Vietnam, agricultural production is mainly small-scale farming, which has not yet produced safe and quality products. The problem of linkage between farmer households, households and cooperatives, traders and businesses is still limited, the connection is not close and not sustainable because most of them are still oral agreements without any mechanism or content. Linking, sharing risks is not specific. Meanwhile, the application of high technology in agriculture requires synchronization between stages, especially the problem of linkage in the production and consumption of high-quality agricultural products (Nguyen Xuan Dinh & Nguyen Mau Dung, 2021).

The Government has issued many documents to encourage linkages in the consumption of agricultural products such as Decision No 80/2002/QD-TTG of the Government, Decree 98/2018/ND-CP on cooperation policies, association in the production and consumption of agricultural products; opened seminars and trade promotion for high-quality agricultural products such as the program to connect trade between suppliers in the Mekong Delta and export enterprises and the Trade Promotion Organization, Agricultural Trade Promotion Fair, OCOP Hanoi products in 2022;… However, the problem of developing linkages in the production and consumption of high-quality agricultural products is still very limited. This is because the small farmer household economy still accounts for a high proportion, and the thinking of small farmers has been deeply ingrained in the minds of Vietnamese people (Nguyen Phuong Le et al, 2021).

4.2.2. Opportunities and difficulties in high-tech agriculture production in the coming time

4.2.2.1. Difficulties of high-tech agriculture production

According to the goal of the high-tech agricultural development program that the Government launched from 2012 to 2020, the whole country has 200 hi-tech agricultural enterprises and 10 hi-tech agricultural zones. However, by 2020, there are only 22 high-tech agricultural enterprises in the whole country among thousands of agricultural enterprises.

First, the scale of high-tech agriculture production is small and uneven. Most of the private economy's entities in agriculture are small-scale with spontaneous production. The majority of households' and farms' labor are family members.

Second, economic entities work independently, with few links. Mass production, according to the movement, without plan has become a habit of Vietnamese farmers. According to the survey, most of the farm households and farms surveyed indicated that they followed others without instructions and orientation of any organization. Consequently, when supply exceeds demand, ex-garden prices drop sharply, loss is inevitable.

Third, capital barriers. Farmers still face many difficulties in terms of capital and technology investment incentives, while this is an area that requires large investment and a long payback period.

Fourth, policy barriers. Regulations and procedures relating to credit policies to support the development of high-tech agriculture are cumbersome and complicated, along with the evaluation and classification of projects based on qualitative criteria, lack of quantitative criteria, etc. They makes it difficult for farmers to access these sources of capital.

Fifth, the barrier of human resources. Currently, workforce for agriculture are mainly based on experience, highly qualified human resources in the field of agriculture are still very limited compared to the requirements. It can be seen that Vietnam's workforce is lacking in quantity and weak in quality (40% of the workforce works in agriculture, but only over 7% have undergoned professional and technical training) (Nguyen Phuong Le et al, 2021).

Sixth, the impact of climate change and pandemics. In the recent period, the agricultural sector has suffered from double effects when it is badly affected by the Covid-19 epidemic and climate change, natural disasters such as storms, floods, droughts, salinity intrusion as well as African swine fever. Meanwhile, methods to prevent and limit risks in agriculture are still slow to be implemented.

Seventh, the demand is increasing. With market trends, access to new scientific and technical achievements and technologies in production have improved management capacity, product quality with creative and effective ideas.

4.2.2.2. Opportunities for high-tech agriculture production in the coming time

- The Government's policy of paving the way has created greater opportunities than ever before in Vietnam's hi-tech agriculture.

To promote the development and application of high technology in agriculture, attract all economic sectors in society to participate, create a basis for rapid transformation of Vietnam's agriculture towards industrialization and modernization, on December 17, 2012, the Prime Minister issued Decision 1895/QD-TTg approving the High-Tech Agricultural Development Program under the National High-Tech Development Program until 2020.

On this basis, the agriculture sector has determined that the development of high-tech agriculture is the main and inevitable trend in the integration trend, and a strong and effective solution to agricultural restructuring.

Therefore, a series of policies to motivate agriculture production in general and agriculture production using high technology in particular was born. It includes the following:

+ Credit support policy

Resolution No. 30/2017/NQ - CP of the Government dated March 7, 2017, directing the Prime Minister on a credit package of VND 100,000 billion from the capital mobilized by commercial banks for development loans on high-tech agriculture, green agriculture with appropriate interest rates, 0.5 - 1.5% lower than market interest rates. With this support, individuals and businesses practicing high-tech agriculture enjoy incentives to facilitate the development of high-tech agriculture.

+ Policy on land

The Government plans to amend the 2013 Land Law as proposed by localities, requiring land use planning in the localities towards expanding the land tenure, and conditions to support the development of high-tech agriculture such as irrigation water, canals, infrastructure support, etc., cumbersome procedures reduction.

+ Policy to encourage agricultural development

The Government promulgated Decree No.57/2018/ND-CP on mechanisms and policies to encourage enterprises to invest in agriculture and rural areas. According to Decree No.57/2018/ND-CP of the Government, enterprises investing in agriculture and rural areas enjoy many incentive mechanisms and policies of the State. According to regulations, enterprises subject to incentives will be given incentives and support through the exemption and reduction of land use fees, reduction of state land and water surface rents; land consolidation support, credit access support; support for research and transfer of high-tech agricultural applications; human resource training support, market development, grassroots investment support.

The Government issued Resolution No. 35/NQ-CP dated May 16, 2016 on supporting and developing businesses until 2020. Resolution No. 19/2018-NQ-CP dated May 15, 2018 on the continuation of carrying out the main tasks and solutions to improve the business environment and national competitiveness in 2018 and the following years. In the spirit of the Resolution: Implement activities that contribute to administrative reform and create favorable conditions for businesses; Create a favorable environment to support start-ups and innovative enterprises; Ensure business rights, equal access to resources and business opportunities for enterprises; Reduce business costs for businesses and protect their legitimate rights and interests; Implement trade and investment promotion activities, and programs and projects to improve the competitiveness of enterprises and business associations.

- Opportunity to expand domestic and foreign markets

At present, our country's agriculture is still considered backward, low developed and has many risks of natural disasters, epidemics, low labor productivity. But in the context of new international economic integration, together with the determination of the Government and the consensus of the whole people, high-tech agriculture production in the coming time has many prospects and opportunities for development, making the economy in general and the agricultural economy in particular more developed, keep pace with modern agriculture in the world.

The development of high-tech agriculture production will be an opportunity for Vietnam's agricultural exports to be exported to partners in the AEC, CPTPP, and EVFTA, and along with expanding the domestic market many times create more opportunities to reach more market segments for agricultural products. And more importantly, the dependence on foreign markets of many agricultural products will therefore also be minimized; through intermediate markets, Vietnamese agricultural products will have the opportunity to expand the market and participate deeply into the global agricultural supply chain. From new opportunities from integration, agriculture will welcome new investment flows, especially investment in hi-tech agriculture and supporting industries for the agriculture sector - areas currently left open due to lack of resources.

- Opportunities come from scientific and technological progress

High-tech agriculture production has transformed agriculture into a modern, highly-economical form of production, creating a source of good quality and food-safe goods, as well as enabling functional authorities in product traceability, step by step forming large-scale agricultural production areas.

Many scientific research results have been transferred and applied to agricultural production such as new varieties, technological processes, and new technical advances, which have contributed to reduce investment costs, increase profits and bring about economic efficiency in agricultural production.

It can be seen that the advantages of high-tech agriculture production are huge. The living and living standards of people in rural areas are increasingly improved and enhanced. The level of production, technique, science and technology in agriculture and farmers has been increasingly improved. Activities of agricultural cooperatives continue to innovate in terms of operation methods, support for cooperative members, professional development.

In particular, the private farms has grown rapidly in number and scale and is shifting and expanding service activities and rural industries. The movement of farmers with good farming in the suburbs is increasing in number and efficiency; farmers are dynamic and making big progress, especially in the field of shrimp, dairy cows, safe vegetables, flowers - ornamental plants - ornamental fish, and crocodiles farming, production and service of plant varieties, animal breeds, aquatic products; they organized cooperation and association in production and business, established specialized associations, and made brand names. Farmers' income increased due to the increase in production value per unit of arable land; Agricultural labor and suburban rural areas continued to rapidly shift to non-agricultural sectors.

5. DISCUSSION AND CONCLUSION

Vietnam's agriculture has been constantly developing, gradually being modernized, promoting its supporting role for the economy in recent years. However, the growth rate of the industry is on a downward trend and reveals the weaknesses of an agriculture based on a small household economy, lacks of linkages, with low productivity and quality. In order to change the current situation of agricultural production, the Government needs to organize the implementation of solutions for the private economy and farmers to strongly shift the economic structure in rural areas towards reducing the proportion of agriculture, increase the proportion of services and industry; applying biotechnology and high technology in farming. Some specific solutions are as follows:

**** Increasing consumption of agricultural products through contract farming***

Currently, increase in consumption of agricultural products through contract farming will put an end to unstable prices and output of a series of key agricultural products. The investment in cooperatives and farmers' organization to sell agricultural products to give farmers peace of mind in production will bring about harmonization of benefits and good control of food quality and safety, avoiding falling prices while ensuring stable supply of agricultural products associated with market demand.

Firstly, the private economic entities in agriculture must actively link with each other and processing establishments to form a chain of production and consumption.

Second, eliminate independence in business to avoid dispersion and fragmentation in economic development.

Third, it is necessary to institutionalize the rights and responsibilities of each participant, ensuring the principle of harmonization of interests.

** Building brand for Vietnam's key agricultural products*

A trademark is a registered trade or brand name that basically identifies a company to its products or services, so it provides your brand with legal protection. A brand is a name that relates to products and services offered by a company which evokes positive images and emotions to the consumer. A brand name does not provide any legal protection from external use, however, it offers a perceived value that only the brand can offer, not to mention recognition. In sum, our brand represents your reputation and business in the public eye, a trademark legally protects those aspects of the brand specific to a company. Having a trademark will create trust and gain customer loyalty to the product.

Vietnam also has a number of certified agricultural products such as rice, tea, coffee, cashew nuts, rubber, etc. However, this is just a brand, a name to identify and distinguish goods, it is not a trademark in its own nature, so it is easy for these goods to be mixed by goods elsewhere.

To build a strong brand, first of all, each product must reach a sufficiently large and stable volume, ensure uniform quality, ensure food hygiene and safety standards and stability to the requirement of market with competitive selling prices; distribution channels must ensure the harmonious and reasonable interests of all participants in the value chain of goods. At the same time, businesses also need to link together, invest in science and technology, limit raw exports, switch to export finished goods in order to improve product value, thereby creating a sustainable brand.

** Enhancing the role of associations in the private economic sector in Vietnam*

It is necessary to continue to consolidate and establish new associations and organizations, while promoting the renewal of the operating mechanism of organizations and associations according to the model and operating practices of similar organizations and associations in developed countries in the world or adjusted to suit the specific conditions of each locality.

In addition, each group of enterprises of the same type, or having similar business lines, can form small branches, regularly meeting, exchanging information and experiences, and searching for each other's markets

* ***Training and improving the quality of human resources to meet the requirements of high-tech agriculture production***

The private economic sector in agriculture is the sector attracting the majority of social workers in farming businesses and services. In fact, the labor of the private economic sector in agriculture is mostly simple, untrained workers. They mainly rely on traditional experiences passed down through generations to do farming, or if there is training, it's just on-the-job training through the farming process, rather than through formal schooling. Therefore:

+ For human resources for agriculture, the Ministry of Education and Training together with the provincial government should give direct support, promulgate special preferential policies for students who are studying agriculture such as tuition fee support, applying to students majoring in pedagogy, in order to attract students to enroll in this major

+ For households, and farms: It is necessary to develop a training plan for farm owners in business administration skills, in order to improve their management skills and scientific and technical knowledge; organize well training in agricultural production techniques suitable for rural laborers.

*** Rebuild planning policies, capital policies, attract FDI to agriculture***

Firstly, rebuild planning and planning management to develop the private economic sector in agriculture in Vietnam. Based on Resolution No. 3320/QD-UBND dated October 18, 2016 on the master plan for agricultural production development in Hai Duong province for the period 2016-2020 with a vision to 2030: planning of areas for agricultural development to avoid dispersion, spontaneity.

Second, continue to reform and improve the service quality of the administrative apparatus in Vietnam. Promote the application of information technology comprehensively and synchronously in handling administrative procedures. Publicly and transparently implement planning, administrative procedures and investment attraction policies.

Third, make an open policy to attract the private economy, especially FDI enterprises to invest in high-tech agriculture, and at the same time encourage individual households to register for business establishment.

*** Actively apply technological advances to production, invest and innovate equipment and technology in depth to improve the quality of agricultural products.***

Some technologies applying in agro-forestry-fishery production help improve productivity, and quality, and reduce product costs such as: Information technology helps manage nutritional inputs, manage surrounding environmental factors to suitable for the requirements of plants and animals; Biotechnology applied in the selection and creation of plants and animals varieties brings about high-yielding, good quality, and highly resistant plant and animal varieties; vitro propagation technology widely applied in the propagation of forestry trees, flowering plants, banana trees, etc., helps to reduce the cost of seedlings, create a batch of seedlings with high uniformity and disease-free.

Strengthening science and technology communication activities to inform the market about new and highly effective scientific and technological products and equipment produced domestically. In addition, expanding international cooperation in science and technology; actively promoting the formation of technology partnerships with advanced countries to access new technologies, train human resources, promote technology transfer and develop science and technology markets.

In summary, promoting production using high technology in the private economic sector is now an inevitable trend in Vietnamese economy, improving the competitiveness of the agricultural industry and increasing the value of agricultural production. Vietnam is an export-oriented country to take advantage of the country's deeper and broader integration into the world economy, with a series of free trade agreements with major economic regions signed. Thereby creating an attraction for not only domestic investors but also foreign direct investors boldly investing, exploiting the potential of the agriculture sector, developing agriculture into a pillar economic sector of the economy.

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POLICIES TO SUPPORT LABOURERS IN HANOI IN THE CONTEXT OF COVID-19

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Abstract: *The Covid 19 pandemic has pushed the lives of millions of workers into difficult situations, the Government has adopted policies to promptly support workers affected by the pandemic. This study uses a combined analysis model combining descriptive statistics, EFA model to analyze the impact of support policies on workers in Vietnam in general in Hanoi in particular during the Covid-19 pandemic. The results have shown that other groups of policies has the most significant impact on household welfare and followed by personal income tax policy and Employees support policy of Hanoi People's Committee. Since then, some solutions have been proposed by the government, Hanoi People's Committee, and employees to help them stabilize their lives and return to the labor market soon.*

Keywords: *Employee support policy, Covid-19, household welfare, Hanoi.*

1. INTRODUCTION

The Covid-19 pandemic (from the end of 2019 until now) has had a comprehensive and profound impact on all countries worldwide. The picture of the global economy in general and Vietnam's economy, in particular, has undergone a volatile period. The raging pandemic not only caused a sharp decline in industries and business fields, profoundly affecting the health of businesses, causing a serious decline in Vietnam's economic growth, but also making people's lives worse.

Many enterprises and individual business households have had to suspend operations or reduce production scale, leading to an unemployment rate increase. As a result, laborers are facing a range of difficulties and challenges. As soon as the epidemic broke out, the whole political system took drastic action, along with the consensus and solidarity of the entire people and army in the work of epidemic prevention and control. To share difficulties, and ensure people's quality of life, the government has reasonable and timely support policies for cases affected by the epidemic, leaving no one behind. This shows the responsibility of circulating the "blood" in the economy, supporting businesses to overcome difficulties and stabilize production.

As we all know, Hanoi is one of the cities that have been suffering the most severe impacts from the Covid-19 pandemic, specifically: production and business activities have been stalled, the economy has been affected. When the economy goes down, workers fall into a state of job loss, seriously affecting people's daily life. Therefore, policies to support employees in the context of Covid of Hanoi in particular and of the whole country in general are urgent work today. It is

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necessary to study and evaluate the effectiveness of the support policy packages. The research results provide a scientific basis for state agencies and related organizations on policies to support workers affected by Covid-19 in general and workers in Hanoi in particular.. Therefore, the topic: ***"Effect of employee support policies on household welfare in Hanoi in the context of Covid-19"*** was selected for this study.

2. LITERATURE REVIEW AND RESEARCH MODEL

2.1. Literature Review

Matthew D.Baird, John Engberg, Italo A.Gutierrez (2022) assessed the impact of training policy on employment, income and employment sector, both overall and separately by baseline employment status. . Research results show that the job training program for employees RCT New Orleans Career Pathways has improved the overall income of employees, creating overall positive impacts on income, for employees who lost their jobs at the time of training registration and also for short-term employees in the United States.

Ekkehard Ernst (2015) analyzes that the increase in government spending on unemployment benefits in the G20 countries has brought benefits in both the short and long term to the labor market as well as workers, promoting job growth faster, which leads to a rapid recovery in public finances. Research has analyzed and shown that the absence of good unemployment benefits programs or the reduction of existing unemployment benefits programs can cause impacts on society and the economy. If an unemployment benefit with a high coverage ratio is properly managed, it will help stabilize income fluctuations at the microeconomic and macro levels. Research has shown that unemployment benefits can also directly affect the quality of finding new and alternative jobs, and minimize negative impacts on employees when unemployment time is prolonged. The rate of finding a job after getting out of unemployment is higher when the unemployment benefits are paid higher over a longer period. Therefore, unemployed people will tend to take more stable jobs to achieve a higher standard of living.

In Vietnam, Diep Thanh Nguyen (2005) researched "Belgium's unemployment insurance regime", an important policy to support employees. The unemployment insurance scheme in Belgium has applied rights depending on family circumstances, length of time unemployed, and average daily wages earned before becoming unemployed. Research has shown that the subsidy policy is proved to be appropriate and helps employees to stabilize their lives during the period of unpaid leave and search for new jobs. With regulations on a reasonable unemployment insurance regime, Belgium has stabilized society and helped unemployed workers overcome difficult financial periods.

In recent years, policies to support employees have received more and more attention, especially from the end of 2019 to the present. Including "Impacts of the Covid-19 pandemic on Vietnam's economy" (2020), a study by Pham Hong Chuong and a research team from the National Economics University. Through research, the authors review the impact of the pandemic on the economy as well as the policy responses of countries such as China, Japan, and the USA,... and study financial support policies for affected employees by Covid in Vietnam. As a result, the research showed that policies to support employees need to extend the unemployment insurance period for employees who have lost their jobs for a long time and provide enough allowances for households that have not yet adapted to the new normal, especially to support freelance workers because these subjects are not covered by the insurance policy.

2.2. Data source, research model and method

Data source

Refer to the questionnaire from the study "Opportunities and challenges for the development of Mobile money Vietnam" (2021) to build a questionnaire for the survey. The primary data source is obtained through conducted the survey of employees in Hanoi in the context of Covid-19

Research model

This study focuses on policies to support employees in Hanoi in the context of how Covid-19 affects household welfare. Based on the theory, the research model proposed by the authors in this study is summarized as follows.

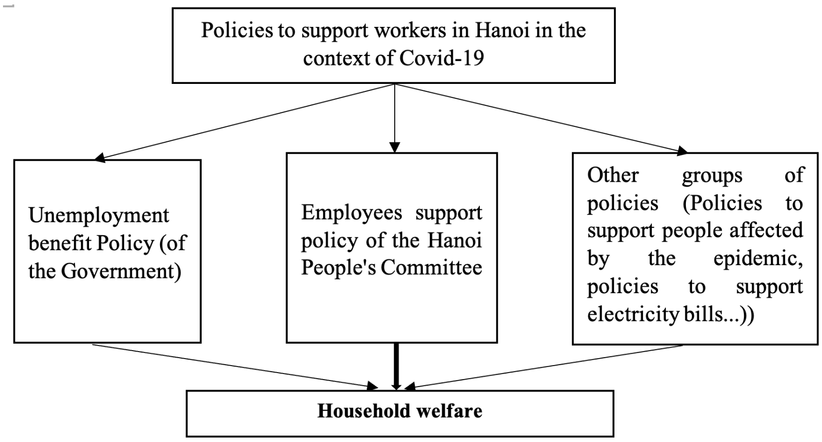

Figure 1. Impact of employee support policies on household welfare in Hanoi in the context of Covid-19

Primary information was collected by surveying employees in Hanoi through a questionnaire.

Research Methods

This study uses both qualitative and quantitative research methods. In the first stage, qualitative research aims to identify models, factors, and measurement variables suitable for the context of employees in Vietnam. In the next stage, a quantitative survey is carried out and this is also the main approach of this model.

The qualitative research method includes: systematically synthesizing, analyzing, and evaluating empirical studies on factors affecting the effectiveness of support policies.

Quantitative research method: The study intends to use the Exploratory Factor Analysis (EFA) model and use econometric techniques to analyze the factors affecting household welfare, thereby showing the effectiveness of support policies.

3. EMPIRICAL RESEARCH RESULTS ON THE IMPACT OF EMPLOYEE SUPPORT POLICY IN HANOI IN THE CONTEXT OF COVID-19

3.1. Description of the research sample

In this study, the variables for classification include gender, age, region, education level, occupational status, industry, work unit, average income before and after the Covid-19 pandemic, financial status, support sources, and support policies received. Through the nominal scale, after processing and analyzing the frequency, the results obtained as below:

For age: The group of employees aged 16-45 years old accounted for the largest percentage (70.3%), followed by the group of workers aged 46-60 years old (accounting for 23.8%) and over 60 years old (accounting for 6.6%). This shows that, in the Hanoi area, there are mainly young workers aged 16 to 45 years old.

For the region: Workers in the inner Hanoi area accounted for 73.6%, 2.8 times higher than the suburban area of Hanoi.

Education level: Employees with college/university education account for the highest percentage (53.8%), followed by High School Graduation (accounting for 21.8%); Postgraduate (Master, Ph, …) (accounting for 17.2%), and finally Secondary School graduation (accounting for 7.3%).

Occupational status: The rate of is of unemployed employees (38.9%) that is a rather high percentage due to the effect of Covid-19.

Occupations: In Hanoi - the central city of the country, the professions are quite diverse, with Education - Training - Health accounting for the highest percentage (17.7%).

The type of organization that employees have been working for: Foreign enterprises accounted for the highest percentage (accounting for 22.4%) and the State accounted for the lowest percentage (11.5%).

Income before and after the Covid-19 pandemic: The income segment with the highest percentage was less than 10 million VND (59.7%). It shows that the epidemic has had a significant impact on the income of employees, causing a significant reduction in their income.

The shortage situation: People are falling into difficult situations of deprivation account for 32.3%.

For supporting subjects: Employees receive the most support from the Government (23.7%), enterprises (21.8%), and relatives (13.9%). The number of employees who did not receive support accounted for 6.6%.

For support policies: The group of policies that employees receive the most are other policy groups (Policies to support people affected by the epidemic, policies to support electricity bills....) (Accounting for 29.8%). Next is the government's unemployment compensation policy (accounting for 26.2%), and the employee support policy of the Hanoi People's Committee (accounting for 21.6%). The number of employees receiving a combination of different policies accounted for 21.6%. This shows that the policies have been implemented quite well.

Average statistics

A questionnaire survey was conducted to determine the satisfaction levels of employees about policies to support employees in Hanoi in the context of Covid-19 and its impact on household welfare. Those supporting policies are the Finance Policy (of the Government); The employees support the policy of the Hanoi People's Committee; Other groups of policies (Policies to support people affected by the epidemic, policies to support electricity bills...). The questionnaire uses many questions to determine the level of satisfaction with each support policy, analyzed through SPSS software. *How has Covid-19 affected employees and how did employees support policy implementation and performance is illustrated in Appendix 2.*

3.2. Testing the Likert scale

This study mainly is qualitative issues, so to quantify, the authors use a 5-level Likert scale (from 1 - completely dissatisfied, 5- Completely satisfied).

**** Accounting Policy (Government) (TCTN)***

Table 1. Result of testing the scale Amortization policy (Government) (TCTN)

Observed variables	Total variable correlation coefficient	Coefficient if variable type	Cronbach's Alpha
Policy approach (TCTN1)	0.838	0.931	0.942
Policy reception process (TCTN2)	0.775	0.936	
Policy implementation time (TCTN3)	0.819	0.932	
Number of days off in case of disease (TCTN4)	0.796	0.934	
Policy's ability to support (TCTN5)	0.796	0.934	
Policy's ability to support employment (TCTN6)	0.808	0.933	
Coverage of the policy (TCTN7)	0.828	0.931	
(Government) policy (TCTN)			

Source: SPSS

**** Employees support the policy of Hanoi People's Committee***

Table 2. Results of testing the scale of Employees support the policy of Hanoi People's Committee (Infrastructure)

Observed variables	Total variable correlation coefficient	Coefficient if variable type	Cronbach's Alpha
The form of access to the policy (CSHT1)	0.828	0.922	0.936
Policy reception process (CSHT2)	0.806	0.924	
Policy implementation time (CSHT3)	0.795	0.926	
Subsidies that the policy supports (CSHT4)	0.805	0.924	
The ability to support the employment of the policy (CSHT5)	0.791	0.926	
Policy coverage (CSHT6)	0.830	0.921	
Employees support the policy of Hanoi People's Committee (Infrastructure)			

Source: SPSS

**** Other groups of policies (Policies to support people affected by the epidemic, policies to support electricity bills....)***

Table 3. Results of testing the scale of other groups of policies
(Policies Effects due to epidemics, policies to support electricity bills....) (CSK)

Observed variables	Total variable correlation coefficient	Coefficient if variable type	Cronbach's Alpha
Policy approach (CSK1)	0.825	0.899	0.922
Policy Implementation Time (CSK2)	0.805	0.903	
Policy reception process (CSK3)	0.801	0.904	
The subsidy that the policy supports (CSK4)	0.782	0.908	
Income supported by policy (CSK5)	0.775	0.909	
Other Policy Groups (Politics Policies to support people affected by the epidemic, policies to support electricity bills....)			

Source: SPSS

The results of the correlation coefficients of the total variables of the measured variables in the table have all components reaching values greater than 0.3. So all factors are reliable.

3.3. Exploratory Factor Analysis EFA

**** Factor Analysis for Independent Variables***

Building Correlation Matrix

Overall, we see that the items in this matrix have a relationship with each other. But to confirm this correlation, we will use the Bartletts test to test the following hypothesis:

H_0: The observed variables do not correlate with each other

H_1: There is a mutual correlation between the observed variables

Table 4. KMO and Bartlett's Test results for the final dependent variables

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.982
Bartlett's Test of Sphericity	Approx. Chi-Square	6343.118
	Df	153
	Sig.	.000

Source: SPSS

Based on the results of data analysis, Sig = 0.000 < 0.05 (see KMO and Bartlett's Test table) thus rejecting hypothesis H0, accepting hypothesis H1, meaning There is a correlation between items, which is an important condition of factor analysis. In addition, the KMO criterion is used to consider the appropriateness of factor analysis, in this study we find that the EFA analysis is reasonable (0.5<KMO=0.982<1).

Determining the number of factors

Table 5. Total variance extracted from factors

Coefficient	**Value**
Eigenvalues	13.177
Total variance extracted	73.204%

Source: SPSS

According to the above table, we have 2 factors affecting happiness level household benefits. Eigenvalues = 13.177 > 1 represents the variation in each factor, then the extracted factor has the best information summary significance. Total variance extracted Rotation Sums of Squared Loadings (Cumulative %) = 73.204% > 50% showing that 73.204% of the variation of the data is explained by the group of 2 factors above.

***EFA analysis for dependent variables**

Table 6. Results of KMO and Bartlett's Test for the final dependent variable

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.886
Bartlett's Test of Sphericity	Approx. Chi-Square	1050.310
	Df	10
	Sig.	.000

Source: SPSS

Table shows: KMO = 00.886 >0.5, so factor analysis is appropriate and Sig. (Bartlett's Test) = 0.000 (Sig. < 0.05) shows that observed variables are correlated with each other in the population.

Table 7. Extracted Variances of Last Dependent Variables

Total Variance Explained						
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.688	73.770	73.770	3.688	73.770	73.770
2	.411	8.217	81.987			
3	.362	7.249	89.236			
4	.282	5.640	94.876			
5	.256	5.124	100.000			
Principal Component Analysis.						

Source: SPSS

According to the above table, household welfare has Eigenvalues = 3.688> 1, representing the variation in each factor, then the drawn factor has the best information summary significance.

Extraction Sums of Squared Loadings (Cumulative %) = 73.770% > 50% shows that 73.770% of the variation of the data is explained by the dependent variable.

3.4. Regression model

The model of the overall regression equation is developed as follows:

$$HGĐ = \beta_0 + \beta_1 TCTN + \beta_2 CSHT + \beta_3 CSK + \varepsilon$$

In which:

- β_0 (k ϵ 0 – 3): is coefficients of the regression equation.
- ε: is the error of the model (residual).
- TCTN, CSHT, CSK: are 3 independent variables of the research model.
- HGĐ: dependent variable in the research model (Household welfare).

To test the phenomenon of multicollinearity, the study applies the variance magnification factor (VIF), if this value VIF>10 is a sign that multicollinearity exists (Hair et al, 2010).

VIF coefficients range from 3.048 to 4.118 (<10), so it can be concluded that there is almost no linear multicollinearity in this model. The other standardized β coefficients are all different from 0, ranging from 0.271 to 0.348 with $p < 0.05$, showing that all 3 components of the household (independent variables) are good predictors of household welfare. The linear regression equation extracted by the coefficient of Beta is shown as follows

Unstandardized model:

$$HGĐ = \beta_0 + 0.296TCTN + 0.271CSHT + 0.352CSK + \varepsilon$$

Normalized model

$$HGĐ = \beta_0 + 0.302TCTN + 0.268\ CSHT + 0.353CSK + \varepsilon$$

From the above-normalized model, it shows that the policy "Other groups of policies (Policies to support people affected by the epidemic, policies to support electricity bills...)" has the most significant impact on household welfare. This is followed by "TCTN (of the Government)" and "Employees support policy of Hanoi People's Committee".

The results of the standard regression value (Standardized Coefficients Beta) show the importance of each independent variable with the dependent variable. The Beta value in the table above tells us the level of influence between 3 independent variables and 1 dependent variable. We see that the Beta coefficients show that these independent variables positively affect the level of household welfare. Specifically, as follows:

The standard regression value of the variable "Other groups of policies (Policies to support people affected by the epidemic, policies to support electricity bills...)" affects 35.3% of welfare. household benefit. Most employees are currently in a difficult situation in the context of the Covid-19 epidemic, which has been complicated and unpredictable in the period from 2019 to now. Therefore, the factor "Other groups of policies " has the greatest influence on the welfare of employees' households.

The standard regression value of the variable "TCTN (of the Government)" affects 30.2% of the level of household welfare. The prolonged epidemic is the cause of a series of companies and businesses having to suspend operations or even dissolve. This is the reason for the fact that thousands of workers have fallen into unemployment. Therefore, the factor "Unemployment benefit policy (of the Government)" has a great influence on the welfare of the employee's household.

The standard regression value of the variable "Employees support policy of Hanoi People's Committee" affects 26.8% of household welfare. When employees fall into crisis, the local government's policies to support and help play an important role in stabilizing social security for employees. Therefore, the factor "Employees support the policy of Hanoi People's Committee" affects the welfare of workers' households.

4. DISCUSSION

4.1. Some achievements

The policies to support employees have been going in the right direction and performing the right roles and missions for each employee. Especially in the current Covid-19 context, the impact of policies to support employees has become more pronounced than ever.

Policies to support employees are deployed and implemented quickly, on time, and suitable for each object and situation, which has helped employees' lives become more stable and less difficult. On the other hand, the policies also contribute to motivating employees to have more confidence in life, and at the same time open up job opportunities, which is a motivation for employees to find new sources of income. From there, it help solving employment problems for employees, improving the quality of the labor market, strengthen social security, and promoting economic development.

The results of the model analysis show that other groups of policies (policies to support people affected by the epidemic, policies to support electricity bills, etc.) are satisfied and supported by the majority of employees. There are long and complicated developments that greatly affect the employment and quality of life of employees. People rush to hoard food, causing food shortages, and a series of increased costs. increased electricity and water bills when employees have to self-isolate at home along with a series of other difficulties, so when this group of policies is approved and put into practice, it is like a lifesaver for employees. Not much, but it partly helps employees feel more secure, and partly improves their quality of life.

Besides, the unemployment benefits policy also has a significant impact on employees. As we all know, within 9 months of 2021 the number of enterprises suspending business for a definite term increased by 16.7% compared to the same period in 2020 and there were 32.4 thousand enterprises that ceased operations for a certain period. On average, up to 10,000 businesses withdraw from the market a month instead of 8.5 thousand in 2020. A series of laborers fall into a state of turmoil because of job loss, unemployment, and underemployment. The highest increase since the first quarter of 2020. Several industries and fields such as real estate, textiles, production, assembly, etc. are also greatly affected. Right now, the unemployment benefits policy is introduced as a solution to the difficult problem called unemployment. Unemployed workers have an additional allowance to cover their lives, at the same time the policy also opens up opportunities to find jobs as well as support jobs for employees in the form of opening vocational training classes, opening job fairs. The number of unemployed workers has decreased significantly, social security has been improved, this is one of the signs showing the effectiveness of precision.

Finally, the employee support policy of the Hanoi People's Committee, although it accounts for the lowest percentage of the three policies, however, the positive effects it brings to employees cannot be denied. The status of workers in Hanoi is paid more attention to, and difficulties and problems are also solved quickly and easily.

4.2. Some limitations and causes

Besides the achieved results, some shortcomings prevent support policies from promoting their inherent effectiveness.

Firstly, the perception of policies to support employees is still not correct and complete. The fact that employees do not declare or report dishonestly about their employment status is still quite common, which causes losses to the state budget and causes many financial support sources not to reach the right people who need support.

Secondly, the provisions of the law on unemployment insurance and related documents have many shortcomings and are not complete, leading to inadequacies and difficulties in implementation and enforcement.

Thirdly, some employees still have difficulty in receiving information about support policies, especially workers in remote areas.

Fourthly, the policy implementation apparatus has not fully promoted its resources and effectiveness in the implementation of supporting policies. The person who is reputable in mobilizing the people to obey the law and well implement the State's policies to support employees during the Covid pandemic has not fully played their role.

Fifthly, the current regulations on supporting policies and related regulations: review the subjects participating in unemployment insurance; implement the announcement of labor changes of enterprises; implement the annual notification to each employee about the payment of unemployment insurance; Receive and handle employee support policies, there is still the situation of wrong subjects, wrong regimes, and wrong deadlines.

Sixthly, the employment service centers are not effective and have not met the needs of employees.

Seventhly, the staff in the field of social policies under the State still have many limitations in terms of expertise and have not been able to thoroughly implement the support policy most effectively.

Eighthly, the coordination between agencies, organizations, and mass organizations directly related to employees is not good, there are still many barriers and limitations. Mechanisms and policies among agencies and organizations still lack unity and harmony.

Ninthly, there are still some negatives and limitations in the process of implementing support policies such as using the State's support budget for employees for personal benefits or making false statements to receive benefits.

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APPENDIX

Appendix 1

SURVEY TO EVALUATE POLICIES' EFFECT TO SUPPORT LABOURERS IN HANOI IN THE CONTEXT OF COVID-19

1. Gender:

☐ Male

☐ Female

2. How old are you?

☐ 1. From 16 to 30 years old

☐ 2. From 31 to 45 years old

☐ 3. From 46 to 60 years old

☐ 4. Above 60 years old

3. Where do you live and work?

☐ Inner of Hanoi

☐ Surburban of Hanoi

4. Education level of current board:

☐ Secondary school graduation

☐ High school graduation

☐ College/University

☐ Postgraduate (Master; Ph; ...)

5. Your current career status:

☐ Employed

☐ Unemployed

6. Your current occupation in the field of:

☐ Business

☐ Information technology

☐ Architecture and construction

☐ Education - Training - Health

☐ Law

☐ Food technology

☐ Tourism - Restaurants - Hotels

☐ Other

7. The type of organization that employees have been working for:

☐ Vietnamese company

☐ Foreign enterprise

☐ Government

☐ Business households and other organizations

☐ Freelancer

8. Your average monthly income before the Covid-19 pandemic (million VND)

☐ Under 10 million VND

☐ From 10 to 20 million VND

☐ From 20 – 50 million VND

☐ Over 50 million VND

9. Your average monthly income after the Covid-19 pandemic (million VND)

☐ Under 10 million VND

☐ From 10 – 20 million VND

☐ From 20 – 50 million VND

☐ Over 50 million VND

10. Your financial status in the context of Covid -19.

☐ Abundant

☐ Normal

☐ Difficult and shortage

11. In the context of Covid-19, what sources have you received support from?

☐ Relatives

☐ Enterprise

☐ Government

☐ No support received

12. Have you ever received help from any of the following support polices:

☐ Unemployment benefits policy (of the Government)

☐ Employees support policy of the Hanoi People's Committee

☐ Other groups of policies (Policies to support people affected by the epidemic, policies to support electricity bills...)

13. Rate your level of agreement with the following peak relationship:

1	2	3	4	5
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Appendix 2

Table 1. Rate the level of agreement of the employee's level of agreement with the employee's status and policies to support employees in the context Covid-19

Assessment	Rating level	
	Average	Efficiency rating
Covid – 19 makes my health state much worse	3.97	1.242
Covid – 19 makes me lose a part of my income	4.01	0.895
Difficulty in accessing food and food sources in the context of Covid – 19	3.70	1.209
Difficulty in accessing health services in the Covid-19 situation	3.60	1.059
The local government in the area where I live has been implementing a lot of policies to support employees in the context of Covid	3.63	1.123
The apparatus for implementing the policy of supporting integrity	3.61	1.124
The procedure and process for accessing support policies is simple and clear	3.74	1.132
The level of support of the policy is appropriate for each individual situation	3.73	1.141

Source: SPSS

Table 2. Satisfaction with the Unemployment benefits policy (of the Government)

Symbols	Assessment	Rating level	
		Average	Efficiency rating
TCTN1	The form of access to policy	3.76	1.116
TCTN2	Policy reception process	3.70	0.995
TCTN3	Policy implementation time	3.74	1.110
TCTN4	Number of days off in case of disease	3.67	1.056
TCTN5	The income that the policy supports	3.65	1.049
TCTN6	Policy's ability to support employment	3.74	1.047
TCTN7	Coverage of the policy	3.68	1.080

Source: SPSS

Table 3. Level of satisfaction with Employees support policy of Hanoi People's Committee

Symbol	Assessment	Rating level	
		Average	Efficiency rating
CSHT1	The form of access to the policy	3.74	1.101
CSHT2	Policy reception process	3.71	1.040
CSHT3	Policy implement time	3.67	1.040
CSHT4	The subsidy that the policy supports	3.64	1.083
CSHT5	The ability to support the employment of the policy	3.68	1.030
CSHT6	Policy coverage	3.70	1.042

Source: SPSS

Table 4. Satisfaction with other groups of policies (Policies to support affected people. benefits due to the epidemic, policies to support electricity bills....)

Symbol	Assessment	Rating level	
		Average	Efficiency rating
CSK1	The form of access to the policy	3.73	1.098
CSK2	Policy reception process	3.68	1.067
CKS3	Policy implementation time	3.68	1.065
CSK4	The subsidy that the policy supports	3.71	1.069
CSK5	Coverage of the policy	3.74	1.028

Source: SPSS

SUSTAINABLE DEVELOPMENT PRIVATE ECONOMY IN NEW CONTEXT

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Abstract: *After 36 years of renovation, the private economy in Vietnam has constantly been growing and making positive contributions to the country's socio-economic development. However, at present, the private sector is also facing difficulties and challenges, due to the impact of Covid-19, the Russia – Ukraine conflict, climate change and the inadequacies of the general economy as well as the private sector in particular. The question is how to ensure the sustainable development of the private economy, for it to become an "important driving force" of the economy. Using a historical approach combined with the dialectical logic method, comparative analysis method, statistical method, and synthetic analysis... the article focuses on analyzing the current situation of private economic development. in Vietnam today. From there, it identifies the challenges to the sustainable development of the private economy in Vietnam and proposes some solutions for the sustainable development of the private economy in the current context.*

Keywords: *Private economy, Sustainable development of the private economy.*

1. THE INTERNATIONAL AND DOMESTIC CONTEXT THAT AFFECTS SUSTAINABLE DEVELOPMENT OF THE PRIVATE ECONOMY

From the beginning of 2020 until now, the world has been facing increasing difficulties, challenges, risks and uncertainties.

The Covid-19 pandemic has caused serious impacts on the socioeconomic situation around the world. Major economies such as the US, Japan, and the European Union (EU) have fallen into deep economic recession, the worst in decades; Global trade declines, supply chains are disrupted, production and circulation activities are stagnant… The overall global GDP growth rate in 2020 is -3.3%. In 2021, the world economy has shown signs of recovery, with the world GDP growth rate in 2021 reaching 5.8%.

In early 2022, when the pandemic situation shows a tendency to stabilize, the war between Russia and Ukraine caused a spike in energy prices on the world market, negatively affecting the economies of many countries in the world, and at the same time causing a tremendous energy crisis. Moreover, the economies of the US and EU countries are facing high inflation and low consumer spending, causing these countries to implement tight fiscal and monetary policies. At the same time, the second super-largest economy, China, is also stagnating due to their Zero Covid

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policy. A series of shocks from wars to macroeconomic management policies of many countries have had and continue to have negative impacts on the world economy, which has already been weakened by the pandemic.

According to the World Economic Outlook for June 2022 by the World Bank Group, after more than two years of the pandemic, along with the spillover effects from the conflict between Russia and Ukraine, global economic activity plummeted, expected to reach only 2.9% in 2022, 1.2 percentage points down compared to the forecast made in January 2022. Economic activity in developed economies has been held back by rising energy prices, less favourable financial conditions and supply chain disruptions caused by the conflict between Russia and Ukraine. As a result, growth in developed economies is forecast to drop by almost half, from 5.1% in 2021 to 2.6% in 2022, 1.2 percentage points lower than the forecast in January 2022. Growth in developing and emerging economies is also forecast to halve this year, from 6.6% in 2021 to 3.4% in 2022, 1.2 percentage points lower compared to the forecast in January 2022.

According to the International Monetary Fund (IMF), due to the impact of the conflict in Ukraine and increasing price pressures, inflation is expected to continue to rise higher than previously forecast. The conflict is likely to have a protracted impact on commodity prices, with more severe effects on oil and gas prices in 2022 and food prices in 2023. In 2022, the IMF forecasts inflation of 5.7% across countries. developed economies and 8.7% in emerging markets and developing economies, 1.8 and 2.8 percentage points higher than forecast in January 2022.

Besides the shocks of epidemics and wars, in recent years, unusual climate change is a big and uncertain challenge.

Vietnam, unquestionably, is unable to avoid similar impacts as other countries.

The Covid-19 pandemic has had a profound and negative impact on the Vietnamese economy with a supply chain disruption. Businesses have had difficulties in exporting to traditional markets, many of which have had difficulties in exporting to traditional markets, and therefore experiencing downsizing, if not bankruptcy, dissolution, or suspension of operations.

Entering 2022, Vietnam's economy has maintained a strong recovery momentum despite increasing global uncertainty related to the protracted conflict between Russia and Ukraine, world commodity prices and supply chain disruptions due to China's Zero COVID policy. According to the World Bank's forecast, Vietnam's growth will reach 5.8% in 2022, higher than the expected growth of the Philippines, Malaysia, Indonesia and Thailand.

However, with a large economic openness, while the autonomy of the economy and domestic production capacity is still limited, risks and challenges to economic growth and macroeconomic stability of Vietnam are still present. Difficulties and challenges are increasing, especially inflation pressure, increased production costs, and supply chain risks; demand in large and traditional export markets weakens; competitiveness, protection, and stability of the domestic market; adjusting policies of major economies, trading and investment partners of Vietnam.

In addition, climate change, unusual happenings of natural disasters, epidemics, storms and floods, and water security... are the biggest challenges facing humanity and Vietnam is no exception. Climate change issues affect the entire population, all economic sectors, including the private economy.

In the context of world economic growth slowing down after two years of being affected by the Covid-19 epidemic, the impact of the conflict between Russia and Ukraine and climate change, the Vietnamese general economy and particularly the private economy are facing huge challenges.

2. CHALLENGES FOR PRIVATE ECONOMIC DEVELOPMENT TODAY

The private economy is an economic component based on private ownership of the means of production. The private economy is an important component of the national economy.

Along with the "Doi Moi" process, the perception of private economic development in the socialist-oriented market economy in Vietnam has had an important change. The 13th Party Congress has determined: "*Strongly developing the private economic sector in terms of quantity, quality, efficiency and sustainability, really becomes an important driving force in economic development*". As a result, the private economy is constantly growing, affirming its important role and driving force in the cause of innovation and socio-economic development of the country. It is shown: The private economy has made an important contribution to mobilizing social resources, transforming the economic structure, creating jobs, increasing incomes for workers, especially in the fields of investment. tourism business, urban areas, automobile production, high-tech agriculture, commerce, and services. The outstanding efficiency of private economic groups such as: Sun Group, Vingroup, Thaco, Masan, FPT... recently shows this quite clearly. These corporations are not only leading in the fields of domestic activities but also have been successfully building and developing products and works of regional and international stature. In the period 2016-2020, the private economic sector achieved an average growth rate of 10.4%/year (higher than the rate of 7.53%/year in the period 2011-2015), surpassed the FDI sector (average growth of 8.9%/year in the period 2016-2020).

However, besides the achieved results, the private sector also faces challenges due to the limitations and inherent inadequacies of the economy in general and the private sector, particularly the points discussed below:

Firstly, the scale of private sector is small, the management level and financial capacity are still weak. Currently, only about 1.7% of private enterprises have large scale, the remaining 98% have medium, small and micro scale, of which micro enterprises account for 78.2%. Besides, the ability to connect and link between private enterprises and between private enterprises and foreign enterprises in Vietnam is still weak, so the development of private enterprises is very fragmented.

Secondly, the internal strength of the private economy is still weak, mainly in the household economy and the individual economy. In 2021 household economy, and individual economy accounted for 29.54% of GDP while other parts of the private sector account for only 9.65% of GDP. For non-agricultural individual business households, the capital and labour size of these households are also very low: 150.61 million VND and 1.69 people.

Thirdly, the scientific and technological capacity of private enterprises is limited, and in some places, it is still backward; enterprises have not prioritized investment in innovation activities to improve and enhance competitiveness, especially core and pioneer technologies. Currently, the investment of enterprises in technological innovation only accounts for about 0.3% of revenue, much lower than in countries such as India (5%) and Korea (10%). Therefore, labour productivity and business efficiency are still low. According to the General Statistics Office, the average labour productivity of the private sector is only about 34% of the labour productivity of the state-owned enterprises and about 69% of the labour productivity of the private enterprises. foreign investment capital. The productivity growth rate of the private economic sector is still low. In 2021, the productivity growth rate of the state economic sector was 7.6%, of the economic sector with foreign investment capital was 3.2%, while that of the private sector only reached 2.7%.

Fourthly, the linkage is weak, and the ability of private enterprises to participate in domestic and international value chains is still low. Currently, only about 21% of small and medium-sized enterprises can participate in a part of the global value chain, 14% succeed in linking with foreign partners, while the number of enterprises with direct investment capital from abroad in Vietnam is very large.

Fifthly, the negative impact of the Covid-19 pandemic is causing disruption of goods circulation and supply chains in the country, business activities of enterprises were delayed, many private enterprises stopped operating, experienced dissolution and bankruptcy, facing financial difficulties, especially cash flow difficulties to maintain regular operations. According to BIS and WB, private sector debt/GDP of Vietnam: in 2021 at 125% of GDP, in a fairly high position (15/156 of the world), higher than the world average (98.6%) and middle-income countries (106.5%), although lower than most ASEAN countries and China. Therefore, this index is about on average 0.52 points. If this ratio continues to rise, it will put pressure on the need to increase capital and possibly increase bad debts for the banking system, especially in the context of many difficulties for businesses.

In addition, the number of businesses registering for new establishment and re-entry into the market decreased continuously in 2020-2021 and the number of temporarily closed businesses also increased sharply. The rate of temporary closure of businesses in 2020 and 2021 is 71% and 26%, respectively.

Sixthly, now, private businesses are entering the post-pandemic recovery phase. However, besides financial difficulties, private enterprises face difficulties in recruiting workers (shortage of both quantity and skills of workers). In particular, the lack of skills of workers has been and is also a major obstacle to the performance of private enterprises.

The practice of developing the private economy in Vietnam is posing requirements and finding solutions to the problem of how to sustainably develop the private economy in the current context.

3. SOLUTIONS FOR SUSTAINABLE DEVELOPMENT OF THE PRIVATE ECONOMY IN THE NEW CONTEXT

To sustainably develop the private economy and the private economy to truly become an important driving force of the socialist-oriented market economy in Vietnam in the current context, it is necessary to implement a number of synchronous solutions. In particular:

Firstly, it is necessary to continue to have mechanisms and policies for the private sector to develop further and become the "leading cranes" of the economy, especially in the current difficult period.

Secondly, it is critical to renovate financial mechanisms and policies to promote the development of the private economy. To create conditions for the private sector to overcome capital difficulties, it is necessary to eliminate the actual unequal treatment in borrowing capital between state-owned enterprises and enterprises of other economic sectors. At the same time, Vietnam needs to innovate and perfect the credit mechanism and guarantee loans to meet the development requirements of the private economy.

Thirdly, Vietnam needs to continue to improve mechanisms and policies to attract private investment into private economic activities according to the market mechanism. It is critical to support the private economy to access and exploit opportunities in international integration, market expansion, investment and international trade. Additionally, conditions for the private economy to develop need to be established, and capacity building is needed to gradually participate deeply and firmly in regional and global value chains. Connection and linkage along the value chain between private sector enterprises and foreign-invested enterprises need to be strengthened. It is also essential to focus on promoting the development of medium and large-scale private enterprises, develop a number of large private economic groups with strong potential, capable of regional and international competitiveness...

Fourthly, it is essential that Vietnam improve the internal capacity of private enterprises, and innovate the governance model in accordance with international practices. In addition, supporting the private economy to raise the level of science and technology, cooperation, and transfer of clean technology from developed economies. The private sector needed to be encouraged to invest in research and development activities, and to transfer advanced technologies. The formation and development of large private economic groups with strong potential and regional and international competitiveness also require support.

Thursday, stronger legal and structural reforms are needed to create a stronger foundation for competition and innovation in the economy. From there, the further development of the private sector should be promoted, so that the private economy truly becomes an important driving force of the socialist-oriented market economy. In addition, the role of industry associations in diversifying forms of association could be strengthened, thereby promoting cooperation instead of market sharing competition.

Sixthly, human resources for innovation and entrepreneurship should be developed. The quality of education and training need improvement, especially in vocational training, and train high-quality human resources to meet the demand for quantity and quality of human resources for private economic development. Cooperation and close linkage between enterprises and training institutions is also important, for training to be developed according to the needs of enterprises and the market.

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ECONOMIC DEVELOPMENT OF CRAFT VILLAGES CONNECTED WITH TOURISM IN HANOI

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Abstract: *Rural economic development is one of the important tasks specified by the 17th Hanoi Party Committee in Program No.04-CTr/TU on "Promoting the effective implementation of the National Target Program on building new rural areas associated with restructuring the agriculture sector and developing the rural economy as well as improving the material and spiritual life of farmers in the period of 2021-2025". Hanoi has been focusing on implementing many solutions to support the development of traditional craft villages to accomplish this task. In particular, the orientation of economic development of craft villages associated with tourism is the right direction and has brought many signs of prosperity to the capital's tourism industry as well as contributed to improving economic and social life in craft villages. The article focuses on analyzing and clarifying the current situation of economic development of craft villages in association with tourism in some localities with craft villages in Hanoi, thereby pointing out the remaining limitations and suggestions, and proposing some solutions to promote this activity in the future.*

Keywords: *Craft village economy, craft village tourism.*

1. INTRODUCTION

The economic development of craft villages combined with tourism is an economic activity associated with cultural identity. Because craft villages are considered as a meaningful humanistic tourism resource, a "living museum" where the treasures of tangible and intangible cultural heritage are preserved, contributing to the value system of the national culture. Along with the development of society, today's craft villages not only carry basic characteristics in economic traditions but also attract tourists. Exploiting and promoting craft villages in the direction of tourism brings dual effects, both preserving and promoting the cultural values of the craft villages and bringing socio-economic benefits.

Hanoi is famous for being a land of hundreds of professions, with many traditional craft villages, each with its characteristics, not only bringing visitors attractive handicraft products, and interesting experiences but also interesting experiences. It also helps the capital's tourism industry to promote to domestic and foreign tourists the unique cultural values in the land of thousands of years of civilization. Over the past years, craft village tourism in Hanoi city has had a positive change not only in awareness of all levels and sectors but also with the active participation of socio-political organizations, industry associations along with the creative dynamism of the people, therefore professions, and craft villages have been restored, consolidated and increasingly developed. However, that development is still not commensurate with the potential of craft villages in Hanoi. The ratio of visitors to craft villages compared to tourists of the whole city is still low. Revenue is mainly from the sale of traditional handicraft products. Spending by tourists on visitor

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services is very limited. Craft villages are mainly just places to produce and supply products that have not been exploited in terms of cultural space. Activities to help tourists get experiences are not rich, craft village tourism in Hanoi still has many shortcomings.

The article focuses on analyzing the conditions of economic development of craft villages associated with tourism, and the actual situation of economic development of craft villages from tourism in some localities of Hanoi, thereby proposing some solutions to promote the development of craft village tourism in Hanoi in the coming time.

2. LITERATURE VIEW

According to Truong Minh Hang (2011), a craft village is a center for handicraft production, where artisans and many households specialize in long-standing traditional occupations. Craft villages are formed and developed in association with historical factors (must be formed in a certain time) and professional factors for a certain profession. The traditional economic activities of craft villages are agricultural production, in addition to non-agricultural activities, the production of a certain commodity is highly specialized and brings income to the whole village (Huynh Duc Thien, 2014). In the trend of integration and opening up, traditional craft villages are gradually regaining their important position in the economic, cultural, and social life of each ethnic group and country. Each craft village is like an image full of identity, affirming its unique and irreplaceable features, a vivid introduction to the country and people of each region and locality (Ngo Duc Anh, 2005).

In our country's private economy, the craft village economy is an important part, which has existed for a long time in history with the birth of handicrafts and craft villages. The craft village economy consists mainly of business households (a few are enterprises and cooperatives), all of which are owned by the private sector, demonstrating the strength of the people in the development of the country and still having a lot of potentials. The craft village economy has the core identity of the national culture that has been handed down for many generations. The craft village economy creates jobs in handicrafts for rural residents, with incomes 2 -3 times higher than in purely agricultural areas, contributing to improving living standards, and ensuring social security and local economic development (Vu Quoc Tuan, 2021). In recent years, the economic development of craft villages associated with tourism is the main direction in craft villages, because the development of craft village tourism is not only reflected in the growth figures of economic profits, and the settlement of local labor resources, but also a way of preserving and conserving the identity, cultural values of the nation, human image, and the cultural beauty of each locality. Craft village tourism is increasingly attractive to tourists, especially foreign tourists, because of its long-standing cultural values and the creative way of creating unique handicraft products in each region (Pham Trung Luong, 2006).

In order to develop the craft village economy from tourism, localities need to have basic conditions, for instance, the needs of tourists with local craft village tourism, craft village tourism resources, craft village tourism resources, guidelines and policies for craft village tourism development, geographical location, technical conditions, and activities to introduce and promote craft villages and craft village tourism (Nguyen Thi Thu Huong, Nguyen Anh Tuan, 2019). These conditions will be the foundational factors, creating advantages and potential to help localities better implement economic activities associated with tourism.

Gao J and Wu B (2017) want to exploit the advantages of craft villages to develop craft village tourism, and cannot fail to mention the attention of the State and local authorities where craft village tourism activities are carried out. The policies and guidelines for the development of craft village tourism of the State and localities have a great influence on the development of craft village tourism. Local authorities and the State need to be aware of the value of traditional craft villages in tourism development, and since then issue many effective policies to encourage local people to develop craft village tourism. According to Nguyen Thi Thu Phuong (2018), the main groups of solutions to support the development of craft village tourism include: completing and accelerating the approval and implementation of the master plan on the development of craft villages associated with tourism; supporting training and transplanting traditional professions; increasing investment in building infrastructure for tourism; organizing tours and tourist routes to craft villages associated with visiting historical and cultural relics; training human resources to develop craft village tourism; advertising the promotion of craft village tourism; strengthening inter-sectoral and inter-regional cooperation in craft village tourism development.

3. RESEARCH METHODS

The author mainly uses statistical - descriptive, statistical - comparative methods to analyze and evaluate the current situation of economic development of craft villages from tourism in some localities in Ha Noi.

The secondary data system is collected at the Hanoi Department of Tourism, the Hanoi Department of Agriculture and Rural Development, the Hanoi Department of Industry and Trade, and localities with craft villages associated with tourism.

4. RESEARCH RESULTS

4.1. Conditions for the economic development of craft villages from tourism in Hanoi

In recent years, besides the types of tourism that are Hanoi's strengths such as cultural-historical tourism, spiritual tourism, eco-tourism, etc. craft village tourism has also become a promising direction to attract tourists to the city.

**** Demand for craft village tourism***

Many tourist attractions which are craft villages of Hanoi, such as Van Phuc Silk Village, Bat Trang Pottery Village, Ngu Xa Bronze Casting Village, Tay Tuu Flower Village, etc. have also attracted a large number of tourists. Each craft village of Hanoi has its own cultural characteristics, expressed from the village gate, the temple of the craft ancestor, or in each sophisticated product created.

According to a report by the Hanoi Department of Tourism, the capital's tourism industry has continuously developed over the years, creating an impression in the eyes of domestic and foreign tourists. In 2019, Hanoi welcomed nearly 29 million tourists, an increase of 10.1% compared to 2018. Of which there were more than 7 million international visitors, an increase of 17% compared to 2018 (with 4,931 million international staying ones). Domestic visitors reached nearly 22 million, an increase of 8% compared to 2018. Total revenue from tourists reached 103.807 billion

VND, an increase of 34% compared to 2018. In the period 2020-2021, in the face of complicated developments of the Covid-19 pandemic, the capital's tourism industry in general and craft village tourism in particular also had to face many difficulties when tourism demand dropped abruptly due to "restrictive movement" or "social distancing" policies of the Government. However, the capital's tourism industry was always ready to restart when the State's "relaxing" policies were implemented. Specifically, during the holidays of April 30, and May 1, 2020, many tourist areas and destinations of Hanoi reopened, welcoming thousands of tourists. This shows that the tourist demand of the people is very large. During the four-day holiday, the total number of tourists to Hanoi reached more than 21.000, most of whom were domestic visitors. Total revenue from tourism reached 68 billion VND. The demand for the resort in some tourist areas achieved about 60-68%.

In recent years, the number of people visiting Bat Trang Pottery and Porcelain Village has been increasing. Only in 2018, there were 923 groups of tourists with 15,534 turns of people, of which international visitors are estimated for more than 20%.

** Craft village tourism resources*

In the development of cultural tourism, with a long history of development, Hanoi possesses a lot of rich cultural and natural tourism resources such as the Imperial Citadel of Thang Long, Temple of Literature – Quoc Tu Giam, The quiet old quarter, Traditional craft villages and valuable landscapes, including West Lake, Hoan Kiem Lake, etc. Therefore, Hanoi attracts the largest international tourist in the country by its contemplative beauty, elegance, civilization, and politeness with the modern rhythm of life.

Hanoi is famous for being a land of hundreds of professions, with many traditional craft villages, each with its own characteristics, not only bringing visitors attractive handicraft products, but also interesting experiences. It also helps the capital's tourism industry to promote to domestic and foreign tourists the unique cultural values in the land of thousands of years of civilization. Hanoi is located in the central area of the Red River Delta, which has 1350 craft villages, accounting for the largest number of craft villages in the country, converging 47 out of a total of 52 traditional occupations in the country.

According to a report by the Hanoi Department of Agriculture and Rural Development, by the end of 2021, Hanoi had 318 recognized traditional craft villages in 23 districts and towns. Of which, 48 villages have been recognized as traditional craft villages, 270 villages have been recognized with the title of "Craft Villages" with 6 per 7 industry groups. There are (1) processing and preserving agricultural, forestry, and fishery products with 67 craft villages; (2) production of handicrafts with 22 craft villages; (3) production of wooden furniture, bamboo, and rattan, ceramics, glass, textiles, yarns, embroidery, knitting, small mechanics with 196 craft villages; (4) production and trading of ornamental animals with 12 craft villages; (5) handling and processing raw materials for rural trades with 16 craft villages; (6) services in production and daily life of rural residents with 05 craft villages.

Hanoi is also famous for its culinary tradition with many famous delicious dishes such as Pho Cuon, La Vong fish cake, Bun Thang, Trang Tien ice cream, etc. Thereby attracting a lot of tourists.

Ecotourism combined with spiritual cultural tourism is also another great advantage of Hanoi tourism. Hanoi has many cultural relics throughout the area, so organizing tours to discover heritages combined with visiting craft villages and ecotourism has also been effective.

**** Geographical location, technical conditions***

With the advantage of being the capital of a thousand years of civilization, domestic tourists choose to come to Hanoi in the top position in the country. Hanoi is also the center of receiving and distributing tourists to the northern tourist localities and other domains in the territory of Vietnam as well as to countries in the regions. Hanoi is located in the center of the North, and connecting traffic from here to other provinces of Vietnam is relatively convenient, including by air, road, waterway, and railway. This is the traffic hub of five domestic railway lines and one connecting route to Beijing (China) and many European countries.

Hanoi is the capital with a beautiful and convenient location, the center of politics, economy, culture, and science, and an important traffic hub of the country. As one of the two largest tourist centers in the country, Hanoi plays a very important role in the development of tourism in the whole country in general and in the North in particular.

Hanoi is also one of the busiest shopping centers in the country. The best area for shopping in Hanoi is the Old Quarter. Those are narrow streets but packed with stalls and shops. The streets surrounding Hoan Kiem Lake are the most important commercial streets and also the place where most of the shops are located such as Hang Gai, Hang Be, Hang Bong, and Hang Giay. In addition, there are many large commercial centers serving tourists with shopping demands when traveling to Hanoi.

In the past few years, Hanoi has always been voted by some of the world's leading prestigious travel magazines such as Travel and Leisure (USA), and Smart Travel Asia (HKG), and won the title of Top 10 most attractive tourist destinations in Asia. In 2019, Hanoi was continuously picked as an impressive destination by tourism organizations and prestigious travel information sites in the world. Notably, Hanoi is honored to be one of 19 candidates for the category "World's Leading Cities Destinations 2019" to vote at the World Travel Awards - the most prestigious award of the world tourism organization.

**** Human resources for craft village tourism***

Human resources directly involved in tourism activities in craft villages are artisans and local communities. This is an important link in the movement of tourism in general and craft village tourism in particular. In terms of artisans in craft villages, this force is thinner and all are old people, typically Van Phuc silk weaving village has only 18 artisans, most of them are elderly, in which the oldest artisan is at the age of 90, the youngest weaver is also at the age of 40. The bamboo and rattan craft village of Phu Vinh (Phu Nghia commune, Chuong My district) currently has only 6-7 artisans. According to statistics from the Hanoi Department of Industry and Trade (2020), the number of skilled workers in craft villages accounted for just over 10% of the total number of employees, of which the number of masters in the profession was estimated at only about 1.5%. The workforce is mostly seasonal workers with low qualifications and skills. The young workforce with the strength of being dynamic and agile in catching new trends as well as applying technology to production tends to "migrate" to new jobs with more attractive incomes. Currently, there is also a part of professional tourism workers from travel companies in the city to participate in tours in craft villages, but there are still few.

The Hanoi Department of Tourism has coordinated with the People's Committees of the districts to organize a training conference on tourism civilized behavior to improve tourism skills for craft villagers. The training program shared practical experiences, style guides, communication attitudes, and needs of visitors when visiting tourist destinations, etc. Many famous artisans, after listening to the training, were surprised and realized that, for a long time, they have been good at creating products, but they do not know how to sell products or do tourism. People must be equipped with tourism knowledge to overcome weaknesses in welcoming visitors. The pride in one's village must be aroused in their hearts so that they can share with tourist stories of culture, history, and traditional crafts.

**** Guidelines and policies to develop craft village tourism***

Over the past time, Hanoi has had many policies to promote the development of craft villages in association with tourism. Specifically, in the Capital's Tourism Development Plan to 2020, with a vision for 2030, Hanoi also identifies craft village tourism as a key direction. The city has paid attention to investing in upgrading transport infrastructure, electricity grid, clean water, improving the environmental landscape, forming a team of local narrators, and organizing meetings with artisans, and skilled workers. Besides, the Hanoi People's Committee also supports craft villages to build brands, promote and introduce products, handle environmental pollution problems, set up parking lots, etc. Trade village tourism in the city has had a strong development.

The Hanoi People's Committee issued Decision No. 14/QD-UBND dated January 2, 2013, approving the master plan for the development of professions and craft villages in Hanoi until 2020, with a vision for 2030, indicating a list of projects prioritized for investment, of which there are 17 projects to develop craft villages associated with tourism. Specifically, two tourist villages, namely Bat Trang Pottery Village and Van Phuc Silk Village, are oriented to be built into national and international tourist attractions.

**** Activities to introduce and promote craft villages and craft village tourism***

Hanoi's traditional craft villages are increasingly attractive to tourists because of long-standing cultural values and the creativity of artisans through each typical handmade product. Tourists to Hanoi's craft villages can not only admire the landscape of a typical rural village in the Northern Delta with banyan trees, wells, and courtyards but also visit the production site and directly interact with the craftsmen and participate in trialing some production stages of products. This creates a unique attraction for craft village tourism.

Over the past time, many localities with craft villages have also focused on investing in infrastructure, facilities, and services for tourism development such as standard accommodation, dining, and shopping services. They also install tourist signs, traffic instructions, and public toilets, and protect the environment. It is important to develop a team of local guides as well as promote propaganda and promotion to attract tourists.

4.2. Situation of economic development of craft villages from tourism in some localities in Hanoi

From the economic point of view, the total annual revenue from craft villages in Hanoi is estimated at over 20,000 billion VND on average. The craft village economy has grown in terms of revenue, production, and export value over the years. In which, there are about 100 craft villages with a turnover of 10-20 billion VND per year, nearly 70 craft villages with 20-50 billion VND per year, and about 20 craft villages with over 50 billion VND per year, making a significant contribution to the local budget. Along with large revenue, the development of craft villages also helps to improve income for workers. This figure currently reaches an average of 5-6 million VND per person. This level of income is generally low and unequal but still higher than that of purely agricultural workers. Particularly, craft village employees in some districts earn 60 million VND one person per year such as Nam Tu Liem, Tay Ho, Hoai Duc, Bac Tu Liem, Thach That, etc.

In economic activities in craft villages, besides focusing on production, tourism is an activity that contributes greatly to the increase of total income in craft villages through the creation of tourism products, especially cultural and spiritual tourism, with cultural relics, traditional festivals, history of the ancestors. It is a place for tourists to interact with artisans, learn techniques and skills for crafting handicraft products, and exchange, buy and sell products in craft villages.

Bat Trang Pottery Village and Van Phuc Silk Village are two craft villages selected by the Hanoi People's Committee and the Craft Village Tourism Association as a model for investment in developing synchronous transport infrastructure, both by road and by river, electricity, clean water, tourist port, handicraft cluster, craft village market in order to create a highlight for the type of Hanoi craft village tourism to develop and contribute to promoting local socio-economic direction. The economic development of craft villages associated with tourism will enhance the image and name of the craft village, moreover, products are accessible to many domestic and foreign tourists, creating jobs and increasing incomes for local workers as well as contributing to the stable development of craft villages and handicrafts.

**** The craft village economy is associated with tourism in Bat Trang pottery village***

Bat Trang Pottery Village is one of the long-standing and famous craft villages in Hanoi. It is 12 kilometers from the center of Hanoi by road, 7 kilometers by waterway, and adjacent to Van Giang district (Hung Yen province), Bat Trang Pottery Village is considered one of the key tourist routes of Hanoi. Bat Trang commune still retains many unique features of an ancient pottery village of Hanoi associated with the history of formation, existence, and development of Thang Long - Hanoi. Besides the village tradition, the long-standing culture of Bat Trang commune has features such as village festivals, unique customs, and cuisine. It is an advantage for this local to develop various types of cultural and experiential tourism.

Bat Trang commune currently has 5 villages with nearly 9000 people and, socio-economic development in the direction of the industry - handicraft (accounting for about 53%), trade - service (accounting for about 47%) without agricultural production. The commune has nearly 1000 households producing and trading ceramics and a system of shops along the route from Giang Cao to Bat Trang village to introduce and sell diverse ceramic products to visitors. The value of income from tourism, trade, and services is increasing, making an important contribution to the socio-economic development of the locality. The average income per capita in 2021 was estimated at over 65 million VND for one person per year without unemployed workers. Besides, the craft village also creates jobs with stable income for about 5000 workers from other localities.

Besides the traditional craft villages, Bat Trang commune now has 9 historical, cultural, and architectural relics, 2 revolutionary resistance relics, 23 old houses, and 16 family churches where many cultural features are preserved of the old Bat Trang. In 2019, the Hanoi People's Committee had a decision to recognize Bat Trang as a tourist attraction in the capital. The Ministry of Culture, Sports and Tourism recognized "the traditional craft of pottery in Bat Trang village, Bat Trang commune as a national intangible cultural heritage". One of the new features of the Bat Trang tourist area is that visitors can visit and experience many interesting activities at the Center of Vietnamese Craftsman Village. This is a new construction with unique architecture, which is likened to the ceramics museum of Bat Trang, which is becoming a tourist attraction attracting many tourists.

In order to increase the attractiveness of craft village tourism in Bat Trang, the local government has constantly applied many solutions. For example, it applies 4.0 technology to develop smart tourism; embellishes and preserves many relics, including the communal house and the Bat Trang Literature, the old gourd kiln, and the artisan's house; implements synchronously the propaganda, promotion, and connection of Bat Trang Tourism on the mass media, on CNN TV channel, a live broadcast by 3600 technology on the website and in many other forms. The District People's Committee also encourages, facilitates, and supports the Bat Trang Ceramics Association, the Board of representatives of craft villages, skilled artisans, and businesses to actively participate in domestic and foreign fairs, exhibitions, and festivals as well as strengthen links between districts, towns and regions, and localities in the country. In recent years, Bat Trang craft village tourism has also achieved many remarkable achievements, for example, the number of tourists and visitors to experience doubled and sometimes tripled compared to previous periods.

**** The craft village economy is associated with tourism in Van Phuc silk village***

Silk weaving in Van Phuc (Ha Dong district, Hanoi) has long been famous for the talent of its artisans. For those who love Van Phuc silk, coming here is like going back to the roots with many old features. For generations, Van Phuc silk has only used traditional silk materials, created by the hands of workers. The precious thing is that the products here are made from natural ingredients, which have many advantages that are different from those floating on the market. Currently, Van Phuc silk village has about 300 households weaving and trading silk products. The stalls in the Silk Quarter are neatly and beautifully arranged to serve tourists. The stalls display a variety of new products, fashion designs, and handicrafts made from silk to meet the needs of visitors.

Van Phuc silk village not only organizes production and business activities well but also connects with tourism and services. Today, in addition to trading products made from silk, production facilities also combine models for tourists to visit and experience the process of making products, helping customers see the quality value of products. Especially well aware that if not maintaining the difference and uniqueness of Van Phuc silk, the craft village will be lost. The village's artisans have gradually restored the traditional weaving method and brought to market high-quality products with the traditional values on each silk screen, at the same time, products are improved, and more diverse in types and designs, along with different names for export in international markets.

In order to serve tourists during this year's tourist season as well as the 31st SEA Games, business establishments in Van Phuc silk village have produced a variety of products as gifts such as scarves, ties, and Ao dai to introduce and promote the products of the craft village to tourists. Tourism development in Van Phuc silk village not only preserves traditional culture but also creates jobs and improves income for local people. At the same time, it helps socio-economic development, enhances integration, and attracts a large number of tourists. Van Phuc ward has built Silk streets in combination with auxiliary industries to develop sustainable tourism and promote products. It includes the food street, the ornamental creature street, the center for cultural exchange of antiques, the development of accommodation, and shopping. Besides, this place has established the Vun Art Cooperative, which provides income for people with disabilities by using scraps of silk to assemble silk paintings for export abroad.

In addition, Van Phuc people are always responsible and self-conscious in preserving and creating landscapes on the streets, so environmental protection is focused to create a green, clean, beautiful, and friendly tourist space for travelers. In order to promote the inherent strengths of the craft village, the locality has propagated to households engaged in silk production and business activities about civilized and polite behavior without enticing to affect the image of the craft village and follow the rules of conduct in public. Moreover, production households in the village regularly, actively learn and approach 4.0 technology to promote and introduce products to domestic and foreign customers. Craft village associations and ward authorities have had programs to promote products for craft villages, and shops also arrange products more neatly and beautifully. Currently, the facilities design a variety of products, with new models, in line with trends to attract as well as make an impression on customers. In particular, production facilities and workshops are committed to strictly complying with environmental regulations, ensuring harmony between economic development and environmental protection.

**** General situation of craft village economy associated with tourism in Hanoi***

However, except for the above-mentioned attractive craft villages, some craft villages are almost forgotten or absent from tourists even though they are listed in tour products of travel agencies. Worryingly, craft village tourism still develops spontaneously and lacks professionalism. At many craft village tourist spots, most of the tours spend time for visitors learning about the craft village by themselves or going to the factory to buy handicraft products. Most craft village tours do not have a guide to explain to visitors the unique features or development history of the craft village. Obviously, the stage of designing tours to attract tourists has not been invested in depth by travel companies. Besides, the general situation of people in craft villages is lack of knowledge about tourism and foreign languages. People have no understanding of marketing and receiving tourists. As a result, it is difficult for tourists to learn about the culture and production practices of the destination because there is no chance to interact with the people and their work. The reasons for this situation can be mentioned as follows:

Firstly, it is the delay in approving the detailed planning for conservation and development of craft villages in combination with tourism, thereby slowing down the process of making infrastructure investment projects and attracting investment in tourism services in order to build it into a tourist destination of national and international standards. Specifically, the Hanoi People's Committee also issued Decision No. 14/QD-UBND dated January 2, 2013, approving the master plan for the development of professions and craft villages in Hanoi until 2020, with a vision for 2030. The decision has indicated a list of prioritized investment projects, of which there are 17 projects to develop craft villages associated with tourism. However, so far, only 02 out of 17 craft villages have applied the model of developing craft villages and cultural relics associated with tourism very successfully, namely Bat Trang Pottery Village and Van Phuc Silk Village.

Secondly, the infrastructure for tourism development in craft villages is still limited, the roads are degraded, there is a lack of space for production activities, and there is no area to display and introduce the products of the village of districts, and towns.

Thirdly, human resources for tourism development in craft villages are still weak and inadequate. The team of guides and narrators in craft villages have not been properly trained in professionalism, expertise, and foreign languages. The people's awareness and skills in tourism are still limited, and some craft villages still have the phenomenon of price pressure, selling fake and faulty goods. People in the craft village lack general knowledge about culture, business tourism, and foreign languages as well as the ability to communicate with tourists, therefore it is difficult to introduce the culture and history of the craft village.

Fourthly, the ecological environment in craft villages in Hanoi is also a problem causing many inadequacies as well as creating barriers to attracting tourists to craft villages. Environmental pollution in craft villages has not been completely handled. Most of the production households take advantage of the residential land area as a production base, the production scale is small and spontaneous, and the production mixed with daily life causes many inadequacies in environmental protection, especially in the collection and treatment of production wastewater.

4.3. Some recommendations and solutions to develop the craft village economy from tourism in Hanoi in the near future

On the side of the Hanoi People's Committee: Hanoi needs to soon complete the master plan for the development of craft villages to develop tourism. At the same time, it synchronously implements a series of policies, for instance:

- Strengthening education, propaganda, and raising awareness of people in craft villages associated with tourism.

- Promoting the training of human resources in craft villages through policies to support human resource training, funding for professional training, and a part of the cost for rural vocational establishments to directly open vocational training classes. It conducts formal training on tourism skills for people and forms a team of professional narrators in craft villages. It is necessary to promote the application of scientific and technological achievements to the training program for craft village workers, thereby creating motivation for them to actively explore, innovate and improve techniques and apply them to production in order to reduce product costs and free up labor. When employees realize the good effects of support policies, stable incomes, and respect in society then traditional craft villages in general, young artisans in particular will bring into full play their inherent abilities and strengths, and are ready to continue their traditional craft in the locality. At the same time, there is a policy of caring and supporting for craft village businesses as well as artisans because they are the keepers of traditional values, the nucleus for the craft village to preserve and develop sustainably.

- Implementing policies to support the development of craft villages: The City People's Committee also needs to have programs to promote and encourage the development of craft villages such as production premises, investment, credit, and trade promotion. It needs to support the development of rural industries and continue to improve the mechanism for businesses and production households in craft villages to access credit sources, and loans from banks with preferential interest rates. The local government helps craft villages to build and develop their brands, collective branding, trade promotion, etc. If this advantage can be exploited, it will create a unique tourism product for Hanoi, contributing to speeding up the economic recovery process of Hanoi's localities in developing craft village tourism.

On the local side, there are craft villages associated with tourism: Each district, town, and commune with craft villages associated with tourism should actively plan the development following the current situation and existing resources of the locality. It seeks and attracts investment, and proceeds to build at least one model of a specific agricultural and rural tourism linkage chain with the participation of farmers-cooperatives-business households-enterprises. Each district and town will actively set up chain stores to introduce local products to create highlights of craft villages, serving people and tourists to visit and shop for local craft products.

5. CONCLUSION

Craft village tourism is considered a type of tourism with great potential because of its vividness, diversity, and richness. Over the years, many craft villages in Hanoi have taken advantage of the available resources to exploit tourism potential and have had initial successes, becoming attractive destinations for tourists. These achievements are thanks to the initiative of the local government in coordinating with other sectors to preserve and promote traditional craft villages, build unique craft village products, call for investment, and mobilize economic sectors to participate under the motto of socializing tourism products. Moreover, it is important to create a team of tourism workers by training and fostering professional skills, etc.

Along with that, it issues or proposes preferential mechanisms and policies, creates a legal corridor for investors, and supports them in tourism services such as road construction, promotion, and introduction of tourism products and, a beautiful environment. With a series of support solutions from the city and localities, it is hoped that the craft village economy associated with tourism in Hanoi will achieve more success in the coming time.

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FACTORS AFFECTING REAL ESTATE PRICES IN VIET NAM

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Abstract: *The real estate market plays an important role in economic development. The study of factors affecting real estate prices contributes to making recommendations in formulating policies related to the sustainable development of the real estate market. Through surveying the opinions of 247 investors in Hanoi in the period from June to September 2022, this study use Exploratory factor analysis, Confirmatory factor analysis Structural Equation Modeling to quantify the factors affecting real estate value, results shows the factors affecting the price of real estate arranged in order of importance as follows: (1) Natural factors, (2) Legal factors, (3) Economic factors, (4) Social factors, (5) Macroeconomic factors, (6) Policy factors.*

Key words: *Real estate prices, factors affecting real estate prices, SEM.*

1. INTRODUCTION

The real estate market plays a very important role in the development of the economy, contributing to promoting investment capital mobilization, promoting production development, increasing State budget revenues, expanding markets, and contributing to socio-economic stability.

Like other markets, the real estate market is a bridge between production and consumption, and is a place for buyers and sellers to exchange information. If the transaction is successful, it means that the products turn into an intangible value form - affecting the capital turnover of business entities.

The Vietnam Real Estate Association has recently released a study showing that the contribution of the real estate market to GDP in the period of 2019-2021 is about 14%. The real estate market has the ability to spread to over 40 other important sectors of the economy and become a bridge for other markets, contributing to the synchronous development of all types of markets. Since the mid-1990s, Vietnam's real estate market has had periods of hot growth, followed by periods of decline and freezing, and then rebounded strongly. The ups and downs of the real estate market is in the same direction as the growth of the economy. Conversely, the "fever" or "freezing" periods of the real estate market have serious impacts on the economy, businesses, banking system, real estate investors and consumers. Therefore, the Government needs to pay attention and have appropriate mechanisms and policies for the development of the real estate market. In particular, the study of factors affecting the price of real estate contributes to making recommendations in the formulation of relevant policies.

This study focuses on analyzing and clarifying the groups of factors that affect the price of real estate including: natural factors, economic factors, social factors, legal factors, policy factors and

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macroeconomic factors. Besides the introduction, the paper includes the following parts: the second part is literature review and the proposed model. Part 3 is the experimental results. Section 4 is the conclusion and policy implications.

2. LITERATURE REVIEW

Research on the real estate market in general and on the real estate prices in particular has always attracted the attention of many scholars and researchers in the past. It is generally believed that there are many factors affecting the price of real estate. To verify this belief, some research was done, and the results are:

Selim (2008), the factors that determine the price of housing in Turkey has been analysed using the 2004 Household Budget Survey. The main factors affecting the housing price were the type of house, type of building, number of rooms, size of the house and other structural variables. The results obtained with hedonic models and artificial neural networks were compared. It was found that the properties determined from these results did not show any multiple linearity between the explanatory variables.

Topçu and Kubat (2009) investigated the urban and spatial variables affecting the land value in residential areas in Istanbul. As a result of the study, it was determined that the distance to the sea, the distance to the central business area, the distance to the university, the distance to the health facility were the factors affecting the land change.

Çetintahra et al (2011) tried to measure the effect of environmental aesthetics on house prices by a hedonic price method. Information was obtained from real estate brokers and surveys from a region selected from İzmir/Karşıyaka for many leased and purchased housing units. The results were analysed by a hedonic pricing method; used for renting and for sale housing separately. The study explored the economic values of urban design discipline, economic science, real estate and property sectors and the economic values of physical environment factors. As a result of the research, the physical criteria of the residence, "the desire to have housing", influenced the purchase price and the "environmental" factors of the housing that has "complex" and "well-maintained" status affected the rental value.

Yayar and Gül (2014) determined the factors affecting the value of the apartments in the city centre of Mersin using a hedonic estimation method. The usage area of the house, kitchen size, distance to the market, number of bathrooms, garage, central satellite system, private security and elevator variables increase the price of housing, the fact that the house has a garden, is within the site, away from public transportation vehicles and the former has reduced the price of housing.

Pan XIAO (2015) 'study shows that: Firstly, from the perspective of the macroeconomic factors affecting China's real estate market prices, the per capita disposable income, the consumer price index and real estate development investment are major factors affecting prices. The per capita disposable income has the largest impact, followed by the completion of the housing area. Secondly, from the perspective of the short-term factors affecting China's real estate prices, the expected price is a very important factor. The past-1-period price has maximum impact on current prices. Thirdly, from the perspective of the dynamic impact on the real estate prices, the promotion of the completed housing area on the price is the most effective and longest one. While the effect of the money supply lasts the shortest period, and the promotions of real estate development investment, GDP and the consumer price index for housing prices are between them. Fourthly, from the perspective of real estate prices contribution rate, the contribution rate of the expected price is the largest, but shows a gradual downward trend, followed by residents' per capita disposable income, whose contribution rate decreases. While the money supply and real estate development investment have the minimum contribution rate.

Bojan Grum et al (2016) emphasis on the statistical-mathematical analysis of a potential influence of particular selected variables, which are related to unemployment, share index, current account of a country, industrial production and gross domestic product (GDP), on the prices of residential real estate in various economic, cultural and social environments, i.e. in Slovenia, Greece, France, Norway and Poland. The implemented research provides an insight into factors connected with the price of residential real estate in different economic, cultural and social environments. Within the scope of the research, we have tested a hypothesis that the selected variables linked to unemployment, share index, current account of the country, industrial production and GDP were related to the prices of residential real estate in the capitals of the selected countries: Slovenia, Greece, France, Norway and Poland. The results of the final multiple regression models for individual selected economic, cultural and social environments have demonstrated that the connection of the variables chosen for the model with the price of residential real estate differed depending on the observed environment

The study by Jingxin Gao (2017) shows: the matrix was quantified with the application of interpretive structural model ISM normalization method. Finally, the hierarchical structure model, the order structure and hierarchy structure of the influencing factors of real estate housing price clearly indicates the importance of relationships between variables. The results of the model analysis showed that, property management companies, brand value, population structure, education welfare state, political stability, disposable income growth, economic growth, land policy, real estate tax policy, living facilities, convenient living and other factors are the fundamental factors affecting the residential real estate prices. They have an important impact on the price of real estate.

In the study by **Afşar et al (2017)**, it was aimed at determining the effect levels of these factors within the framework of the hedonic price model of the factors affecting the house sale prices in Odunpazarı and Tepebaşı districts located in Eskişehir. Semi-logarithmic form was used as a functional form. As a result of the research, housing, the number of rooms, the number of bathrooms, the use of central heating, the presence of the car park, the presence of the built-in kitchen, the presence of the parental bathroom, the presence of the first floor of the residence were determined as the factors determining the sales prices in the dwellings.

Yılmazel et al (2018), In the artificial neural network models, 19 different models were obtained by differentiating the secret layer neuron numbers and comparison of the performances of these models was made and the most suitable secret layer neuron number was determined. The size of the house, the number of rooms, whether it is located on the first floor or not, the total number of floors, central heating, the number of bathrooms, the elevators, the car park, the kitchen, the fibre internet, and the distance to the tramway were taken into consideration.

Khaled Kalam et al (2018) had mainly focused on the macroeconomic factors to determine the house price of three giant countries in Asia: Russia, China and India. The paper is based on linear regression model, to understand the problem area and conclude the result. The observed macroeconomic factors are Gross Domestic Product, Interest Rate, Consumer Price Inflation, Population Density per square (KM) and Unemployment which are significantly associated with property prices in relation to the different cultural environments of the three countries. The study shows that a statistically significant relationship reflects on Population Density for all three countries. All of the three countries have a large number of populations but still house price in Russia is declining and on the other hand consumer price inflation rate is affecting house price of India. The study showed among all of the countries only Russia has declined house annual basis, between the observed cultural environments in the observed time interval which may be caused by inflation rate and population declining very rapidly.

Nur Sabrina Abdul Latif et al (2020) 'study has identified several factors, namely foreign direct investment (FDI), gross domestic product (GDP), interest rate, unemployment and inflation for purposes of discussion. Hence, it is important to understand the factors affecting the housing prices in Malaysia for government and policy makers to make decisions. This study is made to provide answers for factors affecting Malaysia's house prices.

3. METHODOLOGY AND PROPOSED MODEL

3.1. Methodology

In this study, the researchers used both the qualitative and quantitative methods.. From the above theoretical basis, the research team used a survey consisting of 34 questions using a 5-level Likert scale to show the importance of the following factors affecting the value of real estate including: 1 (It isn't important at all); 2 (no important); 3 (Normal); 4 (Important); 5 (Very important).The researchers used for qualitative research included interviews and focus group interviews such as 10 experts. This method allowed us to explore a topic in depth with one or two people at a time. The researchers can also collect qualitative data from interactions, this research recognizes factors affecting the price of real estate (PR) in Vietnam. Quantitative research used to get views from large numbers of investors. We performed surveys online by network performance and received 260 questionnaires. After removing the questionnaires containing the missing value, there are 247 valid questionnaires left. All data collected from questionnaires are coded, processed by SPSS 25 and AMOS 25.

To test model, we perform the following:

Step 1: Cronbach's Alpha coefficient

The method of determining Cronbach's Alpha coefficient is used to evaluate the reliability of the scale. To calculate Cronbach's Alpha coefficient, the scale must have at least 2 measurement variables. Scale evaluation criteria: Cronbach's Alpha coefficient higher than 0.8: Good scale; Cronbach's Alpha coefficient from 0.7 to 0.8: Usable scale; Cronbach's Alpha coefficient higher 0.6: Acceptable scale (Nunnally Bernstein, 1994) Cronbach's Alpha coefficient lower than 0.6: poor reliable scale.

Step 2: Exploratory factor analysis method

EFA is a technique within factor analysis whose overarching goal is to identify the underlying relationships between measured variables. The two most popular data inspection techniques for EFA are Bartlett's test of sphericity and the Kaiser–Meyer–Olkin (KMO). Both of these methods test whether sufficiently large relationships exist within the data set of interest to perform EFA.

General, the KMO Measure of Sampling Adequacy are very similar, but the latter provides various ranges of acceptable variance rather than simply significant or nonsignificant. Generally, the metrics are as follows: 0.00 through 0.50 – Unacceptable – Bad; 0.50 through 0.60 – Miserable – Bad; 0.60 through 0.70 – Mediocre – Okay; 0.70 through 0.80 – Middling – Okay; 0.80 through 0.90 – Meritorious – Good; 0.90 through 1.00 – Marvelous – Great

Bartlett's test of sphericity is used to examine the correlation between observed variables in the factor. If Bartlett's test of sphericity is significant (sig Bartlett's Test < 0.05), the results indicate that the data are not an identity matrix and appropriate for EFA.

Eigenvalue is a commonly used criterion to determine the number of factors in EFA analysis. If the factor Eigenvalue is ≥ 1, the factor is kept in the analytical model. Total Variance Explained is higher than 50% shows that the EFA model is suitable.

Factor Loading is an indicator to ensure the practical significance of factor analysis, this value represents the correlation relationship between the observed variable and the factor. The higher the factor loading coefficient, the greater the correlation between that observed variable and the factor and vice versa. Factor loading coefficient of observed variable is higher than 0.5 (Hair et al, 1998).

Step 3: Confirmatory factor analysis (CFA)

Confirmatory factor analysis is the next step of exploratory factor analysis (EFA), which includes the design to independently identify, test, and adjust measurement models. The purpose of CFA is to establish well-fit measurement models that can be used to test structural models.

To measure model fit with the survey data set, the researchers use a number of evaluation indicators such as Chi-square adjusted for degrees of freedom (CMIN/df), the integrated index compared to the survey data. Compare CFI (comparative Fit Index), TLI (Tucker & Lewis index), RMSEA (Root Mean Square Error Approximation) index and MI (Modification Indices) index. If a model has TLI, CFI higher than 0.9; CMIN/df lower than 3 and RMSEA lower than 0.8, the data is suitable (Hair et al, 1998).

Step 4: SEM - Structural Equation Modeling

Two main components of models are distinguished in SEM: the structural model showing potential causal dependencies between endogenous and exogenous variables, and the measurement model showing the relations between latent variables and their indicators.

Parameter estimation is done by comparing the actual covariance matrices representing the relationships between variables and the estimated covariance matrices of the best fitting model.

It is important to examine the "fit" of an estimated model to determine how well it models the data. This is a basic task in SEM modeling, forming the basis for accepting or rejecting models and, more usually, accepting one competing model over another.

The model is good fit if it has: TLI approach 1 (normal above 0.9); CFI values above 0.9; if Chi-square/df (cmin/df) lower 3, the model is good, If it lower 5 the model is acceptable; and RMSEA lower than 0.8; Pclose higher than 0.5.

3.2. Proposed Model

The above mentioned things, the researchers have hypotheses following:

Hypothesis 1 (H1): Natural factors (TN) had a positive relation to the price of the real estate (PR) in Vietnam.

Hypothesis 2 (H2): Economic factors (KT) had a positive relation to the price of the real estate (PR) in Vietnam.

Hypothesis 3 (H3): Social factors (XH) had a positive relation to the price of the real estate (PR) in Vietnam.

Hypothesis 4 (H4): Legal factors (PL) had a positive relation to the price of the real estate (PR) in Vietnam.

Hypothesis 5 (H5): Policy factors (CS) had a positive relation to the price of the real estate (PR) in Vietnam.

Hypothesis 6 (H6): Macroeconomics factors (VM) had a positive relation to the price of the real estate (PR) in Vietnam.

Based on previous studies, the research team proposes a model of factors affecting real estate prices as follows:

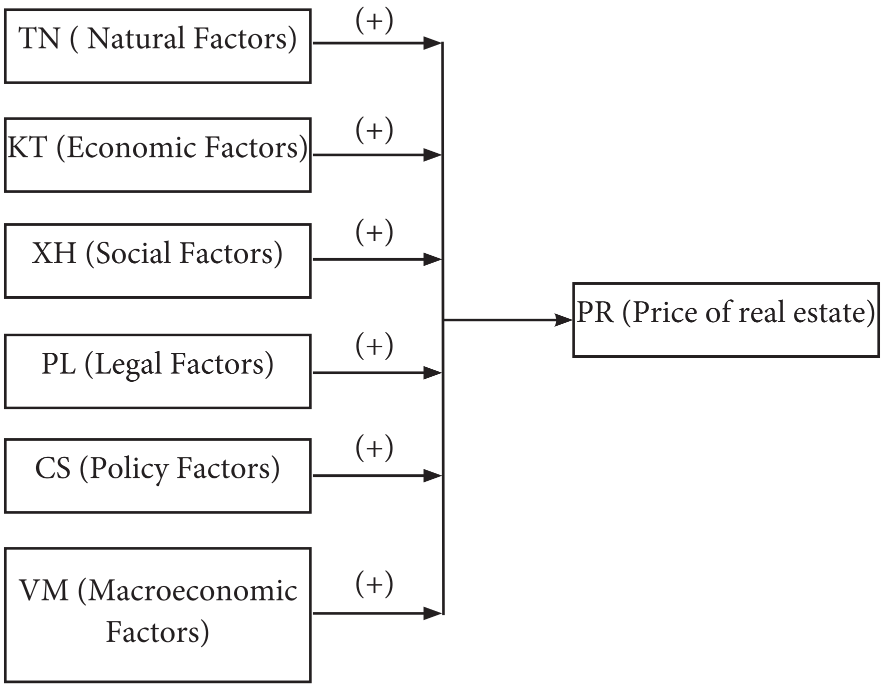

Figure 1. Research model for factors affecting the price of the real estate in Vietnam

4. RESEARCH RESULTS

4.1. Statistic of Data

The statistics of questionnaire by age shows: the group of investors aged uper 40 and under 50 years old accounted for the largest proportion (89 persons about 36.03%), the group of investors aged under 30 years old accounted for 10.53%.

Table 1. Profile of respondent by age

Age	Number of respondents	Percent
Under 30 years old	46	10.53
From 30 years old to 40 years old	73	29.55
From 40 years old to 50 years old	89	36.03
Uper 50 years old	39	23.89
Total	247	100

Source: Researchers processing by SPSS 25

4.2. Result of model on data

4.2.1. Evaluate the reliability of the scale

We use Cronbach's Alpha to test correlation among items.

Table 2. The scale reliability tests for factors affecting the price of the real estate

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Natural factors (TN)					
TN1	20.10	15.043	0.801	0.873	0.9
TN2	20.33	15.483	0.722	0.884	
TN3	20.40	14.600	0.766	0.877	
TN4	20.33	14.124	0.821	0.868	
TN5	20.30	14.155	0.769	0.876	
TN6	20.47	15.958	0.523	0.914	
Economic factors (KT)					
KT1	14.55	10.224	0.781	0.847	0.885
KT2	14.80	10.404	0.715	0.862	
KT3	14.56	10.605	0.747	0.855	
KT4	14.85	10.778	0.688	0.868	
KT5	14.72	10.282	0.689	0.869	

Item-Total Statistics					
	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
Social factors					
XH1	9.52	8.503	0.77	0.904	0.916
XH2	9.67	7.914	0.832	0.883	
XH3	9.6	8.062	0.841	0.879	
XH4	9.68	8.187	0.788	0.898	
Legal factors					
PL1	12.77	19.975	0.797	0.938	0.943
PL2	12.97	19.377	0.880	0.923	
PL3	12.95	20.131	0.845	0.930	
PL4	13.00	19.289	0.884	0.922	
PL5	12.91	19.411	0.822	0.934	
Policy factors					
CS1	11.36	5.744	0.399	0.736	0.718
CS2	11.29	5.612	0.619	0.591	
CS3	11.10	5.633	0.634	0.584	
CS4	11.46	6.461	0.415	0.707	
Macroeconomic factors					
VM1	10.85	5.258	0.669	0.859	0.872
VM2	10.81	5.046	0.725	0.838	
VM3	10.86	5.008	0.768	0.821	
VM4	10.78	4.946	0.747	0.829	
The price of the real estate					
PR1	18.45	20.476	0.847	0.942	0.951
PR2	18.38	20.643	0.830	0.944	
PR3	18.34	21.177	0.797	0.948	
PR4	18.40	20.102	0.885	0.938	
PR5	18.54	19.778	0.849	0.942	
PR6	18.43	20.237	0.888	0.937	

Source: Researchers processing by SPSS 25

The table 2 shows that all group factors affecting price real estate has Cronbach's Alpha coefficient greater than 0.6 would ensure reliability of the scale and Item - rest correlation not lower 0.3.

In this table, we can see the CS1 variable has Cronbach's Alpha if item deleted (0.736) lower than Cronbach's Alpha (0.718). However, it has Corrected Item-Total Correlation greater than 0.3 so it ensures reliability. (Souce: *Nunnally, J(1978), Psychometric Theory, New York, McGraw – Hill*).

This showed that data was suitable and reliable for researching. 34 variables used to analyze EFA.

4.2.2. Exploratory Factor Analysis (EFA)

This study uses Principal axis factoring extraction method and Promax rotation method in Exploratory Factor Analysis to determine the number of factors in group questionnaires that we want to find and measure. After rotation, remove variables with factor loading less than 0.4. Data collection is suitable with EFA analysis because it has Extraction Sums of Squared Loadings greater than 50 percent, Kaiser-Meyer-Olkin Measure of Sampling Adequacy greater than 0.5. Bartlett test is significant (sig < 0.05) (Gerbing & Anderson, 1988); the factor loading of item greater than 0.5 (Hair & et al, 1998). The results of the EFA analysis are as follows:

Table 3. KMO và Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.878
Bartlett's Test of Sphericity	Approx. Chi-Square	6236.273
	df	561
	Sig.	0.000

Source: Researchers processing by SPSS 25

In table 3, we can see the KMO coefficient is 0.878 greater than 0.5 and the level of significance (Sig) is 0.000. The results of analysis of total variance explained shows that Eigenvalues of seven factors greater than 1, representing 7 factors, summarizes the information of research variables into the EFA step in the best way. Extraction Sums of Squared Loadings of Cumulative % is 67.36% greater than 50% which is understood seven factors explain 67.36% of data variation of 34 research variables, so the variance explained is satisfactory.

The result of EFA analysis based on survey factors affecting price of the real estate ensures two important values are convergent validity and discriminant validity. These 7 different measurement scales help to evaluate the factors affecting the price of the real estate, the observed variables are standard to analyze with confirmatory factor analysis (CFA).

4.2.3. Confirmatory factor analysis (CFA)

Before EFA, we run CFA and report in table 4. This table shows that the CFA model is suitable with data, model fit indicators satisfy all conditions such as: Model has 506 degree of freedom, Chi-square value is 812.259, Chi-square/df = 1.605 (< 3); CFI = 0.949 (≥ 0.9); RMSEA = 0.005 (≤ 0.05); TLI = 0.943 (≥ 0.9) (Hair et al (2010); Hu & Bentler, 1999). Although the value of GFI is 0.841 lower than 0.9 not satisfied, following the opinion of Hair and colleagues (1995), Doll and colleagues (1994) minimum of GFI is 0.8 so it is acceptable. All variables are unidimensional.

Table 4. Model fit indicators after analyzing CFA

Indicators	Value	Required value
Chi-square/df	1.605	≤ 3
CFI	0.949	≥ 0.9
RMSEA	0.05	< 0.05
GFI	0.841	≥ 0.8
Pclose	0.534	> 0.05
TLI	0.943	≥ 0.9

Source: Researchers processing by SPSS 25

Validity and reliability tests of all scales are greater than 0.7. Group maximum reliability is 0.951 and minimum is 0.75. All of AVE are greater than 0.5. The result also shows that MSV values are lower than AVE, square root of AVE greater than correlation between scales so discriminant validity and convergent validity of scale are ensured.

4.2.4. The results of testing the research hypothesis using the SEM model

We use the linear structural model analysis method to test the research model.

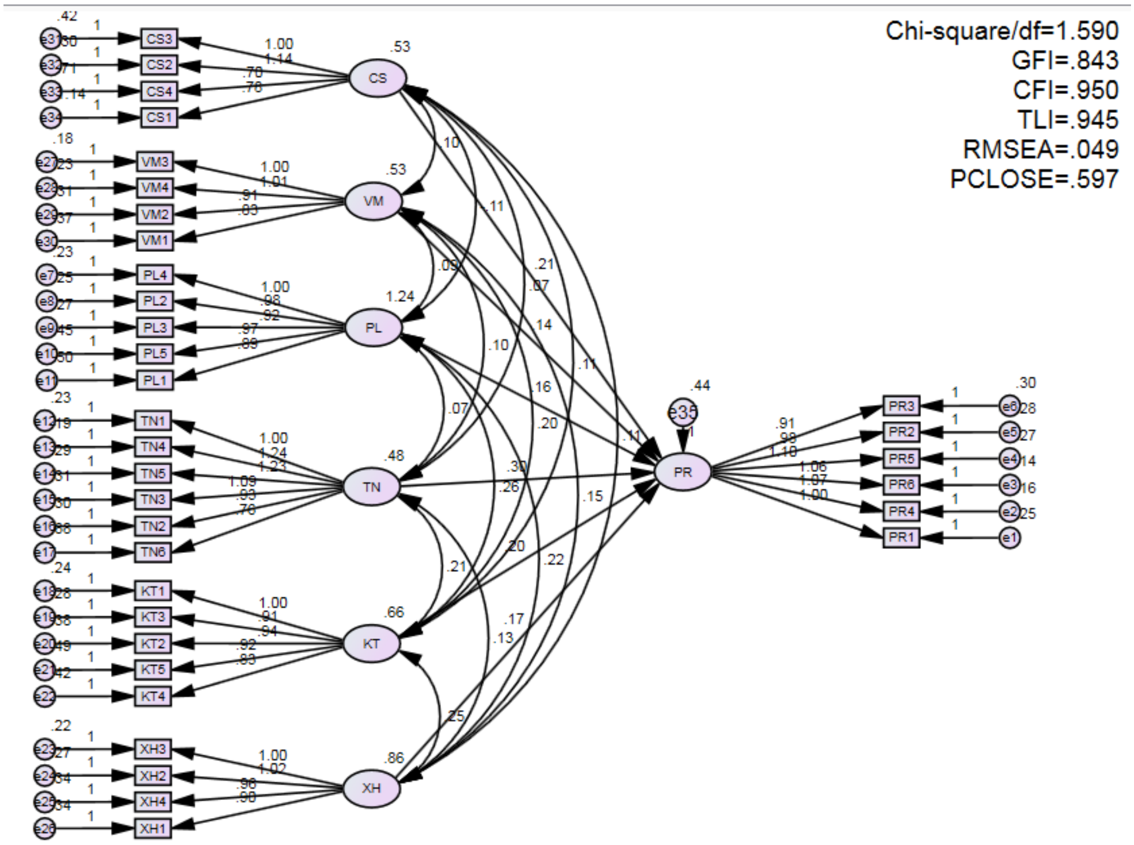

Figure 2. Result of SEM model

Table 5. Result if analyzing SEM

Scale	Coefficient	Standardized coefficient	S.E.	C.R.	P
Policy factors -> The price of the real estate	0.211	0.178	0.075	2.815	0.005
Macroeconomic factors -> The price of the real estate	0.137	0.116	0.072	1.917	0.055
Legal factors -> The price of the real estate	0.158	0.205	0.045	3.48	***
Natural factosr -> The price of the real estate	0.3	0.243	0.075	3.994	***
Economic factors -> The price of the real estate	0.198	0.187	0.072	2.738	0.006
Social factors -> The price of the real estate	0.169	0.183	0.056	3.042	0.002

Source: Researchers processing by AMOS

In table 5, we can see the SEM model with coefficient and standardized coefficient. All the factors that are proposed in this study are significant with level 5 and 10%. Six factors are positive with the price of the real estate and suitable with research hypotheses.

Result of model:

$$PR_i = 0.211CS_i + 0.137VM_i + 0.158PL_i + 0.3TN_i + 0.198KT_i + 0.169XH_i + e_i$$

The linear regression analysis model is shown adjusted R Square – R corrected square of 0.409 means that the independent variables influence 40.9 % of the variation of the dependent variable, the remaining 59.1% is due to the variables outside the model and random errors.

5. CONCLUSION AND POLICY IMPLICATIONS

From the results obtained from the SEM model, natural factors, economic factors, social factors, legal factors, policy factors and macroeconomic factors all affect real estate prices. The degree of impact of the factors on the dependent variable is expressed through the magnitude of the standardized coefficient. If the absolute value of the standardized coefficient of any factor is large, that factor has a more important influence on the dependent variable.

The standardized coefficients corresponding to the factors of TN, PL, KT, XH, CS, VM are 0.243, respectively; 0.205; 0.187; 0.183; 0.178; 0.116. It can be seen that all 6 factors affect the price of real estate in order of importance: (1) Natural factors, (2) Legal factors, (3) Economic factors, (4) Social factors, (5) Policy factors, (6) Macroeconomic factors. The impact of each factor is analyzed in detail as follows:

- ***Natural factors:*** This is the factor that has the most positive and strongest impact on real estate prices with a standardized regression coefficient of 0.243. Natural elements of real estate include: location, area, shape, structure; the quality and longevity of the property; infrastructure and surrounding utilities... It can be said that the greater the useful properties of the real estate is, the higher the price of the real estate is and in contrast. Therefore, in real estate development investment, it is necessary to pay attention to improving the useful properties of real estate, reducing the distance to the socio-economic - cultural centers. In addition, the Government needs to pay attention to more synchronous infrastructure development, because this is a "push" affecting real estate prices and promoting the real estate market development.

- ***Legal factors:*** Legal factors affecting the price of real estate are shown: certificate of land use rights, ownership of house and other properties associated with land; construction permit, planning... The standardized coefficient of this variable is 0.205. In real estate transactions, legality is one of the top concerns. Two real estate has the same natural elements but different legal status, the price of them is also different. The legal status of real estate greatly affects the price of real estate. Normally, the wider the rights to exploit the properties of the real estate is, the higher the price of it is and vice versa. Therefore, the State needs to formulate, appraise and approve of urban and rural planning; land use plans and building housing development programs, housing development plans in the localities publicly and transparently.

- ***Economic factors:*** This is the third most important factor affecting real estate value with a standardized coefficient of 0.187. The obtained research results are quite consistent with theory and practice. For most real estates, in addition to natural factors, the more profitable and the more liquidity the real estate is, the higher the price of it is. In recent years, especially during the Covid pandemic period, when most production and business activities were stagnant, the real estate prices tended to increase due to fluctuations in supply and demand and speculation in the real estate market. Therefore, the Government needs to have effective policies against real estate speculation.

- ***Social factors:*** The standardized coefficient of this variable is 0.183. Social factors including consumer tastes/psychology, investment trends, demographics, local customs and practices also have a significant impact on real estate prices. Therefore, in real estate development, investors need to pay attention to these factors and also forecast their changes in the future. In addition, understanding the impact of these factors on the price of real estate will help State agencies make appropriate policies in each period to stabilize the real estate market.

- ***Policy factors:*** Policies related to land allocation, land lease, tax policies for real estate, policies to support people to buy houses are factors that cause real estate prices to fluctuate with a regression coefficient after standardization of 0.178. So, the Government needs to carefully consider supporting policies to help balance supply and demand in the real estate market, thereby directly affecting the price of real estate, helping the market overcome periods of "fever" or "freeze".

- ***Macro-economic factors:*** GDP growth rate, per capita income in the region, inflation, and interest rates are important factors affecting real estate prices with the standardized coefficient is 0.116. In recent years, the real estate market has been considered as a potential investment channel. When the growth rate of GDP, per capita income and inflation increase, cash flow into the real estate market increases, too. This affects the demand of real estate and real estate prices will tend to increase. In addition, the tool to implement monetary policy through interest rates also makes real estate pricesfluctuate. If interest rates are low, investors can easily access loans. This makes cash flow into the real estate market increase and also makes real estate prices more volatile. Therefore, the State needs to control and restructure real estate credit to ensure proper use and avoid risks to the real estate market.

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THE SITUATION OF SUSTAINABLE POLICY CREDIT DEVELOPMENT AT VIET NAM BANK FOR SOCIAL POLICIES

PhD Candidate, Nguyen Duy Linh[1]

Abstract: *Developing policy credit in association with the country's sustainable development orientation, or in short, sustainable policy credit development at the Viet Nam Bank for Social Policies (VBSP) is an inevitable and important trend. Therefore, based on previous studies on the theoretical basis related to sustainable policy credit development in the context of Viet Nam, this article will try to delve into the analysis and assessment of the current situation of sustainable policy credit development at VBSP, clarify the shortcomings and limitations, from which there are scientific and practical bases to build solutions to develop sustainable policy credit at VBSP in the coming time.*

Keywords: *Policy credit, sustainable development, society, economy, environment, Viet Nam Bank for Social Policy, VBSP.*

1. INTRODUCTION

In Viet Nam, the issue of sustainable development has been generalized into major guidelines and goals in the Document "Socio-economic development strategy for 10 years 2021-2030" at the 13th National Congress of the Communist Party of Viet Nam, in which stated the goals for Viet Nam to become "a country with dynamic, fast and sustainable economic development" and set specific targets on 03 aspects of sustainable development:

(a) Economic: GDP per capita at current prices by 2030 will reach about 7,500 USD; the proportion of the processing and manufacturing industry is about 30% of GDP, the digital economy is about 30% of GDP; total social investment averages at 33-35% of GDP; public debt does not exceed 60% of GDP; etc.

(b) Social: Human Development Index (HDI) remained above 0.7; the average life expectancy is 75 years, of which the minimum healthy lifetime is 68 years; the proportion of agricultural laborers in total social labor drops to less than 20%; etc.

(c) Environment: Forest coverage rate is stable at 42%; the rate of treatment and reuse of wastewater into the river basin environment reaches over 70%; reduce greenhouse gas emissions by 9%; 100% of production and business establishments meet environmental standards; etc.

To achieve the targets of sustainable development set out in the Document "Socio-economic development strategy for 10 years 2021-2030" at the 13th National Congress of the Communist Party of Viet Nam, it is necessary to carry out synchronously many solutions and tasks in many different fields, in which VBSP's policy credit can play an important role as an important financial tool to leverage the development of the country in the direction of sustainability as stated in the Strategy, on all three aspects: economic development, social development, and environmental protection.

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In the previous period, VBSP has closely coordinated with socio-political organizations, concentrated resources, promoted the implementation of policy credit programs, contributed to socio-economic development, achieved sustainable poverty reduction objectives, and ensured social security, etc. The total capital of VBSP reached more than 240 trillion VND, more than 30 times higher than when it was established. Total outstanding loans of policy credit programs reached more than 220 trillion VND, and the average annual growth rate reached more than 20%, with 6.5 million poor households and policy beneficiaries having outstanding loans. There have been more than 32 million turns of poor households and other policy beneficiaries getting loans from VBSP; contributing to helping more than 4.5 million households overcome the poverty line; more than 3.5 million turns of students in difficult circumstances have access to study loans, etc. The contribution of VBSP has an important meaning in realizing the country's goal of hunger eradication and poverty alleviation. From the rate of poor households accounting for 75% of the population in 1986, by the end of 2020, the poverty rate decreased to 2.75%. This is a great achievement recognizing the role of VBSP. In addition, VBSP has also contributed to job creation, household economic development, social security, and "new rural" development in three periods 2011-2015, 2016-2020, and the coming 2021-2025.

However, VBSP's policy credit activities in the past time have not been associated with the sustainable development of the country, but only targeted a certain group of people, and have not become an effective financial tool of the Government in sustainable development in terms of economy, society, and environment. For the VBSP system, there are also shortcomings and limitations in terms of operating mechanisms and policies, resources, system capacity, and management model...; which have a great influence on the implementation of policy credit towards sustainability.

Stemming from the above practical requirements and general trends, this article identifies the topic "The situation of sustainable policy credit development at the Viet Nam Bank for Social Policies" as a research objective, in order to build a practical basis to further generate solutions to help develop policy credit at VBSP associated with sustainable development of the country.

2. LITERATURE REVIEW

2.1. Researches related to sustainable development or policy credit or policy credit institutions

- Research by Thomas, C. F (2015) on "Naturalizing Sustainability Discourse: Paradigm, Practices and Pedagogy of Thoreau, Leopold, Carson and Wilson", which asks the question: How the principles of fundamental naturalists can help clarify, enhance, and advance the discourse of sustainability? To answer this question, the study proposed the principles of four naturalists, Henry David Thoreau (1817-1862), Aldo Leopold (1887-1948), Rachel Carson (1907-1964) and Edward O. Wilson (1927-). The principles of these four naturalists present a worldview of historical, normative, economic, ecological, scientific and social values for a workable and applicable discourse about sustainability. Thus, through (a) textual analysis and interpretation of the four major naturalists and humanists, (b) analysis of secondary sources sheds light on their primordial and enduring principles, and (c) interviews with leading sustainability scholars, research has compiled to provide models, practices and teaching on natural sustainability.

- Research by Ben-Eli, M. (2015) on "Sustainability: Definition and Five Core Principles" proposes definition and five principles to improve and restore rigor to the ideas underlying the concept of sustainability. The principles of sustainability are demonstrated in relation to five basic areas: (a) The material sector: The basis for regulating the flow of matter and energy underpinning existence; (b) Economic sector: Provides a framework for creating and managing wealth; (c) Life domain: Provides the basis for appropriate behavior in the biosphere; (d) Social domain: Provides the basis for social interactions; (e) Spiritual domain: Determines the basic direction needed and provides the basis for the universal code of ethics.

- Research by Diesendorf, M. (2000) on "Sustainability and Sustainable Development" provides a framework for discussing issues on: (a) Reasons why sustainable development is needed; (b) Concepts of sustainability and sustainable development, in forms that are readily applicable to both the world and human society; (c) The role of corporations in sustainable development; (d) A framework for understanding sustainability and pursuing sustainable development through basic ethical assumptions, shared goals, measurable objectives, and actionable measures to achieve them, while integrating ecological, social and economic aspects of sustainability; (e) A strategy for implementing sustainable development, based on examples of the possible role of corporations.

- Research by De La Torre, A (2002) on "A framework for restructuring development banks" has raised the problem of the difficulty in accessing financial services of underserved economic sectors. traditional concerns and solutions of countries when establishing development financial institutions (specifically, development banks). Since then, De La Torre has analyzed the limitations of development banks with State intervention and built a set of recommendations to be able to restructure these development banks towards effective operation.

- Research by Diamond, W and Raghavan, WS (1982) on "Aspects of development bank management" specifically deals with the management of development banks, the specific issues of the bank and the problems solutions to these problems. The study consists of eight sections, each dealing with one aspect of management: management roles and priorities; setting goals and strategies; socio-economic assessment of projects; promote and innovate; small-scale enterprise development; financial management; organization and personnel development; and government and relationships with development banks. Each section opens with the editors' introductions, highlighting the relationship of the various issues facing management and the role management plays in dealing with them.

- Research by De Aghion, BA and Morduch, J (2005) on "Economic Issues of Microfinance" provides an accessible and compelling analysis of the expansion of global financial markets in poor communities. The work introduces readers to the key ideas driving microfinance, integrates theory with empirical data, and addresses a range of issues, including savings and insurance, the role of women, measuring measure impact and encourage management.

2.2. Specific research on sustainable policy credit development in the context of Viet Nam

In the paper "Theoretical Foundations Of Sustainable Policy Credit Development In The Context Of Viet Nam" published in the "Proceedings The Fifth International Conference On Sustainable Economic Development And Business Management In The Context Of Globalization (SEDBM-5)" by the Academy of Finance of Viet Nam (2022), the author Nguyen Duy Linh has based upon relevant researches by Thomas (2015), Ben-Eli (2015), Diesendorf (2000), De La Torre (2002), Diamond and Raghavan (1982), De Aghion and Morduch (2005) and a few other sources to summarize and systematize theoretical foundations of sustainable policy credit development, especially in the context of Viet Nam. Important research results of this paper are as follows:

(1) Contents of sustainable policy credit development include:

- Development of an operating model for sustainable policy credit with the following characteristics: (a) should not be for profit; (b) should have specific regulations to be able to deploy activities effectively without being entangled with many legal regulations of the commercial banking system; (c) suitable for microcredit activities.

- Development of a deployment system for sustainable policy credit with the following capabilities: (a) the coverage capacity which is reflected in the number of branches and transaction points, the even distribution of branches and transaction points across the country, and the ability to serve diverse customers; (b) the implementation capacity which is reflected in the ability to plan in long-term and short-term related to capital mobilization and utilization, ability to build a system of detailed professional processes, and ability to implement policy credit.

- Development of credit programs for sustainable policy credit with the following requirements: (a) must be divided into 03 large groups with 03 policy objectives: economic sustainability, social sustainability, and environmental sustainability; (b) each target group should have an equal number of credit programs to ensure synchronous implementation.

- Development of human resources for sustainable policy credit with the following requirements: (a) there must be a sufficient number of human resources to deploy the credit programs necessary for the implementation of the Sustainable Development Goals to all regions of the country; (b) human resources are of good quality, well-trained, not only in professional skills but also in soft skills such as communication and persuasion, organizing, planning, etc.

- Development of financial resources for sustainable policy credit with the following requirements: (a) financial resources must be sufficiently large to effectively implement and cover each credit program; (b) financial resources must be stable and preferential.

- Development of credit management methods for sustainable policy credit which are suitable to the characteristics of borrowers, including: (a) customers of sustainable policy credit carry more risk factors than customers of commercial banks; (b) customers of sustainable policy credit have very diverse borrowing needs; (c) the cost of granting credit to policy customers is often very high; (d) there must be coordination with the resources of the society in general and the resources of the State in particular to help the customers who borrow the policy credits to develop comprehensively, thereby sustainably escaping poverty.

(2) Factors that influence sustainable policy credit development include:

- Environment for policy credit implementation: Although the task of capital policy credit is to solve problems in the economy, policy credit by itself cannot operate in an erratic economic environment. This is one of the paradoxes of policy credit when policy credit is very much needed in poor countries, but the economic and political systems in poor countries are very weak, making it more difficult for policy credit to succeed.

- Policy of the State: (a) a country that has not defined sustainable development goals, as well as has not committed to sustainable economic, social and environmental development has no reason and motivation to develop sustainable policy credit; (b) the State must have a clear assessment of the importance and role of policy credit as an effective financial tool for sustainable economic, social and environmental development of the country towards the Sustainable Development Goals.

- Mechanisms and regulations of State agencies: there must be a legal system to guide policy credit activities toward sustainable development. The legal regulations at the professional level will be the basis for financial institutions to implement sustainable policy credits in practice. The lack of an adequate system of mechanisms and regulations from State agencies will greatly affect the development of sustainable policy credit.

2.3. Orientation for further research

Based on the research results of the paper "Theoretical Foundations Of Sustainable Policy Credit Development In The Context Of Viet Nam" above, this paper will further research the case of VBSP to assess and present the situation of sustainable policy credit development at VBSP and the situation of the factors that influence sustainable policy credit development at VBSP.

3. METHODOLOGY

- Research in detail the data and information on the current status of factors affecting the development of policy credit at VBSP in the following aspects: (a) environment for policy credit implementation including macroeconomics, microeconomics, political economy, and institutional environment in Viet Nam; (b) the State's policy on sustainable development and policy credit; (c) mechanisms and policies of state agencies on sustainable development, VBSP, and policy credits implemented through VBSP.

- Research in detail the data and information on the status of sustainable policy credit development at VBSP in the following aspects: (a) VBSP's operating model; (b) VBSP's implementation system includes coverage capacity, implementation capacity, and management capacity; (c) VBSP's credit programs; (d) VBSP's human resources including quantity, quality and recruitment, use, training and fostering of human resources; (e) VBSP's financial resources include capital structure and capital growth; (f) VBSP's credit management approach include customer management and credit quality management.

- On that basis, the article will summarize the results achieved in the aspects of sustainable policy credit development at VBSP, and analyze and systematize the shortcomings and limitations in sustainable policy credit development to serve as a scientific and practical basis for research on solutions for sustainable policy credit development at VBSP in the coming time.

4. RESEARCH RESULTS

4.1. Advantages of developing sustainable policy credit at VBSP

4.1.1. Regarding the environment for implementing sustainable policy credit

Viet Nam's macro-economic, micro-economic, political, and institutional environment in recent years has been maintained and developed relatively stably, creating favorable conditions for the VBSP to deploy policy credit programs.

4.1.2. Regarding the policy of the State

- Firstly, the Party's policy has emphasized the viewpoint and orientation for socio-economic development in the coming time as "fast and sustainable development", "sustainable use of resources", and "environmental protection and adapting to climate change" and associated with "building a green and circular economy, friendly with the environment".

- Second, the Party's policy also emphasizes the importance of policy credits for agricultural and rural development, development of education and vocational training, job creation, social security assurance, sustainable poverty reduction, and at the same time instructs the whole political system to coordinate and create the best possible conditions for the good implementation of policy credit at VBSP. This is an advantage for VBSP to deploy policy credit activities in the coming period.

4.1.3. Regarding mechanisms and policies of state agencies

- Firstly, the State's policy has clearly stated the view that "sustainable development is a requirement throughout the development of the country; closely, rationally and harmoniously combine economic development with social development, and protect natural resources and the environment, and ensure national defense, security, and social order and safety". At the same time, the State's policy has set out 17 sustainable development goals so that the development of mechanisms, policies, and future socio-economic management and administration activities will be taken as a guideline for implementation.

- Second, the State's policy has a system of relatively complete regulations on organization and operation, financial management regime, credit risk handling, and guidance on the implementation of credit programs.

4.1.4. Regarding the operating model

- Firstly, the policy bank model helps VBSP to have the advantage of being guaranteed solvency by the State and being supported resources to deploy credit activities, from the Government guarantee to the issuance of bonds to the granting of interest rate compensation and management fees for preferential lending to policy beneficiaries.

- Second, the model of a one-member limited liability company with 100% charter capital held by the State helps to professionalize the VBSP's activities such as finance and accounting, personnel organization, supervision, and credit operations.

- Third, the structure of the VBSP nationwide model is scientifically built and stratified, ensuring the smooth coordination of work between the units. At each central, provincial, and district level, there are representative agencies of the Board of Directors and the Executive Board. Each representative agency is responsible for reporting to a superior agency or directing operations to a lower agency. At the same time, representative agencies at the same level are also responsible for monitoring, reporting, and working together, ensuring efficiency and closeness in the implementation of policy credit.

4.1.5. Regarding the deployment system

- Firstly, VBSP has built a banking system with very good coverage throughout the country. All 63 provinces and centrally-run cities have VBSP branches; at the district level, VBSP also has about 630 transaction offices, which is an average of 10 transaction offices/province or city. Not only that, but VBSP also built about 10,900 transaction points at the commune level to best serve people who need loans from VBSP. VBSP has a presence in the most remote areas of Viet Nam, including border areas and islands.

- Second, the VBSP system has mobilized the participation of the entire socio-political system. The Board of Directors of VBSP includes individuals who are representatives of important ministries, departments, and branches of the country. Thereby applying the expertise and support of management agencies in implementing VBSP's activities. At the same time, at the provincial and district levels, there are representatives of the Board of Directors to support the implementation of activities in each locality.

- Thirdly, the direct participation of socio-political organizations such as Veterans' Union, Women's Union, Farmers' Union, and Youth Union in the credit management process of VBSP through the form of Accepting loan entrustment is also an innovative point and advantage of VBSP. The reason is that these organizations and unions have a deep connection and understanding with local people, especially the poor, disadvantaged groups in society, who are loaned mainly from VBSP.

4.1.6. Regarding credit programs

The Government's decree on credit for the poor and other policy beneficiaries, as well as many decisions of the Prime Minister, have issued specific policy credit programs to serve a group of policy beneficiaries. specifically, including support programs for economic development and social security.

4.1.7. Regarding human resources

- Firstly, VBSP has recruited, maintained, and developed a large workforce (more than 10,000 people), an average of nearly 160 people per province. There was a calculation and appropriate allocation of employees at each district transaction office based on the workload of the units (debt balance and management customers) and the difficulty of the implementation tasks (mountains, borders, islands, remote areas, etc.).

- Second, the quality of human resources of VBSP is relatively good, with a high percentage of employees with a university education or higher and there is an increasing trend because employees are encouraged to continue learning and improving. In addition, VBSP's operational staff is also intensively trained, not only in professional fields such as credit and finance but also trained in soft skills to be suitable when working with customers who are policy beneficiaries with high specificity.

- Thirdly, VBSP mainly recruits new staff only for operational positions, most of the managerial positions are developed from available human resources, who are experienced and have achievements. This way has the advantage of giving employees the motivation to work enthusiastically, and also the people who deeply understand the VBSP model and policy credit operations will easily grasp the management job.

- Fourthly, the training and fostering work is also focused on by VBSP. Training courses are regularly organized for not only the management and operational levels of the VBSP but also relevant units and individuals, such as socio-political organizations entrusted by VBSP, savings and loan groups, commune-level poverty reduction committees, village heads, etc.

4.1.8. Regarding financial resources

- Firstly, VBSP has built up a relatively large capital source, reaching 238,374 billion VND (equivalent to about 10 billion USD) by the end of 2020, an increase of more than 20 times compared to when it was first established. This is an impressive number compared to the same type of bank, Grameen Bank from Bangladesh (total assets of about 3 billion USD). This is a solid foundation for VBSP to deploy policy credit activities toward sustainable development.

- Second, the ratio of equity to total capital of VBSP is maintained at a fairly good level, although in recent years, the mobilized capital of VBSP has continuously increased rapidly. At the end of 2020, the ratio of equity to total capital is approximately 19%. The increase in equity according to the increase in capital size helps to ensure the safety of VBSP's operations, maintain financial autonomy, and the ability to compensate for losses with equity.

- Thirdly, VBSP's mobilized capital is relatively diverse and independent of a certain resource. VBSP currently mobilizes mainly from loans from the State Bank, deposits and loans from credit institutions, deposits from customers, and the issuance of government-guaranteed bonds. The diversification of mobilization sources helps VBSP reduce liquidity risks when implementing sustainable policy credit activities.

4.1.9. Regarding credit management

VBSP's model of savings and loan group is a bright spot in customer management and capital transmission to customers. It not only helps VBSP to effectively lend policy credits but also closely follows borrowers during the period of loan use, production and business, generating income and saving income to repay the loan debt to VBSP. The characteristics of VBSP's borrowers are mainly the poor, the disadvantaged in society, and those who mainly live in rural, remote, and isolated areas, without access to knowledge and financial management skills. Therefore, the savings and loan group model in the implementation and management of policy credit has played an important role in helping VBSP's borrowers use loans effectively while minimizing credit risks for VBSP.

4.2. The shortcomings and limitations of developing sustainable policy credit at VBSP

4.2.1. Regarding the environment for implementing sustainable policy credit

To meet the requirements of policy credit development to serve the country's sustainable development goals in all economic, social, and environmental aspects, the conditions of macroeconomics, microeconomics, politics, and institutions need to be further improved through measures on fiscal policy, monetary policy, administrative procedure reform, institutional reform, etc.

4.2.2. Regarding the policy of the State

Although the Party and State have separate policies for sustainable development and policy credit, there are still no common guidelines on linking policy credit development with sustainable development. The country has not yet raised the issue of taking policy credit as one of the core tools for sustainable development of the country in terms of economy, society, and environment. The absence of such general policies may lead to difficulties in implementing sustainable policy credit development at VBSP comprehensively and synchronously.

4.2.3. Regarding mechanisms and policies of state agencies

Mechanisms and policies issued by State agencies are relatively adequate for VBSP to implement policy credit, however, currently, mechanisms and policies are not closely aligned with the principles of sustainable development and aimed appropriate targets to develop sustainable policy credit through the VBSP system.

4.2.4. Regarding the operating model

- Firstly, in the coming time, when promoting growth and developing sustainable policy credit, it is necessary to add more inspection, supervision, and advisory sanctions into the operating model.

- Second, at present, the Supervisory Board and the Advisory Board of VBSP mainly operate at the central level. Although the Supervisory Board is allowed to use the internal inspection and audit system throughout the system to perform its tasks, having only personnel and agencies at the central level may also lead to the failure of the Supervisory Board to understand the actual situation in the locality.

- Thirdly, the Advisory Board advises the Board of Directors at the central level, including experts from ministries and branches who are members of the Board of Directors and several experts appointed by the Chairman of the Board of Directors. However, in reality, each locality across the country has different problems, situations, and needs related to policy credit.

4.2.5. Regarding the deployment system

- Firstly, the current implementation system model still has shortcomings in allocating human resources for transaction activities in communes, so sometimes overcrowded workloads occur for VBSP staff, especially at the grassroots level. Policy credit activities in some localities are gradually shrinking, so the hierarchical organizational model with administrative boundaries is no longer suitable, increasing the costs and limiting the operational efficiency of some branches.

- Second, there are sometimes differences in a management capacity in localities. Some of the Board of Directors representatives have not been thorough; the roles and responsibilities of several commune-level People's Committees and several associations have not been given due attention; the coordination between VBSP and socio-political organizations is not regular; credit quality of some places is not stable and sustainable; the performance of several savings and loan groups is not uniform; the management capacity and professional qualifications of some VBSP staff are still limited; etc.

4.2.6. Regarding credit programs

Table 1. Credit programs at VBSP and outstanding loans for the period 2016-2020

Unit: Billion VND

No.	Programs/Years	2016	2017	2018	2019	2020
1	Lending to poor households	38.653	39.060	38.014	34.851	33.093
2	Lending to near-poor households	29.799	30.295	30.142	31.784	32.935
3	Lending to households just get out of poverty	11.828	20.653	28.293	34.422	37.378
4	Lending for job creation	8.101	10.834	15.233	21.737	27.569
5	Lending for students with difficult circumstances	19.375	15.813	13.046	11.020	10.226
6	Lending for rural clean water and environmental sanitation	23.894	26.573	29.898	35.040	37.811
7	Lending for housing with deferred payment in the Mekong Delta	974	889	786	670	616
8	Lending to policy beneficiaries to work abroad for a definite time	510	580	774	959	920
9	Lending to poor households for housing	3.831	4.733	5.142	4.842	4.655
10	Lending to households for production and business in difficult areas	16.344	18.107	21.123	24.092	25.961
11	Lending to businessmen in difficult areas	248	240	230	223	212
12	Lending to ethnic minorities	2.177	1.994	2.146	2.242	2.230
13	Lending to poor households to build shelters to avoid floods	167	177	189	198	198
14	Lending to households and production facilities to employ laborers after drug addiction treatment	1	1	1	1	0,2
15	Lending for afforestation	-	161	212	348	388
16	Lending for social housing	-	-	905	2.397	3.339
17	Lending for foreign projects	666	615	556	475	435
18	Other lendings	807	1.063	1.102	1.504	1.596
	Total	**157.372**	**171.790**	**187.792**	**204.979**	**224.429**

Source: VBSP

- Firstly, the policy credit programs issued so far for implementation at VBSP, although including some sustainable development goals, are still not enough to ensure economic, social, and environmental sustainability. Among the policy credit programs of VBSP, most of them are programmed with economic development goals (loans for poverty eradication, job creation, labor export, etc.) and social security (loans for disadvantaged students, development in disadvantaged areas, ethnic minorities, social housing, flood shelters, etc.). Meanwhile, credit programs for environmental policies are very limited, with only 02 related programs: loans for rural clean water and sanitation and loans for afforestation.

- Second, the allocation of resources to implement programs is also not balanced. Although there are nearly 20 programs, the source of policy credit mainly focuses on lending to 8 major programs, accounting for 97% of the total outstanding loans. In which, policy credit programs to reduce poverty and create jobs for economic development account for 59% of total outstanding loans; policy credit programs for students, disadvantaged areas, and housing support for poor households account for only 21% of total outstanding loans; policy credit program for rural clean water and sanitation also accounts for only 16% of total outstanding loans. Many other programs, although enacted, have almost no resources to implement or are allocated very limited, failing to achieve the desired impact and effectiveness on economic and social development and a sustainable environment.

4.2.7. Regarding human resources

Table 2. The current situation of human resources at VBSP

Unit: People

No.	Classification/Years	2016	2017	2018	2019	2020
1	**Average number of employees**	**9.668**	**9.865**	**10.063**	**10.168**	**10.318**
1.1	***Sort by job position:***					
a	Manager position	193	197	201	203	206
b	Professional position	8.024	8.188	8.352	8.439	8.564
c	Serving position	1.450	1.480	1.509	1.525	1.548
1.2	***By place of work:***					
a	Central headquarters	290	296	302	305	310
b	Provincial branch office	2.030	2.072	2.113	2.135	2.167
c	District transaction office	7.348	7.497	7.648	7.728	7.842
1.3	***By level of education:***					
a	Post-University degree	609	621	634	641	650
b	University degree	6.816	6.955	7.094	7.168	7.274
c	College level, Intermediate level	783	799	815	824	836
d	Other qualifications	1.460	1.490	1.520	1.535	1.558

2	**Average salary (million VND)**	**18.4**	**19.2**	**21.5**	**21.7**	**22**

Source: VBSP

In the context of sustainable policy credit development at VBSP, VBSP's human resources still need to be developed in both quantity and quality. At the same time, the fact that most of the management positions at VBSP were promoted from lower positions after a long time working at the bank can lead to a lack of competitiveness, partial thinking, and not being easily receptive to ideas. The approach of these management positions to important issues can sometimes be sclerotic, inflexible, and not conducive to the long-term development of VBSP, especially the development of policy credit towards sustainability in the coming time.

4.2.8. Regarding financial resources

Table 3. The current situation of financial resources at VBSP

Unit: Billion VND

No.	Criteria/Years	2016	2017	2018	2019	2020
1	**Equity**	**31.994**	**32.203**	**37.172**	**41.481**	**44.754**
1.1	Authorized capital	10.696	10.696	13.893	17.288	18.271
1.2	Government funds provided for lending programs	17.052	17.082	17.610	18.303	19.332
1.3	VBSP's Funds	848	904	968	1.058	1.475
1.4	Capital for construction and purchase of fixed assets	3.152	3.241	4.364	4.468	4.829
1.5	Undistributed revenue and expenditure difference	246	281	338	364	847
2	**Mobilized capital**	**123.070**	**136.710**	**149.167**	**158.361**	**172.834**
2.1	Borrowing from SBV	20.995	17.635	13.251	11.624	10.288
2.2	Deposits and loans of credit institutions	44.844	54.192	64.372	71.281	81.474
2.3	Customer's deposits	11.256	18.466	24.980	29.118	35.516
2.4	Bonds issued	39.300	39.291	39.291	39.290	39.286
2.5	Other debts	6.675	7.126	7.273	7.048	6.270
3	**Sponsored capital, investment trust**	**7.402**	**9.835**	**12.451**	**15.968**	**20.786**
	TOTAL	**162.466**	**178.748**	**198.790**	**215.810**	**238.374**

Source: VBSP

- Firstly, although the total capital is relatively large, many policy credit programs still do not have the capital to implement, the reason is that most of the current funding is concentrated in only 08 major programs. Therefore, although VBSP has issued many policy credit programs for the fields of the economy, society, and environment, most of the current capital is only focused on the target of poverty reduction without implementing many programs of social security and environmental protection.

- Second, the cost of capital of VBSP is not low enough for VBSP to offer preferential loans compared to credit institutions and at the same time ensure financial stability. The sources of charter capital, state budget funds, and entrusted local budget funds are those without the cost of mobilization but have a low proportion of the total capital sources (accounting for only 21.8%). The sources of loans from the State Bank and capital mobilized from government-guaranteed bonds are those with relatively low-interest rates but accounted for only 26.7% of total capital. The rest are mainly capital sources with costs equivalent to market interest rates or even higher than market interest rates such as capital mobilized from organizations and individuals in the market (accounting for 12.6% of total capital), 2% deposits of credit institutions (accounting for 32.3% of total capital).
- Third, the VBSP's capital is not stable. At the end of 2020, the most stable capital sources for VBSP are the charter capital, state budget capital allocated to implement programs, and entrusted capital, which account for only 20.7%. on total capital. In which, the charter capital is not usually used for lending, while state budget funds and entrusted funds are all used for a few specific policy credit programs, VBSP cannot use them flexibly.

Meanwhile, the main sources of capital for VBSP to use for policy credit are still limited in terms of stability. The capital source from credit institutions maintains a 2% deposit rate of their capital balance mobilized in VND means that it is unstable and can be changed every year. The capital source mobilized from organizations and individuals is usually with a term of less than 1 year. The capital source mobilized from government-guaranteed bonds has a longer term but is limited by the provisions of Resolution No. 07-NQ/TW dated November 18, 2016, of the Politburo. With the term of short and unstable capital sources as above, VBSP has to urgently mobilize new capital sources every year, thus sometimes having an impact on the bank's liquidity.

4.2.9. Regarding credit management

- Firstly, there is still a lack of synchronous coordination between the banking sector and ministries in formulating, promulgating, and implementing preferential policies for the poor to help manage policy credit more effectively. The VBSP's credit policy orientation may include lending programs in the economic fields (reducing poverty, creating sustainable income sources for poor people), social issues (creating more equitable conditions for the poor, access to education, health care, housing), and the environment (protection of the living environment). However, there are still other policies that need to be issued concurrently by other ministries, agencies, and sectors such as policies on infrastructure construction, education support, health support, etc.

- Second, the method of lending policy credits to customers under the entrustment model for socio-political organizations has some shortcomings such as the entrusted socio-political organizations do not cover the entire work; the entrustment service fee divided for each level of socio-political organization is not reasonable, not commensurate with the workload to be performed; there is no specialized apparatus of socio-political organizations at all levels to manage the entrusted capital of VBSP; trustee units have almost no supporting information technology; etc.

- Thirdly, the activities of savings and loan groups are sometimes not effective in the following points: The process of establishing savings and loan groups or admitting new members in some locality is sometimes improper; The management board of the savings and loan group has not been trained with high professionalism; Functions, tasks, and relationships between socio-political organizations and savings and loan groups have not been clearly defined; Post-disbursement supervision of savings and loan groups has not been promoted; Service fees for savings and loan groups are low, so they are not attractive enough; etc.

5. CONCLUSION

Through out the analyses, this article has accomplished the following results:

- Firstly, based on the theory of the evaluation of sustainable policy credit development in previous studies, this article has gone into depth research, synthesis, and analysis of the current situation of sustainable policy credit development at VBSP in terms of (a) operating model; (b) deployment system; (c) credit programs; (d) human resources; (e) financial resources; and (f) credit management. At the same time, the article also assesses the current situation of factors affecting the sustainable policy credit development at VBSP, including the environment for implementing policy credit, the policy of the State, and the mechanisms and policies issued by State agencies related to policy credit and sustainable development.

- Based on summarizing the situation of sustainable policy credit development at VBSP above, the article has drawn research results on the advantages and disadvantages, and limitations of each aspect of sustainable policy credit development at VBSP, thereby, people will have a clearer view of the issues that need to be overcome and handled to develop sustainable policy credit in the coming time at VBSP.

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EXPERIENCE MOBILIZING FINANCIAL RESOURCES FROM THE PRIVATE SECTOR IN SOME COUNTRIES IN THE WORLD AND LESSONS FOR VIETNAM

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Abstract: *To be able to well attract financial resources from the private sector to development and investment, it is necessary to refer to experiences and lessons from other countries. In this study, we will analyze the experiences of some countries on saving savings, developing the financial system and promoting public-private cooperation in infrastructure construction of countries such as Malaysia, India, and Korea... Thereby giving some lessons for Vietnam to best mobilize financial resources from this region*

Keyworks: *Financial resources, Private economy, world experience.*

Development investment capital plays an important role for all countries, especially developing countries, when capital and labor are the two main factors of production contributing to growth. In particular, financial resources from the private sector have great significance in providing capital, in the context that the state budget can only guarantee a small part of investment needs. Furthermore, public investment is often inefficient and should be concentrated only in areas where the private sector cannot and does not want to participate. Mobilizing financial resources from the private sector for development investment is a problem for all countries, especially developing countries like Vietnam. This resource can be drawn in multiple channels. First of all, the private sector can directly participate in investment in production and business, in the form of private enterprises or shares. Private investors can also indirectly invest through the financial system, through savings deposits or buying bonds. This money will be invested by businesses in production and business or building infrastructure. The private sector can buy shares of the business, thereby providing additional capital for the business. Or the private sector can participate directly in all investments or cooperate with the state in providing public services and investing in public infrastructure. Experiences from other countries show that, with careful analysis, encouraging policies, and ensuring a favorable macroeconomic environment, it is possible to effectively mobilize financial resources from the private sector in the future. investment in socio-economic development.

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1. EXPERIENCES OF SOME COUNTRIES

1.1. Malaysia's experience: mobilizing private financial resources through bank savings channels

Malaysia is a country with a high economic growth rate, with the average growth rate for the period 1961-1980 at 7.2%, the period 1981-1996 at 7.4%. This is since the country's investment-to-GDP ratio has increased from 20% to 34% in these two decades. The investment rate increased but did not create a balance of payments imbalance as a significant part of this impressive increase came from domestic savings. The difference between domestic saving and investment in Malaysia has never exceeded 1% since 1980. Malaysian private sector saving has increased continuously over the years thanks to the growth of income, the increase growth in the age dependency ratio, the declining share of agriculture, and efforts to develop the financial system. The savings rate increased from just 24% in 1960 to 43% in 1996. Savings from the private sector account for between 50% and a quarter of Malaysia's total domestic savings. The structural change of the economy over the past four decades has transformed Malaysia's financial system from being primarily a trade finance system to a system for mobilizing and distributing financial resources to other sectors. each other of the economy. To that end, Malaysia has maintained a prudent macroeconomic policy for decades. As a result, the macro-economy is always stable. Inflation is always well controlled because price stability is a condition for maintaining sustainable growth. Inflation will cause difficulties in mobilizing savings and distributing resources in the financial system. Malaysia's inflation rate was only about 3.2% and fluctuated very little in the period 1960-2007. Meanwhile, the central bank of Malaysia has actively pursued interest rate liberalization with the goal of building a system. market-driven financial system. Malaysia opted for gradual interest rate reform, starting in the 1970s. The Malaysian government has steadfastly pursued high savings rates in its national development policy. Over the past four decades, the country has adopted various savings programs with attractive interest rates to stimulate savings, including the Amanah Saham National program in 1979, the Amanah Saham Bumiputra program in 1991, the Savings Campaign country 1996 and Amanah Saham Vision 2020. All these programs have had a major impact on mobilizing savings from the private sector.

Malaysia also has a relatively well-developed banking system, consisting of commercial banks, financial companies, foreign trade banks, etc., of which commercial banks are the main depositors. Another important organization is Postal Savings, which was created to provide savings services in both urban and rural areas. During the 1970s and 1990s, Malaysia's financial system developed rapidly thanks to economic growth and the application of many effective policies to the financial sector. This leads to the emergence of many new financial products and services that contribute to the increase in the savings rate mobilized from the private sector.

To explore the factors affecting the mobilization of savings from the private sector in Malaysia, Ang (2010) carried out an econometric study based on statistics. The results show that Malaysian government policies play an important role in promoting savings, among other factors. Firstly, decades of income growth and economic growth underpin the savings rate. In terms of age structure, the increasing proportion of the population in working age is also the cause contributing to the increase in the savings rate. However, the low child rate also poses a challenge to savings in the coming decades as the population ages. Second, the development of the financial system has the effect of promoting private saving. Therefore, the government needs to develop the financial system to promote resource mobilization to serve long-term socio-economic development goals. Finally, in terms of fiscal policy, the results also do not support the Ricardo Equivalence Hypothesis, which means that public saving will not crowd out private saving. Thus, Malaysia has used the savings channel to effectively mobilize financial resources from the private sector. Solutions are carried out synchronously, from maintaining a stable macroeconomic environment, developing the banking system, and having policies to encourage savings. As a result, the country has increased the deposit and savings ratio, thereby increasing the investment rate without facing a deficit in the balance of trade and balance of payments.

1.2. Korea's experience: developing the bond market

The Korean financial system was initially subject to considerable government intervention to implement economic development strategies. The main channel to mobilize financial resources is through banks to attract savings from the population to finance investment. Therefore, banks play an important role in mobilizing and providing capital for the economy. The capital market plays only a limited supporting role in the process of mobilizing and allocating financial resources. However, along with the development of the economy, the channel of mobilizing financial resources through banks is no longer enough to meet the increasing and increasingly complex demands. To complement the banking system, the Korean government has implemented a series of policies to develop the bond market, notably the corporate bond guarantee system. Since the 1997 financial crisis, the Korean government has increased the issuance of bonds to mobilize financial resources to cover the budget deficit and restore the economy after the crisis. A series of measures were taken to simplify government bonds, such as reducing the number of types of bonds, unifying a common name for government bonds. An electronic bond auction system is built. To facilitate market development, Korea has established credit rating organizations and raised standards. As a result, information about bonds is more transparent, investors better understand the value of each bond. As a result, Korean government bonds increasingly become an important financial resource mobilization tool in the market. Korea's experience is to simplify and make the market transparent. Reduce state intervention in the market based on supply and demand, use auction instead of forced bond purchase.

1.3. China's experience: stock market development

Since 1986, when China began equitizing state-owned enterprises, the need to buy and sell shares began to appear, promoting the birth of the stock market. When there was no market, securities were traded floating on the market and then traded through banks. On November 26, 1990, the Shanghai Stock Exchange was established. Two years later, the Shenzhen Stock Exchange was born. Since then, the size of China's stock market has grown rapidly, after only five years, it has increased 35 times in circulating size and 1129 times in trading size. Up to now, the Chinese stock market has grown to a very large scale, with extremely active trading.

In the development of China's stock market, it is very clear that the role of the state hand in orienting and having a long-term development strategy for the market. In the beginning, because the market was still allowed to develop spontaneously, securities trading hardly developed. On the other hand, the state creates conditions to expand the good parts of the stock market such as securities companies, issuers, and investors. It is important that China maintains a fast-economic growth rate and a stable macroeconomic environment. At the same time, China is very active in opening the market to foreign investors selectively, which encourages companies to issue shares to foreign strategic partners. Such experience of China is useful for Vietnam in developing the stock market. On the one hand, the state needs to maintain a stable macro environment and a good growth rate, because the stock market is a test of the economy, if the economy is less stable and underdeveloped, it cannot develop. stock market development. On the other hand, it is necessary to create a legal corridor and develop parts of the market synchronously, attaching importance to the role of foreign investors.

1.4. Experiences of some Asian, African and Latin American countries: attracting private financial resources, public-private cooperation in infrastructure

Since 2004, private capital investment in infrastructure in developing countries has increased sharply since 2000, reaching $64 billion. This increase is primarily in the telecommunications sector, particularly in Africa. Private phone providers have financed about 50% of the total investment in this sector. In East Asia and the Pacific, privatization and private sector financing more than doubled between 2000-2003 compared with 1990. China became a leader in revenue attracting private financial resources, with the equitization of telecommunications and energy businesses. In the public-private partnership sectors, investment in infrastructure accounted for half of all revenues in developing countries between 1990 and 2003. Experiences of countries in attracting private financial resources into Infrastructure investment must first of all pay attention to the practical context at the time of cooperation. Public-private partnership must be built in accordance with current conditions, ensuring benefits for both sides. Therefore, in the process of establishing a public-private partnership, consideration must be given to the policy environment, regulatory framework, financial requirements and financial resources, political constraints and interests of the parties involved. relate to. Note that public-private partnerships are effective tools for solving some problems, but not all. Specifically, cooperation needs to be built after analyzing the following aspects:

- Technical problems;
- Legal framework, policy;
- Institution and capacity;
- Commercial, financial and economic issues.

Korea has actively used infrastructure bonds to attract capital for local infrastructure. Many cities have issued Samurai bonds to finance development investment. For example, the construction of the Daejeon Riverside Expressway was financed by approximately $13 billion from Samurai bonds. India again uses the method of mobilizing financial resources through a special intermediary with a high credit rating. This agency will issue bonds and then use the proceeds to lend to localities by buying back local bonds. In this way, localities can obtain financial resources for investment from the private sector across the country, even internationally, which they normally do not have the experience and reputation to mobilize. Some countries rely heavily on build-operate-transfer (BOT) or similar mechanisms as in Taiwan and India. An example of BOT investment in Taiwan is the construction of the 101-storey Taipei Tower, the tallest building in Taipei and the headquarters of the Taipei Stock Exchange. India also uses BOTs to finance infrastructure projects. In Indonesia, public-private partnership in urban infrastructure investment is also noticed due to the limited state budget. The principle of cooperation is to ensure that the private sector can recover its investment capital by collecting construction operating fees in the form of BOT.

For the partnership to be successful, government support and commitment are crucial. Government commitment is important for two reasons. First, there needs to be a strong commitment from both the government and the private sector involved in the cooperation. The government is committed to allowing and supporting the private sector to participate in investment projects, while the private sector must commit to a long-term participation in economic development because infrastructure investments will not be able to bring benefits. short-term profits. Second, the government must have a strategy and plan for attracting private investment in infrastructure to coordinate activities between the two sides. It is important for the government to establish a reliable cooperation mechanism, not only to attract private financial resources but also to make cooperation effective. For example, the private sector has invested in the construction of the new urban area Bumi Serpong Damai on the outskirts of Jakarta, Indonesia. Table 1 summarizes the scale of infrastructure investment projects with private participation by sectors and geographical regions from 1995 to 2004 as reported by the World Bank.

Table 1 shows that the total investment size has tended to decrease in recent years. The most invested sectors are electricity and energy, telecommunications and transportation. The most invested regions are Latin America and the Caribbean.

Table 1. Investment in infrastructure projects with private sector participation in developing countries 1995-2004 ($ billion)

	1995	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**
Field										
Energy	21,7	30	46,3	29,3	21,1	27,4	15,6	19,2	17,6	12,7
Electricity	18,2	27,4	43,3	23,3	18,3	24,9	14,1	10,3	14,7	12,1
Natural Gas	3,6	2,6	3,0	6,1	2,7	2,5	1,5	8,9	2,9	0,6
Telecommunication	17,2	24,6	39,9	51,8	36,1	48,9	45,2	33	33,2	45
Traffic	8,2	15,7	19,4	17,5	8,2	9,1	8,1	3,6	5,0	4,5
Water and waste	1,5	1,7	8,4	2,2	6,5	4,8	2,4	2,0	1,4	1,9
Area										
East Asia and the Pacific	18,8	28	34,9	9,7	13,1	14,3	11	9,7	13	8,7
Europe and Central Asia	8,1	10,5	14,2	12,1	9,4	25,0	12,3	16,8	12,2	12,5
Latin America and the Caribbean	17,1	25,8	49,3	71,2	37,3	38,7	33,7	19,6	15,8	17,4
Middle East and North Africa	0,1	0,3	5,1	3,1	3,0	4,1	4,4	1,6	6,2	10,9
South Asia	3,8	5,8	6,3	2,3	4,6	4,4	4,6	6,0	3,4	9,6
Sub-Saharan Africa	0,8	1,7	4,3	2,5	4,6	3,7	5,3	4,2	6,5	4,9
Sum	**48,7**	**72,1**	**114,1**	**100,9**	**72**	**90,2**	**71,3**	**57,8**	**57**	**64,1**

Sources: Izaguirre, Ada, Karina (2005) "Private infrastructure: Emering Market Sponsors Dominate Private Flows", Public Policy for the Public Sector Note No.299, Washington, DC: WorldBank.

From the experiences of other countries, it can be seen that countries use a variety of different tools to attract private financial resources for infrastructure investment such as issuing construction bonds, government bonds, using using BOT, BT cooperation. In practice, it is necessary to use a combination, depending on the specific case to promote the strengths of each tool

2. SOME LIMITATIONS IN MOBILIZING FINANCIAL RESOURCES

Firstly, most of them are small and medium-sized private enterprises, lacking capital, technology and management skills. Large-scale enterprises with brand names are still too few. This reflects the quality of private enterprises and should be considered as one of the policy issues that need to be addressed in order to further improve the quality and role of the private sector in the economy.

Second, although we are developing rapidly, we have not yet fully exploited the potential and resources of the private sector. The cause of this problem is that there are still barriers to this area, such as: difficulty in accessing land and capital; administrative procedures for investment are still complicated; corruption, bribery, domination, harassment. In addition, the private economy itself has limitations such as smallholder thinking, fragmented business, snatching, no long-term strategy.

Third, mobilizing private financial resources through the banking system has only partially exploited the potential of this sector. The reason is that the banking system is still underdeveloped and monotonous in terms of operations; equity size is still small compared to regional and world standards.

Fourth, new financial resources mobilization channels such as the stock market and bond market have not yet developed firmly and are small in scale. The size of Vietnam's bond market accounts for only about 17% of GDP while in countries like China it is 53%, and Korea is 105%. The corporate bond market is still underdeveloped, with very few issuers.

Fifth, the results of socialization activities in a number of fields such as education, health... are still limited, the number of socialized medical and educational establishments is still small, not meeting the requirements.

3. LESSONS FOR VIETNAM

From the limited situation in mobilizing financial resources of the private sector and the experience of countries around the world, some lessons have been drawn as follows:

- Firstly, in order to attract financial resources from the private sector, it is necessary to develop a legal framework and policies to support, facilitate and ensure the interests of the private sector to participate in investment. capital contribution. This legal system covers different channels for mobilizing financial resources, from direct to indirect. Specifically:

  + Having a mechanism for the healthy development of the financial system, including banks, non-banking financial institutions, capital markets and securities markets. This is also the experience of Malaysia, China and Korea.
  + Develop policies that allow cooperation between the state and the private sector in different

forms in infrastructure projects, projects, socialization projects in education, health care, etc. to ensure that public, private and social interests.

- In addition to the legal framework, the mobilization of financial resources should be based on a stable macroeconomic environment, especially maintaining the stability of prices and exchange rates. Ensuring high economic growth and income growth, creating confidence in the private sector. Only then will the private sector have accumulated financial resources, and trust in investment and savings. Malaysia's experience of attracting savings shows that if it maintains a stable macro-economy and low inflation, it will create conditions for people to trust the local currency and boldly deposit savings - The financial system must develop developed with high reliability and convenience, many different financial products to attract financial resources in the private sector, with diversified, dispersed and difficult to measure characteristics. There are policies to encourage savings and savings. To rationally develop the bond market, in addition to the stock market, to attract financial resources directly from the private sector. This is also the experience drawn from the development of the Malaysian financial system.

- PPP projects need to be well prepared, thoughtful, with strong government commitment and must ensure profitability for the private sector. This is the experience from countries that have been successful with public-private partnership projects, BT, BOT, etc.

Third, restructure and innovate business methods of commercial banks in order to attract financial resources from the private economy. It is necessary to increase the capital size of banks through issuing shares or merging banks.

Fourth, continue to equitize state-owned enterprises. Consistently promoting the equitization of state-owned enterprises and reducing the holding rate in equitized enterprises.

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SOLUTIONS TO OVERCOMING EU NON-TARIFF BARRIERS IN THE CONTEXT OF IMPLEMENTING EVFTA AGREEMENT

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Abstract: *The EVFTA agreement with high tariff preferences opens up opportunities to export many Vietnamese goods to the EU market. However, EU countries use many sophisticated and strict non-tariff barriers to hinder the export of Vietnamese goods to this market. Vietnam's goods exports to the EU have grown quite well since the EVFTA Agreement took into effect more than 2 years ago. Vietnam's trade surplus was relatively high at nearly $28 billion in 2021 and has continued to grow steadily. This shows that Vietnam is gradually taking advantage of the EVFTA Agreement, while gradually adapting and overcoming the EU's non-tariff barriers. This article ultilizes traditional methods like analysis, comparison, statistics and integration. It studies the European Union's non-tariff barriers regarding Vietnamese exports in the context of the implementation of EVFTA, focusing on the 2015-2021 period, and proposes two solution groups for Vietnamese exports to overcome these barriers.*

Keywords: *Non-tariff barriers, EVFTA.*

1. INTRODUCTION

EVFTA has been in effect for over two years, since August 8, 2020. Since then, Vietnam has proven to capitalise on this agreement relatively well, particularly the commitments to eliminate tariffs. Vietnam's exports into the EU has grown positively. However, Vietnamese exports are facing great hurdles due to increasingly being imposed non-tariff barriers by the EU. With the significance of the European market, Vietnam must quickly find solutions to this. This article seeks to address that, with a view to boosting exports of Vietnamese goods into the EU under EVFTA.

Contents of this article include:

- Introduction of the theoretical framework
- Literature Review and Previous Research Studies
- Research Results
- Discussion and Conclusion

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1.1. Theoretical framework

According to WTO, non-tariff measures are measures that involve or affect the movement of goods between countries. Non-tariff barriers are non-tariff measures that impede trade in goods without a legal, scientific, or equitable basis.

In international trade relations, some non-tariff barriers are commonly used such as:

- Technical measures
- Hygiene and epidemiological measures
- Rules of Origin
- Quantitative restraint measures

In addition, in international trade relations, countries also use other non-tariff barriers including:

- Prohibition of import and export
- Quota
- License
- Import deposit

There is a current trend when countries participate more and more in free trade agreements, tariff barriers are gradually removed. Nevertheless, countries have increased non-tariff barriers, especially technical barriers to trade, sanitary and phytosanitary measures, rules of origin, etc. The fact that countries pose strict technical barriers is a big challenge for Vietnam's exports.

While tariffs have policy goals and implementation methods are relatively clear and simple, the implementation objectives of non-tariff barriers are quite abstract which can be used by countries (especially developed countries and countries experienced in commercial disputes) to make it difficult for Vietnam to export goods. EU countries are mostly developed countries, when negotiating to sign the EVFTA with Vietnam, these countries have also introduced many non-tariff barriers that make it difficult for Vietnam's exports to EU countries.

1.2. Some regulations on non-tariff barriers of EU countries in EVFTA

- Technical barriers and sanitary and epidemiological measures: Necessary measures to protect the environment, human and animal health, prevent bad actions, etc that the EU considers appropriate, provided that such measures are not applied in a manner that would create arbitrary discrimination, or unreasonably restrict international trade. The most common technical regulations used by the EU include: (1) Regulations for food safety and hygiene; (2) EU standards for quality management; (3) EU regulations on environmental and resource protection (ISO 14000, EMAS, IUU, EU regulations on social responsibility). EU is a fastidious market, therefore, Vietnamese goods must also improve a lot in quality to be able to overcome these barriers in spite of the benefit of tariffs.
- Rules of Origin: EU rules of origin requirements can be difficult to meet. Normally, raw materials must meet a certain percentage of internal content (raw materials originating in the

EU or Vietnam) for goods to enjoy preferential tariffs under FTA. This is a big challenge for Vietnamese enterprises because raw materials for export production are mainly imported from China or ASEAN.

- Price Management Measures: Measures to control import or sale prices in the EU market through the regulation of maximum prices, taxable prices, fees and surcharges may have a direct or indirect impact on the export of Vietnamese goods to the EU.
- Provisional Trade Protection Measures: this group consists of safeguard, anti-subsidy and anti-dumping measures. Recent trends show that the EU uses these measures quite often in restricting seafood imports into the EU market.
- Administrative management measures: Regulations on payment, deposit, goods size, advertising and customs clearance locations.
- Quantitative restrictive measures: These are measures that directly limit the volume or value of goods imported into a country. Hence, it is highly protective, including import bans, quotas and non-automatic import licensing.

It can be seen that the EU applies a variety of barriers to control the flow of imported goods, protect domestic consumers as well as protect the environment. This system of barriers is extremely complicated, which can "frustrate" many foreign exporters wishing to dominate the EU market. The general trend in the use of EU non-tariff measures is to shiff away from direct quantitative restrictions to more sophisticated measures such as countervailing duties, safeguards, technical standards, import restrictions associated with requirements for compliance with environmental and labor standards, traceability requirements.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

There have been some studies about non-tariff barriers related to the topic:

- "Solutions for overcoming non-tariff barriers to boost exports of marine products into the EU" (2019) by PhD. Nguyễn Thị Thu Thủy. The article generalises the state of Vietnamese marine product exports into the EU, analyses and provides solutions against the non-tariff barriers imposed on them. It focuses specifically on marine products rather than goods in general.
- "Non-tariff barriers on Vietnamese exports" (2020) by Nguyen Bich Thuy. The article covers non-tariff barriers in general and does not focus on those imposed by the EU in particular.
- "Vietnam-EU FTA: Oppoturnities and challenges from non-tariff barriers" (2017) by Tran Thi Ha. The article covers the situation but not the solutions against the EU's non-tariff barriers.
- "Guide to Vietnamese fruits and vegetables industry and businesses" (2020) by the Ha Noi Investment, Trade and Tourism Promotion Center. The book covers exports of Vietnamese fruits and vegetables into the EU, with includes commitments about non-tariff barriers on this type of goods in EVFTA, but has few mentions about other industries.

All the above studies are not up to date as they precede EVFTA coming into effect. On the basis of their results, this article seeks to suggest measures for exports from Vietnam to overcome the EU's non-tariff barriers under EVFTA.

3. RESEARCH RESULTS

3.1. Status of trade relations between Vietnam and EU in recent years

From August 1, 2020, the EVFTA Agreement comes into effect. Since then, Vietnam's exports to the EU have grown well, imports to Vietnam from the EU have only increased slightly, Vietnam's trade surplus with the EU has been increasing and reached a peak in 2021. This also proves that Vietnam has gradually taken advantage of the EVFTA Agreement and has also overcome barriers in general and non-tariff barriers in particular from the EU.

Table 1. Import and export turnover of Vietnam – EU in the period of 2015-2021

(Unit: billion USD)

Year	Export		Import		Two-way trade		Balance of trade	
	Value	Increase/ Decrease (%)	Value	Increase/ Decrease (%)	Value	Increase/ Decrease (%)	Value	Increase/ Decrease (%)
2015	30,97	9,8	10,50	6,1	41,47	8,93	20,47	7,73
2016	34,00	9,9	11,14	6,9	45,14	9,11	22,86	11,67
2017	38,18	12,8	12,19	9,4	50,37	11,58	25,99	13,69
2018	41,79	9,5	13,89	13,9	55,68	10,54	27,90	7,35
2019	41,48	-1	14,91	7,4	56,39	1,27	26,57	-4,77
2020	43,70	5,4	18,50	24,1	62,2	10,3	25,20	-5,16
2021	45,80	4,81	17,90	-3,24	63,70	2,41	27,90	10,71

Source: General Department of Customs and Ministry of Industry and Trade

From 2015 to 2021, the two-way trade turnover between Vietnam and the EU has increased by 53.6%, from $41.47 billion in 2015 to $63.7 billion in 2021; in which Vietnam's exports to the EU increased by more than 47.9% (from 30.97 billion USD to 45.8 billion USD).

The trade balance between Vietnam and the EU has been in surplus for many years, from 20.47 billion USD in 2015 (up 7.73% compared to 2014) to 27.9 billion USD in 2021 (up 10 71% compared to 2020). However, the trade balance in 2019 and 2021 decreased slightly due to the Covid-19 pandemic.

In EU community, Netherlands and Germany are Vietnam's two largest export markets, with export turnover in 2021 of US$ 7.69 billion, increased by 9.8% and US$ 7.29 billion, increased by 9.7% respectively. Countries with export turnover from 1 billion to 5 billion USD in the EU, respectively: Italy 3.88 billion USD, Belgium 3.6 billion USD, France 3.2 billion USD, Austria 3 billion USD, Spain $2.55 billion, Poland $2.1 billion, Slovakia $1.24 billion, Sweden $1.2 billion. The rest are markets with export turnover of less than 1 billion USD.

The EVFTA Agreement has taken into effect since August 1, 2020 which was just 4 months before the year 2021. Although the Covid-19 pandemic still has severe impacts, key export products continue to recover and increase sharply in the next four months and the whole year of 2021.

In general, in 2021, the export turnover of most items to the EU market increased compared to the same period in 2020. Notably, items achieved double-digit growth. such as: iron and steel products; other machinery, equipment, tools and spare parts; means of transport and spare parts; plastic products; wood and wood products.

Vietnam exports mobile phones of all kinds and components mainly to Austria, the UK, Germany, France and the Netherlands. This item accounts for more than 30% of Vietnam's export turnover to EU countries and is also Vietnam's No. 1 export item since 2013, especially with the presence of Samsung electronics.

Other export items, such as textiles, garments, shoes of all kinds, computers, products, electronics and components account for nearly 40% of total exports and are the traditional export items of Vietnam for many years.

Vietnam imports goods from the EU mainly from Germany, Italy, Ireland, France, the Netherlands, Spain and Belgium with a total import turnover of 17.9 billion USD in 2021, accounting for 71.6% of the total value of imports from EU countries. Imports from EU countries focus mainly on the group of items: machinery, equipment, tools, spare parts; pharmaceuticals and pharmaceutical raw materials; chemicals and chemical products; raw materials for textile, garment, leather, shoes; Plastic materials; chemicals and chemical products and auto parts and components. Vietnam's imports from the EU are all important means of production, high-tech products or input materials for key industries. It can be seen that when the EVFTA Agreement comes into effect, Vietnam will be much more favorable in importing important inputs with high technology content that are only available in developed countries such as countries in the EU.

Thus, the EVFTA Agreement with very low tariffs facilitates the import and export of goods between nations, but the regulations on non-tariff barriers are very strict and sophisticated, especially from the EU side. The data on the import and export situation of Vietnam and the EU in Table 1 shows that Vietnam has made better use of EVFTA Agreement to boost the export of Vietnam's advantageous products to the EU, and import other products which are necessary inputs from the EU for Vietnam's manufacturing industries. At the same time, barriers are overcome step by step, especially non-tariff barriers of the EU.

3.2. Responsiveness of Vietnam's exports to EU non-tariff barriers

Despite facing many obstacles, the export turnover of Vietnam's goods to the EU has increased gradually over the years, which partly shows that Vietnamese goods have affirmed their prestige and brand in the EU market, especially after the EVFTA Agreement comes into force. The quality of Vietnamese goods is constantly being improved, investment in upgrading infrastructure, machinery, equipment and technology is always interested in innovation. The majority of businesses have complied with technical standards, technical requirements as well as standards on hygiene, safety and quarantine and are accepted by the EU. Some businesses have shown acumen in dealing with non-tariff barriers.

However, in response to non-tariff barriers, there are still some limitations such as: The quality of goods exported to the EU is uneven and unstable and has not been fully controlled; There is also the abuse of chemicals and antibiotics in the production, exploitation and preservation of goods.

The above limitations stem from a number of main reasons, including: Some enterprises' awareness of the risks and consequences of non-tariff barriers for exporting goods to the EU market is quite limited; The work of traceability is sometimes not focused and systematic; The status of origin fraud to enjoy preferential treatment or failure to ensure the rules of origin is not eligible for incentives.

4. DISCUSSION AND CONCLUSION

4.1. Solutions for Vietnamese goods to overcome EU's non-tariff barriers

4.1.1. Solutions from the Government and management agencies

Firstly, The Government and management agencies, especially the Ministry of Industry and Trade, and the Vietnam Chamber of Commerce and Industry should strengthen and promote information channels, disseminate, guide and widely propagate about international economic integration of Vietnam, especially the free trade agreements that Vietnam participates in, including the EVFTA Agreement, which took effect on August 1, 2020 with provisions on non-tariff barriers. Although the EVFTA Agreement has been in effect for more than 2 years, some businesses are still less interested in researching it. Thus, they are not sure of the basic content of the Agreement, even some businesses are still vague about EVFTA. Therefore, these businesses have not taken advantage of the incentives brought by the EVFTA Agreement, nor they are prepared to meet the strict requirements of the EVFTA Agreement, especially to understand the EU's non-tariff barriers to find ways to overcome them.

Secondly, coordination among ministries to bring the content of removing market barriers into meetings of intergovernmental committees between Vietnam and EU countries; proactively raise technical barriers, sanitary and epidemiological barriers at regional and multilateral forums (WTO); step up the participation and implementation of procedures on promoting trade facilitation, such as strengthening the signing of cooperation agreements or mutual recognition of standards, inspection processes between the authorities of Vietnam and EU countries.

Thirdly, The Government should have policies to encourage businesses to apply and build quality standards, international sanitary and epidemiological standards at the request of the EU through consulting support measures , training, for example ISO 9000, ISO 9001, ISO 14001, SA 8000, HACCP, GMP, etc ; Promulgate policies to encourage research and training institutions to associate with enterprises and production facilities to quickly bring technical advances and new technologies into production. In order to enter the EU market, it is essential to support businesses in the application and development of international standard systems so that enterprises produce goods met international standards.

Fourthly, technology capacity and quality management are enhanced to ensure technical and safety standards. It is necessary to well implement policies to encourage scientists to transfer research results into production practice, contributing to promoting productive, quality and efficient production, and clean production; Attracting all economic sectors to participate in research and transfer of technical advances; Exploiting advantages in investment commitments from EVFTA to strengthen technological cooperation to absorb advanced science and technology in production; To strongly develop the form of financial leasing in the procurement of machinery, equipment and technology for export enterprises in order to improve the development ability and competitiveness of enterprises; Increasing investment in technology to serve the inspection and management of food quality, safety and hygiene and other technical standards.

Fifthly, it is essential to improve institutions and raise public awareness on labor, environmental and intellectual property issues, and protect sustainable resources. Vietnam needs to continue to improve the legal framework to meet labor, environmental and intellectual property conditions, and to protect sustainable resources in line with international standards in general and the EVFTA in particular. Simultaneously, it is necessary to prescribe strong enough sanctions for violations; Continue to promote propaganda and education activities, raise public awareness on environmental, labor and intellectual property issues, and protect sustainable resources; Increasing investment in waste and emission treatment technology, ensuring environmental protection standards as committed in the EVFTA; Enhancing the education of enterprises about the importance of switching to clean technology, investing in environmental treatment technology and awareness in the correct use of chemical residues in production, especially is agricultural production.

Sixthly, The Ministry of Industry and Trade needs to help businesses understand the benefits of certification of origin and continue to create conditions for businesses to prove the origin, as well as self-certify the origin of goods. Small businesses can also participate in self-certification of origin of goods and there are no requirements of a conditional nature that businesses cannot meet. This helps businesses get used to a new method, bringing direct benefits to businesses.

Seventhly, development of supporting industries is to ensure better satisfaction of requirements on rules of origin. The supporting industry will provide raw materials, components, accessories, and spare parts, which are generally input factors of Vietnamese origin. The State needs to identify key export industries and plan the development of supporting industries. With limited resources, Vietnam cannot disperse its forces, but must focus on developing key supporting industries that it is capable of, such as textiles, footwear, etc., and assembly (such as cars and motorbikes), electrical and electronic equipment). In addition, it is necessary to have preferential policies to attract enterprises including small and medium enterprises as well as FDI enterprises to invest in developing production clusters to develop supporting industries; Develop a favorable mechanism to attract FDI from EU investors involved in the production process as well as export support activities in Vietnam. Developing supporting industries on the one hand reduces the import of raw materials, fuels, materials and components; on the other hand, it is very important to better meet the EU's rules of origin so that Vietnamese enterprises can enjoy many incentives

4.1.2. Solutions from businesses

Firstly, Enterprises should actively learn the law, understand the EVFTA Agreement, especially the changes in EU regulations. Failure to regularly update information will put businesses in a passive position and will be at high risk. In addition, businesses must also take active measures to deal with every time a trade dispute occurs. Enterprises should go through their industry associations, professional agencies to capture information about non-tariff barriers of the EU market, and therefore when doing business in this market, it is necessary to consult with the EU local partners.

Secondly, Enterprises need to pay attention to improving the competitiveness of goods, for example, improving the quality of exported goods, especially exports to developed countries such as the EU. The EU market is still a fastidious market with strict requirements on product quality, thus businesses need to follow market research results on consumer tastes and factors related to human health people, thereby offering safe products for users with improved designs, quality, multi-utilities, competitive prices.

Thirdly, meet the requirements of food hygiene and safety right from the production facility (including infrastructure and production processes according to HACCP, GMP standards). In addition, food processing enterprises need to understand a number of general EU regulations related to food hygiene and safety of animal origin, antibiotic residues, permissible chemical residues.

Fourthly, master and understand the rules of origin of products. It should be noted that Vietnamese food products are considered to be of pure Vietnamese origin if such products are of animal or plant origin, born and raised in Vietnam. Enterprises need to coordinate well with growers and breeders in complying with the rules of origin of goods. Enterprises need to pay attention to purchasing raw materials that are legally exploited, have clear origins, and do not purchase floating materials of unknown origin. An industrial product is considered to be of Vietnamese origin if the materials used to manufacture such products originate from Vietnam or EU countries, or the materials originate from a third country that is a contracting party. Preferential trade agreements with Vietnam and the EU at the same time are entitled to preferential treatment.

Fifthly, prepare conditions for overcoming anti-dumping, anti-subsidy and trade safeguard measures. In addition to the requirements on sanitary and phytosanitary barriers, technical barriers, and rules of origin, the EU market still has the ability to continue to apply trade remedies such as anti-dumping and anti-subsidy. In addition, Vietnamese businesses also need to carefully study the regulations on labels, labels, packaging, and product specifications as required by the EU to comply with the EU regulations to avoid unnecessary troubles.

Sixthly, efforts to take advantage of the EVFTA. The EVFTA Agreement, after taking effect, has reduced unreasonable trade barriers, increased publicity, transparency, and predictability when implementing trade remedies, animal and plant quarantine, and as technical barriers. Therefore, businesses can take advantage of these commitments to avoid or minimize the risk of facing non-tariff trade barriers that the EU is and will apply to goods imported from Vietnam.

4.2. Conclusion

After the EVFTA came into effect, Vietnamese goods exported to the EU have many advantages because the tariff is very low. However, Vietnamese goods will be the subject for EU countries to increase the application of non-tariff barriers. Barriers such as chemical and antibiotic testing regulations, quality or environmental regulations, and separate inspection programs are and will likely be increased. Therefore, enterprises exporting Vietnamese goods need to prepare carefully, make efforts to improve product quality, improve competitiveness in the direction of sustainability and responsibility, especially in compliance with regulations of law, meeting well technical standards, sanitary and epidemiological standards, rules of origin. The role of the State and management agencies is to support and create the best conditions. It is essential for new businesses to play a decisive role. Businesses need to take advantage of the Government's support; actively and proactively fully implement EU regulations, comply with the principles and requirements of the market, as well as commitments in the EVFTA to enjoy many incentives.

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SOLUTIONS TO PROMOTE EXPORTS TO THE US MARKET FOR VIETNAM BUSINESSES

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Abstract: *The United States is the word's number one economy, with powerful industry, modern agriculture, and the commercial and financial center. With a GDP scale of 22.6 trillion USD in 2021, per capita income reaching over 65,000 USD, the US is considered the leading market for Vietnamese businesses. Since the US-Vietnam bilateral trade agreement has been taken effect in 2001, trade between the two countries has grown tremendously. Vietnam's exports to the US are currently ranked 9th among export markets to the US - this is considered one of the leading export markets of Vietnam. By summarizing the current status of Vietnam's exports to the United States since the two countries normalized relations, from there, the article offers solutions to promote export activities for Vietnamese businesses.*

Keyword: *Export, trade agreement, international integration, international trade.*

1. INTRODUCTION

In the history of negotiating and signing economic agreements, the negotiation process to sign the Vietnam - US Trade Agreement (BTA) has been long and challenging. In 5 years with 11 rounds of negotiations, on 11/12/2001, the Trade Agreement was signed. This is considered an important historical milestone in the trade relations between the two countries, which have had historical problems.

With the BTA, economic relations between Vietnam and the United States are operated on a solid legal foundation, creating trade regulations for both sides, and the two sides agree to give each other normal trade relations. This is also an important step, both economically and politically, in the path of full normalization of relations between the two countries. As of the Agreement, Vietnamese goods exported to the United States shall enjoy treatment no less favorable than which the United States accords to goods imported from any other third country. Since then, Vietnam's exports to the US have been boosted.

After more than 20 years since the signing of the BTA, the two-way trade between the two countries has made great progress. With the comparative advantage of Vietnam and the diversity of needs, that has helped the US find products from Vietnam. The US imports from Vietnam are mainly agricultural, aquatic and processed seafood, textiles, footwear, and leather goods. These are Vietnamese products that have many comparative advantages, due to taking advantage of abundant labor resources and abundant natural potential.

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2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

After the Trade Agreement between the two countries has been taken effect, the United States applied the most-favored-nation tax rate on goods imported from Vietnam (about 3% on average) much lower than the previous applied rate (about 40-50%). Beside, the United States also considers giving Vietnamese goods the status of Generalized Scheme Preferences (GSP) with the tax rate of 0% for some items.

Regarding the topic, there have been a number of research works as follows:

Ministerial research topic *"Economic cooperation relationship Vietnam – USA"* by Institute of American Studies. The research topic outlines the current status of economic relations between Vietnam and the United States from the time of normalization to 2011. In which, emphasis is placed on cooperation in trade and investment and some solutions.

Author Nguyen Thi Thuy Dung with topic: *"Achievements and outlook in economic cooperation relationship Vietnam – USA 2008-2020"* at Science Journal – number 48/2021. From 2008 to 2020, the economic cooperation relationship between Vietnam and the United States has achieved many important achievements. The achieved results are a solid foundation for the two countries to continue to promote deeper and deeper cooperation in the future, for the benefit of the two peoples, for peace and development of the region and the world. The article also gives some implication for promoting Vietnam - Hoa Ky relations in the future.

Research work by the author's collective *"Vietnam – US cooperation relationship (1995-2020)"* Published 2021 by National Political Publishing. a more comprehensive and in-depth look at the 25-year journey of normalizing Vietnam-US relations (1995-2020), affirming the efforts of both countries to overcome difficulties and differences. The content of the book deeply analyzes the international context and factors that influence and govern the relationship between Vietnam and the United States; the current situation, the development steps in the relations of the two countries; initially assessed the normalized relationship between the two countries over the past 25 years, forecasted the relationship prospects in the coming time.

Researched by Mark E. Manyin with "U.S. – Vietnam Relations in 2014: Current Issues and Implications for U.S. Policy", CRS 2014 R40208, summarize the current situation of Vietnam – US relations and issues that need to be further promoted in the relationship between the two countries. Research "A New Era in U.S.-Vietnam Relations: Deepening Ties Two Decades after Normalization" (2014) by Murray Hiebert, Phuong Nguyen and Gregory B. Poling systematically outline the development of each country's policies towards each other and the development of the Vietnam-US relationship.

Thus, related to the topic has been mentioned by many authors in Vietnam and around the world. However, there is still no research on Vietnam - US exports. In addition, the research time is often limited and the current data is not up-to-date.

3. METHODOLOGY

In order to achieve the above objectives and research tasks, the article combines the application of social science research methods and economic research such as historical method, systematic method, logical method. , statistical methods and document analysis, forecasting methods, policy analysis methods.

Historical methods, logical methods and systematic methods to answer theoretical problems, clarify arguments related and impact on the research object, can help explain the research object. in a whole. Methods such as surveys, statistics, and policy analysis are used to build qualitative and quantitative analyzes of the economic and trade relationship between Vietnam and the United States. These methods are used complementary to each other.

4. DISCUSSION AND CONCLUSION

4.1.The current situation of Vietnam's exports to the United States

- ***The period before signing the BTA***

Before 1995, although the United States and Vietnam had not yet normalized diplomatic relations, through indirect and informal ways, Vietnam still had economic and trade relations with many non-governmental organizations. According to Vietnam's statistics, during the whole period 1986-1989, the US's imports from Vietnam were almost zero, but in the 1990s, the situation had certain changes. In 1990, Vietnam exported to the United States an amount of goods worth about 5,000 USD, increased to 9,000 USD in 1991, 11,000 USD in 1992 and reached 58,000 USD in 1993. The above figures are the first steps of the country. economic relations.

On February 3, 1994, President B. Clinton announced the lifting of the embargo against Vietnam. Next, the US Department of Commerce moved Vietnam from group Z (including North Korea, Cuba and Vietnam) to group Y – less trade restrictions (including Mongolia, Laos, Cambodia, Vietnam and some countries) Eastern Europe and the former Soviet Union). The US Department of Transportation and Commerce have lifted the ban on US ships and aircraft from transporting goods to Vietnam, and allowed Vietnamese-flagged ships to dock at US ports.

Trade activities between the two countries has became vibrant, the total trade turnover between the two countries from several tens of millions of USD, by the end of 1996 had reached more than 1 billion USD. Particularly, the export value of goods from Vietnam to the US market over the years respectively: 1994 was 50.6 million USD, 1995 was 198.9 million USD and 1996 was 319.2 million USD and imported respectively: 1995 was 173.4 million USD, 1996 was 720.3 million USD. Thus, in just two years, the total trade turnover of the US - Vietnam has increased more than 4 times.

- ***The period after signing the BTA***

BTA has brought the average tax rate on goods imported from Vietnam into the United States from about 40% to 4%, creating the basis for the trade relationship to continue to grow strongly from the incentives the two sides give each other. The growth rate and scale were a surprise to many economic experts (because they think that, given the development speed of the Vietnamese economy, it takes a long time to prepare to take advantage of the BTA). In fact, since having BTA, Vietnam has increased exports to the US as well as to other markets, which is a great success of Vietnam's export goods production.

Since having the BTA, in two years (2002 and 2003), Vietnam had exported nearly 6.4 billion USD to the United States and imported over 1.5 billion USD (US has a trade deficit of nearly 5 billion USD compared to 1. 7 billion USD of all 5 years before BTA). Through the above data, it can be seen that the trade relationship between Vietnam and the United States developed rapidly: the average import level in 2002 and 2003 of the United States was higher than the level of the whole 5 years before the BTA (1995-2003). 2000) 5 times. In the following 3 years BTA, the US imports from Vietnam increased rapidly year by year, in 2002 increased by 230% compared to 2001, in 2003 increased by 190 % compared to 2002 and in 2003 increased by 433% compared to 2001. This spike in growth is due to the positive effect of BTA. This proves the indispensable driving force of policy in bilateral economic relations.

In the next stages, trade exchange between Vietnam and the United States has had a breakthrough compared to the previous period. The impact of BTA on goods exports from Vietnam is larger than exports from the United States. It can be seen that the total value of two-way trade in this period (2001-2006) was 31 billion 575.3 million USD, of which the value of imports from the United States was 25 billion 185.1 million USD, and export value was 25 billion USD. exports is 6 billion 390.2 million USD.

The proportion of export turnover of Vietnamese goods to the United States accounts for a large volume and has increased rapidly over the years. From the above figures, we can confirm that, after signing the BTA, the United States becomes the largest market for Vietnam's exports. At the same time, Vietnam became the 40th largest trading partner of the United States.

From the positive impact of the BTA and the achievements of bilateral trade relations in the 2001 - 2006 period, it has strongly promoted, leading to the US granting Permanent Normal Trade Status (PNTR), Vietnam became the WTO membership at the end of 2006.

In the following years, trade between Vietnam - US has continuously developed, in which the trade balance tilted in favor of Vietnam. 2020 marked the 25th anniversary of the establishment of diplomatic relations between Vietnam and the United States (1995-2020). During the 25 years of diplomatic relations between Vietnam and the United States, the bilateral trade turnover between the two countries has continuously grown. In particular, Vietnam is currently the 16th largest trading partner of the United States and is looking forward to being in the TOP 10 trading partners of the United States. In the opposite direction, the United States is also the third largest trading partner among more than 100 trading partners of Vietnam globally.

According to the General Department of Customs, in the past 25 years, the two-way trade turnover between Vietnam and the United States has increased nearly 120 times, from 451 million USD (in 1995) to 7.8 billion USD (in 2005) 45,1 billion USD (2015), 47.15 billion USD (2016), 50.8 billion USD (2017) and 77.5 billion USD (2019).

In particular, the growth rate of Vietnam's goods exports to the US market in the period 2010-2020 averaged 16.3% per year, from $14.24 billion (in 2010) to 77,08 billion USD in 2018. With this result, during 10 years, the United States has always been Vietnam's largest export market. The main export items of Vietnam to the US market are textiles; phones and accessories; computers, electronic products and components; other machinery, equipment, tools and spare parts; Footwear; wooden; with a turnover of each item reaching from 1 billion USD or more.

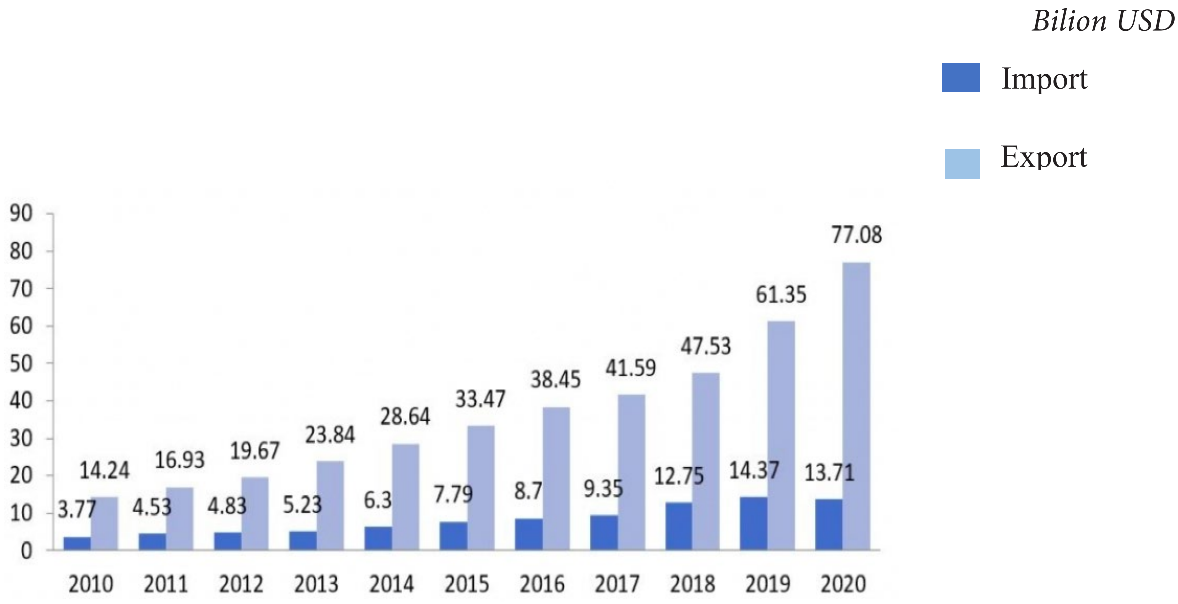

Figure 1. Import and export of goods between Vietnam and the United States (2010-2020)

Source: General Department of Customs

According to the Vietnam Trade Office in the United States, in 2021, the two-way turnover will surpass 100 billion USD for the first time, a very important achievement in the context of covid 19 and the disruption of the global supply chain.

Along with that is the effective and successful coordination between Vietnam and the United States in policy exchanges, especially regarding the consultation process to reach a final agreement to avoid imposing tariffs on Vietnam. This is also the basis for Vietnam and the United States to continue to maintain a favorable policy dialogue relationship in the coming time.

- ***Evaluation***

Trade exchange is the most important area in the economic relations between Vietnam and the United States, and it is also the basic content of the BTA. Over the past 20 years, the Vietnam – US trade relationship has achieved remarkable achievements, reflected in the following aspects:

First, two-way trade has been increased continuously over the years.

Second, the trade balance is always in favor of Vietnam (surplus for Vietnam).

Third, the total trade turnover between Vietnam and the US increased steadily over the years, but increased dramatically when the BTA came into effect with Vietnam's NTR (2002) and when the US gave Vietnam the Regulation PNTR (2007). This proves the positive effect of economic and trade policies for each other in practice.

However, restructuring Vietnam's export products to the US is still simple, the added content of products is still low. On the other hand, the US market trend is increasing barriers (anti-dumping, technical barriers – from product to process) demanding from product quality to nature of production process. This is creating difficulties and challenges for Vietnamese exporters because many Vietnamese products are at risk of being more tightly controlled by the US.

4.2. Some solutions for businesses to promote exports to the US market

**** Be more proactive and creative in improving the competitiveness of Vietnamese enterprises***

The Vietnam - US Trade Agreement has created opportunities for businesses to penetrate into one of the world's largest markets. Therefore, businesses need to prepare themselves for a series of necessary conditions:

- Further improve the level of business management, professional training, and especially foreign languages for employees. Because, investing in people is investing in the development of businesses.
- Surveying the US market from many angles, using many methods to develop production and/or export strategies (short-term, medium-term and long-term).

**** Improve the competitiveness of Vietnam's goods***

To improve the competitiveness of export goods, enterprises need to solve the following problems:

- Improve efficiency of capital mobilization
- Enterprises must apply strict management methods from business management, production process management, product quality according to ISO standards and regulations of American quality control agencies.
- To be able to improve the price competitiveness of Vietnamese exports in the US market, businesses need to make the most of domestically produced materials and accessories to limit costs to the lowest level.
- The structure of exports also needs to be diversified

**** Special attention should be paid to the registration of intellectual property in the US for their products and goods.***

The US market is a market that has almost reached international standards on all issues, including industrial property issues, copyright registration as well as trademark protection issues, etc. This issue is also very complicated. Besides, in the US market, besides domestic companies, there is also no shortage of fraudulent companies, stealing trademarks for personal gain (For example, disputes related to Vifon trademark. Vifon has been applied by a US company to own Vifon trademark copyright before Vietnam's Vifon company filed an application with the US authority. With the help of an experienced lawyer, Vifon regained its rightful ownership). Therefore, in order to penetrate the US market, Vietnamese enterprises need to immediately expedite the procedures for industrial property registration for their products.

- ***Actively approach information technology***

E-commerce is growing very fast and the potential is also huge. E-commerce has advantages and is really a new tool for the export promotion strategy of enterprises. Sellers and buyers are connected directly, without space and time constraints, so businesses can improve the efficiency of the market research process. E-commerce helps businesses reduce advertising costs, transportation costs, especially for goods that are electronic publications, and other costs such as transaction costs... Vietnamese businesses Nam must be aware of the trend of this modern business method and be fully prepared in terms of capital, foreign languages as well as elements of information technology

4.3. Conclusions

In its development strategy, Vietnam wishes to strengthen ties with countries around the world, especially the United States, to serve its development goals and promote its role of a reliable and responsible partner. In that context, the United States continues to give priority and wishes to strengthen extensive cooperation with countries in the Asia-Pacific region, including Vietnam. Although, the difference in political institutions between the United States and Vietnam leads to the policy-making process of bilateral economic relations always being delayed compared to the requirements of reality. However, every time the two countries reach an agreement to have a common policy, the actual economic relationship becomes vibrant and has a sudden development. When the BTA was signed, the Vietnam-US economic relations officially operated on a solid legal foundation. This is also an important platform to promote trade between the two countries. Despite many difficulties, increasing export promotion to major markets, including the United States, is considered as one of the important solutions in the development process that Vietnamese enterprises are aiming in the context of globalization.

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PAST EXPERIENCE DEVELOPING THE CORPORATE BOND MARKET IN SOME COUNTRIES ASEAN+3 AND LESSONS FOR VIETNAM

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Abstract: *The purpose of this article is to summarize the experiences of some ASEAN+3 countries in developing the corporate bond market. The authors clarified some basic issues about the corporate bond market by using qualitative research methods, confirming the importance of a balanced financial system between three pillars: banking goods, stocks, and bonds; and affirming that bonds are an important long-term capital mobilization tool for businesses, assisting businesses in reducing their reliance on commercial banks. To promote the development of the corporate bond market, it is necessary to have synchronous coordination of many stakeholders; in particular, state and government policies play a critical role. The article aims to further research past-experiences and policies for developing the corporate bond market in countries with developed corporate bond markets around the world, in order to provide valuable lessons for Vietnam.*

Keywords: *Corporate bond market, corporate bond.*

1. INTRODUCTION

It can be seen clearly that if the size of the corporate bond market reached about 4.9% of GDP in 2017, by 2021 this figure has increased to 16.6% of GDP. Issuing bonds to mobilize capital has gradually become an effective capital channel for businesses in the context of narrow medium and long-term credit of banks; banks gradually reduce the ratio of short-term capital for medium and long-term loans according to regulations. It is estimated that in the period of 2022-2025, the economy will need 3.15 million billion VND per year to invest in the whole society, while state capital accounts for only 25%-26%, the rest must be mobilized from external resources. This representss the important role of the capital market in general and the corporate bond market in particular. When the corporate bond market develops, it will contribute to diversify investment channels and diversify financial products.

However, it should be admitted that, despite the development steps, Vietnam's bond market is still very young, just over 10 years old and has only grown relatively fast and strongly in the past 5 years. Capital mobilized through the stock market, including stocks and bonds, is equivalent to 26% of the total capital supplied to the economy. Corporate bonds account for about 22.7% of the total capital supplied to the economy each year, while the capital mobilized through the issuance

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of shares accounts for only 3.5% of the total amount of capital put out to the economy. Therefore, the bond market still has a lot of room for development, especially compared to China at 35.7%; Korea 87% of GDP; Singapore about 36.5% of GDP, Thailand about 25% of GDP…

Along with that, although it is gradually becoming an important capital channel for businesses, over the past time, many businesses have issued bonds with interest rates twice as high as deposit rates to attract capital. Enterprises can mobilize capital for production, business, investment... but potential risks for investors, for the market. Many economic experts believe that the corporate bond market in Vietnam is suffering from "errors" that markets in countries such as Japan, Korea, and Malaysia have encountered 20 to 30 years ago. Therefore, the article aims to study the experiences of countries with developed corporate bond markets, which have similarities to Vietnam; therefore building solutions for the market to develop safely and sustainably.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

According to the Asian Development Bank, one of the primary causes of the 1997 Asian financial crisis was Asian economies' over-reliance on the commercial banking system for financial support. At this point, Asian countries were almost unable to diversify financial sources to finance businesses because the bond market was still underdeveloped and small (Asian Development Bank, 2002).

The development of the corporate bond market is a topical issue that has been studied by many scholars worldwide, particularly since the 2008 global financial crisis. Several studies, including Adjasi (2009), Seetanah (2008), Bhattacharyay (2013), Burger (2015), and Smaoui (2017), have examined the relationship between macroeconomic factors and the development of the financial market in general, and the bond market in particular. The majority of these studies confirm the role of a variety of macroeconomic factors in the stock market, securities in general, and the corporate bond market in particular. In Vietnam, scholars such as Trinh Mai Van (2010) and Tran Quang Vinh (2017) studied the formation and development of the Vietnamese bond market and presented the fundamental theory. Furthermore, Nguyen Hoa Nhan (2014) and Nguyen Thi Phuong Nhung (2016) have conducted a number of quantitative studies to assess market development.

However, the preceding studies are limited to the development of the stock market in general and the bond market in particular; there is no in-depth research on corporate bonds. In addition, there have been no studies to learn about policies and experiences in other countries as lessons for Vietnam.

3. MATERIALS AND METHODS

To summarize the experiences of some ASEAN+3 countries in developing the corporate bond market. The authors clarified some basic issues about the corporate bond market by using qualitative research methods, confirming the importance of a balanced financial system between three pillars: banking goods, stocks, and bonds; and affirming that bonds are an important long-term capital mobilization tool for businesses, assisting businesses in reducing their reliance on commercial banks. Research results mainly use secondary data collected through reports, books, specialized journals, and inherit from previously published studies.

4. RESEARCH RESULTS

4.1. The significance of a well-balanced financial system comprised of three pillars: banks, stocks, and bonds

The world's economies all have relatively balanced or unbiased financial systems, with banking, stocks, and bonds serving as the three pillars. The US financial system, for example, tends to develop around capital markets, but bank credit in 2019 remained at 244% of GDP. Japan developed a money-market-based financial system, but stock market capitalization approximates credit size of more than 121% of GDP, while outstanding debt in the government bond market is 209% of GDP. According to a World Bank (WB) report from 2011, the Organization for Economic Cooperation and Development (OECD) has an average credit-banking scale of 110.2% of GDP, while stock market capitalization reached 84.3% of GDP, government bond market capitalization reached 85.3% of GDP, and corporate bond market capitalization reached 57.6% of GDP. East Asian economies had a financial system structure of 60.1%; 73.4%; 25.9%; 27.8%; and Southeast Asian economies had a financial system structure of 67.9%; 77.7%; 28.3%; 11.8%.

International experience shows that Southeast Asian countries recovered faster than the rest of the world during the 2008 global financial crisis after improving the balance of their financial systems. In 1997, East Asia experienced a financial crisis. When the East Asian financial crisis hit in 1997, emerging economies lacked a true corporate bond market. As a result, when the banking system tightened credit due to the reversal of international capital flows, businesses suffered greatly, with long-term consequences. Since 2003, Asian leaders within the ASEAN+3 framework have launched numerous initiatives and actions to promote the development of an Asian bond market. As a result, the corporate bond market helped to mitigate the impact of the global financial crisis on Asian economies in 2008-2009. Businesses in these economies have been able to mobilize capital through the corporate bond market to replace bank credit as credit tightened and foreign capital inflows increased.

4.2. Experience in developing some ASEAN+3 countries' corporate bond markets

a. Korean corporate bond market experience

Prior to 1972, only a few large companies, usually the country's chaebols, issued individual Korean corporate bonds. The introduction of bond guarantees in 1972 laid the groundwork for the expansion of corporate bond issuance, as all bonds issued publicly at the time were guaranteed by commercial banks; this laid the groundwork for relatively sustainable development. However, since the second half of the 1980s, the loosening of corporate bond regulations has resulted in a sharp increase in capital mobilization by corporate bonds, while also creating many potential risks of insecurity on the market.

As a result, the 1997 Asian financial crisis had a significant impact on the Korean corporate bond market. With a string of major issuers going bankrupt, the quality of the assets of the financial institutions that secured the bonds deteriorated, and the Korean financial market nearly froze in the late 1990s. This compelled the Korean government to make significant efforts to restructure the corporate bond market through a series of policies centered on changes in market infrastructure:

- Firstly, put in place the mechanism for determining market prices. Korea implemented a market-based pricing system in 1999 and gradually expanded its scope of application, improving transparency in determining bond prices. This pricing system is based on the difference in valuation between stocks and bonds, whereas with bonds, each bond issue is distinguished by being independent of the other even if issued by the same company; thus, determining the bond price based on the market's outstanding bonds is difficult. Korea has established three bond pricing agencies with the function of pricing and providing information on bond prices, increasing the transparency and efficiency of the corporate bond market and the secondary market.
- Secondly, accelerate market structure improvement. Ministry of Economy and Finance (MOFE) has issued numerous policies, including: 1) streamlining the bond issuance process; 2) expanding the role of financial intermediaries in both primary and secondary market issuance; 3) improved issuance and transaction structure; and 4) expanding the bond brokerage system by making it easier to establish bond brokerage firms. Furthermore, the transaction disclosure regime is strictly regulated, with securities firms required to report bond trading data to the Association of financial investment within thirty minutes of making transactions, and then to publish that transaction data immediately to the market.
- Thirdly, accelerate the legal framework's development. Korea revised the Enterprise Law in 2009, including regulations governing the debt entrustment system. Simultaneously, the Korean Law on Credit Guarantee Funds was amended to allow for guarantees for timely payment of principal and interest on bonds. In 2011, the Law on Enterprises was revised again, and the mechanism of establishing a bond management company was used to improve investor protection. Bond managers can be banks, securities firms, or other financial institutions in the market. Furthermore, the revised Enterprise Law of 2011 eased restrictions on bond issuance and improved investor protection, resulting in institutional improvements for corporate bonds.

The government is also interested in developing activities to support the bond market. Specifically:

- The first is to strengthen the role of credit ratings. Credit rating agencies' activities were very limited prior to 1997, but since the Asian financial crisis in 1997, their role in issuing bonds has grown significantly. In the primary market, corporate bonds. To improve credit rating standards, Korea Investors Service (KIS), founded in 1985, formed a joint venture with Moody's Investors Service in August 1998 to accurately and objectively evaluate the credit rating of Korean bonds. In addition to KIS, credit rating organizations such as National Information and Credit Evaluation (NICE) and Korea Management and Credit Rating Corporation were established later. Credit rating agencies use a standard rating scale with ten different levels ranging from AAA to D based on the risk level of ENTERPRISE BONDS. According to regulations, when an issuer wishes to issue a CORPORATE BOND, these organizations must be evaluated by credit rating agencies. When the enterprise needs to issue or the investor trades, the credibility of CORPORATE BOND can be used as a criterion for investors. Furthermore, these credit ratings can be used to conduct market valuations of existing bonds.
- Second, the Korean Securities Dealers Association (KSDA) has created and launched several new bond market indexes, including the BMSI Bond Market Survey Index (Bond). Investors

can use the Market Survey Index (BMSI), Herfindahl Hirschman Index (HHI), and MCRI Market Credit Risk Index to forecast market volatility and credit risk.

- Third, increase bond market transparency by requiring bond prices to be determined on the basis of compensation based on market fluctuations (mark-to-market bond value) and market bond yields. Interest rate fluctuations are such a significant risk that market participants must exercise caution when investing in bonds and hedge against interest rate fluctuations. The Bank of Korea's information system on interest rate fluctuations and monetary policy moves is also publicly available for market participants to monitor and adjust their investment portfolios.

The restructuring process has resulted in certain successes for the Korean bond market, such as changes in nature with the diversity of commodities traded on the market and the support of financial intermediaries, which has contributed to increased transparency, liquidity, and stability of the Korean corporate bond market.

Unit: billion USD

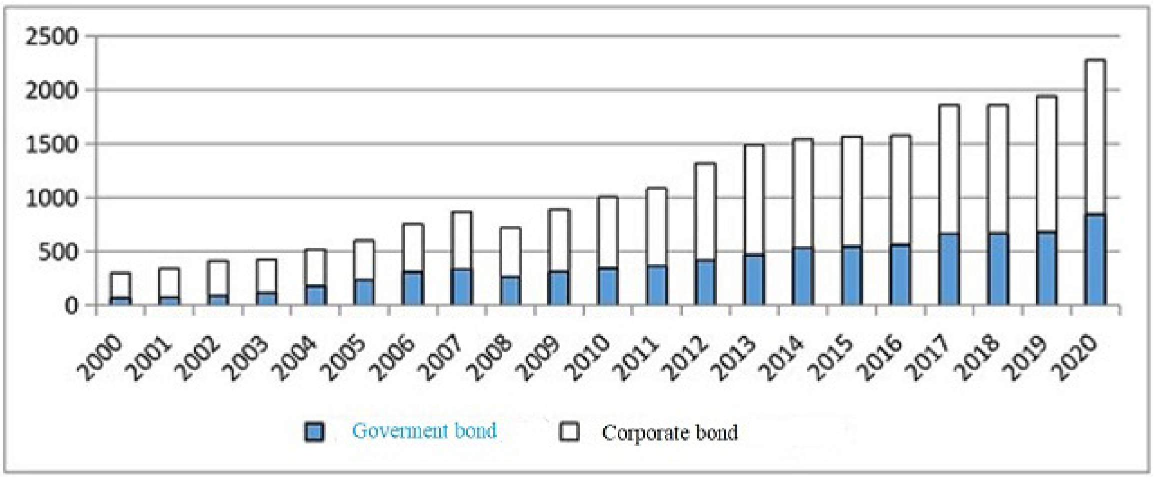

Figure 1. Size of the Korean bond market from 2000 to 2020

Source: AsianBondsOnline, ADB

b. Japan corporate bond market experience

Japan has the largest bond market in Asia as a developed country, with USD 3,663 billion at the end of 2000, USD 10,720 billion at the end of 2010, and USD 12,058 billion by the end of 20920. The importance of the Japanese bond market in the economy is highlighted further by the fact that the market's size relative to GDP was only 78% in 2000, but has now surpassed 100% since 2004. After 2016, this rate will be over 200%, and by the end of 2020, the bond market's size to GDP will be 232%, the highest in Asia. However, unlike many other developed countries, the structure of the Japanese bond market shows a significant dominance of government bonds from 2000 to 2020, with corporate bonds accounting for only about 10% of total market value on average.

Unit: billion USD

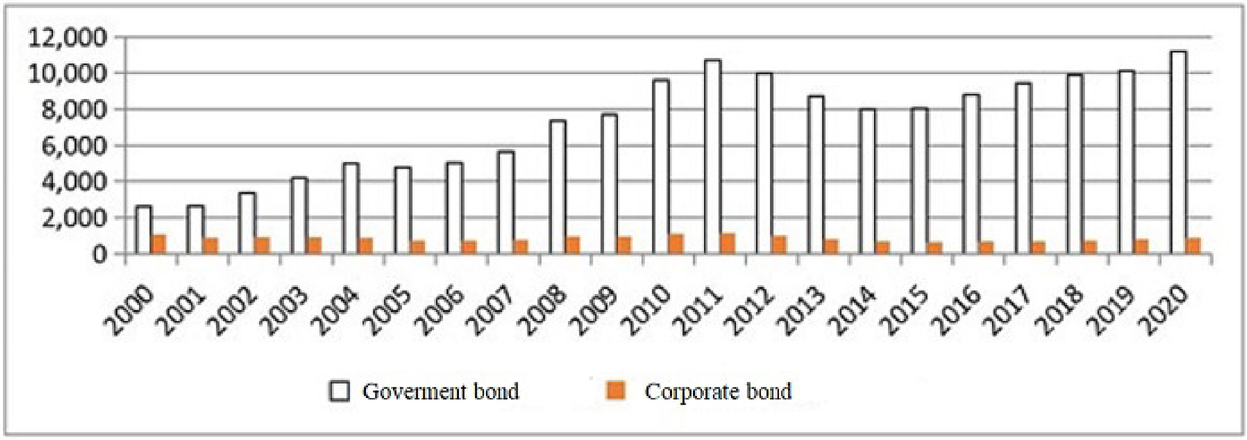

Figure 2. Size of the Japanese bond market from 2000 to 2020

Source: AsianBondsOnline, ADB

Despite accounting for a small proportion of corporate bonds when compared to government bonds, Japan's corporate bond market development model has a very large scale of value and deserves to be used as a model for ASEAN countries + 3 to learn from. The most notable success of the Japanese bond market is associated with the liberalization and internationalization of the yen, which has made it easier for both domestic and foreign issuers to participate. The following individuals have had exceptional experiences in developing Japan's corporate bond market:

- Determine bond interest rates in accordance with market rules. In the 1970s, the country's bond market was primarily governed by the government's control and influence over interest rates. The Japanese financial market at the time had an interest rate hierarchy, with Government bonds with extremely low interest rates serving as the foundation for determining the interest rates of other bonds. As a result, when the interest rate on government bonds is determined to be lower than the market interest rate, other types of bonds follow that controlled interest rate as well, distorting market rules. In 1984, Japan strongly implemented comprehensive market opening, reformed the national financial system, including the liberalization of domestic securities investment, resulting in the liberalization of interest rates on the bond market in general and corporate bonds in particular; bond interest rate control is completely abolished.
- Encourage global financial integration. The issuance of Samurai bonds, international bonds issued by the government, foreign organizations, or international organizations and sold on the Japanese stock exchange to raise capital, marked this milestone. Capital denominated in Japanese yen became available for the first time, signaling the "opening" of the Japanese bond market in general and the corporate bond market in particular during the Japanese yen liberalization process. Initially, the majority of Samurai bond issuers were foreign governments or foreign local governments. However, the target audience grew increasingly diverse over time. Market participants support the introduction of this type of bond because it not only creates new business opportunities but also helps to integrate Japan's domestic primary and secondary bond markets.
- Information transparency improves the dependability and accuracy of corporate bond reference prices. The Japan Securities Dealers Association (JSDA) established a system in November 2015

for disclosing and reporting information on the actual trading prices of corporate bonds that meet the criteria of having a credit rating (AA rating or higher) and a transaction size greater than JPY 100 million. Transaction information such as intraday transactions, exercise prices, and other relevant information such as contract date, ISIN code, bond issue name, maturity date, bond interest rate, and trading volume will be notified to JSDA through member companies such as the Japan Securities Depository Center - JASDEC (Japan Securities Depository Center). This information will be made public on the JSDA website the following business day.

c. Malaysia corporate bond market experience

Malaysia's bond market began to expand in the 1970s, when the Malaysian government began to issue bonds to fund the country's development needs. The corporate bond market was still quite small in the late 1980s, whereas the stock market and government bond market were well developed. Only after the 1997 financial and monetary crisis, when the private sector played an important role in economic development strategy, did the Malaysian government make efforts to develop the corporate bond market in order to provide appropriate financial resources to domestic enterprises while reducing risks to the financial system. As a result, the country's corporate bond market has grown.

Unit: billion USD

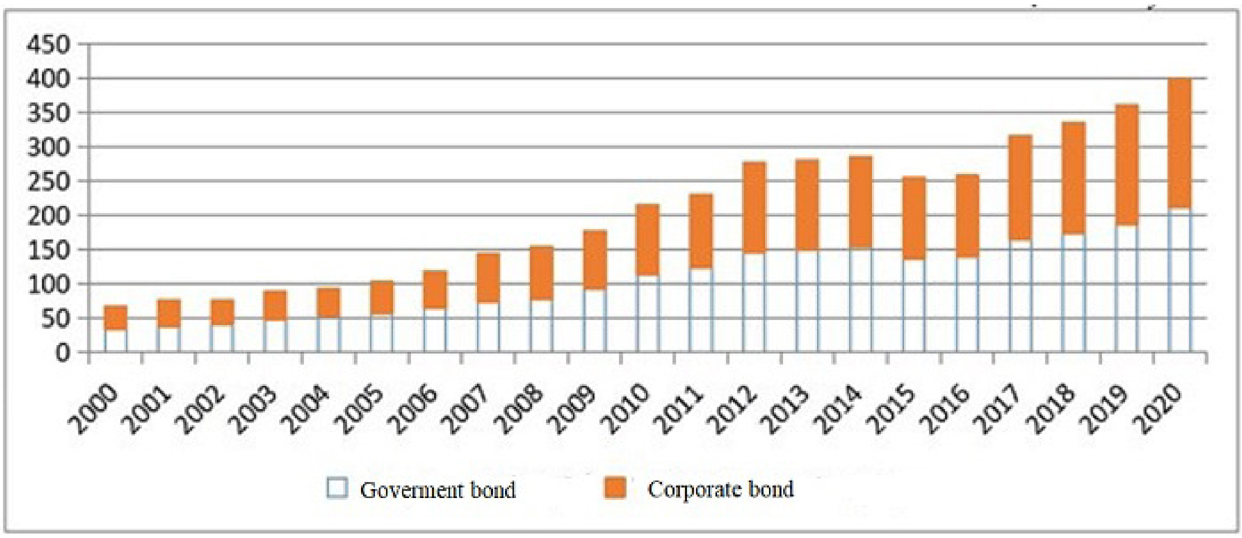

Figure 3. Size and structure of the Malaysian bond market from 2000 to 2020

Source: AsianBondsOnline, ADB

The experiences drawn from the success in developing the Malaysian corporate bond market are:

- Firstly, simplify bond issuance procedures to increase transparency, efficiency, and speed. The Malaysian Securities Commission issued the Guidelines for the Offering of Private Debt Securities (PDS) in July 2000, which played a significant role in improving the development process. In the mid-1990s, the bond issuance approval process could take anywhere between 9 and 12 months, wasting time and discouraging businesses from participating in the bond market. The introduction of PDS principles has reduced the processing time for issuance applications to 14 days from the date of submission of all documents.

- Secondly, concentrate on perfecting the legal framework for the long-term development of the corporate bond market. The Malaysian government is focusing on developing an appropriate policy framework and an adequate infrastructure system, as well as a strategic vision, a stable political and macroeconomic situation, and a solid foundation for the development of the country's bond market in general, and corporate bond market in particular. The emphasis on developing laws and guiding legal documents under the Law on Bond Market has aided the legal framework in keeping up with market development, facilitated registration and development such as the issuance of guidelines on the offering of asset-backed debt securities in 2001 and guidelines on the offering of Islamic securities in 2004.
- Thirdly, pay attention to your credit rating. Corporate bonds issued in Malaysia before July 2020 must have a mandatory minimum rating of BBB or higher. This not only increases confidence in the issuance, but also indirectly aids the development of Malaysia's relatively new credit rating agencies (RAM and MARC). These two organizations were founded in 1990 and 1995, respectively, to provide independent opinions on bond issuer risks and to disseminate information to investors and people interested in bond. Enterprise collection in the shortest amount of time. Despite the removal of the minimum rating, the majority of businesses still had credit ratings of A or higher, with only about 5% having a rating of BBB or lower. With investors' high demand for high-quality bonds, corporate bonds with high credit ratings always have a more competitive advantage in the market.

5. DISCUSSION AND CONCLUSION

In the period 2016-2021, the capital market grew at an average annual rate of 28.5%. The capital market will be worth 134.5% of GDP in 2021, up from 93.8% of GDP in 2015; the bond market will be worth 39.7% of GDP (with government bonds accounting for 22.7% of GDP and corporate bonds accounting for 14.2% of GDP). The number of corporate bond issuers and investors purchasing bonds increased in the corporate bond market. The total volume of private issuance in 2021 is VND 605 trillion, up 38.8% from 2020. VND 31 trillion in corporate bonds have been issued to the public. The volume of privately issued corporate bonds continued to rise in the first quarter of 2022, reaching VND 105.5 trillion; at the same time, businesses issued over 5,000 billion VND in bonds to the public. Credit institutions were the largest issuer group, accounting for 36.2% of total issuance volume, while real estate businesses accounted for 33.26%. Despite the positive results, the capital market continues to have limitations and shortcomings in terms of market structure, infrastructure, technology, human resources, market information system, and so on. As a result, Vietnam's corporate bond market remains small in comparison to other countries in the region. As a result, businesses rely heavily on bank credit capital, particularly medium and long-term capital (in 2021, the credit scale will reach 124.3 percent of GDP). When mobilized capital is primarily short-term (the ratio of short-term capital mobilization accounts for approximately 82% of total capital mobilization), this situation creates significant pressures and risks for the credit institution system. To propose appropriate solutions in the current circumstances, it is necessary to study the experiences of countries in the region and assess the country's situation.

Some lessons can be drawn for Vietnam in the current context by studying the experience of developing the corporate bond market in some ASEAN+3 countries:

- To begin, complete the relevant legal framework in order to develop a safe, stable, and sustainable corporate bond market; review, overcome, and resolve bond market operational problems. Specifically, it is necessary to concentrate on private placement of securities, to organize a private corporate bond trading market among professional securities investors at the stock exchange, and to standardize regulations on issuer information disclosure. It is especially important to create a legal framework for the green corporate bond market, such as regulations on projects using green bond capital, green bond transactions, and so on.
- Second, credit rating agencies' activities should be strengthened. The lack of independent rating agencies, the poor quality of corporate information, and the lack of transparency are just a few of the constraints impeding the growth of Vietnam's corporate bond market. According to previous experience, the establishment and operation of credit rating agencies to provide credit ratings to bond issuers assists businesses in easily accessing the market and providing credit services. better products for customers, lower risks for investors due to transparency of information, and lower transaction costs.
- Thirdly, raise awareness of the importance of corporate bond market development for market participants, particularly enterprises. Developing the corporate bond market will assist the national financial system in avoiding term risks, reducing the banking system's reliance on credit, lowering the cost of capital as well as transaction costs, balancing the capital market with the money market, diversifying financial market products, and so on. Issuing bonds, in particular, helps businesses access new sources of capital other than bank credit, actively use capital with a term suitable for production investment purposes, and thus increase the competitiveness of Vietnamese enterprises.
- Fourth, maintain macroeconomic stability and inflation control. Macroeconomic stability drives the steady development of the national financial market in general, as well as the corporate bond market.
- Fifth, tighten control over businesses, particularly those in the banking and real estate sectors, because these are likely to experience rapid growth. When issuing corporate bonds, it is critical to avoid a bubble crisis that leads to default for banking and real estate businesses, negatively impacting the bond market enterprise's stable development.

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THE ROLE OF THE STATE IN THE MARKET DEVELOPMENT OF TERMINAL EDUCATION CONTRIBUTIONS TO PROMOTE EFFECTIVE PARTICIPATION PRIVATE INVESTMENT

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Abstract: *In many developed countries such as the US, UK, and Australia, the higher education market has become a high-class knowledge service industry that contributes significantly to the GDP of countries through training services and science and technology. Many countries in the ASEAN region such as Thailand, Malaysia and the Philippines have been renovating and reforming the higher education market in the direction of developing diversification and standardization, forming a university quality assurance system with many standards. criteria and standards for evaluating training quality. Vietnam is also not an exception to that trend. Faced with such a problem, the article focuses on analyzing the current situation of the Vietnamese higher education market and thereby suggesting some oriented solutions related to the role of the State in the development of the higher education market in Vietnam. In the coming time, thereby creating favorable conditions for private enterprises to participate in this field.*

Keywords: *Education market, private investment, State's role.*

1. THE CONTEXT OF THE HIGHER EDUCATION MARKET IN THE WORLD

The world higher education market in the 21st century develops in the following context:

- Higher education today has grown on a global scale with a speed and scale unprecedented since the heyday of the great medieval universities in Europe. According to the Organization for Economic Cooperation and Development (OECD): 5.5 million university students have been studying abroad in 2020- and are expected to reach 8 million in 2025. Since the end of the year 1990s, the higher education market has continuously grown by 7% per year (Nguyen Thuy Linh, 2020).
- Two major trends, globalization and competition in the higher education market, have solved both sides of the problem. The better and more suitable the introduction of the universities to foreign students, the more attractive and attractive the school will be to students. Besides, students will also have more choices for themselves. Globalization has made it possible for capital and labor to find the best market for themselves and the same is happening for students, with the higher education market. The idea of seeing students as customers is a new and disruptive definition almost globally.

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- Information and communication technology is bringing about great changes in the way knowledge is communicated, stored and reproduced. Institutions use information and communication technology to deliver online teaching of many degree programs to students outside of school, even outside national borders. With the advantages of fast information transmission speed, easy to ensure reliability and accuracy, information and communication technology allows to link universities and research institutes all over the world. It also allows universities, research institutions and training institutions to establish or promote international cooperation activities; facilitate multinational training programs.
- New higher education service providers in the form of private institutions or virtual educational institutions are expanding choices for students. All higher education institutions in the public or private world are under pressure to find other sources of funding to establish new income streams. Some institutions consider themselves global training complexes by establishing branches worldwide and expanding global partnerships. These changes combine to form a system in which the competitiveness of training institutions in the higher education service market is both responsive, entrepreneurial and flexible.

2. STATUS OF THE VIETNAMESE HIGHER EDUCATION MARKET

After more than 8 years of implementing the renovation policy of Resolution No. 29-NQ/TW, higher education in Vietnam has achieved some encouraging achievements. First of all, Vietnam has gradually institutionalized the views and contents of the Resolution on education reform into policies and laws of the State. Specifically, in 2018 and 2019, the Law amending and supplementing a number of articles of the Higher Education Law (2018) and the Education Law (2019) drafted by the Ministry of Education and Training was approved by the National Assembly and approved by the National Assembly step by step into life, creating a legal corridor for higher education innovation activities. Higher education institutions are spread throughout the country, creating conditions to improve fairness in people's access to higher education.

Regarding the management and administration of the higher education market, the State has gradually strengthened the autonomy of universities. The quality of higher education has been gradually improved and approached international standards. In 2019, Vietnamese higher education ranked 68th out of 196 countries in the world (up 12 places compared to 2018). Inspection and quality assurance are increasingly in order. As of December 31, 2020, there were 149 higher education institutions and 9 pedagogical colleges that met the accreditation standards according to the set of criteria for accrediting the quality of higher education in Vietnam (accounting for about 55% of the total number of universities in Vietnam). Study in the country, of which 7 universities have been recognized by international organizations and accreditations. In 2020, for the first time, Vietnam has 3 universities ranked in the top 1,000 best universities in the world (Vietnam National University, Hanoi, Vietnam National University, Ho Chi Minh City and Hanoi University of Science and Technology). Eight Vietnamese universities have been included in the list of leading universities in Asia (Tran Thi Minh Tuyet, 2022).

The increase in the rankings of universities goes hand in hand with the enhancement of the quality of the teaching staff according to international standards. Previously, the recognition of professor, associate professor and doctoral degrees was not required to have internationally published articles, from 2018 the new regulations require applicants to have international publications in the list of prestigious journals such as ISI or Scopus etc. In 2019, the total number of Vietnamese scientific articles published on the ISI/ Scopus system was 12,475 articles, ranking 49th in the world (increasing) 2.7 times compared to 2015 (Nguyen Thuy Linh, 2020). As of 2020, the percentage of lecturers holding the title of professor or associate professor in the entire Vietnamese education system is 6%, and the percentage of lecturers with a doctorate degree is 22.7% (Vietnam Institute of Educational Sciences, 2022).

In universities, the application of information technology and digital transformation is gradually deployed to serve teaching and learning. In the academic year 2020-2021, in the context of complicated and unpredictable developments of the Covid-19 epidemic, all universities have conducted online teaching, so that teaching and learning are still guaranteed quality and finished on time.

However, besides the achievements, the Vietnamese higher education market still has limitations. In general, the higher education market is still lagging behind other countries in the region and the world; development has not been commensurate with the requirements and tasks and has not met the learning needs of the people. In particular, it must be mentioned that the role of the State has not been promoted commensurate with the goals set for the higher education market:

- **Although the state sector provides about 80% of higher education programs, the higher education sector in Vietnam has not been guaranteed enough funding from the State.** From 2004 to 2019, the Government's resources allocated to the education sector averaged 5% of GDP and 15-18% of total government spending. However, in the field of education, the field of higher education received the lowest proportion of state capital allocation (World Bank, 2022). In 2019, the proportion of expenditure on higher education was only 0.6% of GDP. Compared to other countries, Korea spends 0.9 percent of its GDP with a much larger amount of GDP on higher education, while Malaysia spends 0.82% of its GDP on the same target in 2020 (World Bank, 2022).
- **Lack of capital hinders the process of expanding and improving the quality of higher education as well as developing the innovation capacity of Vietnam, thereby reducing the attractiveness of the higher education market**. According to three global rankings of universities – a rough intermediate indicator of the quality of higher education institutions (HEIs) – Vietnam is now in the top 1000 but still at the bottom of the list. In comparison, with a close second position with the Philippines and Indonesia, but far from other countries in the region. In 2021, the world university rankings of Quacquarelli Symonds have both VNU-HCMC and VNU-Hanoi in the 801-1000 group. In the Academic Ranking of World Universities (ARWU)) (also known as the Shanghai Ranking) in 2020, Ton Duc Thang University is included in the 701-800 group list.
- **There is currently no centralized and unified management agency for the entire higher education and research system.** Although there are two different ministries (the Ministry of Education and Training and the Ministry of Labour, Invalids and Social Affairs) in charge of the management of the higher education sector and the vocational and technical (college) sector, ministerial-level coordination remains limited. few and connections between schools are

limited. In addition, several ministries and provincial governments also manage more than 200 universities and professional colleges, while the Government Office directly manages two national universities, including a number of universities. specialized. Universities and research units lack cohesion. Several hundred state research institutes operates independently of universities, with a separation of teaching and research following the Soviet and Eastern European models. Such separation affects both the efficiency and effectiveness of the two types of units, leading to fragmented human and financial resources and an inability to create excellence in research and teaching. The legal system is still complicated, fragmented and inconsistent. Several ministries and central agencies have the authority to administer higher education, including the Ministry of Education and Training, the Ministry of Planning and Investment, the Ministry of Finance, the Ministry of Science and Technology, the Ministry of Home Affairs, and the Bank for Social Policies. Vietnam Association, State Council of Professors. Such a model leads to excessive administrative control over higher education institutions and sometimes different agencies issue conflicting circulars/decisions. The capacity of the Ministry of Education and Training on long-term vision planning for the sector and implementation is weak. Due to the lack of a good planning framework and a well-resourced implementation plan, the development of this field still faces many obstacles. This is exacerbated by the lack of qualified and competent staff and the absence of a unified higher education management information system, which hinders the evidence-based decision-making process of the competent authorities permission.

- **State policy towards private investment in higher education is still limited.** The Law amending and supplementing a number of articles of the Law on Higher Education, effective from July 2019, provides regulations governing the field of higher education. However, the amended and supplemented law does not specify how to establish a private higher education institution. In addition, there are still shortcomings in the Law on Investment and the Law on Enterprises related to investor protection. Procedures for obtaining a license for the establishment and operation of a private educational institution are cumbersome.
- **Quality assurance needs to be fundamentally improved.** The higher education sector does not currently have an overall National Quality Assurance Framework to guide internal quality assurance in universities, as well as to guide certification and assurance activities external independent quality by certification centers. First of all, existing quality assurance mechanisms do not have the assessment tools and guidelines needed to develop internal quality assurance. The second is that the current quality assurance tools are regulated in many different legal documents and sometimes conflict with each other, resulting in many different sets of criteria and evaluation criteria (licensing, accreditation, inspection and certification) leads to confusion. Third, there is currently no synchronization in certification methodologies. Only about 28% of higher education institutions are certified by national certification centers; In addition, another 14% were independently assessed but not yet certified. The rest 58% were assessed against the new set of standards (World Bank, 2022). Thus, after 14 years of operation, the certification system is still not fully operational. Fourthly, although the Ministry of Education and Training has assigned independent external quality assurance functions to many independent agencies, these certification bodies employ staff of higher education institutions as assessors, creating a risk. existing opportunities for conflicts of interest, thereby causing a lack of trust and reliability.

In the context of the vibrant development of the trends of modern society, the higher education market in other countries has had opportunities to develop, and at the same time has to face many great challenges, especially the problem of solving problems the relationship between size-quality and training effectiveness; between training and research services; between needs and resources for development, including problems of reconciliation and conflicts due to cultural differences etc. To solve those requirements, the State's role in the development of the whole higher education market is an issue that needs attention.

3. SOME SOLUTIONS TO DEVELOP THE VIETNAMESE HIGHER EDUCATION MARKET

3.1. The role of the state must be compatible with the market mechanism

The state needs to move from the function of providing educational services to the function of managing and regulating the higher education market. Reform the administrative system and manage the relationship between the State and schools, establish the legal status of higher education institutions, and create more autonomy for universities so that they can operate according to their needs socio-economic development with the needs of the labor market, not according to government planning decisions. The state will perform its function by establishing legal systems on higher education that provide policy themes through coordination and evaluation. The State manages the higher education market in the direction of transforming itself into macro management, strengthening inspection, examination and supervision of the implementation of the law. Promote the role of mass organizations, especially professional associations, in monitoring the content and quality of educational activities. Higher education institutions have the right to organize and take social responsibility. A quality assurance system for the accreditation process must be developed and implemented on a regular basis to promote quality improvement while ensuring transparency about the effectiveness of higher education activities. Building a society of lifelong learning; Ensure all Vietnamese citizens have equal opportunity and right to go to school.

3.2. Improving management capacity in the field of higher education

The state needs to rearrange the governance structure of the higher education sector in order to create conditions for development and improve quality. Specifically, it is necessary to re-adjust the structure, the system of legal documents and the quality assurance mechanism of the whole system in order to create conditions for universities to operate autonomously and self-responsibly in a governance structure. unified with higher performance. That includes:

Defining a vision for the future: Concretize a strategy to turn that vision into reality and develop a legal framework to clarify the authority of the agency in charge of higher education policy in addition to regulating clearly on the autonomy mechanism for the unit.

Unified coordination mechanism: Assign a single ministry in charge of universities, technical and vocational schools, research and technology to ensure unified and interoperable management.

Secure private funding: Ensure adequate budget allocation and implement financial instruments and incentives to encourage higher education institutions to innovate and improve outcomes. In reality today, in foreign-invested higher education institutions operating in the territory of Vietnam and non-public higher education institutions, there has been a problem of profit sharing despite still claiming to be non-profit.

Dealing with such for-profit and non-profit issues is rigorous and reasonable. The State and society do not rely on the statement of the investor or the higher education institution that they operate for profit or not for profit, but on the balance of financial income and expenditure in the operation of the university to have a policy suitable book. With that provision, on the one hand, the State does not prohibit higher education institutions from operating for reasonable profits, and on the other hand, has appropriate and encouraging policies for non-profit higher education institutions.

Proactive monitoring: Information systems to monitor the performance of the higher education system should be designed and implemented to provide timely information as evidence for adjustments. These include the Higher Education Management Information system, the Graduate Student Tracking system, and the Labor Market Information system.

3.3. Completing the higher education management mechanism in line with the market mechanism

The granting of autonomy and self-responsibility to higher education institutions is an objective, inevitable requirement and is consistent with the development trend of the current higher education market. This issue is shown consistently and throughout the State's strategic development plans. However, immediately granting the same degree of autonomy to universities after the introduction of the Higher Education Law is completely unfeasible in the present conditions. In fact, the management capacity and experience of universities in our country are quite different. The institution's sense of self-responsibility is still not good in handling the civil relationship between learners and the school. Whenever there is an incident, people have to rely on state management agencies to protect their interests.

In parallel with establishing training quality assurance criteria, the State also needs to provide a legal framework for the organization and operation of education quality accreditation. In the current practical conditions of our country, the State must take responsibility for the operation of higher education institutions, the universities are not yet fully autonomous. Therefore, the higher education quality accreditation regulations are designed in the direction of encouragement and voluntary. If a higher education institution conducts education quality accreditation, it will enjoy certain benefits. In the future, when higher education institutions are fully autonomous and the quality accrediting system has developed sufficiently, the accreditation of education quality is mandatory for all higher education institutions to protect the interests of learners.

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ADVANTAGES AND DISADVANTAGES OF THE PRIVATE SECTOR IN THE CONTEXT OF CIRCULAR ECONOMY DEVELOPMENT

MBA Nguyen Thi Hao[1]

Abstract: *Developing a Circular Economy has become a tendency in most of the countries around the world, especially when the world's resources are increasingly depleted, helping to solve the problem between economic and environmental benefits. Circular Economy is an economic model in which the goal is to extend the life of materials, eliminating negative impacts on the environment. Vietnam is trying to develop its economy in a sustainable way, green growth, minimizing adverse impacts on the environment, and Circular Economy is a model of concern and development orientation. Private Sector contributes to Gross domestic product (GDP) more than 50% (G. S. O., 2021) and plays an important role in economic development. The author collects and analyzes information and secondary datas as a basis for analyzing the role of the Private Sector in the economy. From there, the article identifies the advantages and disadvantages of the Private Sector in the context of Circular Economy in order to make some recommendations to help enterprises of Private Sector develop and transform to Circular Economy model effectively.*

Keywords: *Circular economy, private sector, sustainable development.*

1. INTRODUCTION

In Vietnam, activities so far have mainly been approached according to the linear economy (raw materials → production → consumption → waste). Therefore, we are facing a shortage of natural resources, and especially causing serious environmental pollution. In order to develop rapidly, sustainably, and to harmonize the relationship between economic growth and environmental protection, to "not trade off" economic growth with environmental pollution and degradation, to switch to an eco-friendly economy, Circular Economy is inevitable.

In fact, the Circular Economy model has already been existing in Vietnam for 20 years with different designations. That is the VAT model (Garden - Pond - Stables) which we have applied quite successfully. In addition, the concepts of "ecological industrial zone", "cleaner production", "zero emission", recycling, reuse, remanufacturing – part of of the Circular Economy – also mentioned a lot in recent times.

Applying Circular Economy in association with sustainable development and green growth is receiving more attention in recent years. In particular, the content on building a Circular Economy was identified by the 13th Party Congress as one of the country's development orientations for the period 2021 - 2030 to achieve the sustainable development goals.

GDP growth rate from 2011 to 2019 was growing very well, but 2020 to 2021, the growth has been slower, due to the impact of the Covid-19 pandemic. Thus, it proves that the current policy is very effective.

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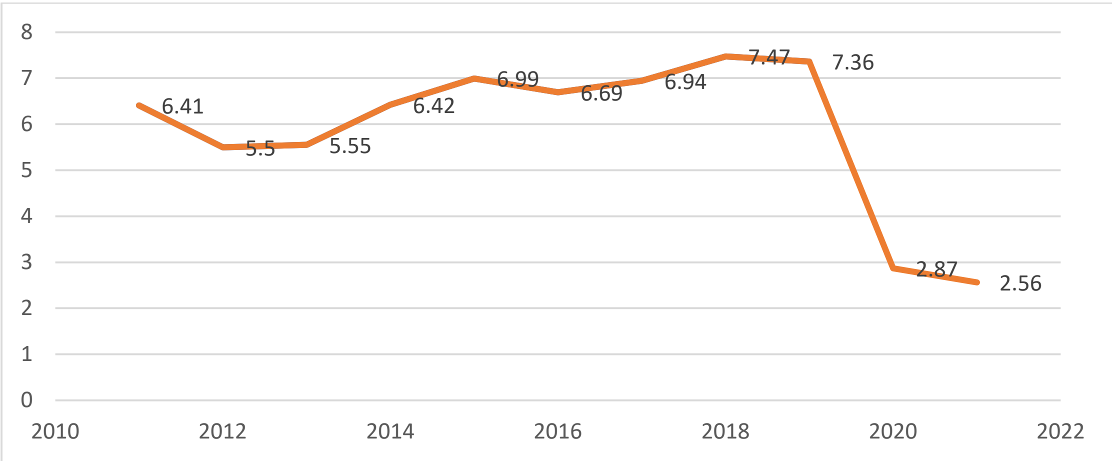

Figure 1. GDP growth rate of Vietnam from 2011 to 2021 (%)

Source: General Statistics Office (2021) and author's drawing

GDP in 2021preliminarily increased by 2.56%, which was the lowest annual growth rate in the period 2011-2021. The Covid-19 pandemic had seriously affected all socio-economic aspects, especially in the third Quarter in 2021 when many key economic provinces applied prolonged social distancing measures to prevent the pandemic. The result of positive GDP growth was a great success of Viet Nam in controlling and preventing the pandemic and maintaining the activities of business production. In the overall growth of the whole economy, the Agriculture, Forestry and Fishery sector increased by 3.27%, contributing 15.7% to the growth rate of total value added; the industry and construction sector rose by 3.58%, contributing 55.6%; the service sector went up 1.57%, contributing 28.7% (General Statistics Office, 2021).

In 2021, the size of the economy at current prices preliminarily reached 8,479.7 trillion VND; GDP per capita attained 86.1 million VND, equivalent to 3,717 USD, an increase of 165 USD compared to that in 2020. In terms of 2021 economic structure, the agriculture, forestry and forestry sector, the industry and construction sector, the service sector, and the taxes less subsidies on products accounted for 12.56%, 37.47%, 41.21%, and 8.76%, respectively (the corresponding figures in 2020 were 12.66%; 36.74%; 41.83%; and 8.77%) (General Statistics Office, 2021).

In addition, if classifying the level of contribution to GDP by economic types, the Non-State enterprises sector contributes more than 50% to GDP, the Foreign direct investment sector contributes about 20%, and the State-owned enterprises sector contributes about 21% of GDP (G. S. O., 2021). Thus, Private Sector plays a leading role in the economy. So, what are the advantages and disadvantages will Private Sector be able to meet in the model of Circular Economy.

2. CIRCULAR ECONOMY – SOCIO-ECONOMIC DEVELOPMENT STRATEGY

The concept of Circular Economy was first used by Pearce and Turner in 1990 (in the book "Environmental and Resource Economics").

Today, the definition widely accepted by many countries and international organizations is: "Circular Economy is a system that is restorative and renewable through proactive planning and design. It replaces the concept of the end of a material's life with a recovery concept, moving towards the use of renewable energy, no use of harmful chemicals that cause harm to reuse, and towards reducing waste, through the design of materials, products, engineering systems, and business models within that system" (Ellen MacArthur Foundation, 2015).

From the above definition, it can be seen that Circular Economy is a system in which resources are reused, and waste streams are turned into inputs for further production. This activity has been fueled by rapid urbanization, climate change, technological progress and a growing need for limited natural resources.

Thus, the Circular Economy model is a closed production cycle, wastes are returned, becoming raw materials for production, thereby reducing all negative impacts on the environment, protecting the ecological system and human health.

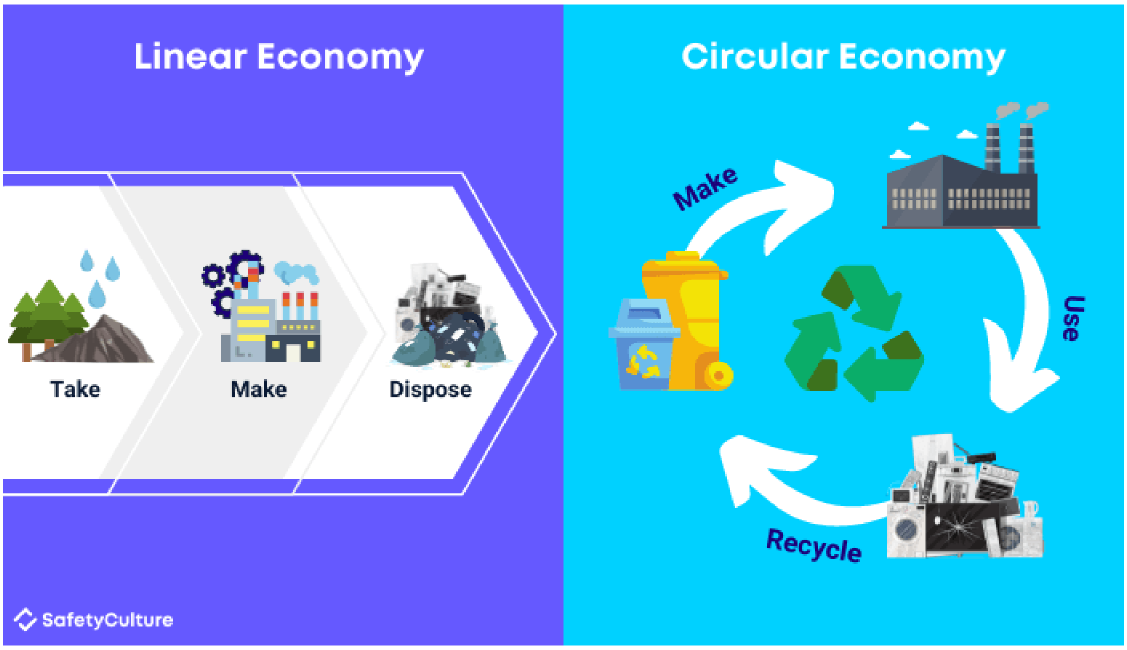

Figure 2. Linear and Circular Economic models

Creating Circular Economy has been identified as one of the country's development orientations for the 2021-2030 period in the Document of the 13th National Party Congress. Although there is no national program framework on Circular Economy, the content of Circular Economy has been reflected in many national development strategies and policies in the past period, such as: Resolution of the National Assembly The 13th national delegate of the Party set the country's development orientation for the period of 2021-2030, stating: "Building Green economy, Circular Economy, friendly with the environment"; Decision 889/QD-TTg dated June 24, 2020 of the Prime Minister approving the national action program on sustainable production and consumption for the 2021-2030 period with the overall goal of "Promoting the management, effectively and sustainably exploit and use natural resources, fuels and raw materials, encourage the development of environmentally friendly, renewable resources, fuels, raw materials and products use and recycling; promote sustainable production and consumption on the basis of innovation, practice and develop sustainable production and consumption models, promote sustainable domestic production and consumption, create stable jobs and green jobs, promoting sustainable lifestyles and improving people's quality of life, towards the development of Circular Economy in Vietnam".

The Law on Environmental Protection in 2020 stipulates that "Circular economy" (Article 142) is the socio-economic development strategy and is considered as one of the preferential policies, supporting and developing the environment economy, which will contribute to the development of the environment economy to accelerate economic development in Vietnam.

3. THE ROLE OF PRIVATE SECTOR

3.1. Private Sector

Before 1986, Private Sector had not been properly understood in the socio-economic economy. Starting from the 6th Congress of the Party (1986), Private Sector was established in the structural system of the multi-sector economy, which included: commodity production economy (craftsmen, individual farmers, traders, individual service businesses) and the private capitalist economy. However, the category of Private Sector was officially used only at the 6th Conference of the Central Committee of the Communist Party (term VI) in March 1989. The conference specified the forms of Private Sector including individuals, smallholders, private capital.

- Individual economy is a household whose income source is completely based on family labor.
- Smallholder economy: includes the main source of income based on family labor and capital of the family itself, with hired labor.
- Private capitalist economy: based on the form of capitalist private ownership of the means of production, with the exploitation of wage labor.

3.2. The role of Private Sector

Commune Congress affirming the important role of Private Sector: "is one of the driving forces of the economy" (Communist Party of Vietnam, 2016). Private Sector is diversified, unlimited in size and quantity, highly competitive in all fields and protected by law, in a socialist-oriented market economy. Therefore, it is necessary to "Implement the National Strategy on Enterprise Development. To build a system of Vietnamese enterprises that are large in number, highly competitive, with prestigious brands, in which the main ones are a number of large economic groups based on the form of shares" (Communist Party of Vietnam, 2016).

In order for Private Sector to be truly an important driving force of the economy, the 13th Party Congress determined that it is necessary to better address the relationship between the State, the market and society; from there, it is clear that it is necessary to strongly reform the management method of the State in the direction of transferring jobs that the State does not necessarily have to do to social organizations. Therefore, the State must: "Create all favorable conditions for Private Sector to develop quickly, sustainably, grow in scale and improve in quality" (Communist Party of Vietnam, 2021); resolutely "Eliminate all barriers and prejudices, create all favorable conditions for the development of Private Sector; support Private Sector to innovate, modernize technology and develop human resources, improve labor productivity. To encourage the formation and development of large Private Sector groups with strong potential and regional and international competitiveness. Striving to 2030, there are at least 2 million enterprises with the proportion of Private Sector contribution to GDP reaching 60-65%" (Communist Party of Vietnam, 2021). This new thinking is consistent with theory and practice for Private Sector to reach out in the integration trend.

3.3. Actual situation of Circular Economy in Private Sector

After 35 years of reform and development of the country, concretizing resolutions and documents of the Party, the State has promulgated many thematic policies and laws (such as the introduction of the Law on Supporting Small and Medium Enterprises in 2018. 2017 is a breakthrough in the right and timely decision of the Party and State), creating a legal corridor for Private Sector develop strongly, with the number accounting for over 95% of the country's enterprises (Nguyen, T.V.N., 2021).

From not recognizing the category of Private Sector (related to the category of exploitation) to the recognition of Private Sector (stipulating that party members are not allowed to do private business); from Party members allowed to work in Private Sector, participating in business management but not exceeding 13 employees (in the period before 2010), to determine Private Sector as one of the important driving forces of the economy, to determine that Private Sector is an important and long-term driving force of the economy, which can operate with an unlimited number, scale, professions and fields and is allowed to establish basic organizations Party headquarters in private enterprises. It can be said that perception is a process, as Phenghen once pointed out: Where history begins, the thinking process also begins there.

With the right and timely decisions of the Party and State and the response of the whole people, Private Sector has grown stronger and stronger, making many important contributions to the country. According to the General Statistics Office, as of December 31, 2018, the whole country had 610,637 operating enterprises with production and business results, of which 591,499 were private enterprises, accounting for 96.9%, an increase of 9.2% compared to 2017; FDI enterprises have 16,878 enterprises, accounting for 2.7%, up 4.3%; State-owned enterprises have 2,260 enterprises, accounting for 0.4% of total operating enterprises (Thuy Hien, 2020).

As of December 31, 2020, the whole country has nearly 683.6 thousand enterprises operating in production and business with the number of employees is 14.7 million people, an increase of 35.3% in the number of enterprises and an increase of 4.7% in terms of number of employees compared to 2016. From 2016 to 2020, the average number of enterprises increased by 7.9% per year (average increase of 8.7% in the period of 2011-2016); number of employees increased by 1.2%, lower than the growth rate of 5.1% in the period of 2011-2016. The whole country has 15.3 thousand cooperatives with 169.6 thousand employees, an increase of 17.5% in the number of cooperatives and a decrease of 15.6% in the number of employees compared to 2016. The number of individual production and business establishments (Individual production and business establishments) in 2020 is nearly 5.2 million establishments with 8.5 million employees, an increase of 5.7% in the number of units and an increase of 3.0%. number of employees compared to 2016 (G.S.O, 2022).

In 2021, the strong outbreak of the fourth wave of Covid-19 pandemic along with strict lockdown and prolonged social distancing times (especially in the third quarter of 2021) had a negative impact on the enterprise community. The timely issuance and implementation of Resolution No. 128/NQ-CP dated October 11, 2021 on a national scale makes an important contribution to restoring production and promoting the market, gradually creating confidence for businesses.

Specifically, the number of newly established enterprises in 2021 reached 116.8 thousand ones, reduced 13.4% compared to that in the previous year; the registered capital was 1,611.1 trillion VND, declined by 27.9%. The average registered capital of a newly established enterprise in 2021 reached 13.8 billion VND, a fall of 16.8% compared to that in the previous year. If 2,524.9 trillion VND of additional registered capital of 43.5 thousand enterprises was included which made upward adjustment of their capital, the total additional registered capital in the economy in 2021 was 4,136 trillion VND, a decline of 25.8% compared to that in the previous year. In addition, there were 43.1 thousand re-operated enterprises (a downturn of 2.2% compared to that in 2020), levering the total number of newly established enterprises and re-operated enterprises in 2021 to nearly 160 thousand ones, down 10.7% over that in the last year. On average, there were 13.3 thousand newly established enterprises and re-operated enterprises per month (General Statistics Office, 2021).

Currently, in Private Sector, many enterprises have become the "leading cranes" of international stature. From the 12th Congress of the Party until now, Vietnam's economy is known to the world through the names of Private Sector, such as Vingroup, T&T Group, Thaco, Vietjet, FLC, Vinamilk..., affect the global supply chain. Many private enterprises achieved high export turnover, making important contributions to economic growth, budget revenue and job creation, and social security. In addition, Private Sector also cooperates with the State to contribute to the prevention and control of epidemics and natural disasters, to help people in distress, to sponsor sports tournaments, football clubs, and economic events. - the great society of the country. Currently, Vietnam has about 29 private enterprises with capitalization value on the stock market exceeding 01 billion USD (Hieu Cong, 2020), with 06 billionaires joining the world billionaires club in 2021 (Nguyen, Q. D., 2021).

Mr. Trinh Duc Chieu, Deputy Head, Research Department of Corporate Reform and Development - Central Institute for Economic Management (CIEM), on behalf of the research team, presented a summary of the research results showing that in fact, many businesses have transformed their business models. in a circular direction on the basis of regulations and policies on sustainable development such as: National strategy on green growth; National action plan on sustainable production and consumption; Cleaner production strategy in industry...

However, when applying the conceptual economy model, the awareness of enterprises is still only at an average level, knowing about the knowledge economy only. The Central Accounting Management Research Center drew this conclusion from a survey of 508 enterprises across the country. Specifically, enterprises' understanding of circular business model only 5.03% on average of understanding very strong, 22.55% of understanding strong, 32.68% on average, 27.38% of understanding little, and don't know/ none is 12.33%.

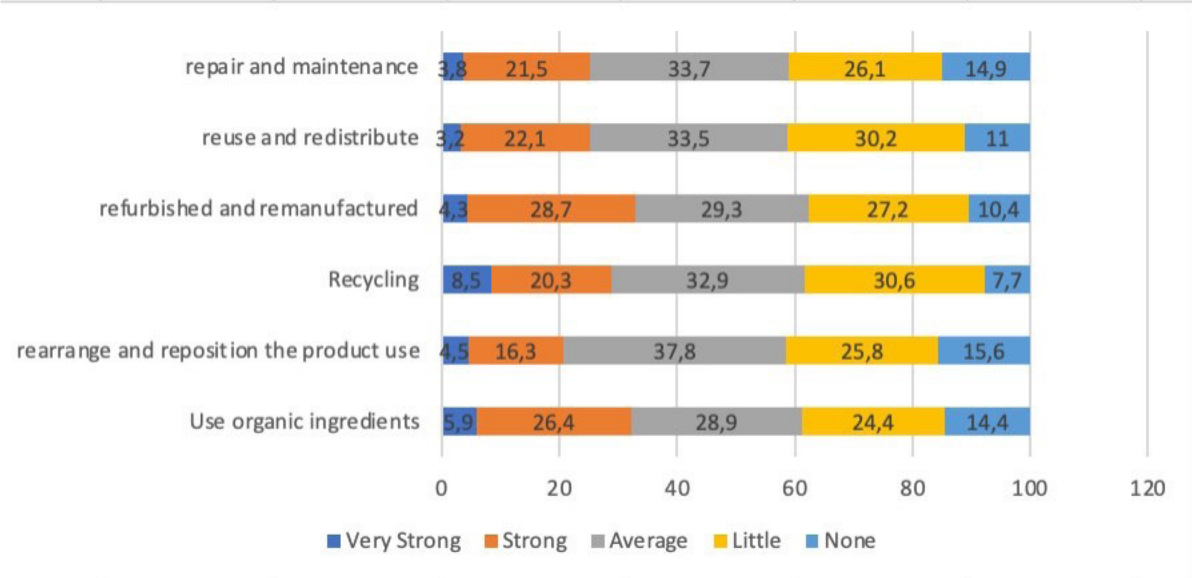

Figure 3. Enterprises' understanding of the circular business model

Source: CIEM, 2022

Similarly, understanding of principles and circular business strategies of enterprises is also low such as, Very strong is only 4.5%, Strong is averagely 15.25%, Average is 31, 52%, Little is 29.35%, the rest - Don't know/ None understanding is 17.61%.

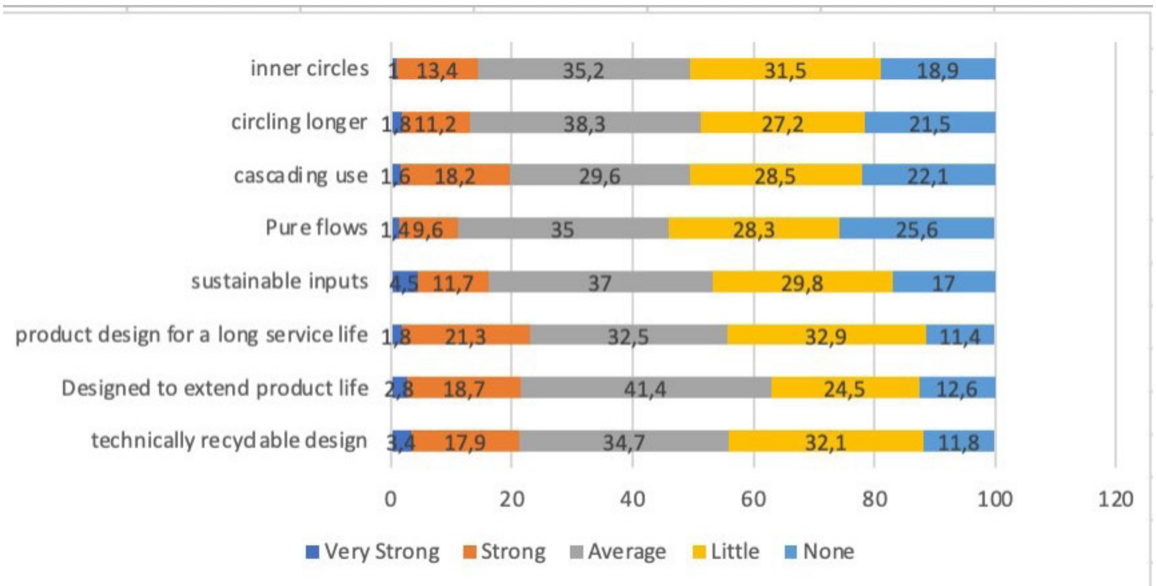

Figure 4. Enterprises' understanding of circular business principles and strategies

Source: CIEM, 2022

In addition, many businesses have realized their social responsibility and built business models in the direction of circularity to ensure their sustainable development, contributing to the overall sustainable development of the economy, for example the cases of Vinamilk Dairy Joint Stock Company, Nestle Vietnam Company, Coca Cola Company, Lagom Vietnam Company, Duc Giang Chemical Joint Stock Company, etc. Especially, in the field of recycling, many circular business models have been operational and have yielded encouraging results. However, most of the application of circular business models in enterprises in Vietnam today is mainly due to spontaneity.

4. ADVANTAGES AND DISADVANTAGES OF PRIVATE SECTOR IN THE DEVELOPMENT OF CIRCULAR ECONOMY

From the practice of developing Private Sector in recent years, it can be affirmed that "Private Sector is an important driving force of the socialist-oriented market economy", which is one of the four pillars of the multi-sector economy in our country today. This is the result of changes in institutions, policies, and reform of the national administration so that Private Sector is constantly growing in all fields, contributing to the realization of the goal: rich people, strong country, sovereignty, justice, civilization, firmly walking towards socialism. Therefore, Vietnamese businesses need to recognize the advantages and disadvantages towards the Circular Economy model in order to make appropriate changes.

4.1. Advantages

Enterprises have certain advantages when applying Circular Economy model, such as:

Firstly, the development of Circular Economy is a major policy of the Party reflected in the socio-economic development strategy for the period of 2021 - 2030. Circular Economy has been concretized in the Law on Environmental Protection to create a corridor legal for businesses to implement the Circular Economy model.

Secondly, Circular Economy is a global tendency. Circular Economy model is chosen by many countries, so businesses have the opportunity to exchange and learn about experience, design, technology transfer, etc., based on their business model that has been being in progress.

Thirdly, encouraging and creating a mechanism for Private Sector to develop in the context of a competitive market will create many opportunities for Private Sector's investment in the implementation of Circular Economy development. When applying the Circular Economy model, businesses will gain many benefits including: Support mechanism, avoidance of other legal adjustments on resource exploitation and environmental protection, increased profits, job labor…

Fourthly, we have been heading to the Fourth Industrial Revolution, implementing Circular Economy development associated with high technology, moving from the reality to the digital world will be a great opportunity to improve the growth efficiency compared to the previous growth method.

Fifthly, the development of a Circular Economy will receive a high consensus and support from the society, because this way of development solves the scarcity of resources, protects the environment, and responds to climate change and bring high economic efficiency.

4.2. Disadvantages

Besides the advantages, businesses may face some difficulties:

Firstly, the perception of Circular Economy in general and Circular Economy model is still a new issue for businesses, especially the specific application to each type of business is different.

Secondly, there is not a legal corridor for the development of the knowledge economy. For example, there are inadequacies between laws, especially between the Law on Environmental Protection, the Law on Land, the Law on Construction, etc… because the Circular Economy content has just been included in the Law on Environmental Protection, while other laws have been promulgated previously and is currently in the process of being added and completed.

Thirdly, Circular Economy requires the classification and cleaning of the waste before being reused or recycled, which is a significant challenge for the operational reality of the Vietnamese economy and the awareness of segregation of waste at the source of the people.

Fourthly, in order to implement Circular Economy, it requires a team of good experts to handle from the design stage to the final stage of reuse and recycling of waste. Currently, these experts have not been trained and have no specialized training.

Fifthly, in terms of investment capital, technology, and people, it is also a big obstacle for businesses that want to convert to the current Circular Economy model. Because the transition to Circular Economy model requires redesign, investment to innovate technology and production processes to improve quality, prolong product life cycle, recover waste, etc. Thus, there will be changes and finding new, suitable and effective technologies in businesses.

5. RECOMMENDATIONS FOR PRIVATE SECTOR

The limitations of Private Sector focus on some of main reasons as follows:

- The understanding and approach of Private Sector is not adequate with the guidelines, policies and laws of the Party and the State, most of which are business and service activities based on experience, lack of forecasts and follow the market. The investment market "instant noodles" is often risky.
- Low professionalism, outdated technology, fragmented facilities, large number but not strong, mainly small and micro enterprises; Although business households grasp the market quickly, they are also vulnerable when the market crashes.
- Consistency in the implementation of policies and legal documents of state management agencies, professional management and local authorities on business activities and services of Private Sector is not high. Although the Government has significantly reduced administrative procedures, there are still overlapping and loose management, problems in institutions, policies and administrative procedures are quite troublesome and complicated.

Thus, in order to help businesses in Private Sector develop and convert to an effective model of the market economy, the author makes a number of recommendations:

Firstly, it is necessary to have a clear legal corridor for the formation and development of Circular Economy, from the Party's policy to the State's laws. Experiences of countries that have been and are implementing Circular Economy have clear laws and regulations. Vietnam needs to have a roadmap and move towards building a law for Circular Economy development.

Secondly, it is necessary to carry out extensive research on Circular Economy development from a common global approach, principles of establishment by sector, field, model deployment, criteria of Circular Economy model, then choose to apply it specifically to the actual situation of Vietnam and widely disseminate it to businesses, people, and managers to have the right perception, as well as, need experts advice to help businesses transform into Circular Economy: from experts in policy, design, technology, etc., depends on the type of business.

Thirdly, enterprises need to actively take advantage of new opportunities to innovate their business activities based on their advantages and disadvantages that need to be overcome, only businesses can understand to actively transform into Circular Economy model. In addition, converting to Circular Economic model which requires businesses to analyze the costs-benefits before and after of the conversion to decide how profitable the transformation is for the business? That will guide to the right decisions.

Fourthly, it is necessary to strengthen communication about the transformation to the business model of a centralized economy so that the society can understand and support the business, especially those businesses that previously caused a lot of frustration to the society. Creating a new positive business image from brown to green based on the overall economic, social and environmental benefits of the business from this model.

Fifthly, it is necessary to connect businesses and look for opportunities to cooperate with other businesses, especially for businesses that have connections on using output waste as input materials for operating production and business of enterprises.

Sixthly, strengthening the exchange and learn from international experiences, especially countries that have successfully implemented Circular Economy. Then, transferring and applying them to the specific circumstances of Vietnam.

6. CONCLUSION

Converting from Linear Economic model to Circular Economy model is an opportunity for businesses to aim for sustainable development, green growth, and reduction of environmental pollution. However, when Private Sector transforms into Circular Economy model, besides advantages, businesses also face some certain disadvantages. Therefore, businesses need to actively make calculations and expand connections to implement the effective economic model, especially the cost-benefit analysis and product consumption of the mass economy model, along with the communication and enhancing the image of the business.

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INCREASING THE MOTIVATION OF THE PRIVATE SECTOR IN THE IMPLEMENTATION OF THE NATIONAL GREEN GROWTH STRATEGY

MBA Ngo Thi Hong Giang[1]

Abstract: *The private economic sector has been identified by our Party as the core force in the country's socio-economic development. Climate change, greenhouse gas emissions, ecological imbalance and environmental pollution of the earth are becoming more and more serious. Vietnam is one of the countries most affected by climate change, according to the Global Climate risk Index 2021, Vietnam ranks 13th in terms of weather-related loss events in the period 2000-2019 (Eckstein, Künzel, & Schäfer, 2021). Therefore, the Government has committed to develop and implement strong measures in order to curb the rise of the Earth's temperature. The approval of the national strategy on green growth in phases by the Prime Minister of Vietnam is a testament to that commitment. The author uses the method of collecting documents; practical overview and use of secondary data as a basis to analyze and evaluate the actual status of implementation the national strategy on green growth in the private sector of Vietnam. On that basis, the author of the article proposes solutions to increase the motivation to promote the private sector to truly become a key part of the country's economic development strategies.*

Keywords: *Green growth, increasing the motivation, private sector.*

1. INTRODUCTION

After the great energy crisis of 1972-1973, many researchers found the occurrence of concerns about the rapid growth of the 'in-the-future' economy (Linh & Dung, 2008). They made the judgment that if the rate and trend of economic growth continue to be maintained, humanity will reach the limit of growth and the collapse is inevitable (Meadows, Meadows, Randers, & Behrens, 1972). Therefore, it is necessary to change the development model in which "development meets the needs of the present without jeopardizing the ability of future generations to meet their own needs" (Linh & Dung, 2008). And that is the sustainable development model. However, the fact that environmental pollution, climate change, global warming, resource depletion, greenhouse gas emissions continue to increase has prompted governments and researchers to take more specific actions towards sustainable development. And the term "*Green growth*" was coined on the agenda in 2005 at the Ministerial Conference on Environment and Development.

In Vietnam, our Party has identified green growth as the cause of the entire Party, the people, authorities at all levels, ministries, sectors, localities, businesses and social organizations. Therefore, the Government soon approved the national strategy on green growth (Decision No. 1393/QD-TTg dated September 25, 2012) (Minister, 2012), demonstrating its determination to fulfill its commitment to confront environmental challenges and mitigate the impacts of climate change. Green growth is associated with the goal of a low-carbon economy, enriching natural capital, becoming the mainstream in sustainable economic development, reducing emissions,

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increasing the ability to absorb greenhouse gases, becoming a compulsory and important targets in socio-economic development.

Since the 6th Congress (1986) of the Party, the private sector of Vietnam has gradually affirmed its role and mission as an important and main force, which is the driving force contributing to the revitalization of the economy and having brought our economy out of the crisis. Vietnam became a country with a stable above-average GDP growth rate (4.4 percent per year on average from 1986 to 1990) (Minh, 2016). And continuously increasing in the following periods, averaging 8.2 percent (the period1991-1995); 7.0 percent (the period 1996-2000); and 6.8 percent (the period 2016-2019) (WorldBank). In the two years 2020 - 2021, despite being affected by the Covid-19 pandemic, Vietnam still achieved growth rates of 2.91 percent and 2.58 percent (compared to the previous year) (General Statistics Office of Vietnam, 2021), while many other countries in the world did not grow in 2020, even encounter negative growth rate such as Italia (-10,6%); French (-9,8); German (-6,0); Thailand (-7,1%), and Philippines (-8,3%) (Long, 2020). These achievements were acknowledged with the impressive role of the private economic sector due to the fact that the private sector has always been a key part of the economy, accounting for more than 96% of the number of businesses in the economy. However, the implementation of green growth in enterprises in general and enterprises in the private sector is still very limited, only individual. Therefore, green growth is no longer an expected model but an urgent growth model for sustainable development which is clearly reflected in the Prime Minister's Decision No. 1658/QD-TTg dated October 1, 2021, approving the national strategy on green growth for the period 2021-2030, with a vision to 2050, as well as the implementation of the commitments of the Prime Minister of Vietnam on green growth at the Conference on Environment COP26. Therefore, increasing the motivation of private sector enterprises to act will accelerate the implementation of the national green growth strategy.

2. THEORY OF MOTIVATION, GREEN GROWTH AND PRIVATE SECTOR

- **Motivation**

Motivation is an important factor to stimulate people to act. According to the Vietnam Socio-Economic Dictionary, motivation is an internal factor that stimulates people to make efforts to act under favorable conditions that produce high results. From a psychological perspective, motivation is the state formed when employees expect that they will receive the desired results and rewards if they put in the effort to perform the job (Vroom, 1964). In terms of behavior, motivation is a psychologically-behavior-oriented process of a person, showing a tendency to behave purposefully to achieve a particular goal, satisfy a need, and then they will be willing to try (Carpenter & McKee-Higgins, 1996). Therefore, when the external motivations are strong enough, it will create the internal motivations that motivate people to act. Then, motivation is the human desire and willingness to increase efforts to achieve a specific goal or result (Diem, 2012).

Consequently, it can be understood that, motivation includes all the reasons that make people act, and the manifestation of motivation is the willingness to make efforts, to act passionately to achieve the goals of the organization. The existence of motivation can only be inferred from the behavior of each individual or organization. Motivation is the answer to why an individual or organization does something.

- **Green Growth**

Recently, terms such as green growth and green economy have been emphasized in many countries around the world. In which, the term green economy is defined as an economy in which economic growth go hand in hand with environmental responsibility and they can complement each other as well as support the process of social development (ICC, 2012).

According to Decision 1658/QD-TTG dated October 1, 2021, Approving the national strategy on green growth for the period of 2021-2030, with a vision to 2050: Green growth contributes to the promotion of economic restructuring associated with innovation of growth model, improvement of competitiveness and resilience to external shocks, and realization of the socio-economic development strategy for the 2021-2030 period, the national planning system and sectoral development strategies.

In addition, the Government of Vietnam has also determined: Green growth must focus on human factors in order to reduce human vulnerability to climate change, encourage each person to maintain a lifestyle that is responsible to community and society, orient the future generations towards green living culture, and establish a civilized and modern society that is in harmony with the nature and environment (Minister, 2021).

Thus, green growth is the path to sustainable development. Therefore, in order to realize the national green growth strategy, as well as the Government's commitment at the United Nations Climate Change Summit (COP 26), it requires the participation performance of all sectors of the economy.

- **Private sector**

The concept of private economic sector is used to refer to economic sectors based on private ownership of means of production, including individual economy, small owner, private capitalist economy. The private sector exists in the form of private enterprises, limited liability companies, joint stock companies, and individual business households (General Statistics Office of Vietnam, 2019). When classified by business owners, it can be generalized that the private economy is an economic sector outside the state (outside the state economic sector), including domestic and foreign enterprises, in which privately owns more than 50 percent of the investment capital. Therefore, the basic and inherent characteristic of enterprises in the private sector is that they use their own capital to carry out the production and business process, and therefore they have the right to enjoy the fruits of their labor.

3. THE STATUS OF GREEN GROWTH IN THE PRIVATE SECTOR IN VIETNAM

According to World Bank data, Vietnam's per capita CO2 emissions have steadily increased over the years. At the same time, with an increase in the size of the economy's GDP in real terms increasing from $195.6 billion (2012) to $330.4 billion (2019), CO2 emissions also increased from 1.73 tons per capita (2012) to more than doubled in 2019 (3.49 tons per capita) (Fig. 4). On average, in the period 2012-2019, Vietnam's CO2 emissions were 2.4 tons per capita. Although still below the world average (4.5 tons per capita in 2019), Vietnam has witnessed a significant increase in both frequency and intensity of climate change events in recent years, and most common are storms and floods, accounting for 49% and 37% of all events (Nguyen, Ginige, & Greenwood, 2018).

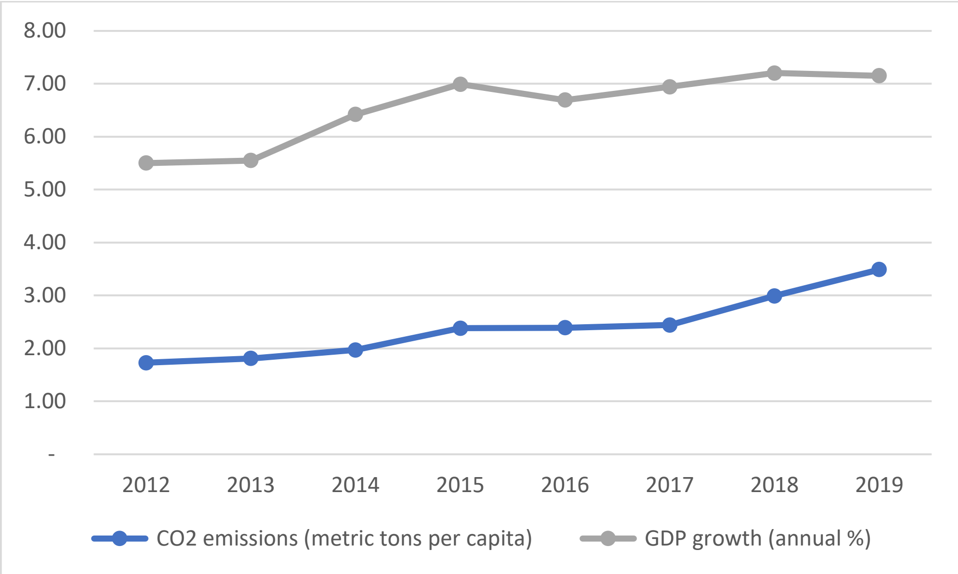

Figure 1. CO2 emissions and GDP growth

Source: World Bank and the author's drawing

Faced with that situation, the Government soon realized the role of transforming the growth model through Decision 1393/QD-TTg approving the National Strategy on Green Growth for the 2011-2020 period, with a vision to 2050. However, the level of implementation of the transition to green growth has been very slow and limited, especially the private sector has not really achieved its full potential. According to the White Book on Vietnamese Enterprises (2021), the number of private sector enterprises has increased rapidly in number. In fact, as of December 31, 2019, the number of private sector enterprises in Vietnam was 647,634 enterprises, while in 2010 this number was only 268,831 enterprises (Investment, 2021), increased by more than 2.4 times (table 1).

Table 1. Number of businesses, labor attraction and capital sources for economic production in all economic sectors, as of December 31, 2019

Type of enterprise	Number of businesses	Labor attraction	Capital sources for economic production
State owned enterprise (%)	0.3	7.3	22.2
Non-state enterprise (%)	96.9	59.9	59.8
Foreign investment enterprise (%)	2.8	32.8	18.0
Total	**100**	**100**	**100**

Source: The White Book on Vietnamese Enterprises, 2021 and author's compilation

Table 1 shows that although the private sector accounts for nearly 97% of the number of enterprises in the economy, the rate of attracting labor and capital for production and business of this economic sector accounts for only 59.9 percent and 59.8 percent. Thereby, it can be seen that the characteristics of Vietnam's private economic sector mainly include small and medium enterprises. In the context that countries are accelerating the process of converting their economies to a green growth model, and our Party has also affirmed that green growth is an inevitable growth model, an irreversible trend. However, according to the report of the Ministry of Industry and Trade on the implementation of greening production at enterprises, only 68.5 percent of enterprises are aware of the benefits of applying cleaner production in Vietnam in 2019, and of which only 46.9% of production facilities apply cleaner production and only 12% achieve savings of 8% or more in reducing energy and fuel per unit of product (Ministry of Industry and Trade of Socialist Republic of Vietnam, 2022).

In another aspect, although green growth has also been interested by many localities and applied by many businesses, it has not really become a vital factor for the development of enterprises. Especially in the field of industrial production, enterprises in industrial parks have taken actions to implement green growth strategies. However, most of the major industrial parks can only carry out centralized wastewater treatment, while old and outdated technology and equipment are still being used in many fields, causing large waste in energy and fossil resources. Some industrial parks implementing green growth under the Eco-Industrial Park (EIP) project which have brought recorded effects such as reducing electricity consumption by 5,236,850 kWh/year; CO2 emissions being reduced by 3,796.6 tons/year (Center, 2018). However, the pilot project of the eco-industrial park only attracted 26 businesses in 3 participating provinces, Can Tho, Da Nang and Ninh Binh in the period from 2015-2019. Up to now, the replication of the eco-industrial park model has not been strongly promoted on a large scale.

In addition, implementing green growth requires innovation in economic growth models, or businesses must innovate their business models. However, according to research results of Deloitte Private organization (Private, 2021), 48% of private enterprises surveyed are interested in improving labor productivity in business development strategies; but only 34% of private enterprises are able to innovate business models in the coming time; and only 14% of private enterprises participating in the survey think that the management of environmental resources and social resources has been fully completed/implemented. Thereby, it shows that private enterprises are still mainly interested in immediate benefits - increasing profits for businesses and have not really cared about environmental issues, as well as green growth. In another angle, ISO 50001 certificate - is an international standard supporting organisations to improve the efficiency of their energy management while optimising energy performance in all processes, increased from 16 certificates (2014)) to 75 certificates (2018) (Partnership, 2022). However, this number is still very low as compared to the number of industrial enterprises in Vietnam. Similar in the field of Green Buildings, by the end of 2018 Vietnam had 104 buildings with green certification, chủ yếu là LEED certification, LOTUS certification, and Edge certification (Figure 2).

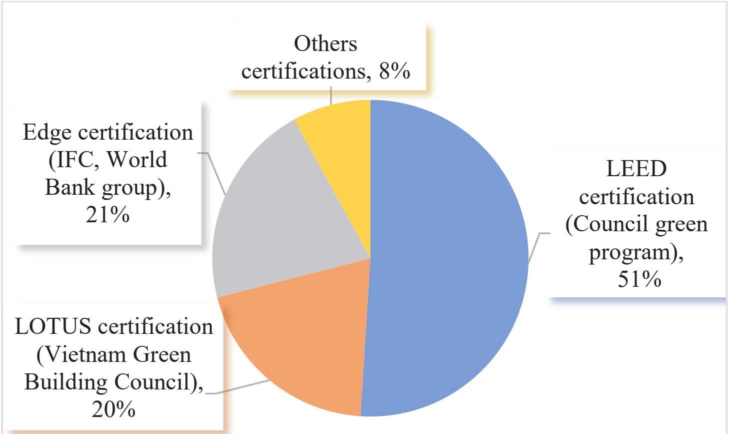

Figure 2. Green Building Certifications by Type, 2018

Source: Corp (2022)

Although, as of May 2021, Vietnam has 174 projects that have been completed and certified for green buildings, but mainly comes from the "Social Responsibility Program" of large corporations, or a marketing strategy, product image products and brands, as well as aim to reduce operating costs (e.g. Big C Vietnam Group (retail), Taekwang Vina company (footwear), Intel Corporation (technology), Coca Vietnam Cola (beverages), and Pou Chen Group (footwear). The speed of green building development is still quite slow compared to Thailand (about 200 green buildings in 2018), Malaysia (540 green buildings in 2018) and Singapore currently have about 4,000 to 5,000 completed projects and have green building certification (Corp, 2022; Quang, 2022).

There are many reasons for this situation, some of which are as follows:

(1) The level of awareness of enterprises in general and private sector enterprises about the importance of green growth is still low. Part of this reason comes from the lack of capacity of private enterprises in measuring the impact of production and business activities on the environment. Therefore, private enterprises are not aware of the benefits that the implementation of green growth brings to businesses such as cost savings, reducing legal risks in the environmental field and improving competitiveness.

(2) Implementing green growth requires large costs to train human resources with green skills; Research and Development; and buy new technology. However, as analyzed above, most of Vietnam's private enterprises are small and medium sized.

(3) Although, the Government has made great efforts in developing mechanisms and policies to support private enterprises in implementing green growth. However, activities to promote and disseminate policies to private enterprises lack enthusiasm; not really assertive and mostly encouraging. Therefore, private enterprises inherently lack the capacity to implement green growth in all aspects from business models, management, human resources, research and application of new technologies, plus motivation to implement green growth in private enterprises has not been activated.

Therefore, in order for private sector enterprises to strongly participate in the process of implementing the national strategy on green growth, solutions that increase motivation, stimulate businesses in general and private sector enterprises should be carried out in addition to sanctioned solutions. As a result, such voluntary actions will help the implementation of green growth strategies more effectively.

4. CONCLUSIONS AND POLICY IMPLICATIONS

In human resource management, motivating employees plays a very important role in increasing labor productivity and motivating employees to work more effectively. For private sector enterprises, in order to help them enjoy the benefits and be responsible for the results that their business leaders make, they should be ready to use their own capital to conduct production and business processes. Therefore, creating motivations to satisfy the needs of enterprises in the private sector will stimulate and orient the actions of business entities towards the common goal of the country. All in all, it is necessary to increase both internal motivation as well as extrinsic motivation. In which:

- *Increased extrinsic motivation:* External motivation are the factors that cause the business to take action to implement the strategy. It includes *punishment* or *reward*:

  (1) *Punishment,* which are regulations on sanctions when businesses do not comply. Currently, legal documents from resolutions of the Party and National Assembly to Decrees and Circulars in many fields on green growth have been implemented, as well as documents of many ministries and branches and localities have developed and implemented the Green Growth Action Plan. However, the regulations, as well as the guiding documents, are still general and lack consistency in action. Therefore, it is necessary to have a high determination of leaders at all levels to agree on the view of building a full and strict legal framework, and a policy mechanism that is both mandatory and encouraging for businesses to invest in green growth, practice social responsibility towards the environment, green growth and sustainable development. Simultaneously, it should be addressed that the development of detailed and specific green growth implementation manuals for each field, in addition to a green growth implementation roadmap and strong enough penalties at the same time will guide businesses take action to avoid punishment.

  (2) *Rewards* will be a powerful tool to motivate businesses to work for rewards. Besides the certificates, energy labels, eco-labels, green labels for green, clean and environmentally friendly products that businesses receive when meeting the requirements, it is necessary to find out the motivation of new growth such as finance, green credit, green tax, green award for R&D investment - green technology etc. In addition, in the context that foreign partners and national governments are also in the process of restructuring the growth model towards a green and sustainable direction, activities to support the promotion of product images of businesses, creating a bridge to help businesses increase cooperation and expand markets into countries with the same green and environmentally friendly growth goals will be a driving force for private businesses to participate in the implement the national strategy on green growth.

- *Increases intrinsic motivation:* The internal motivation for private enterprises to act comes from the satisfaction of business leaders when the business achieves its goals and has the potential to expand and develop in the future. Therefore, it is necessary to make private business leaders see that implementing a green growth strategy is a vital condition, a destination, and a way to help businesses achieve their goals and move towards development corporate sustainability.

(1) *Increasing awareness about green growth*: The cognitive process helps to reflect objects and phenomena in objective reality that affect people through their actions. Thanks to awareness, people have feelings, emotions, set goals and act based on that. Therefore, in order for private sector enterprises to act on green growth, it is necessary to raise awareness among business stakeholders through the implementation of activities to support businesses in building real capacity implementing green growth such as: training activities, on-the-job training for businesses on the contents of green growth so that private businesses can fully realize the role and meaning of green growth for development present and future business development. It is a firm affirmation and commitment of the State about the achievements of green growth brought to businesses through experience sharing activities in implementing green growth among businesses, learning from experience foreign policy or even an "insurance contract for green growth" will strengthen trust, share risks in perception to promote business action.

(2) *Promote and diversify education and propaganda on green growth* through close forms such as organizing fairs and exhibitions, advertising products of enterprises producing according to green growth standards on the mass media, evaluate, rank and honor enterprises implementing green growth, organize contests to learn knowledge about green growth, launch green production initiatives in enterprises etc. In addition, it is necessary to increase the role of industry associations in timely propagating new environmental and social regulations of export markets, so that enterprises can promptly change and adjust the product supply chains, to respond to the entire market requirements. In addition, seminars to share practical experiences will help businesses realize that the era of mere price competition is no longer there, but now, businesses must create sustainable competition in the whole process of producing products. At that time, businesses will have the motivation to develop their business policy strategies to meet the requirements of green growth.

(3) *Encourage green consumption*. According to the theory of supply and demand, when consumer behavior changes, towards green products, boycotting "brown" products will create a driving force for businesses to shift production to meet consumers' requirements. Therefore, propaganda and education activities from preschool level will help increase consumers' awareness of their roles and responsibilities in consuming green products and building a green lifestyle. Using all communication channels from traditional to modern along with well-grounded scientific evidence to help consumers understand the benefits of green products for their own health. When consumers' interests are brought forward to meet their desires, their own expectations create the impetus for them to act. It is the actions of consumers that will create the impetus for businesses to take action to convert to green growth.

In summary, in order to quickly transform the economy towards greening, implementing Vietnam's commitment to join hands in combating climate change, reducing greenhouse gas emissions, for the sustainable development of mankind, demanding requires the participation and cooperation of all levels of government from central to local, from businesses to consumers and in the daily lifestyle of each person. However, willingness to sustain the livelihood has always been an obstacle for small and medium enterprises although green growth is an inevitable growth trend. Therefore, in order for the private sector to truly become a core force, voluntarily and actively participate in the transition, finding and creating motivations for the current difficulties and challenges of the Private sector enterprises become potential to be promoted more effectively than sanctions.

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A DISCUSSION ON SEVERAL FINANCIAL POLICIES TO CONTROL INFLATION IN CURRENT TRANSITION ECONOMY

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Abstract: *Inflation has always been a significant attention of public opinion since this is an economic issue that all countries have to confront. However, the impact of inflation does not always cause negative consequences, for some countries, inflation has a positive impact on economic development. While in 2020 the economy was heavily affected by the Covid-19 epidemic, from 2016 to 2020, Vietnam's macro-economy remained firmly stable, inflation was moderated and maintained at a low rate, thus creating an environment and driving force for socio-economic development. Moreover, commodity prices are relatively stable in the aforementioned period. The average consumer price index (CPI) in the 2016-2020 period reached 4%, which is not only a sharp decrease compared to the 2011-2015 period (7.65%) but also within the set target range (under 4%). Average core inflation has also been well controlled over the years, staying at a relatively stable rate and witnessing a sharp decrease, compared to the 2011-2015 period with a rate of 5.15%, averaging 1.64% in the 2016-2020 period.*

In the context of Covid-19 when the epidemic significantly affected the socio-economy of nations around the world, Vietnam strives to bring the economy back to the growth rate of the years before the pandemic, implementing the socio-economic development orientation for the 2021 – 2025 period with the average GDP growth rate of 5 years from 6.5 to 7%. In the imminent future, the National Assembly sets a target for the growth rate of the consumer price index (CPI) in 2022 on the average of 4%/year. However, this objective is not easy to achieve, especially when the pressure to control inflation in 2022 is immense over the complicated development of Covid-19 pandemic.

The article will focus on discussing some of the financial policies that we are implementing to control inflation in Vietnam in the current context.

Keywords: *Financial policies, price liberalization, salary, exchange rate...*

1. POLICIES ON PRICE LIBERALIZATION

The price liberalization and the technology to handle this process itself both have potential inflationary impulses in them.

In a planned economy, the costs of production are not only miscalculated, but also not fully expressed in monetary terms. The price is therefore politically formal and is often less than the value.

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Price liberalization - the first important step of the market solution against inflation - is to return the price to the law of value, which is to create a new social price - the market price. Differences in price under price liberalization depends on a number of factors at the time of implementation:

- The actual domestic price compared with production costs and the world price, the higher the difference, the bigger the jump. Once the full monetization of production costs into the price, the price jump is even bigger.
- The bigger the money-row imbalance, the higher the jump. The situation is aggravated by the negative impact of speculation, psychological factors and especially the high monopoly in production. The monopoly price increase will cause other commodities to rise in a chain reaction and a spiral of price inflation occurs. The price inflation rush usually quickly reaches its peak at the beginning of price liberalization, as this is a period of simultaneous release of inflationary potentials that have accumulated and been suppressed over a long period of time. Before that, moreover, the new market mechanisms regulating them had not yet formed and operated effectively.

This explains why inflation in transition economies often has a much higher rate than inflation in developed market economies. At this time, inflation contradicted the main goals of economic reform because it did not allow rational economic calculations to be made. The impact of new social space and price correlations on the promotion and orientation of social investment is also weak or unstable, and can even be reversed due to:

Firstly, the overall price increase is too high, depriving the price of its signaling function;

Secondly, the reliability of this price "signal" itself is not guaranteed;

Thirdly, capital transfer mechanisms (banks and capital markets) as well as other investment incentive mechanisms have not been developed in the transition economy.

Experience in recent years in transition economies shows that, in order to calm the price fever, in the process of price liberalization, the state needs to maintain certain control over a part of wholesale and retail prices. Some important price correlations need to be kept stable (not fixed), on the other hand, price liberalization should be phased and synchronized with the degree of business liberalization. In particular, it would be a crucial mistake for the healthy competition of the economy in general, as well as for anti-inflation efforts in particular, when allowing enterprises that were still monopolistic or nearly monopolistic to be allowed to operate the freedom to set prices according to the market without having to compete in a full and healthy market. At that time, the risk of price increase (and hence inflation) is inevitable and brings double benefits to those enterprises, because they have both monopoly rights and enjoy both monopoly prices and profits. Therefore, measures commonly used for this purpose are:

+ *Firstly*, control the maximum and minimum price in a certain period of time to promote the price correlation change in the desired direction. Ensuring the principle of market supply and demand, the state only adjusts when required by social interests, avoiding misunderstanding and abuse. The maximum price must not exceed the world general price for the same goods and services. The state may also stipulate the level of necessary costs and average profits to be accounted for in prices for a certain period of time on the basis of maximum prices and selling prices of similar imports. Minimum prices used to protect domestic production usually apply to exported products (food, raw materials). The list of goods and services subject to price adjustment is an important tool of state price adjustment, but they have to gradually shrink with the level of stability and liberalization of social prices. It should be emphasized that the price correction itself also contains the potential to create a price jump:

Firstly, in the period of freezing prices, enterprises will either raise the hedge prices for their products, or incubate goods waiting for new prices, increasing the scarcity. And after the ban period, they will sharply increase the price to compensate for the previous period;

Secondly, if there is too long a stable price system in the portfolio, it will create a two-price system – creating the difference between the ceiling price (if regulated low to avoid speculation) and the market price. As a result, although there is an increase in the ceiling price, it still does not eliminate the scarcity situation, but also causes a special situation: both a scarcity of goods and services, and accelerating new inflation in goods with floating prices.

+ *Secondly*, establish a price stabilization fund. Funding sources are diverse, but it is indispensable for the contribution of the state budget. Funding can be performed in 3 following ways:

- Direct subsidies to consumers;
- Limiting the price increase of goods, and at the same time subsidizing and compensating for lost profits because of such restriction for producers and traders;
- Set up physical reserves (goods, raw materials...) to regulate supply - demand. It should be noted that it is here that increasing state intervention with excessive subsidies and overprotection of domestic production will also give rise to new inflationary impulses.

+ *Thirdly,* anti-monopoly, including all 4 types: monopoly in price, monopoly in quality, monopoly in production and consumption market, monopoly in supply and allowing to increase the import level of scarce goods the rarest essential. Price liberalization without increased market competition and antitrust inevitably leads to monopoly price inflation. And increasing imports at the necessary level will immediately reduce the situation of scarce goods. But overuse of this measure is harmful in the long run to domestic production, to encourage investment and to improve the domestic economic structure, and thus to increase the accumulation of future inflation potential.

2. POLICIES ON FIXED OR FLOATING EXCHANGGE RATES

The scope of exchange rate policy depends in the same way as the degree of freedom of currency conversion of each country. The competitiveness of exports, the balance of trade and payments, changes in the production structure, confidence in the local currency, in the government, in the reform program - that is, the factors that govern inflation rate - are deeply dependent on the official exchange rate. Even if the exchange rate fluctuation is not large, it also affects the economy depending on its integration with the outside world economy, especially the relationship between domestic currency and foreign currency. The exchange rate is strongly influenced by foreign exchange policy, by supply and demand for foreign exchange in the market, and by domestic prices.

Ensuring and maintaining the stability of the macro-economy, including exchange rate policy, has always been an essential requirement for economic growth and social progress. There can be stability and economic growth in the context of volatile exchange rates, which are unstable due to the influence of market factors, due to the value correlation between currencies relative to the local currency, due to the priorities for some immediate government goal. However, the converse is not always true, exchange rate stabilization does not always help stabilize the economy (especially fixing exchange rate modestly). The identification between the goal and the tool - even though it is a very important tool among the tools to achieve the set goals, is a dangerous misconception, a mistake that Southeast Asian economies have been paying a heavy price for. Of course, stabilizing a certain currency rate in line with its actual value would be an ideal condition to contribute to stabilizing a country's economy. However, in most cases, the exchange rate is subject to objective impacts of market factors, which always fluctuate beyond the control and management of subjective factors, despite having a strong financial reserve force where and how complete is the market regulation mechanism. Therefore, the exchange rate must always have an adaptive movement to those fluctuations. At the same time, the reality also shows that the regulation of the exchange rate often tends to escape the actual value of the local currency because of the delayed response to policies, regulatory mechanisms, conservatism or bias in policy prioritizing certain immediate socio-economic goals. As a result, under the surface of exchange rate stability there is always a large accumulation of underground vortexes of impulses arising from overvaluation or undervaluation of the local currency. These spirals will increase over time and at some point will emerge and be enough to disrupt the stability of the economy, and thus, the stability of the exchange rate itself as a target that the exchange rate policy is aimed at. When valuing the local currency, countries often expect benefits from lowering import prices to reduce production costs, reduce inflationary pressures and reduce foreign debt service costs. However, the prolonged and overvalued local currency will become an important cause of reducing the competitiveness of that country's exports by increasing the cost of exports, and reducing the price of imports in terms of prices currency, leading to export restriction, stimulating import, increasing trade deficit. Moreover, when the local currency's valuation is high, it often leads to an increase in domestic credit interest rates, as well as a large gap between domestic interest rates and foreign interest rates, stimulating easy foreign borrowing, especially short-term commercial loans at high interest rates, thereby creating potential risks associated with the maturity of easy on-lending loans in local currency, even speculative business loans real estate and the risks associated with fluctuations in the currency exchange rate in the future (debt service costs will skyrocket due to the increase in the currency rate, which threatens to make the children unable to pay their debts). The most serious and long-lasting consequences are that the overvaluation and prolongation of the local currency will destroy the motivations for the development of domestic production, first of all, production and export business. increase smuggling and corruption, stimulate wasteful use of foreign currency, disregard domestic resources, stimulate the "bubble" economy to develop in an overheated state, and continuously increase the deficit the economy's balance of trade, current account balance of payments, and rapid depletion of national reserves to keep the currency's value. Eventually, the economy became poor and empty, and the economic foundations that guaranteed the high and stable value of the local currency were depleted. The economy is less competitive, foreign currency revenue is depleted while foreign debt is constantly increasing, debt maturity pressure is increasing, the demand for buying foreign currency to repay debt has skyrocketed, pushing up foreign currency prices, and at the same time initiates an unstoppable devaluation of the local currency, followed by a series of other negative consequences. A financial and monetary crisis may arise when the Government does not have enough foreign currency reserves to intervene and there is a lack of effective auto-regulating market institutions to untie sensitive risks that threaten to create panic outbreaks and chain breakdowns in the entire economy, first of all in the banking and financial sector.

Conversely, when the local currency is undervalued (whether due to the government's initiative in the hope of stimulating exports, or due to the passivity associated with being forced to increase the issuance of the local currency to cover the budget deficit government or to buy foreign currency on the domestic market for the government's debt repayment needs...) the harm is equally harmful: inflationary pressure increases, the cost of debt service in foreign currency increases rapidly, at the same time, the price of imported goods was pushed up in the same direction with the rate of devaluation of the local currency, as well as narrowing the inflow of capital and disrupting the outflow of investment capital, harming people's lives, etc. Thereby increasing the risk of bankruptcy of enterprises, increasing unemployment and spreading instability in the whole socio-economic life. It can even lead to an economic breakdown and strong shocks to the country's political institutions.

One-way emphasis of the benefits resulting from too high or too low a currency fixation, is to take into account only the short-term benefits and to include them. All the perils that sooner or later will explode in the future, costing the entire economy more than the local benefits. The higher the price, the larger the difference between the actual value and the virtual value of the local currency and the longer it is maintained. International speculation will make this cost even more colossal and unpredictable. Therefore, there is a need for a consistent exchange rate policy, based on the constant search for the optimal balance between the nature of the market itself and state intervention. The floating exchange rate - a tool of a developed market economy - is itself a strong destabilizing factor in the context of a transition economy that has not yet fully developed market relations. This is the dilemma of most developing countries when choosing an anti-inflation exchange rate policy.

In fact, there is not one exchange rate mechanism that is optimal in all cases, and exchange rate stability is a good condition for economic growth in certain periods. Exchange rate stability does not mean maintaining a constant exchange rate but moves based on market supply and demand relationships with active regulation by the state. There are two commonly used methods of determining the trend and movement of a stable nominal exchange rate:

- Identify one or several strong foreign currencies to which a volatile local exchange rate is associated. It can be a foreign currency commonly used in international payments, or the currency of the main trading partner country. This method bets the currency on external factors, and thus easily causes "import inflation", price spikes beyond the control of the government, increasing the passivity of the foreign currency macro policy.
- Periodically devalue the currency. The Central Bank predicts the local currency devaluation in a specified period of time on the basis of consideration and forecasting of supply and demand

for foreign currencies, specific socio-economic situation at home and abroad, and economic trends. their movements. However, this method also contains some of the following inflation risks:

Firstly, the gap of devaluation cycles, if not adequately considered, will cause insecurity in psychology and economic activity, increase speculation of investors. Moreover, if the exchange rate is fixed for too long, it will lead to overvaluation of the local currency and may even lead to deflation.

S*econdly*, the currency devaluation, if excessive, will cause an increase in the price of manufactured imports, especially in industries with a high rate of imported raw materials, which will lead to a recession in domestic production, thereby leading to a recession straight to the inflation hole.

Thirdly, if the structure of the state debt (in local and foreign currencies) is not taken into account, the devaluation may lead to an increase in losses from the foreign currency debts of the state, because it has to pay debts in foreign currencies. On the other hand, since currency devaluation often leads to an increase in the price of domestic goods and a decrease in the value of assets in local currency, which has a negative effect on the current account, in order to avoid capital bleeding, it is often necessary to increase interest rate after the rate increase. The increase in interest rates leads to a decrease in domestic investment capacity, an increase in the price of domestic goods, making them less competitive than imported goods. The devaluation of the currency also reduces the wages, incomes and living standards of workers. Prolonging the actual poverty of workers will reduce demand, narrow the consumption market, reduce production and adversely affect the reform process. If nominal wages increase to offset this loss of income, it will again push up prices, inflation and economic crisis. It is this dilemma that confirms the two-sides nature of currency devaluation and the need for caution in its use.

Thus, currency devaluation will be a stabilizing factor only if the combined measures of monetary policy do not increase the money supply and monetize the budget shortfall, which will lead to an increase in the money supply inflation and expose the country to a new devaluation. The devaluation, if not well managed, will easily create a dizzying inflationary spiral of inflation - devaluation - inflation... and then go to the collapse of the currency.

This spiral is often accompanied by another spiral with the same causes, mechanisms and effects - that is the spiral: inflation - foreign currencization (dollarization) - exchange rate appreciation -increase in inflation.

As characteristic of the early period of the transition economy, foreign exchange is directly related to exchange rate policy and increases in proportion to the devaluation of the currency in order to protect the incomes of both sales and consumption from inflation. In the long run, foreign exchange distrusts the local currency, weakening the adjustment effect of the Central Bank, because it creates "vacuums" outside the impact of reserve and liquidity policies. At that time, the exchange rate becomes the main regulating tool of economic life, while the interplay between financial-monetary-credit and foreign exchange policies is reduced, which is one of the most important conditions for the operation of the local currency and the transition economy. Depending on the narrowing of circulation serviced by the local currency, the excess of currency issuance increases (including those issued solely to buy foreign currency into reserves), which directly increases increase inflation. Along with cross-border smuggling, foreign exchange also leads to an increase in foreign currency flows abroad, reducing the resources needed for economic development of the country.

3. EXPANSIONARY OR CONTRATIONARY FISCAL POLICY

Increasing budget spending is a factor that helps increase GDP. Increasing budget revenue through tax increases to some extent, can increase GDP, by creating opportunities to increase budget spending. However, if the tax is misused, it will reduce GDP and increase inflation. Tax increases are a measure commonly used by governments in transition countries to make up for budget shortfalls and meet the ever-increasing expenditures due to the enormous demands of the transition. However, these tax increases are remitted by sellers into the prices of goods and services they provide. Therefore, increases market prices directly leads to inflation as well as reduces competitiveness, reduces consumption in domestic and foreign markets, reduces profits, reduces production and business, and ultimately reduces future budget revenues. The vicious circle continues like that. In addition, there is also the fact that the less complete the tax collection work and the higher the tax rate, the more complicated the tax loss situation. Tax arrears of state-owned enterprises to the state budget, bad debts, and illegal appropriation of capital among state-owned enterprises are becoming common phenomena in the early stages of transition mechanism changes and is considered a form of soft subsidy, a variation of the previous low-interest credit subsidy or capital subsidy. This situation not only puts more strain on budget revenues, but also distorts market-economic relations, as well as creates potential inflation risks, due to the strong shocks of the collapse of the state budget solvency and chain default in the future.

State budget revenue is limited, increasing slowly compared to expenditure needs, on the other hand, due to the requirement of tightening monetary policy, which is not allowed to be issued to compensate for the budget deficit to combat monetary inflation, it has forced the government to increase debt in the current period and abroad or have to cut spending, even debt spending, including civil servant salaries, social security expenditures and development investment spending. These forced-choice solutions all involve more or less in it a synonym for the accumulation and increase of future inflationary potentials, which is currently heralded by a narrowing of demand, a decrease in market purchasing power. In the domestic market, the stagnation in investment is directly leading to an economic downturn and an increase in social unrest.

The requirement to tighten monetary, tighten credit and fight inflation also requires controlling credit limits and reserves of commercial banks. This forced banks to both refuse to mobilize money, or lower their deposit interest rates on the social market, and to raise lending rates to ensure their profits. Moreover, in the condition that non-banking financial institutions have not yet been developed to supplement capital transmission channels for the social economy, and the incentives for domestic and foreign investment have not been completed, the above situation will increase the thirst for social investment capital, especially the huge capital needs for restructuring and infrastructure development. This state of thirst plays out as a paradox: the sick person suffers from thirst while sitting on the bank of a hidden stream. The lack of opening up the sources of social investment for development (both domestic and foreign capital inflows) to offset the effects of tight monetary policy will create a situation of an economy that is both inflationary due to scarcity, stagnation, or an early consumer society, wasting resources, especially domestic resources. That means that the source of future inflation has not been eliminated. Therefore, the expansionary or contractionary the financial, monetary and credit policies to what extent, depends on the situation and strategic goals as well as specific situational solutions, but it is best not to create economic growth that is overheated or cooled down and inhibits economic growth below potential. Inflation control and maintenance of a sound financial system must be the primary goals of policy. At the same time, practical experience has shown that, in general, a country with a central bank is more proactive and independent in performing the basic task of keeping the currency's value stable, the lower the inflation there (due to limiting the influence of the political world for short-term goals, even partisanship, self-interest, etc.).

4. POLICIES ON WAGES

Price liberalization inevitably led to the need to monetize personal income, which resulted in a sudden increase in the amount of money needed for circulation during the early years in transition economies. However, this effect is more short-term on the volatility of the social price level than the impact of the trend that the wage growth rate exceeds the labor productivity growth rate. Both of these factors give rise to both demand-pull and cost-push inflation impulses. Increase in wages increases production costs, therefore, increases the selling price of products, thus increasing inflation level. In turn, inflation pressured to increase wages further in order to maintain living standards, thus creating a spiral of increasing wages - increasing prices - increasing wages… Moreover, due to the existence of a certain economic monopoly, especially a state monopoly, there are independent wages high power in industries and businesses that are very wealthy. This wage-based competition in order to maintain their rights among social groups in the state economic sector (which spreads to other areas) also forms a "wage-wage" spiral that has the same impact as the "wage increase - price increase - wage increase" spiral on the above mentioned inflation. In addition, the increase in wages and the release of personal incomes not only increase the tendency to demand further wage increases, increase the prices of goods, the tendency to increase consumption faster than to accumulate, the tendency to hoard and speculate on goods, etc. straining the balance of supply – demand, but also inevitably leads to social polarization into richer and poorer groups. If egalitarianism destroys the strong development motivation of society, social polarization and inequality create a strong impulse to cause socio-political upheaval. Clearly, both of these excesses are inadequate. It is therefore essential that while liberating most of the market price, the state should maintain control over the growth of individual incomes by means of a minimum wage policy and progressive income taxes. Income policy, on the social side, must ensure that income growth is lower than production growth, and social solidarity, a linear distribution of individual incomes by labor, for allowing to increase social division has a clear purpose, but without losing the source and working motivation of those incomes. In addition, income control policy needs to be combined in an organized manner with consistent government policies to protect workers, protect consumers and to break the obsession of inflation in the economy. At the same time, the income policy must also achieve the goal of reducing production costs, increasing the competitiveness of products and the economy, stimulating productivity and efficiency of production - business of each individual, each enterprise, as well as of the whole economy - society. An income policy (as well as other financial and macroeconomic policies of the government) if it does not promote a reasonable labor arrangement, well handle the redundant labor and wait work both in the economic and public sector, and in the economy as a whole, is synonymous with wasting social resources, increasing production costs and accumulating strong inflationary impulses for the economy future and even threaten to derail the country's market economic reform process.

Inflation in the transition economy includes in it the characteristics of demand-pull inflation, cost-push inflation, money-supply inflation, structural inflation, and also the incompleteness of the socio-economic revolution during the transition from the centrally planned mechanism to the market mechanism. Vietnam is also one of the transition economies with these common characteristics.

Anti-inflation policies, as well as market reforms in transition economies, need to be comprehensive, synchronous, consistent and thorough. However, when implementing it, it should be phased, depending on the priority socio-economic goals in specific periods of the market reform process, and consider using anti-inflationary measures with other specific and flexible adjustments necessary, ensuring the synchronization and taking into account both sides of the policies, ensuring a peaceful, stable and open external environment, ensuring solidarity, to stabilize social order, to synchronize and increasingly perfect the market mechanism, and to actively deal with economic consequences. The socio-economic consequences caused by the anti-inflation policy is the most important condition for the successful implementation of market reforms and to prevent the risk of re-inflation in the future.

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THE IMPACTS OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE: EMPIRICAL EVIDENCE FROM VIETNAMESE LISTED COMPANIES

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Abstract: *Based on a sample of 97 companies listed on the Hochiminh Stock Exchange and Hanoi Stock Exchange in a five-year period from 2015 to 2020, the research examines the impacts of corporate governance on firm performance of Vietnamese listed companies. While the corporate governance mechanism will be estimated according to the board size, number of non-executive members on board, chairman ownership, executive board size, CEO duality, CEO ownership, ownership concentration and foreign ownership; the firm performance is measured by ROA, ROE, Tobin's Q and Z-score. The research has found that the board size and chairman ownership have negative impacts on the performance of companies; whereas the number of non-executive members on board, executive board size, ownership concentration and foreign ownership positively affect firm performance. The CEO ownership has no significant impact on all four performance measurements. Meanwhile, the relationship between CEO duality and organizational performance is inconclusive as empirical evidences suggest conflicting results.*

Keywords: *Corporate governance, firm performance, Vietnamese listed companies.*

1. INTRODUCTION

Over recent decades, increasing attention has been given towards the relationship between corporate governance and firm performance, especially after the collapses of many large corporations which were supposed to be derived from corporate governance breakdowns and frauds. According to the International Finance Corporation (IFC), corporate governance is defined as "*the structures and processes by which companies are directed and controlled*". It can be seen as a system that determines the rights and responsibilities of different stakeholder groups within an organization including: managers, board of directors, major shareholders, and minority shareholders. The ultimate goal of corporate governance is to manage and minimize the conflicting of interests among different groups of stakeholders. Corporate governance is also one of three pillars under ESG (Environmental, Social and Governance) reporting which is a framework that helps stakeholders understand how an organization manages risks and opportunities around sustainability issues. The Covid-19 pandemic has accelerated the trend of integrating ESG factors into business activities, including companies' efforts to improve their governance mechanisms. A good corporate governance not only enhances business transparency but also helps the company in managing risks and wastages, thereby improving its competitiveness. As a result, the firm could attract more investors (both domestic and foreign ones) and lower its costs of capital. Strong corporate governance also makes company more resilient to stresses and economic downturns.

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In Vietnam, the term of corporate governance is relatively new and has just been mentioned widely in recent years. Although, Vietnamese government has recognized the important role of corporate governance and made remarkable headway in issuing many legal documents to enhance the efficiency of corporate governance in Vietnam, the quality of corporate governance is relatively low. Meanwhile, Vietnam is still an under-researched country in the field of corporate governance. Besides, empirical evidences also suggest that the impacts of corporate governance on firm performance differ among countries. This can be explained due to the differences in business management culture and legal system of each nation. There would be no "one size fits all" model which is appropriate to all countries. Therefore, more thorough studies on the impacts of corporate governance on firm performance are urgently needed in the situation of poor corporate governance quality in Vietnam.

2. THE IMPACT OF CORPORATE GOVERNANCE ON FIRM PERFORMANCE

2.1. Research Design

2.1.1. Dependent Variables

According to Hult et al, 2008, financial performance is the most popular measurement used in variety of empirical researches on organizational performance. Besides, collecting non-financial data such as customer satisfaction or environmental responsibility of companies operated in an emerging market liked Vietnam is not an easy task, which requires a lot of resources. On the other hand, financial ratios of listed companies can be collected through the financial statements which are relatively reliable as they are audited by independent auditing firms. Therefore, the author has decided to measure the firm performance by 4 financial indicators which are ROA, ROE, Tobin's Q and Z-score by Altman. In which, the first two ratios are calculated purely based on book value or accounting value, while the other two incorporate the market price of company stock into their calculations.

Regarding the two market-based indicators – Tobin's Q and Z-score, the formulas that the research used as following:

$$\textit{Tobin's Q} = \frac{\textit{Market capitalization} + \textit{Total debt}}{\textit{Total assets}}$$

$$\textit{Z-score} = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.99X_5$$

in which:

- X_1 = Working capital / Total assets
- X_2 = Retained earnings / Total assets
- X_3 = Earnings before interest and taxes / Total assets
- X_4 = Market value of equity / Book value of total liabilities
- X_5 = Sales / Total assets

Basically, a Tobin's Q higher than 1.0 indicates that the market value of company may reflect some assets which has not been recorded in the book value, therefore the company become more attractive to investors. Conversely, a Tobin's Q, which is less than 1.0, suggests that the firm is utilizing its assets inefficiently and investors are less willing to invest in it.

For the Z-score by Altman 1968, as determined by the formula above, a score of less than 1.8 indicates that a company is in financial distress and likely going for bankruptcy. Meanwhile, firms with scores above 3 are considered relatively "safe" and unlikely to experience bankruptcy. A score falling between 1.8 and 3 do not bring a clear conclusion as the company has a moderate probability of filing for bankruptcy.

2.1.2. Independent Variables

Based on theoretical and empirical evidence on the relationship between corporate governance and firm performance as well as the availability of information, the research examines 8 independent variables, namely, board size, number of non-executive members on board, chairman ownership, executive board size, CEO duality, CEO ownership, ownership concentration and foreign ownership. Along with that, eight hypotheses are proposed including:

- ***H_1: There is a negative relationship between board size and firm performance.***

  Although the empirical results on the relationship between board size and firm performance are quite dissimilar around the world, it is relatively identical for the case of Vietnam. Specifically, Truong et al (1998), and Duc and Thuy (2013) all agreed that the size of BOD has a negative impact on the performance of company, which is explained as the result of the "high power distance" culture in Vietnam. Therefore, the author supposes that there is a negative relationship between board size and firm performance.

- ***H_2: There is a positive relationship between number of non-executive members in BOD and firm performance.***

  There is still very little research regarding the impact of non-executive board members on the performance of company in Vietnam. Duc and Thuy (2013) have concluded that there is no relationship between these two subjects. However, it cannot deny the importance of non-executive member as it enhances the independence of BOD in controlling and monitoring the executives. Therefore, the author hypothesizes that the number of non-executive board members has a positive impact on the firm performance.

- ***H_3: There is a positive relationship between chairman ownership and firm performance.***

  Le and Thi (2016) argued that chairman ownership contributes positively to the performance of company in Vietnam as it encourages the chairman act in the best interests of shareholders as well as the company. Therefore, chairman stock ownership could be considered as a governance mechanism that encourages the chairman work harder to improve the firm performance. For that reason, a positive relationship between chairman ownership and organizational performance has been hypothesized.

- ***H_4: There is a negative relationship between CEO duality and firm performance.***

  Empirical researches on the linkage between the CEO duality and firm performance in Vietnam shows inconsistent results. While Duc and Thuy (2013), Duc and Tri (2014), Thuy et al (2017) all agreed that CEO duality contribute positively to the firm performance, Trang (2016) indicated an opposite result. In reality, the majority of shareholders, investors and policymakers all believed that the combination of CEO and chairman positions is not favored. Specifically, the Decree 71/2017/ND-CP dated June 6th 2017 has also stipulated that "the chairman of the board of directors must not take over the position as the director of the same public company". Therefore, the author expects that the duality status would have negative impact on the performance of companies in Vietnam.

- ***H_5: There is a positive relationship between executive board size and firm performance.***

According to Binh and Giang (2014), there is no significant relationship between executive board sized and firm performance of top 30 largest listed companies (the VN30 Index) in Vietnam. However, other researches on the same topic indicate that there exists a relationship between top management team size and organizational outcome. Specifically, Eisenhardt and Schoonhoven (1990) argued that larger management teams promote growth for new businesses. Similarly, Haleblian and Finkelstein (1993) found that firms with larger top management teams outperform other firms during turbulent periods. Therefore, in a scope which is broader than the VN30 Index, the author expects that executive board size positively affects to the firm performance as larger teams will enable the firm with more capabilities and resources.

- ***H_6: There is a positive relationship between CEO ownership and firm performance.***

According to agency theory, the managerial ownership plays an important role in aligning the interests between shareholders and managers, thereby reducing the agency problems. Trang (2016) has found evidence of a positive relationship between managerial ownership and ROA in Vietnamese listed companies, however, there is no significant impact of CEO ownership on organizational performance as it is measured by Tobin's Q. This research will reexamine this relationship by hypothesizing that CEO ownership has positive impact on firm performance.

- ***H_7: There is a positive relationship between ownership concentration and firm performance.***

Berle and Means (1932), Jensen and Meckling (1976), Wruck (1988), and Mehran (1995) argued that ownership concentration has positive impact on firm performance because large shareholders are directly involved in the monitoring and controlling of firm's daily operation, thereby reducing agency costs. In Vietnam, according to Duc and Thuy (2013), large shareholders have no impact on the firm performance. However, Le and Thi (2016) found that ownership concentration contributes positively to the performance of company. Thus, the author supposes that there is a positive relationship between ownership concentration and firm performance in listed company in Vietnam.

- ***H_8: There is a positive relationship between foreign ownership and firm performance.***

Thai (2013), and Le and Thi (2016) all agreed that foreign ownership contributes positively to the performance of company in Vietnam. It can be explained as a result of abundant sources of capital and new technologies that foreign investors bring to domestic firms. Especially for the case of Vietnam, foreign investment has become a main driver of economic growth. Moreover, under the agency theory, foreign investors usually require higher degrees of disclosure and transparency in the domestic firm, thereby reducing agency costs and enhancing the organizational performance. Therefore, the author expects that foreign ownership will positively affect the performance of company.

In addition, the author also includes two control variables into the model to better explain the firm performance, which are firm size (FSIZE) and firm leverage (FLEV). Therefore, the research models are described as follows:

(1) $ROA_{it} = \alpha_0 + \beta_1 BS_{it} + \beta_2 NEXE_{it} + \beta_3 OCHA_{it} + \beta_4 DUAL_{it} + \beta_5 ES_{it} + \beta_6 OCEO_{it} + \beta_7 OCON_{it} + \beta_8 OFRN_{it} + \beta_9 FSIZE_{it}\ \mu + \beta_{10} FLEV_{it} + \mu_{it}$

(2) $ROE_{it} = \alpha_0 + \beta_1 BS_{it} + \beta_2 NEXE_{it} + \beta_3 OCHA_{it} + \beta_4 DUAL_{it} + \beta_5 ES_{it} + \beta_6 OCEO_{it} + \beta_7 OCON_{it} + \beta_8 OFRN_{it} + \beta_9 FSIZE_{it}\ \mu + \beta_{10} FLEV_{it} + \mu_{it}$

(3) $TOBINQ_{it} = \alpha_0 + \beta_1 BS_{it} + \beta_2 NEXE_{it} + \beta_3 OCHA_{it} + \beta_4 DUAL_{it} + \beta_5 ES_{it} + \beta_6 OCEO_{it} + \beta_7 OCON_{it} + \beta_8 OFRN_{it} + \beta_9 FSIZE_{it}\ \mu + \beta_{10} FLEV_{it} + \mu_{it}$

(4) $ZSCORE_{it} = \alpha_0 + \beta_1 BS_{it} + \beta_2 NEXE_{it} + \beta_3 OCHA_{it} + \beta_4 DUAL_{it} + \beta_5 ES_{it} + \beta_6 OCEO_{it} + \beta_7 OCON_{it} + \beta_8 OFRN_{it} + \beta_9 FSIZE_{it}\ \mu + \beta_{10} FLEV_{it} + \mu_{it}$

where *i* represents one specific company and *t* represents the year.

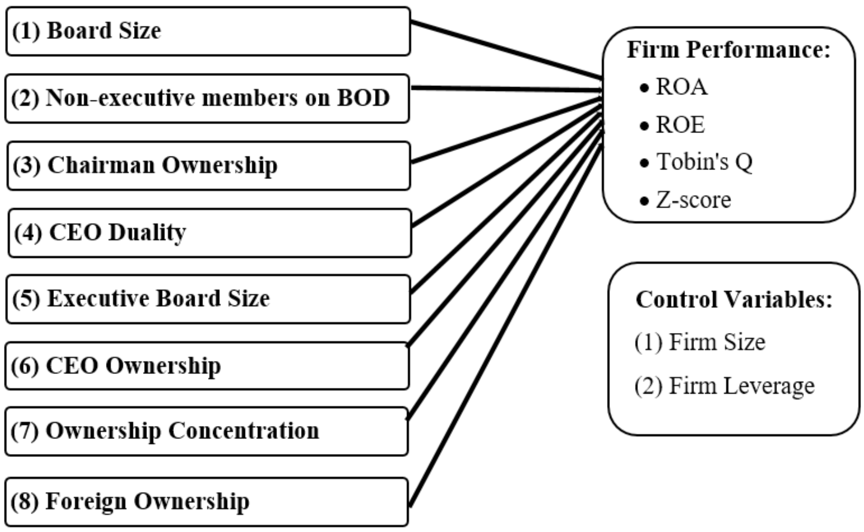

Figure 2.1. Analytical Framework

Source: Author's compilation

Table 2.1. Summary of all variables used in the research

Variables	Definition	Measurement
Dependent variables		
ROA	Return on Assets	$\frac{\textit{Earning after tax}}{\textit{Total assets}}$

Variables	Definition	Measurement
ROE	Return on Equity	$\frac{\textit{Earning after tax}}{\textit{Total equity}}$
TOBINQ	Tobin's Q	$\frac{\textit{Market capitalization + Total debt}}{\textit{Total assets}}$
ZSCORE	Z-score ratio	*Z-score model of Altman (1968)*
Independent variables		
BS	Board Size	*Number of members on board of director*
NEXE	Non-Executive Members on BOD	*Number of non-executive members on BOD*
OCHA	Chairman Ownership	*Share percentage owned by Chairman of BOD*
DUAL	CEO Duality	*Coded "1" if the CEO also serves as the chairman of BOD and "0" for other cases*
ES	Executive Board Size	*Number of members on executive board*
OCEO	CEO Ownership	*Share percentage owned by CEO*
OCON	Ownership Concentration	*Total ownership of individuals/institutions with more than 5% of shares*
OFRN	Foreign Ownership	*Share percentage owned by foreign investors*
Control variables		
FSIZE	Firm Size	*Natural logarithm of firm's total assets*
FLEV	Firm Leverage	*Ratio of total debt divided by total equity*

Source: Author's compilation

2.2. Data Collection

In reality, the process of collecting non-financial data related to corporate governance takes a great deal of time and efforts. The author has to read through the companies' annual reports and collect the figures one by one. In Vietnam, there are no organizations or agencies provide these kinds of data. Due to shortage of time and resources, the research cannot cover all the corporates listed on Hochiminh Stock Exchange and Hanoi Stock Exchange. Therefore, a sample consists of 100 listed firms has been formed by randomly picking from those two exchanges for the 5-year period 2015 – 2020. The sample does not include financial companies such as banks, insurance companies and other financial due to their distinct requirements on capital structure and operations.

Financial ratios such as ROA, ROE and control variables were derived from the audited financial statements of firms under the research. Meanwhile, other corporate governance variables such as the board size or CEO duality status were collected from the annual reports and official websites of these companies. Since Tobin's Q and Z-score incorporate the market value factor in their calculations, the company's fiscal year-end stock price has been used. However, it should be noted that the presentation of financial statements as well as annual reports of companies are not identical. Moreover, there were also newly listed or delisted firms during the research period. As a result, the sample has many missing values which directly affected the models under consideration. Therefore, after screening the collected data and removing incomplete ones, the final sample consisted of 97 listed companies and a total of 443 observations, which is organized into an unbalanced panel data set.

2.3. Research Methodology

This study examines the impact of corporate governance on firm performance of 97 listed companies in Vietnam from 2015 to 2020 based on estimating the regression models on panel data, using the R statistical software. For panel data, three most popular regression models include: Pooled Ordinary Least Square (Pooled OLS); Random Effects Model (REM); and Fixed Effects Model (FEM). The Hausman test, Lagrange Multiplier (LM) test, and F-test will be undertaken to decide which model best fits the observed data. Besides, the Wooldridge test and Breusch-Pagan test will also be conducted to check for Serial correlation and Heteroskedasticity respectively. If these kinds of defects are detected, the Panel-Corrected Standard Errors (PCSE) method will be used to correct for these problems.

2.4. Research Result

2.4.1. Descriptive Statistics

Table 2.2. Descriptive statistics of variables

	Observations	Mean	Standard Deviation	Min	Max
ROA (%)	443	10.06	9.79	-25.26	60.23
ROE (%)	443	16.97	13.59	-45.48	79.41
TOBINQ	443	1.71	1.31	0.40	9.05
ZSCORE	443	5.84	9.10	-0.18	68.98
BS	443	6.29	1.56	3.00	13.00
NEXE	443	4.60	1.62	1.00	13.00
OCHA (%)	443	11.29	15.43	0.00	81.77
DUAL	443	0.24	0.43	0.00	1.00
ES	443	4.45	1.80	2.00	12.00
OCEO (%)	443	6.17	10.60	0.00	50.58
OCON (%)	443	58.34	22.60	0.00	99.40
OFRN (%)	443	19.12	18.01	0.00	80.49
FSIZE	443	28.98	1.48	23.78	32.25
FLEV	443	1.11	0.99	0.03	6.18

Source: Author's compilation based on results obtained from R software

Table 2.2 shows that ROA has a relatively wide interval between min value of -25.26% and max value of 60.23% with a mean of 10.06%. Similarly, ROE also has a wide range from -45.48% to 79.41% with an average value of 16.97%. Tobin's Q has a mean value of 1.71 with standard deviation of 1.31, while these figures are 5.84 and 9.10 respectively for Z-score. In general, listed companies in the sample has performed relatively well during the investigated period.

The average size of BOD is 6.29 directors, which ranges from 3 to 13 directors. Meanwhile, the executive board has only 4.45 members on average. The average number of non-executive members in BOD is 4.60 and has a wide range from 1 to 13 members. In addition, it is worth noting that the duality variable has a mean value of 0.24, showing that the majority of companies in the dataset separate the role of the chairman of BOD and the CEO. The ownership level of CEO is relatively low with an average value of 6.17%, which is lower than the ownership of chairman and foreign investors, namely 11.29% and 19.12%. Moreover, the ownership concentration is 58.34% on average and has a wide range from 0 to 99.4%.

2.4.2. Correlation Analysis

Table 2.3. Correlation matrix

	BS	*NEXE*	*OCHA*	*DUAL*	*ES*	*OCEO*	*OCON*	*OFRN*	*FSIZE*	*FLEV*
BS	1.00									
NEXE	0.78	1.00								
OCHA	-0.03	-0.12	1.00							
DUAL	-0.07	-0.21	0.12	1.00						
ES	0.17	-0.02	-0.04	-0.14	1.00					
OCEO	-0.18	-0.29	0.58	0.44	-0.05	1.00				
OCON	-0.13	-0.04	0.16	-0.19	-0.02	0.04	1.00			
OFRN	0.38	0.30	-0.08	-0.03	0.09	-0.15	-0.13	1.00		
FSIZE	0.26	0.20	-0.02	-0.14	0.45	-0.01	0.01	0.22	1.00	
FLEV	-0.02	-0.13	-0.02	0.15	0.19	-0.04	-0.07	-0.02	0.30	1.00

Source: Author's compilation based on results obtained from R software

Table 2.3 shows that all the correlation coefficients are less than 0.8, then it can be concluded that there is no multi-collinearity in the research model. Therefore, all proposed variables will be included in the regression model.

2.4.3. Regression Results

According to Hausman test, LM test, and F-test, REM is the most appropriate approach for the models with ROA and TOBINQ as dependent variables. Meanwhile, FEM will be applied to the models with firm performance measured by ROE and ZSCORE. However, the results of Wooldridge test and Breusch-Pagan test indicate that serial correlation is detected in the model with TOBINQ and ZSCORE, while the heteroskedasticity is found in all 4 models. Therefore, the PCSE method has been used to correct for these defects in 4 research models.

Table 2.4. Regression Results by Using PCSE Method

Independent Variables	(1) ROA	(2) ROE	(3) TOBINQ	(4) ZSCORE
BS	-0.257	0.315	-0.075**	-0.919***
NEXE	0.773***	0.512	0.177***	1.684***
OCHA	-0.081***	-0.105***	0.003	-0.009
DUAL	1.398	4.499***	0.107	-1.543***
ES	0.186	0.041	0.111***	0.527***
OCEO	-0.007	-0.063	-0.012*	0.033
OCON	0.067***	0.048**	0.010***	0.026**
OFRN	0.035	0.010	0.008***	0.036***
FSZIE	-1.271***	-0.557	-0.085**	-2.366***
FLEV	-3.490***	-2.035***	-0.303***	-1.804***
Intercept	44.065***	28.399**	2.916***	69.988***
Significance codes: (***) p < 0.01; (**) p < 0.05; (*) p < 0.1.				

Source: Author's compilation based on results obtained from R software

- **Board Size (BS):** Board size has a negative impact on Tobin's Q and Z-score, however, there is no evidence to support its relationship with ROA and ROE. This finding is relatively new in Vietnam as a previous research of Duc and Tri (2014) has concluded that there is no evidence to support the linkage between board size and Tobin's Q or Z-score. This negative relationship can be explained by a common conception of investors in stock market that the larger the size of the BOD is, the less efficient the BOD's activities are. When the size of the board increases, there will be problems in communication and coordination among board members, especially in the case of Vietnam where is characterized by its "high power distance" culture.
- **Non-Executive Members on Board (NEXE):** The number of non-executive members on board has positive correlation with ROA, Tobin's Q and Z-score at 1% significant level. Although under the ROE model, NEXE does not show significant result, the sign of coefficient is also positive. This finding contradicts to conclusion of Duc and Thuy (2013) that there is no relationship between non-executive members on board and firm performance as measured by ROA. This can be explained as the presence of non-executive members on board will enhance the independence of BOD in controlling and monitoring the managers, thereby improving the performance of company.
- **Chairman Ownership (OCHA):** Chairman ownership has a negative impact on ROA and ROE, however, there is no evidence to support its relationship with Tobin's Q and Z-score. The declines of ROA and ROE with chairman ownership reflects *"entrenchment effect"* which occurs when the chairman gain so much power through their high percentage holdings that they make decisions in their own best interests and ignore other shareholders' interests.
- **CEO Duality (DUAL):** The research results on the relationship between CEO duality and firm performance are relatively inconclusive when it shows a positive impact on ROE and a negative impact on Z-score at the same time. Meanwhile, there is no evidence to support its relationship with ROA or Tobin's Q. These results have partially confirmed the previous studies of Duc and

Tri (2014), and Thuy et al (2017) who had found a positive relationship between duality status and firm performance as measured by ROA. The negative impact of duality status on Z-score, which is explored under this research, could be explained as, under the eyes of investors in stock market, the combination of CEO and Chairman positions may create the moral hazard issues in company, thereby reducing the firm efficiency. However, more time is needed to make further assessments on the relationship between CEO duality and firm performance in Vietnam, especially for performance measurements which incorporate market value factor such as Tobin's Q or Z-score.

- **Executive Board Size (ES):** Executive board size has positive impacts on Tobin's Q and Z-score, however, there is no evidence to support its relationship with ROA and ROE. These findings are relatively new in Vietnam and can be explained as, under the eyes of investors in stock market, larger top management teams will enable companies with more capabilities and resources, thereby enhancing the effectiveness of corporate operation.
- **CEO Ownership (OCEO):** At 5% significant level, the CEO ownership has no impact on firm performance as measured by all 4 indicators under the research. However, at 10% significant level, CEO ownership shows a negative relationship with Tobin's Q. This can be explained as, most of the cases, the managers' salary and bonus are associated with company stock price. Therefore, they have motivation to focus on stock price inflations, instead of enhancing the business efficiency even though they have the responsibilities to do that. That maybe the reason why for accounting measures as ROA and ROE, or for mixed measure as Z-score, CEO ownership does not display any significant relationship.
- **Ownership Concentration (OCON):** Concentration ownership shows a strong positive impact on firm performance as the regression results indicate significant relationship in all 4 models. This result is consistent with previous study of Le and Thi (2016). This can be explained as the direct participation of major shareholders in monitoring and controlling business activities help minimize the agency costs, thereby enhancing the effectiveness of firm operation.
- **Foreign Ownership (OFRN):** Foreign ownership has a positive impact on Tobin's Q and Z-score, however, there is no evidence to support its relationship with ROA and ROE. This finding is consistent with the previous empirical researches in Vietnam of Thai (2013), and Le and Thi (2016) who all found a positive relationship between foreign investors' holdings of shares and Tobin's Q. This can be explained by a common belief of retail investors in stock market that the presence of foreign investors will enhance the firm performance, and those benefits will be reflected in company stock price. Therefore, the foreign ownership and market perspective on firm performance usually vary in the same direction.

Besides, the two control variables also show significant relationship with firm performance. Specifically, both FSIZE and FLEV have negative impacts on firm performance at the 1% significant level. It means that as the company becomes larger in term of total assets or it issues more debts, its financial performance tends to be reduced.

These research findings, once again, have confirmed the diversity of relationship between corporate governance and firm performance. The differences in empirical results indicated by different regression models reflect the appropriateness of each performance measurement in observing and studying the interaction among these factors. Therefore, the selection of an appropriate measure of firm performance to assess the relationships between factors is very important. Besides, the research results have several similarities but also differences with other studies in the world, which indicates the specific characteristics of listed companies in Vietnam.

3. CONCLUSIONS AND RECOMMENDATIONS

The research results show that the board size and chairman ownership have negative impacts on the performance of companies; whereas the number of non-executive members on board, executive board size, ownership concentration and foreign ownership positively affect firm performance. The CEO ownership has no significant impact on all four performance measurements. Meanwhile, the relationship between CEO duality and organizational performance is inconclusive as empirical evidences suggest conflicting results. Moreover, both firm leverage and firm sized was found having negative impacts on financial performance of corporates.

Based on these findings, the research attempts to propose several recommendations for policymakers and listed companies in order to improve the quality of corporate governance, thereby enhancing financial performance of these companies, as follows:

- **For Policymakers:**
  - The Decree No. 71/2017/ND-CP of the Government dated June 06th, 2017, providing guidelines on corporate governance of public companies, has stipulated that the board of directors of a listed company must have 3 to 11 members and at least one third (1/3) thereof must be non-executive members. Since the board size has a negative impact on firm performance as indicated by research results, the policymakers may consider to reduce these levels of board size. On the contrary, they could increase the required proportion of non-executive members on board in order to enhance the independence of the BOD.
  - The research findings imply that the participation of foreign investors will enhance the performance of domestic enterprises. Moreover, in order to achieve the goal of upgrading Vietnamese stock market and enhancing the attraction of FDI inflows, the policymakers should loosen the room for foreign investors by increasing the foreign ownership limit. This is also consistent with the proposal of Morgan Stanley Capital International (MSCI – a leading investment research firm worldwide) in 2019 which suggests that Vietnam should make further progress on relaxing foreign ownership limit to be upgraded to the emerging-market listing. In addition, the government also need to promote the progress of administrative procedure reform in order to simplify the procedures and overcome the stagnation in state management agencies.
  - In the process of collecting data, the author has found out that many listed companies did not disclose any information about corporate governance information such as chairman ownership or CEO ownership. Besides, there are still companies which do not comply with provisions related to the size of BOD as indicated by the maximum value of 13 directors in the board size. Therefore, policymakers should impose higher sanctions on listed companies which are not transparent about governance information or do not comply with the regulations on corporate governance.

- **For Listed Companies**
  - The number of BOD members should not be too high to avoid the free riding problem and strengthen the coordination between members on board. Moreover, as stipulated clearly in the Decree No. 71/2017/ND-CP that the BOD of a joint-stock company must consist of no more than 11 members. However, in fact there are still a number of Vietnamese listed firms not complying with this regulation, which is indicated by the maximum value of BS variable in observations is 13 directors Therefore, these companies need to reduce their board size in order to comply with government regulations. On the contrary, listed companies should increase the presence of non-executive members on board to enhance the independence of BOD.
  - Based on cost-benefit analysis, the company may consider to increase the size of executive board if it is necessary and appropriate. Especially during difficult periods or financial distresses, larger top management teams will enable the firm with more capabilities and resources to resolve the problems and improve the firm performance. In order to do so, the managers must be carefully selected to make sure that only qualified executives are employed.
  - Research results suggest that the presence of large shareholders helps mitigate agency problems and enhance operational effectiveness of companies. They also play a key role in providing companies long-term commitments on important aspects such as financial resources or managerial experiences. However, there should still have policies to protect the interests of minority shareholders. For example, the firm may allow minority investors to nominate a candidate to the board election to ensure the minority shareholders have voice in managing the company.
  - Foreign ownership brings domestic firms various benefits such as abundant sources of capital, advanced technology, opportunities to enter foreign markets, etc. Therefore, Vietnamese companies should attract more FDI by actively seeking foreign partners as well as enhancing its quality of corporate governance.
  - In addition, listed companies should carefully consider the cost and benefits of using financial leverage and expanding firm size. Empirical results indicate that firm leverage and firm size are negatively affecting the performance of companies. Therefore, reducing the uses of debts and liquidating less profitable assets will improve the efficiency of companies.
  - Last but not least, the managers in listed companies should attend intensive training courses on corporate governance in order to have a clear and proper understanding about information transparency in particular and corporate governance practices in general.

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ADMINISTRATION LAW ON RISK SHARING IN VIETNAM'S PPP PROJECTS

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Abstract: *In order to reduce the burden on the state budget and increase investment resources for infrastructure construction, Vietnam needs to promote investment in the form of public-private partnership. In fact, there are many factors to the successful implementation of PPP projects, but one of the important factors is how the risk-sharing mechanism between the State and investors can attract the participation of investors, while also ensuring the objectives of the project implementation. It is necessary to have a complete legal framework, regulating PPP and especially the regulations on risk sharing in PPP projects to be implemented. Within the scope of the article, the research will point out some shortcomings and solutions to improve the current legal regulations in Vietnam on risk sharing in PPP projects.*

Keywords: *Administration law, PPP, risk sharing.*

In the current economic conditions, countries in the world in general and Vietnam in particular face many difficulties in securing state budget revenues to meet the funding needs for state activities as well as financing for construction and design of infrastructure.

In order to reduce the burden on the state budget and increase investment resources for infrastructure construction, one of the measures applied is to establish a partnership between the State and the private sector. It is called investment in the form of Public Private Partnerships (PPP).

Investment in the form of PPP is understood as the implementation of projects on the basis of an investment contract in PPP, whereby the parties agree on the rights, responsibilities and risk distribution between the parties in the process of implementing new construction investment projects or renovating, upgrading, expanding, managing and operating infrastructure works, providing public services in certain fields of the economy.

Experience has shown that the application of the PPP form helps the governments of other countries reduce the burden of capital investment with the state budget, through the mechanism of attracting investment capital from the private sector in building construction. infrastructure and public services. This form also creates opportunities for private investors to contribute ideas and propose appropriate economic and social policies to maximize benefits for all parties. In the world, this form of investment has been implemented in developed countries such as the UK, Australia, Korea, China and has brought unexpected successes in building economic infrastructure in socio-economic conditions of these countries. Meanwhile, in ASEAN countries such as the Philippines,

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Thailand and Singapore, the governments of these countries have also initially introduced legal reforms to develop investment under public-private partnership contracts in the near future[1].

With the increasing demand for infrastructure development, investment capital from the state budget in Vietnam in the coming time becomes increasingly scarce, the mobilization of investment capital from investors domestic and especially foreign investors will be an effective solution to balance the investment capital capacity of the economy and investment needs.

The implementation of investment projects in the form of PPP will help the State effectively solve the problem of capital sources to invest in building infrastructure and public services for society. In addition, the investment in this model also brings benefits that cannot be realized in other forms of investment, such as reducing the financial burden on the state budget in infrastructure investment as well as providing public services; creating investment opportunities to seek profit for private investors; private investors not only provide capital, but also transfer new technological inventions, as well as good management skills; the most effective mechanism for sharing of responsibilities for risk management. This is a significant difference between PPP and traditional investment models.

Investment projects under the PPP method will usually last for many years, depending on the characteristics of each project. Because the project implementation time usually lasts many years, it can contain very high risks for all parties, including public and private partners. Therefore, the parties often tend to agree on the application of the risk-sharing mechanism on the basis of the general provisions of the law.

When learning about the risk-sharing mechanism in PPP projects, there are often questions that arise: Why does the State need to share risks with investors? Why does the State not let investors "profit and loss bear" according to market principles? What are the risks in a PPP project and how much does the State share to make investors feel secure and participate in the project? How to avoid asking - giving, avoiding policy profiteering when the State shares the increase or decrease in revenue with investors?...

Among the above questions, the first and most important question is why is risk sharing necessary in PPP projects? Once there is a consensus on this issue, it makes sense to answer the follow-up questions.

A PPP project is clearly not a public investment, nor is it a private investment, but there is a cooperation between two parties - the State and private investors - to provide public products and services. These products and services should be provided by the State to the people, but because the State does not have enough resources (financial, administrative capacity, etc.), it must seek the companionship of the private investors.

When the State wants to call for resources from the private sector, of course the State needs to have the responsibility and obligation to ensure the feasibility of the project through supporting tools, guarantees. The State cannot push all the responsibility and risks of implementing this public purpose project to the private sector like it does for normal business and commercial investment projects.

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[1] Ministry of Planning and Investment, 2018, General report on international experience in formulating and developing policy framework on investment in the form of public-private partnership.

Because investors participate in PPP projects, of course, with the goal of making profits. If the State does not share but pushes all risks to investors, there will be two possibilities. Firstly, the risk level of the project is too high, investors will definitely not participate, then the goal of attracting investment is considered a failure. Second, investors may still accept risks, but they will allocate that risk to the cost of products and services, causing consumers to pay higher costs. On the contrary, when the State uses the budget to share risks with investors, it will bring public benefits - in that it helps to keep prices and fees of public products and services at an acceptable level and people - users. products, goods - will benefit. It is clear that in order to attract investors, it is necessary to have clear and transparent regulations on the risk-sharing mechanism between the State and investors participating in PPP projects.

Currently, there are regulations on the risk-sharing mechanism for ensuring foreign currency balance and sharing the increase and decrease in revenue in the Law on Investment in the form of PPP in Vietnam as follows:

Firstly, ensuring foreign currency balance for important PPP projects:

The Government decides on the application of the mechanism to ensure foreign currency balance for projects under the authority to decide on investment policies of the National Assembly and the Prime Minister on the basis of foreign exchange management policies, ability to foreign currency in each period.

The PPP project enterprise implementing the project specified in Clause 1 of this Article has exercised the right to purchase foreign currency to meet the demand for current transactions, capital transactions and other transactions or to transfer capital, profits, and other payments. liquidation of offshore investments in accordance with the law on foreign exchange management, but the market cannot meet the legitimate foreign currency demand of the PPP project enterprise, the foreign currency balance shall not exceed 30% of the enterprise's project revenue in VND after deducting expenditures in VND[1].

Secondly, the mechanism of sharing revenue increase and decrease:

When the actual revenue reaches 125% of the revenue in the financial plan in the PPP project contract, the investor and the PPP project enterprise share with the State 50% of the difference between the actual revenue and the PPP project and 125% of revenue in the financial plan. The share of revenue increase is applied after adjusting prices and fees for public products and services, adjusting the duration of PPP project contracts according to the provisions of Articles 50, 51 and 65 of this Law and be audited by the State Audit of the revenue increase.

When the actual revenue is lower than 75% of the revenue in the financial plan in the PPP project contract, the State shares with the investor, the PPP project enterprise 50% of the difference between 75% of the revenue in the financial plan and actual revenue[2].

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[1] Article 81, Vietnam PPP Law.

[2] Article 82, Vietnam PPP Law.

Accordingly, these mechanisms are only applicable to a number of special and important PPP projects (which are decided by the National Assembly or the Prime Minister), on the basis of careful consideration through the cross-sectoral appraisal Council at central level rather than universally applied to all PPP projects.

Under the PPP Law, the State commits to share with investors and project enterprises no more than 50% of the revenue shortfall between actual revenue and revenue committed in the contract. Investors and project enterprises commit to share with the State not less than 50% of the increase in revenue between actual revenue and revenue committed in the contract.

In fact, before the Law on Investment in the form of public-private partnership was promulgated, there was a lack of provisions on the risk-sharing mechanism in the legal regulations on PPP. Through the actual bidding for Tan Van - Nhon Trach project and Dau Giay - Phan Thiet project, investors all require the Government to provide guarantees for revenue risks, foreign currency conversion ability and carry out the responsibilities set forth by the Government. However, due to problems with policies and laws, it is still not possible to provide guarantees as required by investors and foreign credit institutions, this is one of the reasons leading to the two projects mentioned above that are not possible to implement under the PPP form.

Although, currently there are legal regulations governing risk sharing in PPP projects, but only mentioning the guarantee of foreign currency balance for important PPP projects; and the mechanism of sharing increase and decrease revenue. While the implementation of PPP projects the possible risks are very rich and diverse, but in the current legal regulations in Vietnam, there are still open regulations on risk identification, principles of risk classification, etc. How to allocate risks and handle consequences caused by such risks? Who handles when that risk occurs? Who is responsible for that risk? This is one of the contents that need to be regulated satisfactorily to contribute to creating trust for the parties when participating in investment relations in the form of PPP. One of the reasons PPP projects in Vietnam in recent years have not attracted the attention of foreign investors is because of the State's regulations on risk-sharing for risks occurring in implementing projects is still incomplete. PPP projects are usually implemented for a long time, so it is difficult to avoid possible risks that the parties cannot foresee when signing the contract such as the risk of policy changes, the risk of changing the legal framework; changes in tax regulations, non-competitive bidding; Force majeure risk, interest rate risk, inflation risk, and risk allocation in the contract to the two parties are not appropriate; lack of experience in PPP activities; lack of commitment from either partner; organizational and coordination risks; third party reliability risk; quantity demand risk...

In addition, legal documents on PPP have been continuously revised, supplemented, and replaced since 2009 until now[1]. Thus, in just a short time, the legal regulations directly regulating PPP always change, while investment projects in this form of investment often take place for a long time, even there are even projects implemented from 20 to 30 years. The unstable legal regulations will cause

[1] From 2009 to now, the State has continuously issued legal documents regulating the investment relationship in the form of consulting partnership such as: Decree No. 108/2009/ND-CP; Decree No. 24/2011/ND-CP; Decision No. 71/2010/QD-Ttg; Decree No. 15/2015/ND-CP; Decree No. 63/2018 / ND-CP; PPP Law 2020.

many disadvantages for both the State and private investors when implementing PPP projects. This is one of the main reasons why investors, especially foreign investors, are not interested in choosing this form of investment in Vietnam.

In order for this form of investment to be really effective, to ensure both the goals of the State and the interests of investors, it is necessary to improve the legal regulations on investment in the form of PPP in the coming time as follows:

Firstly, perfecting regulations on risk-sharing mechanisms in the direction of ensuring rigor, publicity and transparency.

When applying the regulations on risk-sharing, investors' interests are the guarantee of the Government for important PPP projects. However, if this guarantee mechanism is applied, the State will take risks on its own and if there is no good risk management mechanism, it may cause great consequences for the budget in the long run. Therefore, additional regulations are needed to prevent and manage the risks of these investment guarantees. For example, when proposing security measures, there must be a risk assessment report for the budget, which establishes risk scenarios, the probability of occurrence of risks and the maximum damage that the budget has to bear. This risk assessment report must be appraised by the Ministry of Finance and granted legal opinions by the Ministry of Justice before submitting to the competent authority for decision.

Second, it is necessary to investigate again the share of increase and decrease in revenue.

To improve project efficiency, it is necessary to narrow the difference between the revenue committed in the contract and the revenue in the current financial plan under the PPP Law to a maximum of 125% (the investor shares with the state) and 75% (shared by the State with investors) to 110% - 90% or 115% - 85, narrowing the spread contributes to ensuring safety and attracting investors to participate in PPP project.

Thirdly, to protect investors' interests not only in law enforcement but also when changing laws.

The Law on Investment in the form of corporate partnerships currently does not have regulations on investment guarantees when there is a change in the law. This is a content that investors are very interested in due to the unpredictable nature of Vietnamese law. In fact, the provision on investment security when there is a change in the law has been stipulated in Article 13 of the Law on Investment, however, this provision only stops at the change of the legal document on investment incentives. Meanwhile, PPP projects always require a much higher stability in the investment environment. Therefore, it is necessary to have regulations on investment security when there is a change in the law.

CONCLUSION

Although initially certain successes have been achieved, the legal provisions on investment in the form of public-private partnership in Vietnam still reveal many limitations, thereby reducing the efficiency in the implementation of this investment activities. Therefore, the requirement of perfecting legal provisions, especially regulations on risk sharing in PPP projects, is an urgent requirement today.

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SOLUTIONS TO DEVELOP AEO PROGRAM IN VIETNAM

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Abtract: *Authorized Economic Operator (AEO) is a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with WCO or equivalent supply chain security standards. The AEO program has been applied in Vietnam since 2011 according to Circular No. 63/2011/TT-BTC and Circular No. 105/2011/TT-BTC. After 10 years of implementation, the AEO program of Vietnam Customs has shown many positive aspects, making an important contribution to the socio-economic development. However, there are still some shortcomings which should be solved for further development of the AEO program in Vietnam.*

Keywords: *Authorized economic operator, AEO program, solutions.*

1. INTRODUCTION

According to the SAFE Framework of Standard in the WCO AEO Program Summary, Authorized Economic Operator (AEO) is defined as *"a party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with WCO or equivalent supply chain security standards. AEOs may include manufacturers, importers, exporters, brokers, carriers, consolidators, intermediaries, ports, airports, terminal operators, integrated operators, warehouses, distributors and freight forwarders"*.

In Vietnam, AEOs are understood as enterprises participating in international trade activities that are entitled to a number of priority regimes according to regulations during customs clearance and customs audit. Thus, the regulations on international AEOs and Vietnam's AEOs have many points that are not really consistent, which leads to different interpretations; but basically, these businesses enjoy a number of priorities in international trade.

Literature Review and Previous Research Studies:

The WCO's SAFE Framework of Standards and Vietnam's legal documents such as the Customs Law, Decree No. 08/2015/ND-CP, Decree No. 59/2018/ND-CP, Circulars No. 72/2015/TT-BTC, Circulars No. 07/2019/TT-BTC… have provided a legal framework for the AEO program in Vietnam. This pave the way for the successful foramtion and the development of the AEO program in Vietnam since 2011.

Besides, some other research studies such as *Summary Report of the AEO program*, *Research of the AEO MRA of some countries' customs authorities and lessons for Vietnam Customs*, *Lessons from*

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the implementation of AEO program in Japan… have clarified some theoretical and practical issues related to the AEO program, specifically as follows:

- The overview of the AEO program: the definition of AEO, conditions and requirements for Customs and AEOs, the benefits of the AEO program and the AEO Mutual Recognition Arrangements, assess the conformity of the AEO program in Vietnam with the regulations of the WCO…
- Highlight the achievements, as well as point out limitations of the AEO program in Vietnam.
- Make recommendations and solutions to develop the AEO program in Vietnam.

However, these above studies have not fully assessed the status of the AEO program in the 12-year period from its inception to the present and have not proposed practical solutions to contribute to accelerating the development of the AEO program in Vietnam.

2. RESEARCH METHOD

- Systematization method, generalization method, analysis and synthesis method, comparison method are used to clarify the theoretical basis of the AEO program according to the WCO's SAFE Framework of Standards.
- Comparative, historical and logical method, data analysis medthod are used to assess the current status of the AEO program in Vietnam and to point out the results, achievements, limitations and causes of the limitations of the AEO program in Vietnam. On that basis, some solutions are proposed to develop the AEO program in Vietnam.

3. RESEARCH RESULTS

3.1. Conditions and requirements for Customs and AEOs in the WCO SAFE Framework of Standard

The World Customs Organization's Standard Framework allows flexible security plans based on the AEO model. Customs authorities should not hinder the international trading community by setting different requirements to ensure security and to facilitate international trade. To enjoy the priority, enterprises as well as Customs must meet the following conditions and requirements:

Firstly, Demonstrated Compliance with Customs Requirements

Customs shall take into account the demonstrated compliance history of a prospective AEO when considering the request for AEO status.

This element requires the AEO:

- The AEO have not committed, over a period determined by the national AEO programme, an infringement/offence as defined in national legislation, which would preclude designation as an AEO;
- If the AEO established for less than the period mentioned above, be judged on the basis of available records and information during the application process; or its designee have a demonstrated record of compliance within the same time period.

Secondly, Satisfactory System for Management of Commercial Records

The AEO shall maintain timely, accurate, complete and verifiable records relating to import and export. Maintenance of verifiable commercial records is an essential element in the security of the international trade supply chain.

This element requires the AEO to:

- Maintain records systems including an accounting system which permit Customs to conduct any required audit of cargo movements relating both to import and export;
- Give Customs full access to necessary records, subject to the requirements of national legislation;
- Have internal records access and control systems which are satisfactory to the approving Customs administration;
- Appropriately maintain and make available to Customs any authorizations, powers of attorney and licences relevant to the importation or exportation of merchandise;
- Within any limitations provided in national legislation, properly archive records for later production to Customs;
- Employ adequate information technology security measures which will protect against access by unauthorized persons.

Thirdly, Financial Viability

Financial viability of the AEO is an important indicator of an ability to maintain and improve upon measures to secure the supply chain. The AEO is required to be in good financial standing which is sufficient to fulfil its commitments considering the specific characteristics of its business model and activity. Financial indicators, both absolute and relative, can be utilized to establish ratio measurements which can help to identify the financial standing of the operator. This process falls within the vetting and validation procedures of Members' AEO programmes and should be considered in the totality of the situation for each operator.

Fourthly, Consultation, Co-operation and Communication

Customs, other competent authorities and the AEO, at all levels, international, national and local, should consult regularly on matters of mutual interest, including supply chain security and facilitation measures, in a manner which will not jeopardize enforcement activities. The results of this consultation should contribute to Customs development and maintenance of its risk management strategy.

This element requires AEO to fulfill the following requirements:

- Provide clearly identified and readily accessible local points of contact or a corporate contact that can arrange immediate access to a local contact for all matters identified as being of compliance and enforcement interest to Customs (cargo bookings, cargo tracking, employee information, etc.);

- Individually or, as appropriate, via an industry association, engage in an open and continuing mutual exchange of information with Customs, exclusive of information that cannot be released due to law enforcement sensitivities, legal basis or other precedent;
- Through particular mechanisms set forth in the national AEO programme, notify an appropriate Customs official of any unusual or suspicious cargo documentation or abnormal requests for information on shipments;
- Through particular mechanisms set forth in the national AEO programme, provide timely notification to Customs and any other relevant authorities when employees discover illegal, suspicious or unaccounted for cargo. Such cargo should be secured, as appropriate.

Customs authorities are responsible for assisting and coordinating in:

- Establish, in consultation with an AEO or its agents, procedures to be followed in the event of queries or suspected Customs offences;
- When appropriate and practical, engage in regular consultation at both the national and local level with all parties involved in the international supply chain to discuss matters of mutual interest, including Customs regulations, procedures and requirements for premises and cargo security;
- Upon request of the AEO, provide specific feedback on the performance of the AEO in addressing security issues related to the international supply chain;
- Provide the AEO or its agents with telephone numbers where appropriate Customs officials can be contacted.

3.2. Actual situation of applying the AEO Program in Vietnam

Pilot implementation phase

The AEO program has been applied in Vietnam since 2011 according to Circular No. 63/2011/TT-BTC and Circular No. 105/2011/TT-BTC about pilot application of AEO program for eligible enterprises in the field of customs management and this period was ended with Circular No. 86/2013/TT-BTC.

At the end of the pilot implementation of the AEO program, the customs authorities has recognized 13 enterprises as AEOs; all of them are large enterprises in different industries, professions and fields. This has paved the way for businesses, and the Vietnamese business community has begun to get used to the concept of AEOs.

The pilot phase was the beginning period of the implementation, so that both customs authorities and businesses have a certain confusion. At this stage, the recognition process is still cumbersome, with many procedures. The enterprises were mainly evaluated by the council at the General Department of Customs on the basis of the dossier provided by the enterprises. In addition, due to the lack of experience, this early stage also limited the number of participants by stipulating strict conditions such as very high import and export turnover requirement. This is a big barrier for many small and medium enterprises (SMEs).

Official implementation phase

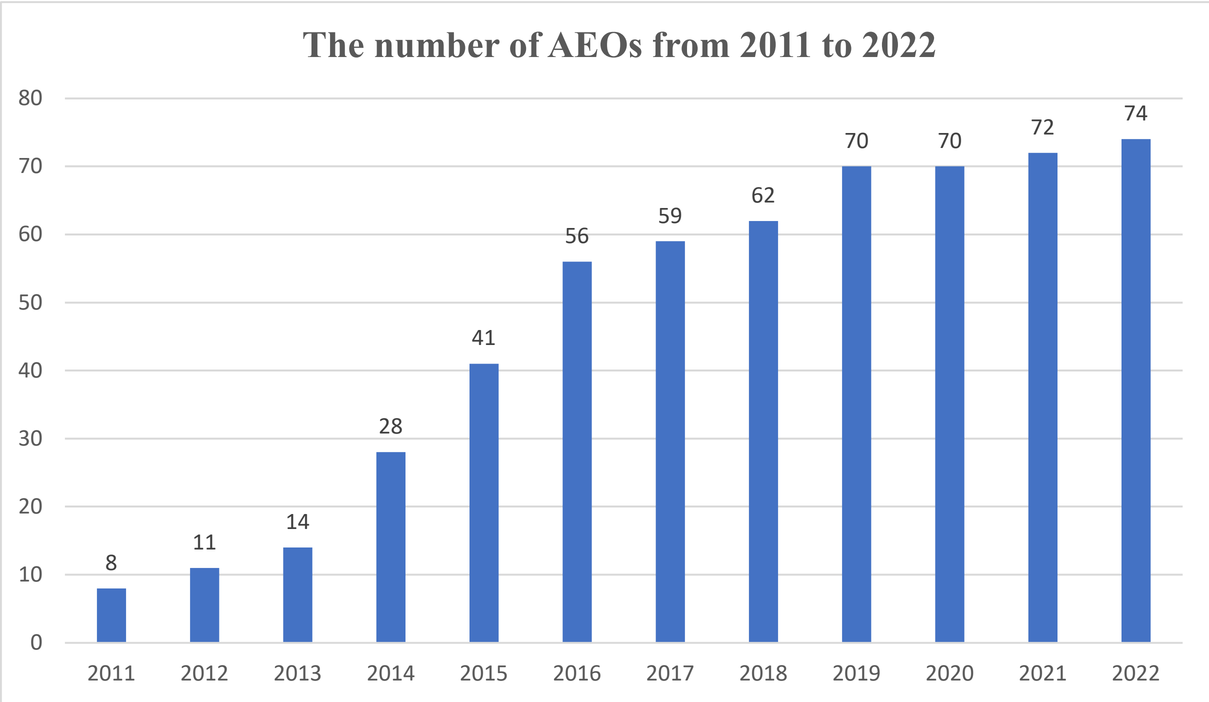
After 2 years of piloting, with the issuance of Circular No. 86/2013/TT-BTC, the Ministry of Finance has issued detailed regulations on the AEO validation, recognition, extension, temporary suspension, suspension and management with significant changes in AEO conditions; adding a number of priorities at the customs clearance stage to suit e-customs procedures but still ensure the state management of customs as well as strengthen cooperation between the three parties: the enterprise, the local Customs Department and the General Department of Customs. In this period, the regulations on AEO conditions only focused on legal compliance conditions. Therefore, WCO assessed that Vietnam's AEO program was just compliance program, not the AEO program.

Then, Circular No. 72/2015/TT-BTC was issued to replace Circular No. 86/2013/TT-BTC. This Circular added regulations of internal control conditions. This had great significance in bringing Vietnam's AEO program closer to the WCO's AEO program. In September 2015, some WCO experts had a working session with the General Department of Customs (Post-Clearance Audit Department) to survey Vietnam's AEO program. Accordingly, the delegation visited a number of AEOs in Vietnam and compared Vietnam's AEO program's regulations with the WCO's SAFE framework. At the end of the working session, the WCO concluded that Vietnam's AEO program is basically similar to the WCO's AEO program. At the same time, Vietnam's AEO program is recognized as an AEO program (while before, Vietnam's priority business program has not been recognized by the WCO as an AEO program with the standards of the SAFE framework).

In 2019, the Ministry of Finance issued Circular No. 07/2019/TT-BTC amending a number of articles of Circular No. 72/2015/TT-BTC. Accordingly, the most important amendment of this Circular is that: the General Department of Customs is the agency that receives the application for recognition of the AEO and at the same time is the agency which validate the AEO conditions. Meanwhile, Circular No. 72/2015/TT-BTC stipulates that local customs authorities is the agency to receive and validate enterprises, and then send the dossier to the General Department of Customs for the recognition. This is a new step to unify and standardize the processes of validation, recognition, extending/terminating AEO satus to improve management quality, and to help businesses exploit the AEO mechanism more effectively.

After 10 years, with the development steps according to the implementation roadmap, the AEO program of Vietnam Customs has shown many positive aspects, making an important contribution to the socio-economic development, foreign investment attraction; and especially this is a program that the businesses always want to participate in. This is also an important step so that in the upcoming time, Vietnam has a basis to negotiate and sign the mutual recognition arrangements (MRAs) with other countries' customs. Then, Vietnamese enterprises not only enjoy the priority regime in Vietnam but also enjoy the priority regime in the countries that Vietnam has signed the MRAs with. The signing of the MRAs is a strategic goal that countries with a complete AEO program aspire to in the future.

As of September 2022, there are 74 AEOs nationwide, of which there are 26 Vietnamese enterprises, 16 Korean enterprises, 14 Japanese enterprises, 8 Taiwanese enterprises, 3 US enterprises and the rest are Italian, Denish, Vietnam - Russia joint venture... According to statistics of the customs authorities in 2021, the total import and export turnover of all AEOs is about 218 billion USD, accounting for approximately 33% of the total import and export turnover of the country.



According to the report of 74 AEOs, businesses have been greatly benefited by this program. Here are the actual benefits that business has gained since being recognized as AEO:

- Shorten the time for customs clearance, thereby reducing the administrative costs and personnel costs including reducing the number of employees and working time, such as: costs of procedures and documents to be submitted to the customs office; costs of simplicity, reduction of customs procedures; reduce costs due to the exemption from documents and goods inspection; and reduce other costs relating to the storage. According to reports of businesses, after being recognized, the AEOs save lots of administrative costs, warehousing fees. The average number is about 1 to 5 billion VND per year.
- Fast delivery and receipt of goods: Since being recognized as AEOs, the enterprises is always on schedule to deliver goods to customers as announced. Meanwhile in the past, sometimes there was a shipment inspection that led to the delay in the delivery plan. Some companies have their figures of OTD commitment increased from 85% (before AEO) to 98% (after AEO).
- Enterprises are granted the immediate customs clearance and could pay tax later for shipments that were cleared in the previous month (no later than the 10th of the next month), so that businesses could take initiative in business capital.
- Increase the enterprises' self-compliance and the ability of internal control to meet the AEO requirements.
- Enhance prestige and position of the AEOs: AEO program is applied in more than 100 countries, so that foreign partners all know about this program. Being recognized as AEO by the customs

authority is one of the competitive advantages of an enterprise compared to other non-AEO enterprises in the same line of business.

- Increase the opportunities for business development, increase the access to capital sources: Some banks, credit institutions, domestic and foreign customers in Japan, Korea, etc. increasingly believe in the enterprises' prestige when knowing that the they are recognized as AEOs by Vietnam Customs.

Although many remarkable achievements have been earned in the implementation process, there are also some shortcomings as follows:

- The policy and legal basis about the priority regime are not synchronized with other regulations, so that there are a number of regulations that cannot be implemented due to both objective and subjective reasons.
- Vietnamese enterprises recognized as AEOs are still not aware of their responsibilities in maintaining and making efforts to implement internal control mechanisms to ensure law compliance. There are still mistakes in customs procedures, and the recommendations of the customs authorities have not been implemented or implemented slowly.
- The AEO program has not yet been applied to other economic subjects participating in the supply chain as recommended by the WCO's SAFE Framework of Standards. Currently, Vietnam's AEO program is only applicable to enterprises having import and export activities, and has not been extended to other economic subjects. Meanwhile, legal documents have provisions for the application of customs brokers. However, in fact, there is no customs broker recognized as a AEO because there are no specific regulations on recognition criteria as well as priority regime for customs brokers.
- The number of enterprises recognized as AEOs is still small, accounting for only 0.1% of the total number of 70,000 enterprises with import-export activities. Reasons: (i) the criteria for AEO validation are still high, especially the criterion of import and export turnover. This hinders the participation of small and medium enterprises, while in recent years Vietnam has recorded the rise of small and medium enterprises. According to the report, the number of these SMEs accounts for over 70% of the total number of enterprises in Vietnam; (ii) the communication about the AEO program is still limited, therefore many businesses do not know about this program to participate.
- The cooperation and coordination between the authorities in the customs field to implement the AEO program is still limited, there is no in-depth investment. Local customs authorities have not yet performed uniformly.
- Limitations in direct cooperation with customs authorities of other countries within the framework of the AEO program.

3.3. Solutions to develop the AEO program in Vietnam

Firstly, continue to improve the AEO Program on the basis of the WCO's SAFE Framework of Standard.

- Completing the AEO program to approach the WCO's AEO program is one of the important and necessary tasks of Vietnam Customs in the coming time. Closer approach to the

WCO's AEO program contributes to filling the blanks in safety and security throughout the international supply chain. This cycle is a closed circle which are made up of many subjects such as manufacturers, exporters, importers, transportation companies, warehouses, ports, etc. The ultimate goal of the AEO program is to ensure safety and security throughout the suplly chain. In addition, the completion of the AEO program under the SAFE Framework is a great stepping stone for Vietnam to enter negotiations on the AEO's MRA with other countries.

- According to the WCO's recommendation, the measures for Vietnam's customs to complete the AEO program under the SAFE Framework of Standards include: expanding the priority regime to all economic subjects participating in the supply chain; adding the security conditions for partners and the financial conditions to recognize AEOs.
- Focusing on the benefits of the AEOs under the SAFE Framework, in particular: (i) allow businesses to access to valuable information relevant to their business sectors; (ii) specific measures related to the businesses' difficult times or when the level of risk increases; (iii) consider participation in any new cargo handling programs, including: Simplifying post-clearance audit programs; Streamline business internal audit programs or reduce the customs audits; Accelerate the processing of requests related to post-clearance audit; Reduce damage and administrative sanctions except for cases of fraud that the Customs has grounds to determine; etc…

Secondly, Expansion of AEO program for more economic subjects

- Expand the AEO program for new subjects such as customs brokers, enterprises in the import and export supply chain (including small and medium enterprises), electronic enterprises, high-tech enterprises... in order to diversify and increase the number of AEOs.
- Expand the AEO program for businesses through the signing of AEO's Mutual Recognition Arrangement (MRA) between Vietnam and other countries around the world. Accordingly, an enterprise enjoying the priority regime in Vietnam will also enjoy the priority regime in the partner country and vice versa. To achieve these agreements, it is necessary to complete Vietnam's regulations about the AEO so that they are more compatible and consistent with the SAFE Framework of Standards (which clearly stipulates conditions and priorities for the AEOs) to find common ground with partner countries. At the moment, the world is talking about the AEO 2.0 program – the next level of the current AEO program. In particular, the countries emphasize the cooperation between customs authorities and other government agencies to further expand priority for AEOs. This is also the main content outlined in Pillar 3 about the relationship between customs authorities and other government agencies of the WCO's SAFE Framework of Standards.
- Currently, specialized inspection procedures are an obstacle to the smooth flow of goods. Therefore, it is necessary to promote cooperation with other state agencies in other areas such as procedures for issuance of Certificates of Origin or Certificate of food quality and safety, etc. Therefore, these agencies will give special priority for enterprises recognized as AEOs in specialized inspection procedures.

Thirdly, build a system/software to connect the data of AEOs and customs authorities

Currently, the customs authority has almost no information about the enterprises during their production process. Only when conducting post-clearanceaudit, enterprises provide data to the customs authorities. Therefore, the Post-Clearance Audit Department must research to build an intermediary system connecting the customs authorities and the enterprises, which clearly states the data enterprises need to provide to ensure the management requirements of the customs authorities. Setting this system into operation will make a significant contribution to the reform and modernization of the AEO management. With the information collected from the system, the customs authorities will undergo the evaluation. In case it is found that the operation of the enterprise does not have the risk of violating the law, the customs authority will proceed to extend the AEO status automatically without conducting audit and validation. In case of detecting signs of violation, the customs authority would conduct an audit. Moreover, this also reduces the volume of periodic reports of the business, saving the administrative costs for the business. Along with the development of the system, the officers who directly manage the AEOs need to make the most of the advantages of the databases to ensure a effective management of the AEOs.

Fourthly, Strengthen the Customs - Business partnership

The global supply chain is owned by many entities, among which are businesses in the supply chain. In order to achieve both the facilitation and security objectives of the AEO SAFE Framework, customs authorities need to adopt transparent regulations in the area of customs activities, while these activities can be further modernized, adjusted and enhanced for the benefit of the international business community. Customs needs to actively consider the issues based on existing resources to support businesses to operate in the most effective way. The international trade and transport community has the experience and knowledge to assist customs authorities in carrying out their responsibilities to ensure the security and facilitation of trade. The private sector should take advantage of this opportunity to establish a partnership with customs and to assist customs in carrying out security-related tasks. The relationship between Customs and Enterprises is an relationship that reflects the balance between facilitation and legal compliance, which is always linked with each other and is the core of this valuable relationship. Thus, the Customs-Business partnership is one of the efforts to achieve both the safety/ security and facilitation goals of the supply chain.

Fifthly, apply AEO management methods more effectively and strengthen the sense of responsibility of the AEOs

- Regarding to procedures of AEO recognition: Developing the software/system which is a place to connect enterprises wishing to participate in the AEO program and the customs authority. Accordingly, enterprises could submit dossiers of application through the system, then this system could automatically preliminarily assesses the AEO conditions (for example, conditions on import and export turnover; conditions on electronic customs procedures, electronic tax procedures; conditions on payment of import and export goods, etc.) then send the results to the customs authority as well as the enterprise. If the system inform that the dossiers meet the AEO conditions, the enterprise shall submit a paper application to the Post Clearance Audit Department - General Department of Customs; then the customs authority would conduct an document validation and on-site validation to consider applying the AEO status for business. This not only strengthens the customs-business partnership, bringing the business community closer to the AEO program, but also reduces the work of customs authorities in the AEO document validation.

- Regarding to management of the AEOs: According to current regulations, quarterly, AEOs must submit reports in electronic form to the General Department of Customs. However, AEOs often send quarterly reports via email to customs officers who manage the AEOs at the General Department of Customs. Then, the officers must synthesize information and data from quarterly reports and customs databases to assess whether the enterprise has the high risk in maintaining the AEO conditions or not. Therefore, instead of sending soft copies of reports via email, quarterly reports should be electronicized so that enterprises can submit reports through a AEO management IT system. After receiving reports from businesses, this system automatically evaluates the maintenance of AEO conditions, and gives an alert to the administrator if any abnormality is detected. At that time, each officer will be able to manage more businesses at the same time with much higher efficiency than currently.
- Extend the application period of the AEO status from 03 years to 05 years. Currently, the time to apply the priority regime is 3 years, so every 3 years the customs authority has to conduct a post-clearance audit and validation for the extension of AEO status for businesses. Therefore, AEOs are subjected to post-clearance audit more than non-AEO enterprises (usually being auditted every 5 years). Therefore, it is necessary to extend the application period of the AEO status from 3 years to 5 years.
- Some Vietnamese enterprises recognized as AEOs are still not aware of their responsibilities to ensure better compliance with the law. Therefore, it is necessary to strengthen the sense of responsibility of the AEOs to ensure compliance management principles in the customs field as well as commensurate with the benefits they receive from the AEO program.

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FACTORS INFLUENCING ACCESS TO FINANCE OF MICRO, SMALL AND MEDIUM BUSINESSES

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Abstract: *According to the Vietnam Association of Small and Medium Enterprises, by the end of 2021, the country has about 800,000 enterprises, of which micro, small and medium enterprises (MSME) account for about 98%. However, in the process of operation, MSME have been facing with too many difficulties, one of which is the ability to access to capital. The study conducted a survey of 300 MSME leaders in Bac Giang and Bac Ninh Province, using exploratory factor analysis and multivariate regression to indicate the factors and levels that affect financial inclusion accessibility of MSMEs. These are the grounds to propose and recommend solutions for MSMEs in the coming time to proactively access to finance; and at the same time, for credit institutions that are targeting MSME customers to improve their operations, products and services to suit their target audience.*

Key words: *Small and medium enterprises, MSME, financial inclusion, financial access, Viet Nam.*

1. INTRODUCTION

The overall concept of financial inclusion can be explained as the provision of appropriate and convenient financial services for all members of the society, including the vulnerable groups, with the purposes of enhancing accessibility and increasing the usage of financial services, thus contributing to the increase of livelihood opportunities and the circulation of investment flows and saving. The ultimate goal of financial inclusion is to promote economic growth. In this paper, financial inclusion is evaluated based on the financial accessibility of MSMEs.

The concept of credit access is developed based on the ideas of microfinance. However, instead of focusing on microcredit and microinsurance, the roles of credit access are recognized as how they are popularizing the usage of financial services, which varies from insurance, payment services, credit, savings and other banking services to stock market services for both individuals and businesses. In other words, the functions of credit access are not limited to improving access to credit only, but also to enhancing financial literacy for the people, thus granting additional protection for consumers. The trend of credit access is to ensure the availability of financial services by offering official services at a reasonable cost to all segments of the population, including those who have difficulties with income or limited financial knowledge.

Being considered as the crucial artery of economic growth, MSMEs play a vital role in developing countries such as Vietnam, in which they are contributing to nearly 70% of GDP and 80% of

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working population in 2020. In a global scale, MSMEs also account for 90% of businesses and more than 50% of working positions. However, nowadays 75% of MSMEs are raising funds from their own circle of friends, relatives, and colleagues because of their limited access to official sources of funding or financial services. In other words, to 75% of MSMEs in the world, the benefits brought by official financial services are out of their reach. The cause of this situation comes from both the service provider and the beneficiary (MSME). Therefore, this article investigates the factors affecting financial accessibility from both sides by using survey sampling method with a random sample of 150 enterprises operating in Bac Giang province and 150 enterprises in Bac Ninh, all of which are MSMEs; statistical analysis is then carried out using SPSS 22.0 software. Exploratory factor analysis and multivariate regression analysis are used to assess the level of financial access and influencing factors. Solutions to the problems and recommendations are then being proposed based on the analysis results.

2. LITERATURE REVIEW

Various studies on this particular topic have been presented. Kitili (2012) stated that credit access referred to the ease with which SMEs could get financial support or loans from lending institutions. Dang Thi Huyen Thuong (2016) mentioned in her research that "An enterprise's access to loan capital is their ability to meet the loan conditions as prescribed by credit institutions at an appropriate interest rate and the credit institutions are willing to lend". In this very article, the author introduced the concept of MSME's accessibility to credit institutions (referred to as credit access) as follows:

Credit access for MSMEs refers to the accessibility of MSMEs to useful, affordable financial products and services that meet their needs in a responsible and sustainable way.

There are a variety of studies using different research methods, conducted by both domestic and foreign scientists to evaluate the accessibility and the degree of influence of different factors on the financial access of SMEs. To name a few, studies carried out by Ricardo (2004), Qian (2009), Tran Dinh Khoi Nguyen and Ramachandran (2006), Vo Tri Thanh (2011), Ajagbe (2012), Khalid (2014), Ha Thi Thieu Dao (2014)), Do Thi Thanh Vinh (2014), Dang Thi Huyen Thuong (2016)… emphasized the internal factors of the firm itself, including: characteristics of the business owner, the size of the firm, how long has it been operating, the relationship between the firm and the bank, the capacity of the firm, its revenue and collateral assets... which exerts a direct impact on the financial assess of SMEs. More specifically, these factors were defined as follows:

- Collateral: Firms which holding collateral of large value are often able to borrow money without much trouble, as banks believe that they are more likely to guarantee repayment, and financial risks are lower,... Moreover, if a firm that own a lot of tangible fixed assets happens to go bankrupt, the loss value is often lower than that of a firm with a lot of intangible fixed assets (De Jong et al, 2008; Daskalakis & Psillaki, 2009; Bevan & Danbolt, 2004).
- The relationship between SMEs and the bank: According to Khalid Hassan Abdesamed (2014), if firms manage a good relationship with the bank, that link will help them complete the procedures faster because they know the regulations of the bank. By means of multivariate

regression analysis, Tran Quoc Hoan (2018) has shown that the relationship between firms and banks has a positive impact on the access to bank credit of SMEs.

- Capacity of firms: According to Huang and Song (2006), Qian (2009), Tran Dinh Khoi Nguyen and Ramachandran (2006), Vo Tri Thanh (2011), firms with high profits will utilized loans from banks to expand production and business. On the other hand, the problems of many firms such as small capital scale, shortage of collateral, weak project planning ability, the lack of transparent information... have made it difficult for banks to trust their repayment ability as well as the potential of their business, leading to severely restricted access to bank credit (Nguyen Hong Ha, 2013).
- Financial Statements: According to Nguyen Thi Minh Hue (2012), Nguyen Hong Ha (2013), Tran Trung Kien (2015)… financial statements are one of the main factors that hinder SMEs from getting loans from banks as the complicated and inflexible regulations make it difficult for firms to meet requirements from banks. The size of a firm is judged based on many aspects such as: size of capital, of assets, number of employees, operating time, business lines...
- Loan cost: This is the cost that SMEs have to pay to gain the right to use capital from credit institutions. Loan costs include: Expenses for hiring consultants of related parties to satisfy the credit granting conditions of credit institutions; The interest rate determined by the credit institution, not on the basis of an agreement between the firm and the credit institution; Other costs associated with the loan. The higher the cost of loan, the lower the SME's access to finance.
- Credit history: This indicator shows the SME's previous credit activities, the credit history includes: On-time principal and interest payment to credit institutions, record of overdue debts or bad debts at credit institution, or past-due tax, insurance, and supplier liabilities. Firms with low debt ratio imply a good financial autonomy, as a result they have easier access to finance. If a firm has a high debt ratio, it is suffering payment pressure from many sides, thereby reducing its ability to access to finance.
- Business plan: Nguyen Hong Ha (2013) found that a good business plan would make it easier for firms to get bank loans with a higher credit limit. According to Ho Ky Minh (2013), the reason why a business plan is not considered feasible is mostly because of limited vision and no specific strategy. In this case, a business plan is constructed just for the sole purpose of meeting the request from the bank. As a result, it reduces the bank's confidence in the firm's business capacity and debt repayment ability, thus affecting SMEs' access to bank credit.
- Characteristics of business owners: Wagema G. Mukiri (2011) believes that the characteristics of business owners will shape the business style and the way their businesses borrow money. The age, gender, and experience of the business owner sometimes also influence the access to capital of SMEs, although it will mainly be the influencing factor, promoting the building of close relationships with banks. According to Tran Quoc Hoan (2018), the capacity of business leaders and the advisory team has a positive impact on the access to bank credit of SMEs.

3. RESEARCH MODELS AND METHODOLOGIES

3.1. Analytical model

Based on the theoretical background, the results of previous studies and expert interviews, the study proposes a model of factors affecting the financial access of SMEs as follows:

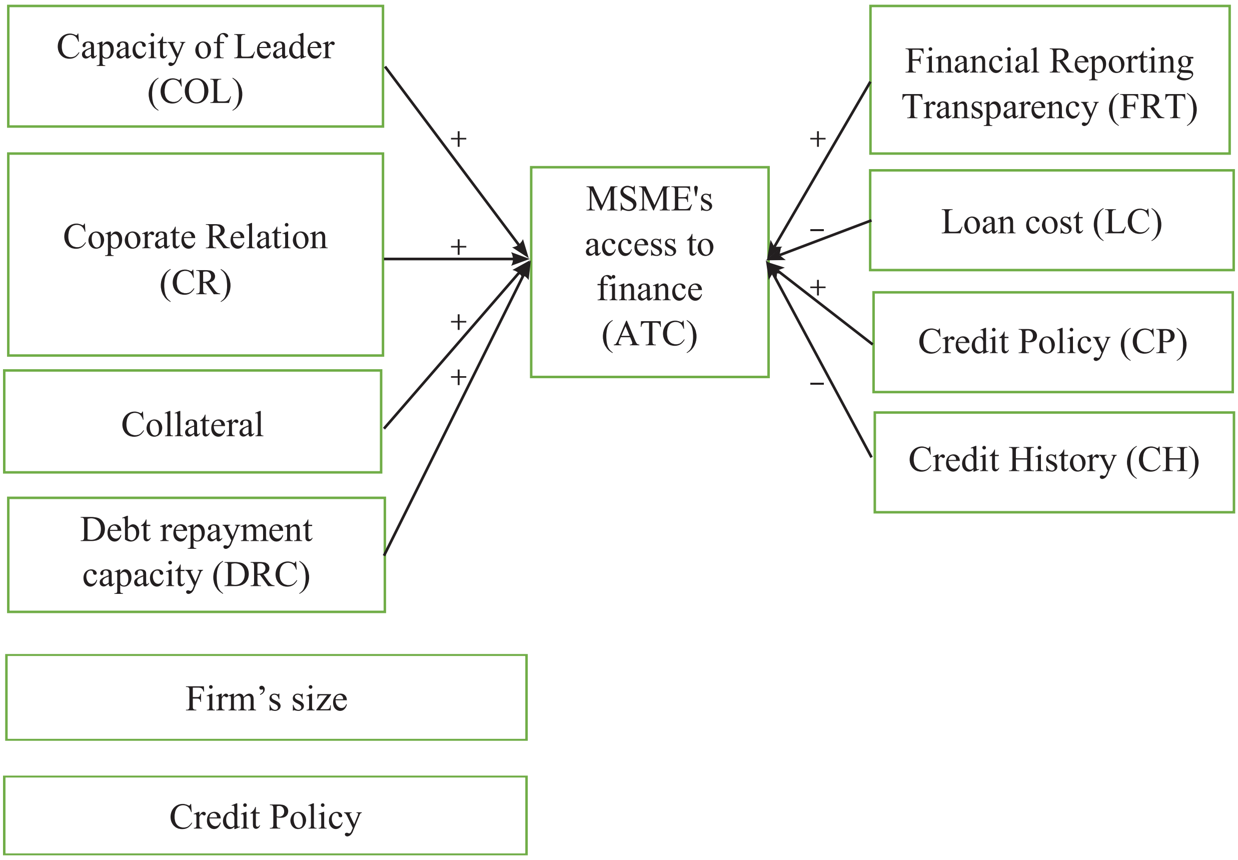

Figure 1. Model of factors affecting financial access of MSME

Source: Combined sources

3.2. Research data

On the basis of the proposed model, the authors have built a questionnaire corresponding to 9 variables, measured by 32 observed variables. The questionnaire was designed in accordance to the 5-Point Likert scale, which is used to measure the level of agreement of research subjects, ranging from 1 - Strongly disagree to 5 - Strongly agree. The authors have conducted a trial interview with 20 managers at 20 MSMEs who are taking loan from banks in August 2021 to detect and correct possible errors in the design of the questionnaire before conducting the main survey. The purpose of this trial was to ensure the reliability and validity of the scales (Malhotra, 2005; Polit, Beck & Hungler, 2001). The authors have chosen a random survey sampling method with the determination of the sample size in accordance with the data analysis method. After conducting a survey of leaders of SMEs in Bac Giang and Bac Ninh provinces, the research team have collected 193 valid questionnaires for the research process.

3.3. Results

3.3.1 Evaluating the reliability of the scale using Cronbach's Alpha coefficient

In order to evaluate the reliability of the scale for the deployed survey questionnaire, the research team used Cronbach's Alpha coefficient.

Table 1. Evaluating the reliability of the scale

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
COL					0.856
COL1	6.92	4.297	0.699	0.827	
COL2	6.86	3.918	0.840	0.687	
COL3	6.86	4.796	0.655	0.863	
CR					0.918
CR1	8.53	3.615	0.829	0.888	
CR2	8.47	3.338	0.845	0.875	
CR3	8.46	3.542	0.833	0.884	
Collateral					0.819
Collateral1	9.88	5.164	0.593	0.795	
Collateral2	10.03	4.456	0.679	0.754	
Collateral3	9.87	4.820	0.625	0.780	
Collateral4	9.93	4.292	0.676	0.757	
DRC					0.945
DRC1	9.60	10.129	0.847	0.935	
DRC2	9.65	9.787	0.876	0.926	
DRC3	9.60	9.544	0.880	0.925	
DRC4	9.65	9.491	0.875	0.927	
FRT					0.777
FRT1	9.84	3.748	0.518	0.767	
FRT2	9.77	3.145	0.729	0.636	
FRT3	9.86	4.581	0.504	0.761	
FRT4	9.80	4.389	0.642	0.708	
CH					0.909
CH1	8.55	12.918	0.840	0.865	
CH2	8.87	14.652	0.688	0.918	
CH3	8.53	12.941	0.871	0.854	
CH4	8.63	13.461	0.781	0.887	
CP					0.95
CP1	7.22	6.237	0.911	0.914	
CP2	7.26	6.265	0.902	0.921	
CP3	7.18	6.517	0.871	0.944	

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha
LC					0.901
LC1	6.17	3.761	0.854	0.827	
LC2	6.21	3.021	0.744	0.949	
LC3	6.18	3.737	0.870	0.815	
ATC					0.864
ATC1	10.52	8.563	0.719	0.825	
ATC2	10.62	7.852	0.729	0.819	
ATC3	10.67	7.648	0.788	0.794	
ATC4	10.50	8.449	0.622	0.863	

Sources: Data analysis results from SPSS 22.0

The results show that 8 groups of factors affecting financial access of MSMEs have Cronbach's Alpha coefficient that meets the requirements, with the standard level of Cronbach's Alpha coefficient from 0.6. Variables that do not violate the condition have Item-rest correlations not less than 0.3, and the Cronbach's Alpha If Item Deleted exceeds the current Cronbach's Alpha, so variables are not excluded. The scale of capacity of leaders has the lowest Cronbach's Alpha coefficient, which is 0.777. Therefore all observation variables of the scales satisfied the conditions for EFA.

Also in Table 1, the Cronbach's Alpha If Item Deleted of the variables (LC2, CH2, COL3) are 0.949; 0.918; 0.863 respectively, which are less than their Cronbach's Alpha coefficient (0.901; 0.909; 0.856 respectively). However, the total correlation coefficient of these variables is greater than 0.3, so these variables are still reliable (*Nunnally, J(1978), Pyschometric Theory, New York, McGraw – Hill*).

3.3.2. Exploratory factor analysis

Table 2. Summary of EFA analysis results for 8 attributes

Factors to be assessed	**Value**	**Comparison**
Sig value. in the Barlett test	0.000	0.000 < 0.05
KMO coefficient	0.761	0.5 < 0.762 < 1
Variance extracted	0.7885	78.85% > 50%
Eigenvalue	8 factors with value > 1	

Source: The results obtained by the authors from SPSS software

Through performing factor analysis for 8 groups (with the exception of MSME financial access factors), based on the theoretical basis of EFA exploratory factor analysis, the coefficients shown in Table 2 have all satisfied the set criteria: the KMO coefficient has a result of 0.761, therefore the factor analysis is completely appropriate with research data; Barlett test results with Sig. value in the analysis equals to 0.000, which is satisfactory as it is less than 0.05. Therefore, we reject the hypothesis that the observed variables are not correlated with each other. Total value of variance extracted is 78.85% > 50% and there are 6 factors with Eigenvalue greater than 1. This shows that the 8 extracted factors explained 78.85% of variation of initial observed data.

Besides, according to the results of the rotated factor matrix, the factor loading must be greater than 0.4 to meet the requirements. All 28 observed variables which belong to the independent factor groups have satisfied the factor loading coefficient are divided into 8 groups of influencing factors.

Performing an EFA factor analysis on the MSME's financial access, we obtained the results as follows:

Table 3. Summary of EFA analysis results for dependent variable

Factors to be assessed	Value	Comparison
Sig value. in the Barlett test	0.000	0.000 < 0.05
KMO coefficient	0.797	0.5 < 0.797 < 1
Variance extracted	0.7132	71.32% > 50%
Eigenvalue	1 factor with value > 1	

Source: The results obtained by the authors from SPSS software

Based on the theory of EFA exploratory factor analysis, the coefficients shown in Table 3 all satisfy the criteria, so the scales are acceptable.

3.3.2. Regression analysis results

In order to evaluate the influence of the factors on the financial accessibility of MSMEs, multiple regression model is used. The variables in the regression model are calculated by the average value of the variables in each group of factors: Capacity of leaders, Corporate Relations, Collateral, Debt Repayment Capacity, Financial Reporting Transparency, Credit history, Credit Policies of banks, Loan costs.

The overall regression model is presented as follows:

$$ATF_i = \beta_1 + \beta_2 COL_i + \beta_2 CR_i + \beta_3 Collateral_i + \beta_4 DRC_i + \beta_5 FRT_i + \beta_7 CP_i + \beta_8 LC_i + \beta_9 CH_i + u_i$$

By estimating this model using the least squares method on the sample data, we have obtained results as shown in Table 4.

Table 4. Table of multiple regression results

Coefficients[a]						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	0.522	0.410		1.274	0.204
	FRT	0.195	0.081	0.135	2.416	0.017
	COL	0.085	0.050	0.092	1.696	0.092
	CR	0.174	0.057	0.172	3.044	0.003
	LC	-0.203	0.054	-0.203	-3.763	0.000
	CP	0.303	0.043	0.404	7.087	0.000
	CH	-0.072	0.040	-0.093	-1.797	0.074
	Collateral	0.242	0.071	0.183	3.420	0.001
	DRC	0.084	0.048	0.094	1.751	0.082
a. Dependent Variable: ATC						
ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	87.443	8	10.930	25.644	.000[b]
	Residual	78.428	184	0.426		
	Total	165.870	192			
a. Dependent Variable: ATC						
b. Predictors: (Constant), DRC, LC, CH, COL, Collateral, CR, FRT, CP						
Model Summary[b]						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	
1	.726[a]	0.527	0.507	0.65287	2.138	
a. Predictors: (Constant), DRC, LC, CH, COL, Collateral, CR, FRT, CP						
b. Dependent Variable: ATC						

Source: The results obtained from SPSS 22.0

From the table of regression results (Table 5), it shows that VIF < 2, Durbin - Watson stat value = 2,096 (1 < 2,096 <3), so the original model does not have multicollinearity and autocorrelation. The coefficient of determination R^2=0.527 indicates Capacity of Leaders, Corporate Relations, Collateral, Debt Repayment Capacity, Financial Reporting Transparency, Credit History, Credit Policy, Loan Costs explains for 52.7% of the variation in MSME's access to finance. The sig value of F = 0.000 so the regression function is appropriate.

The estimated results in Table 5 show that, Corporate Relations, Collateral, Debt Repayment Capacity, Financial Reporting Transparency, Capacity of Leaders, Credit Policy of banks have a positive effect on access to finance. Meanwhile Loan costs, Credit History negatively affects on access to finance.

We have the following regression model:

$$ATF_i = 0.522 + 0.195FRT_i + 0.085COL_i + 0.174CR_i - 0.203LC_i + 0.303CP_i - 0.072CH_i + 0.242Collateral_i + 0.084DRC_i + e_i$$

The standardized coefficients corresponding to the factors are 0.404; -0.203; 0.183; 0.172; 0.135; 0.094; -0.093; 0.092 respectively. It can be observed that all eight factors have effect on financial access. Ranking by their importance, we have the order as follows: (1) Credit policy, (2) Loan costs, (3) Collateral, (4) Corporate Relations, (5) Financial Reporting Transparency, (6) Debt Repayment Capacity, (7) Credit history, (8) Capacity of Leader.

4. DISCUSSION

According to the regression results, the bank's credit policy is the main factor that influences the financial accessibility of MSMEs in the area. Responding to the author's investigation, the firm's managers have shared that: the process and procedures for geting loan from commercial banks are still quite complicated for SMEs; The credit products for SMEs that credit institutions are providing are not really abundant, some firms have failed to find suitable credit products, … On the contrary, if MSME can grasp information about the banks' programs and credit products; as well as the credit products for MSMEs are in line with the actual needs of firms, etc., the firms' ability to access to bank credit will be higher.

The next factor affecting the access to credit of MSMEs is loan costs, which exerts a negative effect. When the cost of bank loans is large, MSMEs shall turn to other options such as personal loans, or taking loans from other firms, etc. to obtain capital at a lower cost. In the event that there is no other option, SMEs are forced to borrow from commercial banks, then SMEs may seek for possible ways to make risky investments to offset costs. As a result, commercial bank might be exposed to risks of bad debts. The high cost to gain the right to use bank's capital is the main barrier that makes it difficult for MSMEs in the area to access bank credit.

Collateral is the third factor affecting the access to credit of MSMEs. A firm with collateral can reduce the probability of having difficulty in accessing credit by 2.55%, and the distance between the firm and the credit institution of more than 20km can reduce the probability of facing credit restriction by 0.92%, short distance between firms and banks is not the most favorable condition for credit access (Dao et al, 2016). The reason for hindering access to finance that is associated with collateral comes from both sides. On the bank's side: the lack of clear and specific regulations for each group of collateral has extended the appraisal process, and reduced the accuracy of the valuation of assets. On the side of MSMEs: The legality of the collateral is still dubious, the documents proving the ownership do not meet the standards, the collateral are considered inappropriate … The reason is that the majority of MSMEs are small in size and have limited financial capacity. SMEs themselves also bear a lot of potential risks, due to the low value of firm's assets, the limited cash flow, poor credit history and credit ratings.

The relation of firms is the fourth factor that influencing MSME's access to finance. If MSME manages a strong network, it implies the capacity of the firm's managers. In addition, when relationships are formed, the reputation of that MSME will be known to many stakeholders, thereby making it easier for the bank to assess the capacity and credibility of the firm. When MSMEs maintain a steady relationship with other businesses, MSMEs can make use of their network to have higher ability to access to bank credit since they can connect faster with loan information, especially concessional loans. This network also helps MSMEs a great deal in completing documents, applying for loans, and in the waiting time for disbursement,...

Financial transparency is the fifth factor influencing MSME's access to finance. Currently, the information in the financial statements of MSMEs is not transparent and up to standards, because MSMEs have not yet considered the development of this data system as an important task. The majority of the financial statements of firms are not audited, with limited accuracy, which leads to difficulties and additional costs in appraising loan applications for MSMEs of commercial banks… According to Nguyen Thi Hoang Anh (2018), only 201/357 firms have produced cash flow statements, even though this is a very important financial report that is often requested by banks. For firms that do not take loans, out of 102 firms, there are 69 that do not borrow because the bank's procedures are too complicated, 57 firms choose not to borrow because they do not have enough collateral.

The ability to repay debt ranks sixth on the levels of influence on MSME's access to credit. When MSME wants to get a loan, the bank will base on many criteria to evaluate the creditworthiness. Firms with large investment capital, large assets, high debt repayment capacity, branded products and services in the market, etc., have easy access to bank credit with low interest rates. According to information shared by firms' owners, MSMEs in the area often fail to meet solvency criteria, such as: Net working capital often gives negative results, The immediate solvency ratio < 1, Efficiency ratio < 1; Low turnover of working capital… The fact that indicators related to debt repayment ability failed to meet requirements have made the banks more hesitant in disbursing credit capital for MSME.

Credit history is the seventh influencing factor for MSME's access to finance. If the firm borrowed but did not follow the schedule to pay the principal and interest to the bank, it would greatly affect the credit decision of the bank. A reasonable debt ratio will have the effect of increasing the efficiency of capital use of MSME, thereby also proving the reputation of MSME. The lower debt ratio of MSMEs, the stronger protection they could guarantee to their creditors and the better financial autonomy. If MSME has a high debt ratio, it will put MSME under payment pressure from many sides, thereby reducing their ability to borrow from banks. Therefore, when assessing, banks always pay special attention to MSME's debts to ensure that MSME is able to pay current debts as well as bank loans when due. In addition, to be able to access to bank credit, MSMEs must ensure that there are no overdue debts or bad debts recorded at commercial banks. In case firms have overdue debts or bad debts at other banks, MSME's request for credit might be refused by the bank.

The capacity of leaders is the factor that has the least influence on financial access of MSMEs in the area. The capacity of leaders depends on the education level, experience and training activities of the administrator. Leaders are the ones who decide the future of the business. Studies have shown that the higher the level of the leader, the better their recognition of financial products, attitudes towards loans and knowledge of project construction and appraisal. If the leading team is highly qualified, capable of building, implementing, operating and implementing investment projects / production and business plans, the business shall run with high efficiency, MSME can strengthen their ability to repay the bank's debt. Thereby this is an important factor for commercial banks to decide to grant credit to MSMEs.

5. CONCLUSION AND SUGGESTION

Based on empirical studies and in-depth interviews, the authors have built a questionnaire to survey MSMEs in their acess to financial inclusion. Research results have shown that the credit access of MSMEs is limited by both internal and external factors.

The group of factors that are associated with the bank includes: (1) Credit policy such as loan process and procedures; credit information; the diversity and suitability of credit products for MSME; and (2) Loan cost. Therefore, banks need to redesign loan application procedures and provide more specific guidance for MSMEs. At the same time, banks may consider reduce as much as possible the interest rates as well as the collateral requirements so that firms can have more opportunities to access to credit. To overcome difficulties for SMEs that are always lack of collateral when they want to access to credit, banks can provide loans along the supply chain based on the reputation and the risk level of a central firm (preferably a large and traditional customer of the bank). This method can help SMEs overcome the difficulty caused by the lack of collateral - one of the biggest problems of SMEs today. In addition, banks also need to strengthen their linkages with SMEs, creating a close connection between banks and firms, so that they can both increase their lending capacity and manage the use of capital and recovery of corporate loans well.

The group of factors come from the MSME itself include: (1) Collateral; (2) Debt Repayment Capacity; (3) Financial Reporting Transparency; (4) Corporate Relations; (5) Credit history and (6) Capacity of Leaders. Therefore, firms need to be transparent in their financial statements by strictly implementing the accounting regime for SMEs. It is suggested that they use independent audit services in case they need to prove transparency with credit institutions. The firm's managers should increase their participation in the associations, building network with other firms, and put more focus on economic links; they should also exploit 4.0 technology application in improving the capacity of their business. Firms' administrators must constantly improve their professional and management skills to acquire sufficient knowledge to participate in regulating business activities. Firms' managers need to organize and manage accounting books and documents in accordance with current regulations. In addition, it is necessary for them to focus on the trend of expanding the scale of operations, and improving the value of total assets in proportion to the scale of expansion.

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DEVELOPING POLICY ON PROMOTING INNOVATIVE START-UPS IN VIETNAM

PhD Chu Tuan Anh[1]

Abstract: *Starting a business creates opportunities for entrepreneurs to cultivate their creative spirit and independence to help resolve unemployment, restructure the economy, and contribute positively to the country development. In Vietnam, innovative start-ups are increasingly proving their important role in the development of the country. It can be seen that, in developed countries, the innovative start-ups have demonstrated their capacity by the fact that they always cultivate hi-tech infrastructure, exploit young people's gray matter, foster their desire for wealth and achievements. The making and implementation of policies to support startups in general innovative start-ups in particular always attract attention, support and concerns from all levels of government, who consider them a precious resource of the country. These policies are gradually coming into effect and have also achieved encouraging results over the past few years. The article studies the current situation and solutions to improve the policies for the development of innovative start-ups.*

Keywords: *Innovative start-ups, policies, development of innovative start-ups, Vietnam.*

1. INTRODUCTION

1.1. Definition of innovative start-ups

Innovative start-ups mean businesses based on the background of new innovation (new technology, new business model, or building a new segment of market,…). In other words, they must be different not only from existing local businesses, but alo international ones, in details:

According to Blank and Dorf (2012), an innovative startup "is a temporary organization looking for a business model that has the ability to accelerate development speed, replicate and make profit". Besides acceleration (growth potential), the innovative start-ups alo often have the characteristics of innovation (Sarkar, 2016) because these businesses often tend to develop or create the new products and services in the market. According to Schumpeter (1934) - one of the most influential scholars in the field of entrepreneurship and innovation, entrepreneurs are important factor of innovation and economic transformation. However, innovative start-ups have not had many achievements and success, so it is difficult for investors to understand and value businesses (Holstein, 2015). Therefore, innovative start-ups are considered risky and difficult to access bank loans. This is one of the many reasons why innovative startups have to look for other sources of capital, often based on the exchange of shares in the early stages of development, including capital from the Angels and venture capital (Thiel and Masters, 2014)

As Western scholars' definition, an innovative start-up business can be understood as a collection of temporary resources (human, money, time,...) to go in search of a new business model that can be quickly built into an organization/enterprise of scale, and can be repeated or replicated in different markets; and often use technology as competitive advantage.

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In Vietnam, according to the Law on Supporting Small and Medium-Sized Enterprises of 2017, innovative startup is a start-up process based on the creation or application of research results, technical solutions, technologies, and management methods to improve productivity, quality, added value of products and goods and own the potential to grow rapidly.

1.2. Types of innovative start-ups

- ***According to the start-up motivations:***

Motivational theories of entrepreneurship explain the two main types of entrepreneurship motivation according to the "push" and "pull" theories (Schjoedt, L. and Shaver, 2007). The push theory suggests that individuals are pressured to become entrepreneurs by negative external factors. Push factors are personal characteristics, or external factors, and often have a negative connotation (low pay, location away from home, boring job, etc.). In contrast, the "pull" theory states that the motivation for individuals to start a business is that they are attracted by success, wealth, financial independence and other desired outcomes (Segal et al, 2005).

Some studies suggest that entrepreneurs with a "push" motive are less financially successful than entrepreneurs with a "pull" motive (Amit, R. Mr. Muller, E., 1995). However, the growth of the internet and the explosion of social networks have partly changed the push and pull theory in recent years as business barriers have been reduced (Schjoedt, L. & Shaver, 2007).

- ***According to business characteristics:***
    + Independently established start-up businesses: These businesses are founded by an individual, or a group of independent individuals, not controlled by other businesses, they fully own the business and build their own brand, independent business strategy for their business.
    + Businesses established by existing businesses in the market:

      An existing company can totally seize new business opportunities and trends by establishing a new business. This new business has the task of exploiting and maximizing resources to take advantage of opportunities that the existing business cannot meet. Therefore, new businesses established in this way will be governed and operated by their mother businesses.
- ***According to business purposes:***
    + Start a business for profit
    + Start a business not for profit (public and social enterprises)

1.3. Start-up support policy

Start-up support policy is a tool to support start-ups and investors, including specific regimes, measures and regulations ranging from starting a business, building and developing startups, simplifying the legal environment, capital support, credit support management, technology, human resource training and development, building a national start-up culture, etc. in order to achieve the national start-up strategic goal.

Peng and Lee (2013) said that the goal of start-up support policies is divided into two main directions: first, to maximize profits for start-up businesses, in other words, these policies aim

Starting to help businesses achieve the maximum possible profit in order to maintain and thrive; secondly, to minimize the startup business owner's loss due to business termination (bankruptcy, dissolution), this is completely reasonable because of the fact that successful self-starter entrepreneurs often experience failures many times, the problem is whether the lessons leave too high a price for them?! Thus, support policies must also aim to minimize the loss for business owners when they terminate their business. Pinho (2016) when researching start-up support policies in typical countries, divided start-up support policies into 5 main groups: Institutional, cultural, educational, financial and infrastruture support. Inheriting from this study, the authors Ali Davaria and Taraneh Farokhmanesh (2017) confirmed that the above division is grounded in their study on policies to support entrepreneurship in Iran (Impact of entrepreneurship policies on opportunity to startups).

Theoretically and practically, in Vietnam, it can be seen that the common goal of the policies is to create a favorable business environment for start-ups, and to minimize losses in the process.

2. LITERATURE REVIEW

Baumol (1996) emphasized that there are two types of impact on entrepreneurial endeavors: the first is related to the degree of domestic law enforcement while the second is related to the degree to which the law supports for entrepreneurial endeavors. Martínez-Fierro et al (2016) surveyed and concluded that in a developed economy, start-up opportunities are promoted by basic requirements, such as institutional development, infrastructure, and macroeconomics, health and educational stability.

Entrepreneurship is considered an important factor in explaining national economic growth and development (Baughn & Neupert 2003; Martínez-Fierro et al, 2016). This explains why clarifying the factors that drive and shape business is so important for different fields, especially in economics, business, sociology and psychology (Simón-Moya et al 2014). At present, the institutional and policy review has received a lot of attention because it helps to explain why some countries have strong economic growth while others do not (Amorós & Bosma, 2014). However, the rate of starting a business is different and depends not only on the number of individuals with entrepreneurial tendencies available, but also from the environment, the institutional context, the appropriate policies as well as the availability of the business environment which is economically, socially and politically favorable (Mueller & Thomas, 2000; Van et al, 2005).

Although scholars tend to agree on the institutional factors that can affect the opportunity to start a business, there are still differences when assessing the factors affecting the perception of entrepreneurship opportunities. For example, there are a number of studies that have emphasized the importance of cultural and social factors (Thai & Turkina 2014; George & Zahra, 2002), while others have emphasized the role of education and training in business, however, some studies have focused on clarifying the role of government programs and policies in entrepreneurship opportunities (Bruton et al 2010; Thai & Turkina, 2014).

Based on the model of GEM (2016), Pinho, J. C. (2016) authors Ali Davaria and Taraneh Farokhmanesh (2017) in the context of Iran studied policies affecting entrepreneurship opportunities including culture and society, programs and policies of government, general education (primary and secondary) and graduate education, financial and non-financial support policies.

Research by Hoang Xuan Hoa, Pham Thi Hong Yen (2016) has pointed out the current policies to support startups, which are financial and credit policies, supporting the construction of start-up incubators, etc. However, according to the authors, the emerging limitations when implementing the policy are that human resource training activities have not been paid enough attention, physical facilities in many places are still limited, propaganda and dissemination of policies on support for start-ups are not yet extensive and thorough, making them ineffective. The legal framework for the construction and establishment of venture capital funds in Vietnam is still limited, etc. Based on the above observations, the authors have proposed integrated solutions, focusing on the completing legal framework for start-ups, considering this as the most basic solution to start-up development. In a research by Bui Tien Dung (2019) which focuses on the implementation of policies to support startups through the university, the author proposes measures in the process: knowing about entrepreneurship; understanding entrepreneurship, doing starups, then the author proposes specific initiatives that need to be implemented to enhance entrepreneurship, including: Firstly, promoting the dissemination of information and policies to support start-up, in addition, it is necessary to introduce and propagate the structure and content of successful projects, in order to raise start-up entrepreneurs' awareness of the country's startup orientation. The second is to actively promote the quality of training in universities, referring to advanced entrepreneurship training programs in the world, promulgate policies to support startup training, increase the duration of extracurricular programs, business contacts, consulting policy researchers, business managers, organizing competitions on entrepreneurship to help start-up entrepreneurs understand entrepreneurship, have a enthusiasm and belief in entrepreneurship. The third is to create a favorable environment for start-ups such as building a common space for startups, actively organizing contests on startups to realize ideas, providing financial support for startups, and provide local businesses with infrastructure, free start-up legal, technical, management, labor,... advice.

Trinh Duc Chieu (2016) assumed that the factors affecting the startup ecosystem in Vietnam included policies and regulations; cultural standards; education, infrastructure, finance, business support services, government support programs. However, this study only presented instead of giving in-depth analysis of the impacts of these factors on entrepreneurship. Instead, the study focuses on clarifying current policies and initial results achieved when implementing policies to support startups. In addition, the author also pointed out the limitations and barriers when implementing the policy, including the fear of business failure, limited professional capacity and creativity, and difficulties in raising capital. From pointing out the limitations, the author has proposed many solutions that focused on improving institutions, building a healthy business environment, attracting investors, encouraging individuals to start their own businesses, reforming administration, enhancing the quality of training, especially entrepreneurship education.

3. METHODOLOGY

To achieve the research objective, the author used following methods: analysis, synthesis, classification and systematization to clarify theoretical and practical issues. In addition, the study uses qualitative research methods to make conclusion on the influence of policy on innovative start-ups based on the nature, characteristics and the role of government policies.

The results of the qualitative research aim to achieve two main objectives:

- Identify and clarify current start-up support policies that have an impact on start-up opportunities.
- Provide appropriate solutions on policies to develop innovative start-ups in Vietnam.

4. RESULTS AND DISCUSSION

4.1. Current status of innovative start-up development in Vietnam

- ***Registering a new business in Vietnam:***

According to the General Statistics Office, the number of newly registered enterprises, the number of enterprises returning to operation and the number of dissolved enterprises have increased over the years, in details in 2015 there were 90,132 enterprises but in 2020, there were 138,139. On the other hand, the number of enterprises resuming operation after a break tends to increase, if in 2015 this number was 16,012 enterprises, in 2020, 43,130 enterprisesresumed operation. However, the number of dissolved enterprises also increased significantly, in 2015 there were 9,410, and in 2020 this number was 16,840 dissolved enterprises.

The above figures show that the start-up situation in Vietnam has been increasing rapidly in the past period, there are many reasons for this result, including the great role of start-up support policies promulgated by different levels of government, which attract and motivate new entrepreneurs to set up, as well as maintain and develop businesses. The number of dissolved enterprises has also increased, but statistics show that this increase is slower than the other two indicators, on the other hand the dissolution of inefficient businesses is also a way to reduce the burden on management levels as well as create conditions for active businesses to grow.

Table 1. Registered enterprises from 2016-2021

Year	2016	2017	2018	2019	2020	2021
Newly registered enterprises	112.231	126,859	131.275	138.139	134,900	160,000
Enterprises returning to operation	20,210	25,012	34,714	43,130	30.120	26,000
Dissolved enterprises	9.410	11.224	12,113	19,675	46,600	54,100

Source: General Statistics Office

- ***Businesses operating in Vietnam***

According to the White Book on Vietnamese enterprises in 2021, the General Statistics Office showed that the number of temporarily suspended businesses was nearly 55,000 enterprises, an increase of 18% compared to the previous year; 48,100 enterprises stopped operating and waited for dissolution procedures, an increase of 27.8%; 16,700 enterprises completed dissolution procedures, declined by 4.1%, in which 14,800 enterprises with capital of less than 10 billion dong, declined by 4%; 211 enterprises with capital of over 100 billion VND, declined by 20.7%. Most of them are registered in Hanoi and Ho Chi Minh City. There are some localities with impressive business growth results such as Binh Duong (17.4%), Bac Giang (15.7%), Soc Trang (15.4%), conversely there are also localities with low rate of increase in the number of businesses such as Ha Giang (0.3%) or Ca Mau (2.1%). Thus, it can be said that the number of businesses operating in Vietnam is growing strongly. Also according to data from the General Statistics Office in 2018, the whole country now has an average of 14.7 enterprises per 1000 working-aged population, the highest rate in Ho Chi Minh City (54.4) and the lowest is in Ha Giang (2.5), this data also reflects the actual economic development of the above areas.

Based on statistics of Echelon Magazine (Singapore), Vietnam currently has about 3,000 innovative start-ups, nearly 2 times higher than the figure at the end of 2017 (about 1,800 enterprises). About 40 start-up incubators and business promotion organizations are operating across the country. In terms of financial activities, there are currently about 40 venture capital funds operating in Vietnam. Another research of the Ministry of Science and Technology also shows that there are about 600,000 enterprises in the whole country, including 3,000 innovative start-ups. This will be a pioneering, high-growth business force to effectively contribute to the country's socio-economic development. In the two years of 2018-2019, innovative start-ups account for the majority of the total number of enterprises applying for new registration (90% of the total number of enterprises applying for new registration). The growth rate of successful innovative start-ups is many times faster than that of large enterprises.

According to statistics on the number of enterprises having positive business results, the General Statistics Office reported that there were 560,417 enterprises, an increase of 11% compared to 2017 and are classified by industries as follows:

State-owned enterprises take up only 1% (2486 enterprises) and 99% are non-state enterprises (541,753 enterprises), which clearly indicates the direction of private economic development by the Party and the Governement.

According to the assessment of the Vietnam Chamber of Commerce and Industry (VCCI), if calculated per capita, the number of startups in Vietnam is higher than that of other countries such as China (2,300 startups), India (7,500 companies) and Indonesia (2,100 companies). The comparison about the fields of operation shows that there are more information technology enterprises than in other fields. This reflects the development trend in the context of the industrial revolution 4.0, with the following characteristics: information technology SMEs do not need too much initial investment like many other traditional fields; rely mainly on new ideas and highly innovative ways of operating; they are capable of growing rapidly; easily connect globally through technology which makes it easy for good creative ideas to reach the world and vice versa, and they can easily learn from other successful international models.

Although the number of innovative start-up investors is not big, it has started to increase. Most of these are successful entrepreneurs who want to invest in the next generation of SMEs. Some overseas Vietnamese, overseas Vietnamese students have been returning to Vietnam to participate in innovative start-up investment. The activities of angel investors in Vietnam have started to become more systematic through connecting and forming a number of clubs and investment networks for innovative start-up such as VIC Impact, iAngel or VCNetwork.co. Judging by the fields of investment, the SMEs focus mainly in the fields of financial technology (fintech), e-commerce and educational technology (edtech).

4.2. Current situation of policies to support startups in Vietnam

The Law on Supporting Small and Medium-sized Enterprises, promulgated on June 12, 2017 by the National Assembly, is an important legal foundation in developing support policies for businesses, especially startups in Vietnam. The main contents of this policy include:

- *Supporting credit access*

Depending on specific socio-economic conditions, the Government will administer policies to increase loan balances for small and medium-sized enterprises, and encourage credit institutions to assess credit ratings to support credit for businesses. On the other hand, small and medium-sized enterprises are also supported to develop production and business plans, strengthen corporate management capacity, and make financial management transparent to help improve creditworthiness of businesses.

- *Establishing a credit guarantee fund for small and medium-sized enterprises*

Established by the provincial People's Committee, these funds operate off-budget, not for profit, and provide credit guarantee for small and medium-sized enterprises in accordance with other detailed government regulations.

- *Tax and accounting support*

Applying lower tax rates than ordinary income tax, in addition, accounting procedures for micro enterprises are carried out in a simpler method to maximize support for businesses to develop.

- *Supporting production premises*

Assigning power to provincial People's Committees and Provincial People's Councils to set up and allocate land for industrial parks and concentrated production zones for small and medium-sized enterprises, to develop a mechanism to subsidize land rents and discounts. This rental is deducted from the land rent and compensated by the budget.

- *Supporting technology, incubators, co-working areas*

The Government promulgated policies to support small and medium-sized enterprises for innovation and technology transfer. Assigning ministries, ministerial-level agencies and provincial People's Committees to directly establish or participate in the establishment of incubators and co-working zones in the form of public-private partnerships. On the other hand, these incubators and coworking spaces are exempt from land rent, non-agricultural land use tax, in addition, corporate income tax is also exempted for a limited time, this is an extremely important advantage for private investors who want to participate in the establishment of incubators, creating a solid foundation to develop a startup ecosystem in Vietnam.

- Supporting market expansion

Establishing product distribution chains to the market in the form of public-private partnerships between a representative of a state agency (Ministry or ministerial-level agency, provincial People's Committee) and a private party. If this distribution chain achieves 80% participation of small and medium-sized enterprises, they will enjoy special incentives such as reduction of land rental tax and reduction of corporate income tax.

- Supporting to provide information, legal advice

Information about credit support, startup project program, support for small and medium-sized enterprises, market information, products, new technologies, business incubation information are publicly posted on the electronic national portal for supporting small and medium-sized enterprises, websites of ministries, ministerial-level agencies and provincial-level People's Committees. In addition, within their jurisdiction, these units would establish legal consulting organizations, update new legal information, regularly organize legal learning programs for businesses.

- Supporting human resource development

Entrepreneurs are exempted from fees of courses on business administration, management and business start-up organized by the Government, supported vocational training costs for enterprise employees. In addition, the Government organizes online training to help businesses quickly access technological processes, know - how and improve skills.

- Supporting small and medium-sized enterprises to convert from business households

- Supporting small and medium-sized enterprises to make innovative start-ups

The government supports the granting of interest rate compensation on loans through credit institutions to support small and medium-sized enterprises to innovate. Those established for less than 5 years and not yet offering shares to the market will receive support such as: trade promotion, market research; provision of scientific and technological innovation, in-depth training courses on technological innovation; supporting product development, attracting investment, protecting intellectual property rights, assisting in calling for investment from venture capital funds, angel investors, etc.

- Investing in innovative small and medium-sized start-ups

- Support to join the industry linkage chain

- Establishment of a small and medium-sized enterprise development fund

The Prime Minister signed a decision approving the Project "Supporting the national innovative startup ecosystem until 2025" (referred to as Project 844) on May 18, 2016 which gave details about the object of support as individuals, groups of individuals with start-up projects and organizations providing services, facilities, etc. to support start-up activities. With the goal of supporting 2000 innovative start-up projects by 2025, this project aims at supporting contents such as:

- Building an innovative startup portal

- *Building concentrated areas to support and provide services for start-ups*
- *Organizing annual start-up festival*
- *Building a network of investment funds and venture capitalists*
- *Supporting training activities, improvinge scientific and technological research capacity*
- *Developing material and technical facilities for start-ups*
- *Financial support to build a communication network for startups*
- *Connecting the startup support network of Vietnam and outside Vietnam*
- *Introducing investors, investment funds to startup projects*
- *Building institutions, fully developing supporting policies for start-ups.*

Besides, in order to develop support policies for each specific object, the Government has issued projects such as: Project "Supporting women to start a business in the period 2017-2025"; "Supporting pupils and students to start a business" are the most important projects, which had a strong impact on the startup movement in general as well as innovative startups in particular. Decision 1665 of the Prime Minister which approved the project "Supporting pupils and students to start a business" is a legal foundation with breakthrough on promoting entrepreneurship, creating conditions for organizations, individuals, companies, corporations, researchers, etc. to participate in supporting startups.

Table 2. The system of policies to support startups in Vietnam

Year	Policies
2015	Decision number 1193/QD-TTg about piloting a number of specific mechanisms and policies for the development of Vietnam-Korea industrial technology incubators in Can Tho City.
2015	Circular No. 214/2015/TT-BTC guiding mechanisms and policies on state budget support, taxes and state development investment credits according to Decision No. 1193/QD-TTg on piloting a number of specific mechanisms and policies for the development of Vietnam-Korea industrial technology incubators in Can Tho City.
2016	Decision No. 844/QD-TTg approving the project "Supporting the startup ecosystem for national innovation until 2025".
2016	Resolution No. 35/NQ-CP on supporting and developing businesses until 2020.
2017	Law No. 04/2017/QH14 on supporting small and medium-sized enterprises.
2017	Decision No.39/QD-TTg approving the project to support women in starting a business in the period 2017-2025.
2017	Decision No.1665/QD-TTg approving the project "Supporting pupils and students to start up until 2025".
2018	Circular 126/2018/TT-BTC guiding the management and use of non-business expenditure budget to implement the Project "Supporting pupils and students to start up until 2025" issued by the Minister of Finance.

Year	Policies
2018	Decree No. 38/2018/ND-CP that gave regulations on investment for innovative small and medium-sized enterprises.
2018	Decree No. 39/2018/ND-CP on guidelines for law on supporting small and medium-sized enterprises.
2019	Circular No.45/2019/TT-BTC prescribing financial management for implementation of "National program to support innovative startup ecosystem by 2025".
2020	Directive No. 09/CT – TTg on creating conditions for innovative start-ups.

Source: compiled by the author

Table 2. Total number of start-up support policies

Year	2017	2018	2019	2020	2021
Categorized by beneficiaries					
General policy for startups (General support for all beneficiaries)	28	18	16	10	13
Policies to support pupils – students to start a business	9	12	-	2	3
Main book support support extra female start Karma	1	12	5	-	2

Source: compiled by the author

The table showed that the number of start-up support policies has been increasingly formulated and completed over the past 5 years, which also explained the increase in the number of registered businesses as well as their improving operating efficiency.

4.3. Some results achieved when implementing the policy:

- Common creative space:

The number of coworking zones in the country is increasing day by day, so far there are nearly 50 coworking zones (according to statistics of the Ministry of Science and Technology), mainly in 03 big cities, Hanoi, Ho Chi Minh City, Da Nang. This is a place to provide a workspace, create ideas, connect the startup community. Some of the coworking areas can be mentioned such as: Up, Vietnam Silicon Valley Accelerator (VSVA), BK Hub, Click space, Fablab, co-working area at the incubator of Ho Chi Minh University of Technology (HCMUT-TBI), National University City. Ho Chi Minh City (ITP), Da Nang Startup Network,…

- Incubators:

According to a basic and synthesized statistics from many sources of the National Agency for Technology Entrepreneurship and Commercialization Development, the Ministry of Science and Technology, there are currently about 40 business incubators and business promotion organizations, an increase of 6 establishments compared to the previous year. Of which, there are about 10 incubators under state agencies or non-business units; 07 incubators belong to universities and the rest are incubators and business promotion organizations established by private or foreign organizations.

Some famous names for incubators are: Hoa Lac High-tech Enterprise Incubator; high-tech business incubator of Ho Chi Minh City; Da Nang Incubator (DNES); Business Startup Support Center (BSSC); Hanoi Information Technology Business Incubator. Some famous business promotion organizations in Vietnam include: Vietnam Silicon Valley Accelerator (VSV); CLAS – Expara Vietnam Accelerator invested by Microsoft Vietnam and Southeast Asia startup investment fund Expara; Vietnam Startup Accelerator Fund (VIISA) is both an early stage innovative start-up investment fund and also a business promotion organization with 04 main investors: FPT, Dragon Capital Group, Hanwha Group (Korea) and BIDV Securities Joint Stock Company. Recently, there is a Y-Nest Coworking Space (Hanoi) organization that supports start-up activities such as capital investment, renting a coworking space.

- Communication activities:

This activity is taking place quite actively, through many channels such as newspapers, television, social networks, etc., for example: the series of programs "start-up nation" and VTV's reality TV show about startups. "billion-dollar deal - Shark Tank" (with the two opening events of the program series being "start-up sail" and "seed adventure") or the "creative start-up" series, etc. that provides an overview of the startup situation of Vietnamese youth today. Start-up cafe program of Ho Chi Minh City Television is a place where startups and startup support resources meet and share knowledge, experiences, opportunities and challenges of startups. There are also about 16 online newspapers with columns on startups such as: Vnexpress.vn, Tia Sang, Cafef.vn.

5. Conclusion and implications

Thus, start-up support policies are very important to improve a country's startup opportunities. In order to make start-ups become one of the focused point of the economy, policies related to these businesses also need to be set up methodically and synchronously, respectively, according to the following principles:

- Removing policy barriers, establishing a favorable environment and creating favorable conditions for start-up development and investment for start-up entrepreneurs.
- Mobilize and create favorable conditions for linking and coordinating resources from the Government and the domestic and foreign socialization resources to support the development of start-ups, contributing to socio-economic development.
- Deploying to build a national startup ecosystem and local start-up ecosystems, as well as the geographical and potential economic ecosystems in a unified and synchronous manner throughout the country.

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CUSTOMER SATISFACTION TOWARDS THE DEVELOPMENT OF SPECIALIZED SUPERMARKETS IN THE CONTEXT OF DIGITAL ECONOMY

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Abstract: *The article uses qualitative and quantitative research to interpret the relationship between customer satisfaction towards the development of specialized supermarkets in the context of the digital economy. Moreover, the article has systematized the theory of service, service quality and customer satisfaction. The study's authors clarify the concept of supermarket sales service; research service quality model of researchers; analyze some theories of service quality assessment in general and supermarket evaluation in particular, and evaluate customer satisfaction towards the service quality of the above specialized supermarket in Vietnam. As a result, the authors propose solutions to enhance service quality, towards customer satisfaction in the context of the digital economy.*

Keywords: *Customer satisfaction, specialized supermarkets, digital economy.*

1. INTRODUCTION

Apparently, the goal of any business operating in the business sectors of the economy is to get customer satisfaction. Customers often are individuals or organizations who have marketing orientation and make purchasing decisions. These are the beneficiaries of the quality characteristics of products and services, which are decisive factors for the success or failure of any enterprise. In fact, for businesses, "Customers are their most valuable thing". As the economy grows, the requirements and desires of customers for supermarkets are also increasingly enhanced and recognized in the market through various aspects. Especially in an economy that operates mainly on digital technology, and electronic transactions conducted through the Internet, customer satisfaction has many changes, forcing businesses to research to provide suitable solutions.

In comparison with the world, supermarkets in Vietnam were formed relatively later than supermarkets in the world. The first supermarket in Vietnam was born in Ho Chi Minh City in the period 1993-1994 and expanded to major cities across the country in 1995. Over time, supermarkets have constantly grown in terms of both size and service quality. As of May 2019, the number of supermarkets in Vietnam has reached 360 supermarkets, an increase of more than 15% compared to 2018. Actually, the formation and development of a system of specialized supermarkets is always

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critical in creating an effective distribution channel for the economy, building and contributing to protecting the rights and interests of consumers. In reality, the supermarket system was revolutionary compared to traditional stores. Goods in supermarkets generally have clear origins, clear labels, through which consumers have the right to provide information according to the Law and have more peace of mind about the price and quality of products. Whether the number of buyers is more or less, they still have invoices to pay. This is the basis for easy settlement when a dispute occurs between the two parties. However, in the context of fierce competition in the domestic market after Vietnam joined the World Trade Organization (WTO), supermarkets need to constantly strive to improve service quality to meet higher demand of customers, maintain its position in the domestic market as well as withstand competitive pressure from foreign enterprises under the commitment to open when economic integration occcurs.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

2.1. Customer satisfaction and influencing factors

According to Kotler (2001), customer satisfaction is the level of a customer's sensory state derived from comparing the results obtained from consuming products and services and their expectations.

Customer expectations are understood as human wishes derived from personal needs, previous experiences and external information such as advertising, word of mouth information from family and friends.

Hence, customer satisfaction is the result of comparing expectations before and after purchasing a product or service. On that basis, Kotler (2011) has identified 3 levels of satisfaction: (1) If the results received are less than expected, the customer will feel dissatisfied; (2) If the result is as expected, the customer will feel satisfied; (3) If the results received exceed the customer's expectations, they will feel extremely satisfied with the service.

- ***Factors influencing on customer satisfaction towards service quality***

  Facilities

In reality, facilities have a great influence on service quality. In supermarkets, there are comfortable, modern, aesthetic, hygienic and safe facilities that will make customers feel comfortable, make them live in those conditions, and bring convenience, comfort and satisfaction to customers. In addition, facilities that ensure quantity and quality will facilitate service staff in the service process to be completed and be more professional, helping customers to be more satisfied. Therefore, to evaluate the service quality of a hotel, customers are partly based on the perceived level of facilities.

  Quality of the staff of supermarket

In the supermarket business, people are considered an important factor in providing services. The professionalism in the communication process of the supermarket staff will directly affect the customer's perception in the process of using products and services. Hence, investing in people to improve service quality is a direct investment to upgrade the service quality of supermarkets. Actually, all employees in a supermarket, from managers to those who provide specific services directly to customers, influence customers' perception toward the service that the supermarket provides. In which, employees who directly serve customers represent businesses and directly affect customer satisfaction. They act as a sales person, a marketing staff, and so on.

Employees are people who directly interact with customers and create a service impression in the eyes of customers. Therefore, the quality of the workforce is assessed on the level of labor: professional qualifications, education, foreign languages, and communication skills.

Furthermore, there is the spirit of attitude in serving customers and the collective spirit in doing work. Whether the workforce is professional or not will certainly affect the image of the supermarket.

Service process

The service process is composed of stages and steps for employees to best serve customers. If the service process is well organized, the staff will work with a more professional and efficient service style, avoiding mistakes while serving. Hence, customers who see employees working according to such a process will appreciate the quality of service. That is the standard for managers to appraise whether their employees are working based on the correct process.

Other factors

- ***Goods and reliability***: diversity, completeness, availability, origin, product update, etc. will affect customer satisfaction when shopping at supermarkets. Reliability is assessed by customers through the ability to perform services according to the supermarket's commitments.
- ***Service standards:*** Including standards of service staff, standards of hygiene, standards of products and goods, etc. to help the service process be better and to measure and evaluate the service quality of supermarkets. The market also offers solutions to improve quality to best serve customers.
- ***Competitors:*** To compete with other competitors selling the same products and services, the service quality of the supermarket must be better and have more advantages than the competitors' products in order to retain existing customers and attract more new customers to increase revenue for the business.
- **Handling customer complaints:** Supermarkets can receive different complaints from customers, thereby helping the supermarket understand the causes of customer dissatisfaction and that is an opportunity to attain service improvement to better serve customers.

2.2. Research models of customer satisfaction on service quality

Customer Satisfaction Index (CSI) is applied to measure customer satisfaction for industries and businesses in many developed countries around the world. Obviously, building and applying the CSI index of banks help build an information system of customer satisfaction, as a basis for competitive strategic planning, marketing, and brand building and trade promotion to increase the industry's competitive capability when Vietnam joins the World Trade Organization (WTO).

Customer satisfaction index consists of factors (variables), each of which is composed of many specific factors (indicators, items), characteristic of products or services. As regards customer satisfaction, it is defined as a comprehensive assessment of a business's use of a service or after-sales activity and this is the core of the CSI model. Around this variable is a system of cause- and- effect relationships derived from initial variables such as customer expectations, business and product image, perceived quality and perceived value of the product or service associated with satisfaction variables such as customer loyalty or customer complaints.

The CSI model of Fornell et al (ACSI). In the model of American satisfaction index (ACSI), perceived value is affected by perceived quality and customer expectations. In addition, customer expectations have a direct impact on perceived quality. In fact, the higher the expectation, the higher the customer's perceived quality standard for the product, or vice versa. Therefore, the requirements for the quality of products and services provided to customers need to be guaranteed and satisfied on the basis of their satisfaction. In reality, customer satisfaction is formed on the basis of perceived quality, expectations and perceived value. If the quality and perceived value are higher than expectations, it will create loyalty to customers On the contrary, it will be complaint about the product they consume.

European Satisfaction Index (ECSD) Model: The European Satisfaction Index (ECSI) model has certain differences. In comparison with the ACSI, the image of products and brands has a more direct impact on customer expectations. Meanwhile, customer satisfaction is the combined impact of 4 factors: image, perceived value, and perceived quality of both tangible and intangible products. Normally, the ACSI index is usually applied to the public sector, while the ECSI index is often applied to measure.

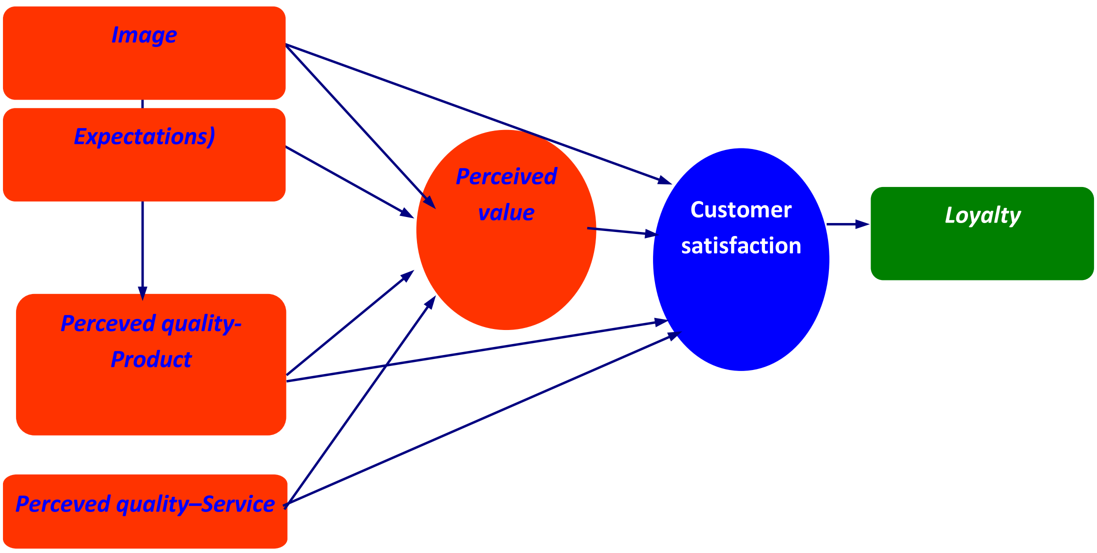

Figure 1. European customer satisfaction index model

Source: European Customer Satisfaction Index – ECSI

2.3. Relationship between customer satisfaction and service quality

According to Cronin and Taylor (1992), service quality is a factor that has a strong, direct and positive impact on customer satisfaction. Similar perceptions to them are Baker and Crompton (2000), Tribe and Snaith (1998), Oliver (1980), Pham and Kullada (2009), Nadiri et al (2008), Chen, (2008), Ho et al (2006), Kim et al (2005), Nguyen and Nguyen (2003). Customers often perceive the quality of products/services that businesses provide through attributes constituting quality. As a result, when businesses provide customers with good service quality, customers will be satisfied, and vice versa, they will be dissatisfied if the quality of service they receive is not good. Actually, the loyalty of customers to the products and services that businesses provide also depends on the quality of services that businesses provide through their satisfaction.

In 2000, Zeithaml and Bitner conducted a study on the relationship between service quality and customer satisfaction and made the conclusion that: the overall relationship of satisfaction includes service quality, product quality, and and price. Additionally, customer satisfaction is also influenced by situational factors and personal factors.

Curry and Sinclair (2002) also examined the relationship between the quality of services, products and customer satisfaction and illustrated that: If the quality of the product or service provided meets customer expectations, it will lead to customer satisfaction and vice versa will lead to customer dissatisfaction.

Customer satisfaction is the reaction and evaluation of customers after purchasing and experiencing the overall product or service that the business provides. According to Menon and Dubé (2000), it is the emotional response of t customers in which the things that they need, want and exploit during the service experiences that have been met or exceeded their expectations. Undoubtedly, the key to success in business is to create customer satisfaction with the service provided (Shemwell, 1998). Customer satisfaction is also interpreted differently among researchers. It is considered as an emotional state with used goods and services (Spreng & Mackoy, 1996), and is the customer's perception of their expectations for service quality when using (Kurtz & Clow, 1988); or simply the feeling of satisfaction or disappointment that comes from comparing the results of the product/service with their expectations (Kotler, 2008). Consequently, customer satisfaction can be considered as the customer's feeling towards the experience of using a particular service. If the quality is improved but not based on the customer's needs, the customer will never be satisfied with that service. Therefore, when using the service, if the customer perceives the service as high quality, then they will be satisfied and vice versa. In reality, it can not be denied about the role of the quality of products and services. Actually, it is vital in bringing satisfaction to customers.

Although businesses often uniformly service quality with customer satisfaction. However, service quality and customer satisfaction are two separate concepts. Satisfaction is viewed as an overall concept (Zeithaml & Bitner, 2000) while service quality is a multi-component concept (Parasuraman et al, 1985; 1988). Studies show that service quality is the cause of customer satisfaction and is closely related to customer satisfaction (Spreng & Mackoy, 1996; Oliver, 1993; Kim et al, 2004; Seth and associates, 2008; Hanzaee & Nasimi, 2012). Some studies go further when verifying that service quality affects customer loyalty (Kim et al, 2004; Hanzaee & Nasimi, 2012; Dao TrungKien et al, 2015). Apparently, service quality and customer satisfaction are closely related, in which service quality is the most critical elements to determine customer satisfaction. The causal relationship between these two factors is a key issue in most customer satisfaction studies. If the quality is improved but not based on the customer's needs, the customer will never be satisfied with that service. Therefore, when using the service, if customers perceive the service as high quality, they will be satisfied with that service. Conversely, if the customer perceives the service to be of low quality, dissatisfaction will appear.

According to Parasuraman, Zeithaml, Berry (1991), there are 5 factors affecting customer satisfaction towards services: Reliability, Responsiveness, Assurance, Empathy and Tangibles. Inheriting from previous research results, especially inheriting the SERVQUAL scale from the research of Parasuraman, Zeithaml and Berry proposed in 1988, the authors propose a research model in Figure 2, which includes: The dependent variable that is determined to be customer satisfaction and the independent variables are the factors affecting customer satisfaction towards the products and services of enterprises.

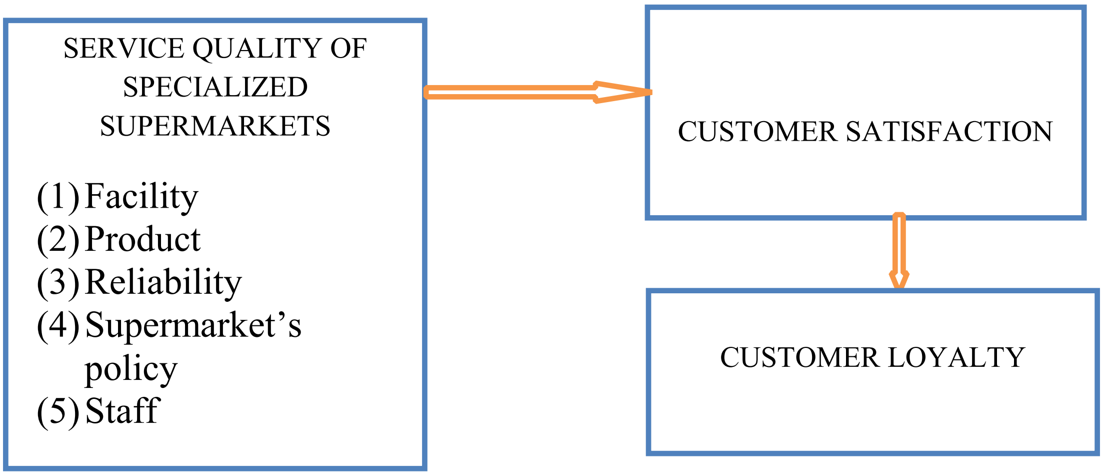

Figure 2. Research model on customer satisfaction towards service quality of specialized supermarkets

Source: the authors built themselves, 2022

The model's regression equation:

$$HL = \beta0 + \beta1VC + \beta2HH + \beta3TC + \beta4.CS + \beta5.NV + \varepsilon$$

In which: ***Dependent variable***

HL: Customer satisfaction towards service quality of specialized supermarkets.

Independent variable

VC: Facilities

HH: Products

TC: Reliability

CS: Policy of supermarket

NV: Staff of supermarket

Research hypotheses:

H1: Customer's perception of supermarket facilities has a positive influence on customer satisfaction.

H2: The perception towards goods at the supermarket has a positive influence on customer satisfaction.

H3: Reliability has a positive effect on customer satisfaction.

H4: Supermarket's policy has a positive influence on customer satisfaction.

H5: Supermarket's employees have a positive influence on customer satisfaction.

3. METHODOLOGY AND PROPOSED MODEL

Preliminary research: was conducted through qualitative research methods, and used discussion techniques with experts to identify research problems and form customer survey questionnaires about supermarket service quality and customer satisfaction.

Formal research: was conducted through quantitative research method, through direct customer interview technique together with answering questionnaires to assess the service quality of some specialized supermarkets in VietNam.

In addition, the study also used comparative methods, mathematical statistics, and meta-analysis. To assess customer satisfaction with service quality of specialized supermarkets in VietNam, the authors conducted direct interviews with customers by designing questionnaires and collecting information. Information in the questionnaireis aimed at customers who are consumers of specialized supermarkets in VietNam.

Primary information was collected by conducting objective-based questionnaires and research questions to identify the required data. Accordingly, the questions are outlined corresponding to each content to be studied. The authors construct the structure of the questionnaire including: Introduction (Introducing the purpose of the content, emphasizing the importance of the investigation), the main part (questions are arranged in a logical sequence according to the research objectives), and conclusion part (general information about the respondents and acknowledgment).

Sample size: With 23 observed variables built to evaluate, and to ensure the acceptable significance level of the variable, it should be multiplied by 5 (according to Hoang Trong and Chu Nguyen Mong Ngoc, 2005). As a result, the sample size is 115, along with the reference to related topics. The research's writers decided to choose 285 elements as the size of the research sample. Scale: 5-point Likert scale (1 to 5 corresponds to 1-strongly disagree and 5-strongly agree).

In order to conduct the analysis, the authors used SPSS 20.0 software to analyze the collected data, examine the reliability of the scale by Cronbach's Alpha test for each observed variable in each factor, and carry out the Exploratory factor analysis (EFA) to classify the observed variables of each group affecting customer satisfaction towards service quality of specialized supermarkets in Vietnam.

Moreover, the authors conduct regression analysis to determine the level of influence. Because the results of factor analysis only reveal to readers the influencing factors, it is impossible to know the degree of influence of each factor on customer satisfaction. As regards regression analysis, it is necessary to come up with a suitable model, and therefore a model fit test must be implemented. The suitable model will be applied for regression analysis. Those independent variables are factors that have been extracted from factor analysis to see how those factors affect the satisfaction level towards service quality of specialized supermarkets? This is based on proposing suitable solutions, and recognizing the need to prioritize solutions.

4. RESEARCH RESULTS

In the past years (2017-2021) along with the socio-economic development and the process of economic integration and opening, Vietnam's retail system is perfecting towards modern civilization, starting to apply the standards on food safety and hygiene, traceability, fire prevention and fighting, and environmental sanitation, etc, to well serve the production needs and people's lives. In addition to the traditional market network developed according to the plan, while limiting the spontaneous situation in localities and has been gradually invested in upgrading and expanding, modern retail forms such as supermarkets, commercial centershave rapid growth. During nearly 12 years of development from 2010 to 2021, the number of retail systems increased strongly. In 2010, the whole country had about 8,500 markets, more than 500 supermarkets and nearly 100 trade centers. By 2021 there were 8,475 markets, 1009 supermarkets and 210 trade centers, thousands of modern convenience and specialized stores operating based on the chain model that is growing rapidly in big cities).

Table 1. Total revenue of the retail system 2017-2021

Year	Revenue (billion dong)	Increasing rate (%)
2017	2.403.723	9,7
2018	2.668.413	10,1
2019	2.900.000	10,6
2020	3.306.000	12,4
2021 (9 months)	2.760.000	12,6 in comparison with the same period in 2020

Source: authors summarize according to the data of the General Statistics Office

It is depicted from table 1 that the total revenue of the retail system tends to increase strongly over the years and accounts for a large proportion of the total retail sales and consumer service revenue. It can be seen that in the past 5 years (2017-2021), the domestic retail sector is benefiting from favorable conditions such as stable economic growth, increasing per capita income, and young consumers account for a large proportion. The modern retail system is gradually gaining influence and will continue to attract domestic and foreign investors.

To assess customer satisfaction about the service quality of specialized supermarkets, the authors conducted a survey of customers shopping at a number of specialized supermarkets in Hanoi, Da Nang and Ho Chi Minh City. such as Nguyen Kim, Pico, Tien Phong Bookstore, Bibo Mart, and so on. The survey results have collected data about customers through criteria such as gender, age, personal income.

Table 2. Results of the survey's questionnaire

No.	Specialized supermarkets	Number of respondents	Rate %
1	Electronics supermarket	97	34,04
2	Bookstore supermarket	46	16,14
3	Phone supermarket	48	16,84
4	Furniture supermarket	39	13,63
5	Children's supermarket	55	19,25
6	Total	285	100

Source: survey results of the author group, 2022

Survey sample by gender: in specialized supermarkets, the proportion of men using services is lower than that of women. Among 285 customers, 180 are female, accounting for 63.16% and 105 are male, accounting for 36.84%. The results accurately reflect the actual situation of shopping at specialized stores. In respect to furniture and electronic products, customers are mainly men and women. On the subject of product consumption for children, customers are mainly females. In recent years, both men and women have become much more active in shopping for families and individuals, and the disparity between men and women in shopping is also narrowed.

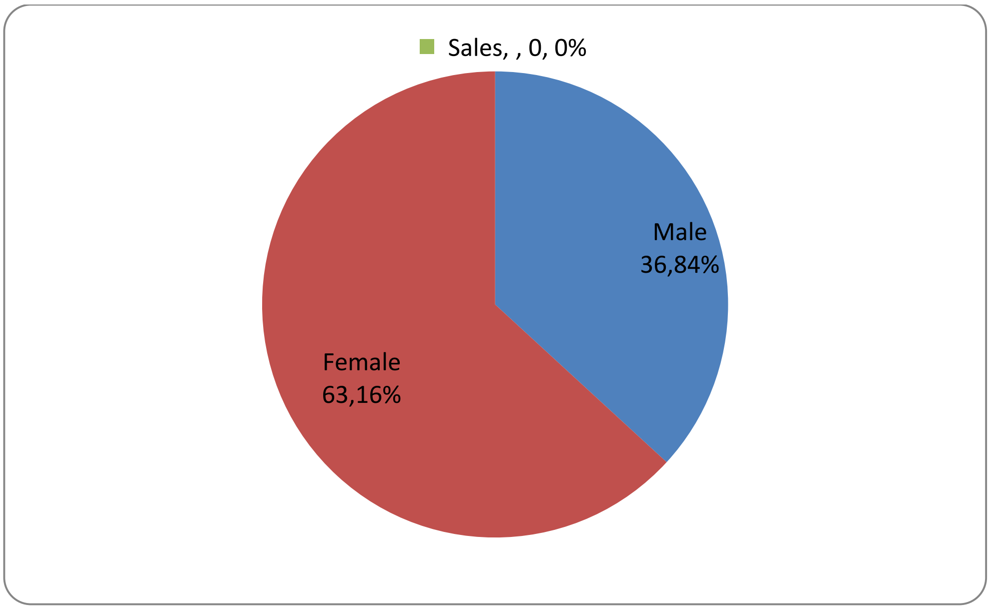

Figure 3. Survey sample by gender

Source: survey results of the author group, 2022

Consequently, in order to boost customer satisfaction towards the service quality of specialized supermarkets, it is necessary to have a deeper and more thorough understanding of gender perceptions and shopping approaches as well as their expectations and preferences.

Survey sample by age: out of a total of 285 customers participating in the survey, there are 43 customers under 25 years old, accounting for 15%, 228 customers aged from 26 to 55 years old, making up 80%, and 14 customers aged over 55 years old accounted for 5%. As a result, the group of customers aged from 26 to 55 accounts for the highest proportion. This is the group of customers who have established and stable families with high demand for shopping at specialized supermarkets to enhance quality of life.

Survey sample according to the average monthly income of the family: the percentage of customers with average income from 5 to 10 million accounts for the highest proportion 53.6%, followed by the group with income under 5 million made up 35.2% of these subjects are mainly students or newly employed people who do not have high income. The group with the average family income from 10 to 20 million accounted for 8.9% and the group with the average income over 20 million accounted for the lowest rate of 2.4%. When researching to improve customer satisfaction towards the service quality of specialized supermarkets, it is necessary to pay attention to customers' income in order to find opportunities for growth and further development of supermarkets.

Table 4. Survey sample according to the average income of the family by month

No.	Income	Frequency	Rate (%)
1	Below 5 million		35,2
2	From 5 million to 10 million		53,6
3	From 10 million to 20 million		8,9
4	Above 20 million		2,4
5	Total		100

Source: survey results of the author group, 2022

The survey results indicate that the main group of customers using services of specialized supermarkets in Hanoi are women, aged from 20 to 50 years old, with the main income from 5 to 10 million.

Table 5. Regression coefficents

Model	Unormalized coefficient		Normalized efficient	T	Sig.	Multicollinearity	
	B	Std. Error	Beta			(Tolerance)	Variance Inflation Factor (VIF)
(Constant)	.367	.106		3.451	.001		
VC	.270	.026	.349	10.366	.000	.693	1.443
HH	.413	.037	.395	11.309	.000	.644	1.553
TC	.229	.032	.254	7.198	.000	.631	1.585
CS	.322	.031	.236	8.215	.000	.641	1.528
NV	.416	0.38	.398	11.415	0.00	.647	1.558

a. Dependent Variable: HL

Source: the calculation results are based on SPSS 20.0 software

The results of the model show that the adjusted R2 is 0.673, which means that 67.3% of the variation of the dependent variable HL is generally explained by the independent variables in the model. Furthermore, the F test also shows the Sig value. is very small (Sig. = .000), showing that the above model is suitable for the data set under investigation.

The independent variables in the model: VC, HH, TC, CS, NV are statistically significant (Sig. < 0.05).

The results show that the coefficient of acceptance (Tolerance) is quite high (from 0.631 to 0.693) and the coefficient of variance of VIF is low (from 1.443 to 1,585, less than 2). Therefore, it can be concluded that the relationship between these independent variables is not significant, there is no multicollinearity phenomenon.

Multiple regression equation depicts the relationship between customer satisfaction and the quality of specialized supermarkets:

$$\mathbf{HL = 0.367 + 0.27VC + 0.413HH + 0.229TC + 0.32\ CS + 0.416NV}$$

In which: HL is the dependent variable expressing customer satisfaction about service quality of specialized supermarkets.

VC, HH, TC, CS, NV are independent variables in order: facilities, goods, trust, supermarket policies, supermarket staff.

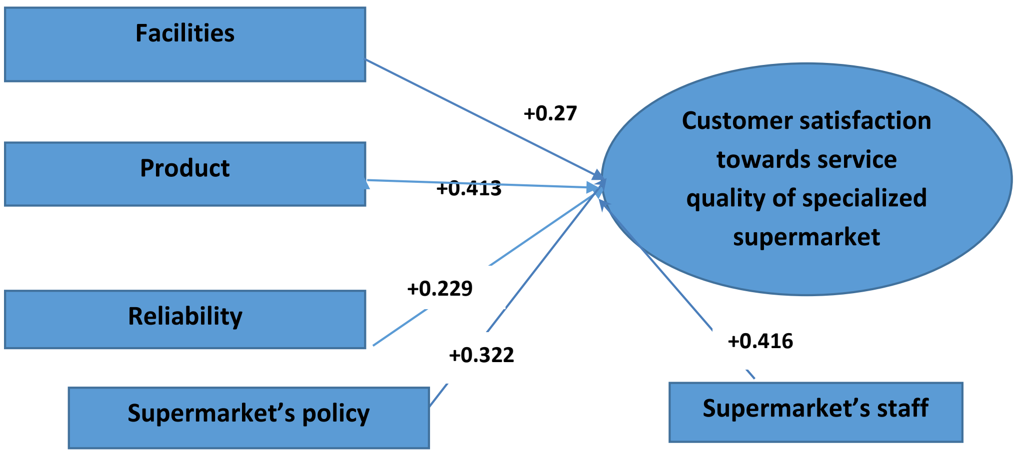

Figure 4. Multivariable regression model results

Source: the authors built based on the research results themselves, 2022

Multivariable regression model results

Based on the results of the regression analysis, the first goal of the study was answered: there are 5 factors of service quality that affect customer satisfaction, which are (1) Facilities of the supermarket, (2) The goods of the supermarket, (3) The reliability of the supermarket, (4) The policy of the supermarket, (5) The staff of the supermarket.

Of the three factors above, the factor "Supermarket employees" has the greatest impact on customer satisfaction with a regression coefficient of 0.416, followed by the factor "Supermarket goods" with a coefficient of 0.416. The regression coefficient is 0.413, the factor “Supermarket policy” has a lower impact with the regression coefficient 0.322. This is also the answer to the goal of the topic.

Through the results of regression analysis, they confirmed the impact of service quality of specialized supermarkets on customer satisfaction as follows:

Through the regression results, there is a correlation between customer satisfaction and "supermarket employees". The regression coefficient is 0.416, which means that in the condition that other factors do not change. In reality, when "factors belonging to supermarket employees" increase by 1 unit, customer satisfaction increases by 0.413 units. This result is consistent with the fact that when employees of specialized supermarkets have knowledge and skills to create good service quality, customer satisfaction level will be increased. If specialized supermarkets focus on training and developing employees to create good service quality, improving customer satisfaction will be highly effective.

Regression results between customer satisfaction and “facility” show a correlation. The regression coefficient is 0.27, which means that when the facilities increase by 1 unit, the customer satisfaction with the service quality of the specialized supermarket increases by 0.27 units. This is completely consistent with reality, when customers want convenience when shopping at specialized supermarkets.

Regression results of customer satisfaction for service quality of specialized supermarkets and “reliability” illustrate that there is a correlation. The regression coefficient is 0.229, which means that when the trust of the supermarket increases by 1 unit, the customer's satisfaction with the service quality of the specialized supermarket increases by 0.229 units.

Regression results of customer satisfaction for service quality of specialized supermarkets and “supermarket policy” are correlated. The regression coefficient is 0.322, which means that when the trust of the supermarket increases by 1 unit, the customer satisfaction with the service quality of the specialized supermarket increases by 0.322 units.

Regression results of customer satisfaction for service quality of specialized supermarkets and “goods” are correlated. The regression coefficient is 0.413, which means that the supermarket's goods increase by 1 unit, the customer's satisfaction with the service quality of the specialized supermarket increases to 0.413.

Hence, the factor that has the strongest impact on customer satisfaction with the service quality of specialized supermarkets in Hanoi city, Da Nang city, HoChiMinh city is the staff of the supermarket.

5. DISCUSSION AND CONCLUSION

In reality, it is customer satisfaction that is considered a vital factor and goal of businesses in recent years. Along with the increasingly fierce competition in the business environment, it becomes more and more necessary to learn about customer needs and factors affecting customer satisfaction and therefore the research is more helpful for the more effective implementation of marketing activities as well as perfecting the development policy of the supermarket system. The article has synthesized the theory of service management, quality management, service quality, service quality assessment model in general and retail service in particular, the relationship between service quality and customer satisfaction; simultaneously, it identifies the similarities and differences as well as the trends in service quality assessment in general and retail services in particular in the world at the present time.

The research results presented in this thesis are consistent with the theoretical framework and with the studies that have been done at home and abroad such as Westbrook (1981), Mazursky and Jacoby (1985), Dalholkar, P.A., D.I. Thorpe and J.O. Rentz (1996), Chowdhury, Reardon and Srivastava (1998), Nguyen Thi Mai Trang (2006), Nguyen Huy Phong and Pham Ngoc Thuy (2007), Nguyen Dang Duy Nhat (2007).

Although certain results have been achieved, the topic has some limitations that need to be supplemented and perfected by further studies. Due to time and budget constraints, this study was only conducted for a few supermarkets and convenience stores in some big cities such as Hanoi, Da Nang and Ho Chi Minh City. Therefore, the results of the study will not be as effective as the survey in some other cities in Vietnam with differences in business characteristics as well as corporate and consumption cultures.

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ENVIRONMENTAL EFFECT OF FDI ON ECONOMY – KUZNETS APPROACH AND SUGGESTION FOR VIETNAM

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BA Bui Ngoc Anh[2]

Abstract: *Recently, theoretical and empirical studies have shown the duality of foreign direct investment (FDI) to economic growth, in which FDI is shown to be the cause of a series of negative effects on economic growth. One of those impacts is the consequences for the environment, leading to a decline in the quality of economic growth. Therefore, countries around the world have turned their attention to sustainable development in general and green economy development with the goal of reducing CO_2 in particular. By using the qualitative research methods (discuss and theoretical research) with data of FDI and CO_2 statistics in Vietnam, the authors have identified the environmental effect of FDI activities on CO_2 emission in Vietnam, in which the three effects are identified: (1) scale effect; (2) structural effect; and (3) technical effect. On the basis of theoretical research on the interaction of both FDI and CO_2, a number of policy recommendations for Vietnam are proposed in the context of both needing to maintain large enough FDI inflows to ensure capital demand and at the same time aiming to reduce CO_2 emissions for sustainable economic development to follow Vietnam's international commitments to reduce emissions to zero by 2050.*

Keywords: *Internal control, banks' performance, state-owned commercial banks.*

1. LITERATURE REVIEW

In the world, there have been many studies on the theory and practice of the impacts of FDI activities on the economy of the host country, especially the environmental impacts. A number of studies evaluating the interplay of both FDI factors and CO_2 emissions have been carried out such as: Research by Omri et al (2015) has examined the relationship between CO2, growth economic, financial development and commercial factors. The results show that there is a relationship between these factors in 12 MENA (Middle East and North Africa) countries in the period from 1990 to 2011. In which, CO_2 has a negative effect on economic growth in those countries. Another study by Tang & Tan (2014) looking at the impact of CO2, FDI and economic growth in Vietnam also found that CO_2 and FDI both have short-term and long-term effects on economic growth. In addition, the authors consider the effect of FDI on economic growth with time lag (Nguyen Van Duy et al, 2014). The results show that there exists a positive effect of both immediate and lagged FDI on economic growth.

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2. ENVIRONMENTAL KUZNETS CURVE HYPOTHESIS

The Kuznets Environmental Curve (EKC) is a theoretical model that shows that a country's pollution concentration increases with development and industrialization, expressed in per capita income. To some extent, after the transition point (or changing point), pollution concentrations decrease as the economy reaches a certain level of wealth and the country uses that wealth to improve the quality of its environment (Figure 1).

Figure 1 indicates the economic structure by sector's share of GDP is expected to have a positive relationship with environmental degradation because the share of industry in GDP increases with the period of economic growth and then declines as the economy moves into the post-industrial stage of development.

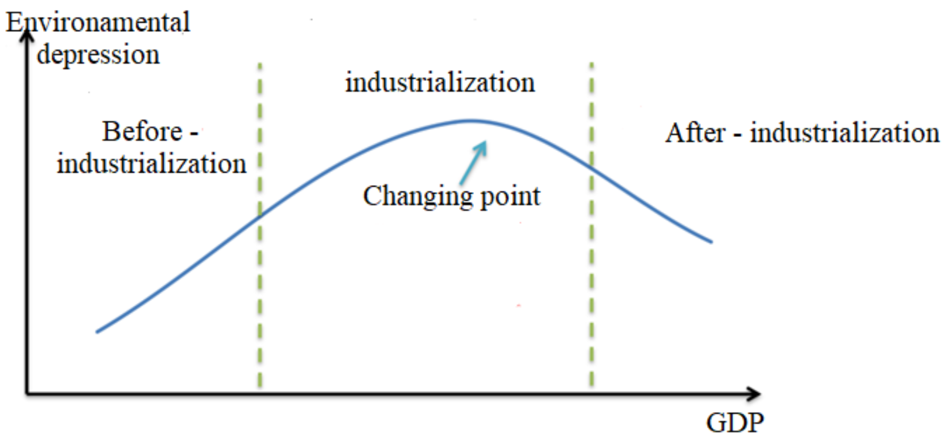

Figure 1. Kuznets Environmental Curve (EKC)

Source: Vo Thi Thuy Kieu, Le Thong Tien (2019)

In general, according to the Kuznets environmental curve hypothesis (EKC), the relationship between economic growth and the level of environmental pollution is explained according to the inverse U-shaped nonlinear curve rule: Environmental pollution will increase in the same direction as economic growth in the early stages of development. However, when the economy reaches the turning point, the level of environmental pollution begins to decrease gradually as the economy grows. According to the EKC hypothesis, in the early stages of economic growth, due to limited economic activities, natural resources are still abundant and waste generation is low. Over time, the process of economic development and the process of industrialization has led to a significant depletion of natural resources and increasing waste accumulation. During this period, there exists a positive relationship between income or economic growth (per capita) and environmental degradation (per capita). However, when the economy develops to a certain advanced level, economic growth, services, improved technology are more environmentally friendly, and the use of the economy's facilities is more limited. This, therefore, will reduce environmental degradation (Beckerman, 1992; Kaika & Zervas, 2013; Panayotou, 1993). Although economic growth often leads to environmental degradation in the early stages of the process, ultimately, the best and perhaps only way to achieve a good environment in most countries when becoming richer (Beckerman, 1992).

According to another interpretation, the process of economic growth will limit the environmental degradation created in the early stages of development (Kaika & Zervas, 2013).

According to the EKC curve hypothesis, an increase in pollution is inevitable in the early stages of economic development. However, whether the recovery of the environment will occur or not, the transition step still depends on many factors and is still controversial. For example, arguing about the EKC curve hypothesis, the study of Arrow et al (1996) with the critical theory considers the possibility of violating the environmental threshold before the economy reaches the EKC transition point. The study argues that if governments focus solely on economic growth to improve the environment, this could backfire. The limited overuse of resources not only affects the environment, but also reduces the availability and productivity of renewable resources in the future: “Economic growth is not a panacea for quality. environmental quality; actually it is not the main problem” (Halkos & Paizanos, 2016). Considering the relationship between economic growth and environmental pollution in the context of competition between countries, some studies indicate that developed countries seek to reduce the level of environmental pollution in their countries by “hiring” other less developed countries to replace polluting production activities (D. I. Stern, 2004).

In addition, the relationship between economic growth and environmental pollution is initiated from the idea of the existence of an inverted-U effect, Apergis and Payne (2009) explained this inverted U effect by three stages in the development process of a country include: (1) pre-industrial stage, (2) industrial stage, and (3) post-industrial stage. Further analysis, Grossman and Krueger (1991) point out three channels of influence in the relationship between foreign direct investment and environmental pollution: (1) Scale effect, (2) Structural effect, and (3) Technical effect:

(1) Scale effect: This effect holds that even if the structure of the economy and production technology remains unchanged, an increase in output will lead to an increase in pollution. Therefore, the scale effect suggests that there is a negative impact of economic growth on environmental quality.

(2) Structural effect: The economy is often divided into three main sectors: (i) Agriculture, Forestry and Fisheries, (ii) construction industry, and (iii) services. In the early stages of growth, the economic structure tends to shift from agriculture to industry (especially heavy industries). At this time, the environmental quality tends to deteriorate. But towards the end of the development period, the economic structure tends to shift from industry to service. The service sector causes less environmental pollution. Therefore, Grossman and Kruger (1991) concluded that the structural effect has an impact on improving environmental quality.

(3) Technical effect: This is the effect created when scientific and technical progress is applied to the material production process. New technologies that consume less fuel and use environmentally friendly fuels... are being applied more and more in business and in life. This helps to improve pollution emissions, and as the results, the engineering effect has a positive impact on the quality of the environment.

3. OVERVIEW OF FDI IN VIETNAM

Foreign direct investment into Vietnam has been going on for more than 30 years since our country’s first Law on Foreign Direct Investment was passed by the National Assembly. In general, the number of licensed projects, the total registered capital, and the total implemented capital have all increased for more than 30 years, especially, there was a sudden spike in the years of the global financial, monetary and economic crisis.

International economic integration is considered as one of the important driving forces for attracting FDI in Vietnam. The significant increase of FDI into Vietnam in the period after WTO accession (2007-2020) is seen through the index of capital and number of projects compared to the period before WTO (1991-2006) (Table 1).

Table 1. FDI into Vietnam in the period 1991-2020

	Project	Registered Capital (mil. USD)	Realized Capital (mil. USD)	Registered per project	Realized/ registered capital
1991-2006	8 055	76 699	38 611	4.79	50.34%
2007-2020	25 655	375 716	172 862	6.74	46.01%

Source: General Statistics Office, Nguyen Ngoc Tran

The number of licensed projects in the post-WTO period is 3.18 times higher than that of the pre-WTO period, while the total registered capital and the total implemented capital are 4.9 times and 4.48 times higher, respectively. The ratio between realized capital and registered capital is lower in the post-WTO period. This trend is more obvious after 2016. The average project implementation capital in the pre-WTO period is 4.79 million USD, in the post-WTO period is 6.74 million USD. Especially, in the period 2010 - 2020, FDI in Vietnam tends to increase in the number of projects, the amount of registered capital and the amount of implemented capital, especially in the period 2016-2019.

Unit: number of projects, million USD

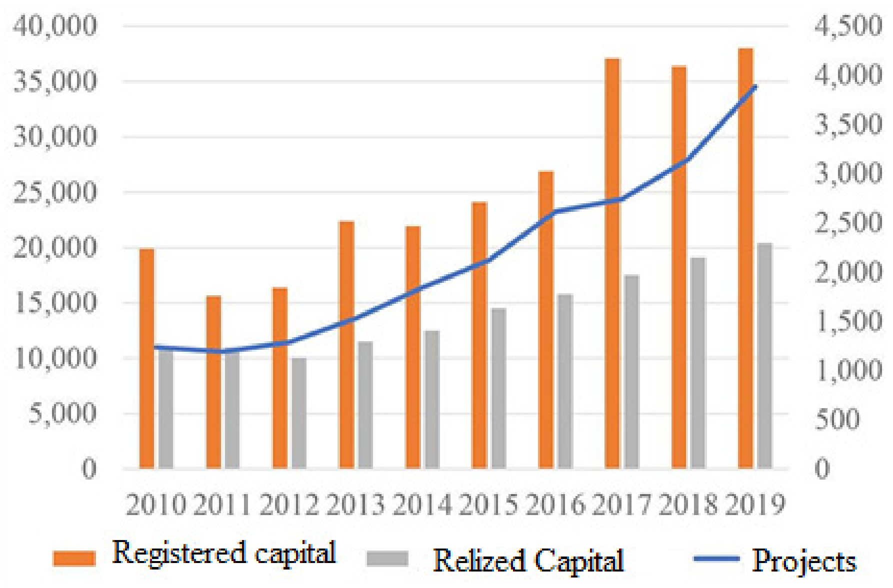

Figure 2. Number of projects, total registered capital and total amount of FDI realized into Vietnam in the period 2010-2019

Source: Ministry of Planning and Investment (2019)

The scale of registered capital and the scale of realized capital of FDI are similar to the integration process and the adjustment of Vietnam's open-door policy to attract FDI. Regarding registered capital, in 2019, 3883 projects have registered to invest in Vietnam with the registered capital of 38,020 million USD, an increase of 214% in the number of registered projects and 91.2% in the registered capital compared to 2010. Regarding the implemented capital, 20,380 million USD has been invested in Vietnam, an increase of 85.3% compared to 2010 and the highest amount of realized capital in the period 2010 - 2019 (Dang Hoai Linh, 2020) (Figure 1). In general, in the 2016 – 2019 period, the scale of the project increased steadily over the years. Specifically, the number of projects increased from 5% to 23%, the amount of registered capital increased from 5% to 38% and the amount of implemented capital increased from 7% to 11%. For Vietnam, 2015-2019 is a period of deepening integration with the world and improvements in policies related to investment, a number of typical events such as: Vietnam ends negotiations and official signed a free trade agreement with the European Union (EVFTA); ratification of the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). Unlike the growth rate of capital scale, Vietnam recorded changes in the size of capital for projects in the direction of decreasing. The average size of project capital tends to decrease gradually in the period 2010 - 2019. The average scale of registered project capital in 2019 reached US$9.8 million, down 39% compared to 2010. Scale of project capital average implementation in 2019 reached USD 5.25 million, down 41% compared to 2010. The average size of project capital has the smallest value in the period 2010 - 2019.

4. ENVIRONMENTAL EFFECTS OF FDI IN VIETNAM

(1) Scale effect

The scale effect is quite clear in the case of Vietnam.

Firstly, similar to the situation of ASEAN, Vietnam also witnessed an increase in most economic indicators reflecting the size of the economy during the research period from 2000 to 2018. Table 2 describes the trend which simultaneously increase in all three aspects: economic growth, increase in foreign direct investment attraction and increase in CO_2 emissions. In the period from 2000-2018, Vietnam's GDP has increased by nearly 8 times (from 28.68 billion USD in 2000 to nearly 223.79 billion USD in 2018) (Table 2).

Table 2. Size of GDP, FDI and CO2 emissions in Vietnam

Year	GDP (Bil. SD)	FDI (Bil. USD)	CO_2 (Mil. ton)	Year	GDP (Bil. SD)	FDI (Bil. USD)	CO_2 (Mil. ton)
2000	28.68	1.3	50.310	**2010**	115.93	8	149.440
2001	31.17	1.3	55.920	**2011**	135.54	7.43	149.020
2002	32.69	1.4	66.280	**2012**	155.82	8.37	147.270
2003	35.06	1.45	70.460	**2013**	171.22	8.9	153.630
2004	39.55	1.61	84.460	**2014**	186.2	9.2	168.560
2005	45.43	1.95	92.040	**2015**	193.24	11.8	209.200
2006	57.63	2.4	95.760	**2016**	205.28	12.6	223.870

Year	GDP (Bil. SD)	FDI (Bil. USD)	CO_2 (Mil. ton)	Year	GDP (Bil. SD)	FDI (Bil. USD)	CO_2 (Mil. ton)
2007	66.37	6.7	105.380	**2017**	223.78	14.1	222.130
2008	77.41	9.58	117.620	**2018**	245.21	15.5	257.860
2009	99.13	7.6	131.720				

Source: Author's compilation based on data from WB

Secondly, in terms of the correlation of the rate of increase between the indicators, figure 3 depicts a fairly similar relationship between foreign direct investment and increased CO2 emissions in Vietnam. Basically, the pattern of economic growth accompanied by an increase in the role of FDI in the economy and an increase in CO2 emissions in Vietnam are recorded similar to the general situation in the ASEAN region. However, the fundamental difference shown in Vietnam is that the CO2 emission growth rate is often higher than the FDI/GDP ratio (figures 3). The growth rate of CO2 emissions is part of the cost of receiving FDI that Vietnam is paying in the recent period.

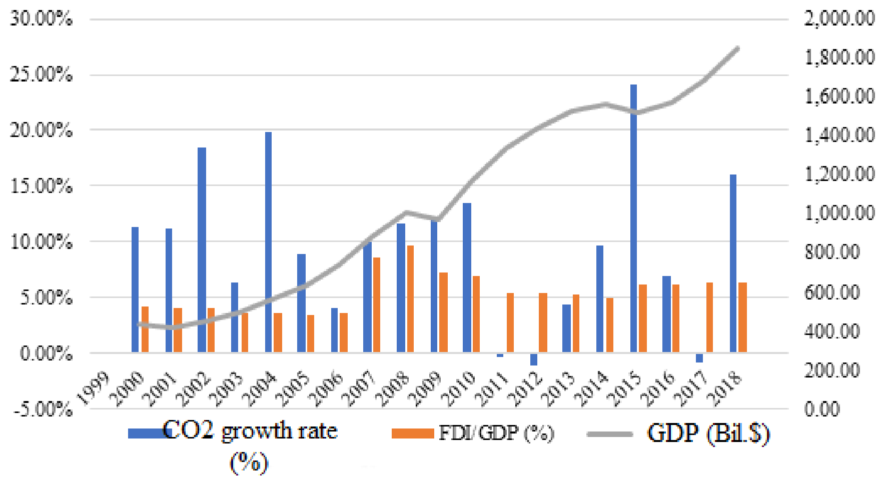

Figure 3. GDP, FDI/GDP ratio and growth in CO_2 in Viet Nam

Source: Author's compilation based on data from WB

Thirdly, a characteristic feature of Vietnam is noted that the growth rate of emissions from energy consumption in industry and transport is very prominent. Vietnam's emission intensity (as a percentage of GDP) of Vietnam increased sharply in the period 2000-2010 while the corresponding index in other countries in the ASEAN region and in comparison with other regions remained unchanged or even decreased (Figure 4).

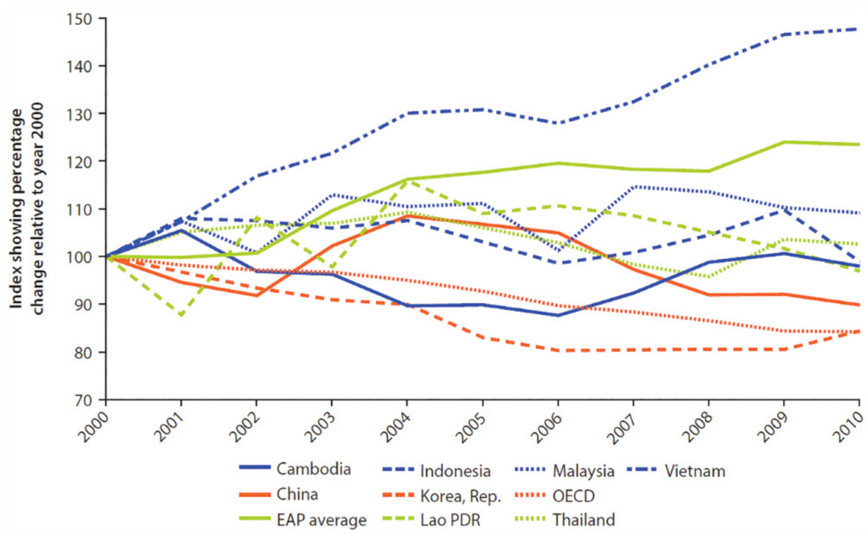

Figure 4. Change in CO2 emissions per unit of GDP in Vietnam Compare with other countries and regions

Source: Audinet et al (2016)

(2) Structural effect

Although until 1970, Vietnam was still a country with great potential for development and one of the countries with the highest CO2 emissions in ASEAN (2nd place). However, the effects of wars, trade embargoes, natural disasters, rapid population growth, etc. have caused a serious decline in Vietnam's industrial economy.

It was not until 1986 that Vietnam began the stage of industrialization, modernization and economic development. In the first period of Doi Moi (1986-1990), the average annual GDP growth rate reached 4.4%/year, in the period 1991-1995 GDP averaged 8.2%/year; in the period 1996-2000 average GDP increased by 7.6%/year; in the 2001-2005 period, GDP increased by an average of 7.34%/year; in the period 2006-2010, due to the world economic slowdown, Vietnam still achieved an average GDP growth rate of 6.32%/year. In the period 2011-2015, Vietnam's GDP growth slowed down but still reached 5.9% per year, which is the high level of the region and the world.

The scale of the economy increased rapidly: GDP per capita in 1991 was only 188 USD/year. By 2003, GDP per capita reached 471 USD/year and by 2015, the size of the economy reached about 204 billion USD, GDP per capita reached nearly 2,200 USD/year. The production force has made many advances in both quantity and quality. Vietnam's economic structure initially shifted towards modernity, reducing the agricultural sector, increasing the service and industrial sectors.

Along with the process of industrialization, modernization and economic development; As a result, Vietnam's CO2 emissions also increase year by year. At the beginning of the development period (1986), Vietnam's CO2 emissions ranked 6th among ASEAN countries with 25.605 thousand tons; By the end of 2019, Vietnam's CO2 emissions ranked third with 271.474 thousand tons.

(3) Technical effect

Technical effect is understood as the effect created when scientific and technical progress is applied to the material production process. New technologies that consume less fuel and use environmentally friendly fuels... are being applied more and more in business and in life. This helps to improve pollution emissions, so the engineering effect has a positive impact on the quality of the environment. In the ASEAN region, the technical effect is identified through (1) the policy towards attracting FDI towards the selection of environmentally friendly technologies, and (2) the trend of economic restructuring that creates a shift in the economy.

For the case of Vietnam: As the capital flows tend to shift to Cambodia, Laos, Myanmar, this will be an opportunity for Vietnam to attract FDI in the direction of prioritizing selected projects with high quality and modern technology. This also is a change to refuse outdated technology projects that pollute the environment and then reduce emissions.

Capital flows into Vietnam in the recent period have mainly focused on the field of processing and manufacturing. The partners investing in this field the most are Singapore, Korea, and Japan. These are all countries with quite advanced technology, so it is also an opportunity for Vietnam to innovate technology. Through the technical effect, it can be concluded that this is an opportunity for Vietnam to approach scientific and technical progress, apply it to the production process of new technologies that consume less and less fuel to gain Environmental friendliness. This helps to improve pollution emissions, creating a positive impact on environmental quality.

In summary, the authors agree that Vietnam is a "hidden pollution" country in the period 2000 - 2020 with all three effects of scale - structural effect - technical effect. FDI attraction in Vietnam during the study period is still defined by competitive advantages related to labor abundance and waste disposal costs along with environmental issues. In fact, many FDI enterprises have not strictly complied with regulations on environmental protection when investing, producing and doing business in Vietnam. FDI enterprises investing in Vietnam basically have medium level of production technology, consuming a lot of natural resources, large emissions, some FDI enterprises have caused serious environmental problems, changing the ecosystem, affecting economic development and social security in the area of production and business activities. Regarding industries, FDI into Vietnam tends to shift into industries that consume energy, resources, and human resources, and are not environmentally friendly such as metallurgy, ship repair, textiles, footwear, mining. Mineral exploitation is not associated with deep processing, pulp production, chemical production, agro-food processing, etc. Regarding technology transfer, the efficiency of technology transfer from FDI projects is generally not as expected by policymakers. FDI projects mainly focus on assembly and processing, the localization rate is still low, the value created in Vietnam is not high. FDI enterprises have not created close links with Vietnamese enterprises to join the value chain, and have not promoted the development of Vietnam's supporting industries. Therefore, the transfer of green and clean technology to domestic enterprises in the country has not achieved significant results.

5. SUGGESTIONS

From the research results and actual analysis in Vietnam, the authors found that FDI inflows are an important development driver to help accelerate the process of industrialization and modernization of the country. However, along with that are the increasingly serious consequences of environmental pollution and CO_2 emissions. Therefore, policies on attracting and managing FDI in Vietnam need to be carefully considered in order to balance the two goals of economic growth and environmental protection. Accordingly, the authors propose some policy suggestions on attracting and managing FDI inflows in Vietnam as follows:

First, attracting FDI is aimed at increasing the positive effect of scale effects. In Vietnam during this period, FDI capital plays an important role in socio-economic development. In particular, in the context of the Covid-19 epidemic, the capital supply is limited, all countries have to take advantage of attracting resources from outside to maintain and recover the economy. Towards the scale effect, when the amount of FDI input is large enough, it will create a push to improve environmental quality, bringing benefits to sustainable development. Therefore, the goal of attracting FDI is still an important goal, both to ensure the capital needs of the economy and to create a premise for positive changes in the environment through reducing CO2 emissions.

Second, attracting FDI aims to increase the positive impact of structural effects. Technology transfer activities, especially green and clean technologies, need to be paid more attention. Domestic enterprises must make efforts, look for opportunities to connect, proactively inform about business capabilities such as technology, scale, strengths and products and services to find the ability to connect with FDI industry for aiming to reduce CO2 emissions.

With the goal of socio-economic efficiency, the strategy of attracting and using FDI should focus on new and modern business fields that are suitable to international market needs, are competitive and capable high connectivity with international business networks, especially high-tech, high-value-added projects. At the same time, the areas that attract FDI must be those that ensure sustainable growth and emission reduction goals. To achieve this goal, it is necessary to develop an FDI plan, especially a reasonable sectoral plan.

Third, attracting FDI aims to increase the positive impact of technology - engineering effects. The selective attraction of FDI capital should focus on high-tech and environmentally friendly fields, with priority given to projects with advanced technology, new technology, clean technology, modern governance, high added value, spillover effect, connecting global production and supply chains; consistent with the orientation of economic restructuring and sustainable development goals; protect the environment, ensure national defense, security, security, social order and safety, and enhance the independence and self-reliance of the economy. In addition, the State does not consider expanding and extending the operation of FDI projects that use outdated technology, potentially causing environmental pollution and resource-intensive activities.

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APPLICATION OF OPTIMIZED MATERIALS STORAGE MODEL IN CASH FLOW MANAGEMENT OF TEXTILE AND GARMENT ENTERPRISE LISTS ON THE STOCK MARKET OF VIETNAM

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Abstract: *Effective cash flow management is a necessary requirement, directly deciding the existence and development of enterprises, especially textile enterprises in the face of the impact of the world economic situation and the Covid-19 pandemic. In which, cash outflow management is a basic stage of cash flow management. To effectively manage cash outflow, businesses need to keep optimal inventory levels, ensure smooth production operations, and minimize total inventory costs. In this study, the author analyzes the optimal material storage models and applies those models to cash flow management in textile enterprises listed on the Vietnamese stock market. On the basis of analyzing the results of a number of listed textile and garment enterprises, applying the model to determine the optimal inventory quantity to cash flow management, typically Huu Nghi Garment Joint Stock Company and Garment Joint Stock Company Binh Minh, the author summarizes the feasibility of that model. This will be a necessary lesson for listed textile enterprises in cash flow management.*

Keywords: *Enterprise, model, reserve, raw materials.*

1. INTRODUCTION

Textile and garment is one of the key processing industries in Vietnam's import and export activities. Over the years, Vietnam's textile and garment industry has made strong development steps and plays an increasingly important role in the growth of the economy. Of all the current export industries, the textile and garment industry is the one with high export turnover and growth rate. After more than ten years of joining the World Trade Organization (WTO), Vietnam's textile and garment export turnover has increased more than four times, of which the localization value of exported textile products has increased by more than six times. However, before the fluctuations of the world situation and the Covid - 19 epidemic, textile and garment enterprises are facing financial difficulties and that is the result of poor cash flow management, especially cash outflow management. That has a significant impact on production and business activities and the profitability of enterprises. To improve the above situation, textile enterprises need to flexibly apply the optimal material storage model.

In this study, the author uses qualitative methods to analyze models for determining optimal inventory levels and applies those models to cash flow management in textile and garment enterprises listed on the Internet. Vietnam stock market, typical is Huu Nghi Garment Joint Stock Company and Binh Minh Garment Joint Stock Company.

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2. OVERVIEW OF CASH FLOW MANAGEMENT AND THE IMPORTANCE OF APPLYING THE OPTIMAL INVENTORY MODEL IN CASH FLOW MANAGEMENT

2.1. Overview of cash flow management

Cash flow management in enterprises plays an important role, deciding the existence and sustainable development of enterprises in the market.

Cash flow management is a must for every business organization as cash is arguably the lifeblood of every business. The essence of cash flow management is to ensure that the cash flow for business activities is carried out smoothly. The most important cause of business failure is poor cash flow planning. The second cause besides poor planning is the lack of cash flow management skills (CIMA, 2002).

Saddour, K. (2006) said that good cash flow management greatly affects the overall working capital management of enterprises. If cash flow management is not appropriate, businesses will certainly not achieve the desired cash flow. With small cash inflows, inventory levels will be limited and then, potential sales will also be reduced, leading to lower profits (Saddour, 2006).

According to Odeyinka (2008), cash represents the basic input required to start and maintain a business. Businesses need to keep enough cash to run their business smoothly. Lack of cash will disrupt business operations and may lead to insolvency. Excess cash reduces unnecessary long-term capital resulting in low rates of return and return on equity. Therefore, businesses need to manage cash flow to achieve optimal levels (Odeyinka and Kaka, 2008).

Good cash flow management can have a big impact on overall working capital management. It is used objectively to determine the optimal amount of money required for trading and investing in securities, consistent with the nature of the business cycle (Gitman, 2009).

Cash flow management is very important for businesses because it will help increase profits, meet future plans and maintain sustainable growth. On the other hand, it helps management plan for unforeseen situations that most businesses encounter. Many businesses have negative cash flow, leading to difficulties in financing business activities, including: paying suppliers, meeting salary needs and paying corporate income tax to the State. If the amount of cash or cash equivalent is insufficient, business operations will be disrupted.

2.2. The importance of applying the optimal inventory model in cash flow management

etermining the optimal amount of inventory is an important issue affecting the effectiveness of cash flow management of the enterprise based on the following benefits:

Maintain reasonable inventory levels

Proper inventory management helps businesses determine the amount of available inventory, predict the right amount of inventory, and avoid shortages or overstocks. In addition, for periods of material fluctuations (for example, seasonality, economic fluctuations, etc.), determining the optimal amount of inventory helps businesses have solutions to prevent storage and handling appropriate and timely.

Cost savings

The cost of storage will depend entirely on the quantity and size of goods that the business needs to store. The more and more bulky the goods, the higher the storage costs will be. Because the space required is large, not to mention the equipment and other accompanying fees.

To be able to minimize inventory costs, businesses need to calculate product characteristics to decide how much inventory to have. Storage costs can also fluctuate depending on economic conditions or product changes. Early detection of goods that take up a lot of storage space and resources early helps you to have optimal solutions in timely adjustment and transportation to reduce storage costs at a reasonable level.

Limit errors

For medium or large businesses, the amount of inventory will certainly not be small. Since then, the management process has also become complex and challenging for businesses. Even the occurrence of errors is almost inevitable if the business cannot well manage its inventory.

Therefore, having an effective inventory management system is always something that businesses focus on. A good management process will help you monitor inventory regularly, accurately, and save time. From there, enterprises can promptly detect errors in calculation and inventory and have appropriate solutions.

Reduce purchasing costs

Having a specific and reasonable purchasing plan is extremely important for most businesses. Especially for industries related to food service, fast food sales - short-term storage of goods. Therefore, the control of input quantity and appropriate inventory will help businesses reduce unnecessary costs.

In addition, a lot of inventory with unprofitable capital is something no business wants. Therefore, it is very important to study the market, behavior and needs of customers to determine what kind of products to buy and to store appropriately.

3. CONTENTS OF OPTIMAL MATERIAL STORAGE MODELS

3.1. Model A - B - C (Pareto, 1897)

Pareto classifies stockpiles into groups according to their importance in the A-B-C storage method. According to this method, in a set with many different types, only a small number of categories account for a significant value in that set.

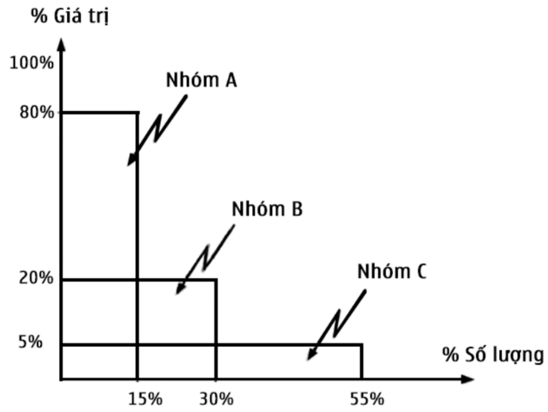

Figure 1. Inventory management model A – B – C

Source: Pareto (1897)

According to the model above, the annual inventory value is determined by multiplying the annual demand for each category by the unit inventory cost. The criteria for classifying inventory types into groups are:

- Group A: includes goods with an annual value of 70-80% of the total inventory value, but only 15-20% of the total inventory in quantity.
- Group B: includes goods with an annual value of 25-30% of the total value of inventory, but the quantity accounts for 30-35% of the total inventory.
- Group C: includes goods with small annual value, the annual value accounts for only 5-10% of the total inventory value. However, quantity accounts for about 50-55% of total inventory.

By dividing inventory into several groups, enterprises can focus on the group that needs the most control, namely group A, followed by group B, and finally group C. If group A is reviewed regularly group B will be less often, maybe monthly, quarterly and group C will be less often, maybe annually.

Advantages of inventory management according to the ABC model: the classification of goods by value to apply to the model is simple and easy to carry out, and at the same time, effective inventory management due to being able to arrange categories goods in decreasing value. However, the model does not address the minimization of storage costs.

3.2. Model of optimal order quantity EOQ (Ford.W.Harris, 1915)

Model assumptions:

+ The demand for materials in a year is known in advance and is stable.
+ The waiting time for goods (from placing an order until receiving goods) remains unchanged and must be known in advance.

A complete shortage of stock does not occur if orders are executed correctly.

+ The entire order quantity is made at once.
+ No quantity discount.

Model building:

The process of storing raw materials incurs two types of costs: storage costs and ordering costs. To minimize cash outflow, a business needs to determine the amount of raw material each purchase that minimizes total inventory costs.

Where: total holding cost TC = holding cost + ordering cost

$$= C_1 * \frac{Q}{2} + C_2 * \frac{Qn}{Q}$$

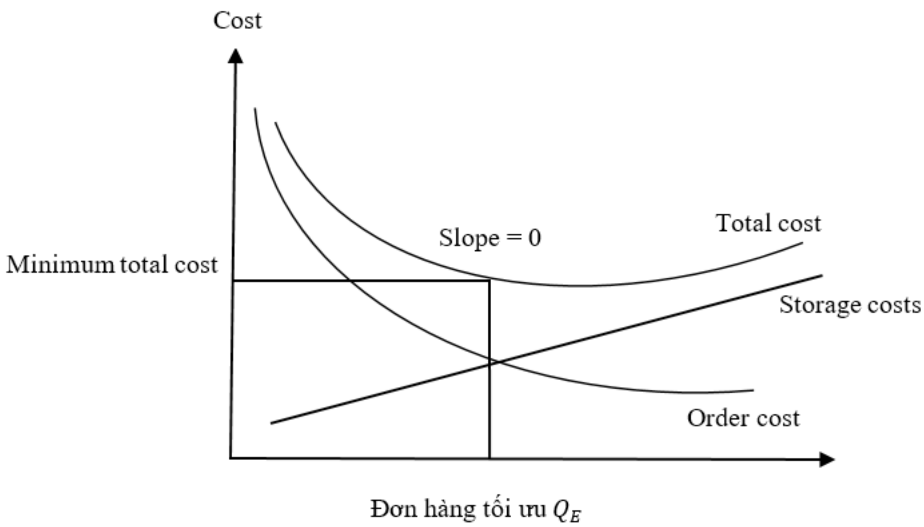

Figure 2. Model of inventory management EOQ

Source: Ford.W.Harris (1915)

On the graph, the total cost of inventory is minimal at the point where the inventory and ordering costs curves intersect. From there, the optimal order quantity is determined by the following formula:

$$Q^* = \sqrt{\frac{2 * Q_n * C_2}{C_1}}$$

In there:
- Q^*: optimal order quantity
- C_1 : storage cost per unit of inventory
- C_2: cost per order
- Q_n : total goods ordered in the year

To effectively manage cash inflows, enterprises need to minimize the total costs incurred by optimally storing raw materials according to the formula Q*.

- Number of times to order: L = $\frac{Q_n}{Q^*}$

4. APPLYING THE OPTIMAL MATERIAL RESERVE MODEL IN CASH FLOW MANAGEMENT OF TEXTILE AND GARMENT ENTERPRISES LISTED ON VIETNAM'S STOCK MARKET

The author studies the application of the EOQ model to determine the optimal amount of raw materials, typically Huu Nghi Garment Joint Stock Company and Binh Minh Garment Joint Stock Company.

Case study 1: Applying the EOQ model to determine the optimal amount of raw materials in stock of Huu Nghi Garment Joint Stock Company in 2020.

Huu Nghi Garment Joint Stock Company is an enterprise specializing in the production of products for export. To meet the needs of customers, at the beginning of 2020, Huu Nghi Garment Joint Stock Company estimates that the fabric demand for the whole year production will be 50.000 meters of fabric.

Table 1. Statistical cost per order

Numerical order	Costs	Into money
1	Transaction costs	8.500.000
2	Management costs	2.700.000
3	Packaging cost	15.300.000
4	International shipping fee from China warehouse to Vietnam warehouse	64.000.000
5	Vietnam domestic delivery fee	9.200.000
6	Cost of tally	7.100.000
Total		**106.800.000**

Source: CIMA (2002)

Table 2. Statistics of storage costs

Currency: Dong

Numerical order	Costs	Into money
1	Rental costs	520.000.000
2	Cost of serving imported goods	32.000.000
3	Insurance cost	107.230.000
4	Cost of using warehouse management software system	22.800.000
5	Cost of loss, damage	69.400.000
Total		**751.430.000**

Source: CIMA (2002)

From the inventory cost statistics table, Huu Nghi Garment Joint Stock Company calculates the storage cost per unit of inventory as:

$$C_1 = \frac{Tổng\ chi\ phí\ lưu\ kho}{Tổng\ sản\ phẩm} = \frac{\mathbf{751.430.000}}{50.000} = 15.028,6\ \text{(dong/fabric meter)}$$

From there, the company calculates the optimal amount of fabric each order is:

$$Q^* = \sqrt{\frac{2 * Q_n * C_2}{C_1}} = \sqrt{\frac{2 * 50.000 * 106.800.000}{15.028,6}} = 26.657,93\ \text{(fabric meter).}$$

→ Minimum total storage cost

$$= 15.028,6 * \frac{26.657,93}{2} + 106.800.000 * \frac{50.000}{26.657,93} = 400.631.311,8\ \text{(dong).}$$

So, the minimum total cost of inventory of Huu Nghi Garment Joint Stock Company is 400.631.311,8 (VND).

Number of orders $L = = \frac{50.000}{26.657,93} = 2$ (time)

Case study 2: Applying the EOQ model to determine the optimal amount of raw materials in stock of Binh Minh Garment Joint Stock Company in 2020.

Binh Minh Garment Joint Stock Company is an enterprise specializing in the production of men's shirts for export. To meet the needs of customers, at the beginning of 2020, Binh Minh Garment Joint Stock Company estimates that the fabric demand for the whole year production will be 35,000 meters of fabric.

Table 1. Statistical cost per order

Numerical order	Costs	Into money
1	Transaction costs	5.400.000
2	Management costs	1.800.000
3	Packaging cost	12.000.000
4	International shipping fee from China warehouse to Vietnam warehouse	45.000.000
5	Vietnam domestic delivery fee	7.000.000
6	Cost of tally	4.700.000
Total		**75.900.000**

Source: CIMA (2002)

Table 2. Statistics of storage costs.

Currency: Dong

Numerical order	Costs	Into money
1	Rental costs	370.000.000
2	Cost of serving imported goods	25.000.000
3	Insurance cost	95.460.000
4	Cost of using warehouse management software system	18.200.000
5	Cost of loss, damage	56.780.000
Total		**565.440.000**

Source: CIMA (2002)

From the inventory cost statistics table, Binh Minh Garment Joint Stock Company calculates the storage cost per unit of inventory as:

$$C_1 = \frac{Total\ cost\ of\ storage}{Gross\ product} = \frac{565.440.000}{35.000} = 16.155 \text{ (dong/fabric meter)}$$

From there, the company calculates the optimal amount of fabric each order is:

$$Q^* = \sqrt{\frac{2 * Q_n * C_2}{C_1}} = \sqrt{\frac{2*35.000*\mathbf{75.900.000}}{16.155}} = 18.135 \text{ (fabric meter).}$$

→ Minimum total storage cost

$$= 16.155 * \frac{18.135}{2} + 75.900.000 * \frac{35.000}{18.135} = 292.970.160{,}6 \text{ (dong).}$$

So, the minimum total cost of inventory of Binh Minh Garment Joint Stock Company is 292,970,160.6 (VND).

Number of orders $L = = \frac{35.000}{18.135} = 2$ (time)

*** Comment on the feasibility of the EOQ inventory management model of the two companies:**

- Regarding economic benefits: when applying this model, Huu Nghi Garment Joint Stock Company and Binh Minh Garment Joint Stock Company will save a lot of storage costs compared to actual storage costs because the total cost. The inventory calculated above is the minimum total cost of holding.
- Regarding the ability to meet demand: the optimal amount of fabric calculated above is the result of a combination of many parameters based on the business plan of the enterprise, so the above purchased output will meet the needs of the customer. client.
- About quality: If buying fabric according to the optimal quantity of the above model, in a year, the two companies will order 2 times. With such a number of orders, the company can better check the source of goods while shortening the storage time, reducing loss, and improving product quality.

- In terms of governance: the application of the EOQ model helps to improve the inventory management at the company, reorganizing the purchasing in a more appropriate manner. In the past, the company bought raw materials in small batches, which cost a lot of money to order, or when they were full, they stopped, causing inventory costs to increase. When applying the EOQ model, the company will determine when to place the next order to save total inventory costs but still meet production needs.

4. CONCLUSION

Raw material reserve is an indispensable factor in cash outflow management of listed textile enterprises. Continuously maintained production activities will help businesses improve product quality, increase labor productivity and save material costs. Therefore, choosing to use the optimal material storage model to ensure effective cash flow management is an essential element for textile enterprises in the current difficult period.

On the basis of an overview of the models to determine the optimal level of inventory, the article explores the operating characteristics of two typical companies, Huu Nghi Garment Joint Stock Company and Garment Joint Stock Company. Binh Binh and applied the EOQ model to determine the optimal inventory level for these two companies. From there, the article summarizes the feasibility of the model for the two companies. This is a valuable lesson to help listed textile enterprises overcome limitations in determining optimal inventory levels and is the basis for more effective cash flow management.

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PRIVATE ECONOMIC DEVELOPMENT POLICIES IN SOME ASIAN COUNTRIES

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Abstract: *The private economic sector uses most of the resources of the economy in other countries, exists and operates in forms such as individual economy, smallholder; household economy; private enterprises; limited liability company. In addition, the private sector also includes private investment in the state economic sector and foreign-invested economy in all economic sectors such as agriculture, industry - construction and services. The private sector plays an increasingly important role in the economies of many countries This article points out the private economic development policies in some Asian countries, on that basis, some recommendations on policies to promote the development of the private economy of Vietnam are proposed.*

Keywords: *Policy, private economy, Asian.*

1. INTRODUCTION

The policy mechanism is an important factor in creating a legal corridor for the development of the private economy in the context of international economic integration. When the legal environment is ensured, it will create a level playing field, no longer discriminating between economic sectors, thereby creating motivation for economic sectors to develop. The private economic sector when it is developed in a healthy competitive environment, and at the same time creates a driving force to promote economic development within the legal framework. At the provincial level, local decentralized policies are extremely important in promoting or inhibiting the development of the private economy. When the State promulgates policies, the local government is not only the place to concretize the State's policies but also optimize those policies to suit their socio-economic conditions.

Currently in Vietnam, although there have been many efforts to create conditions for developing the private economy. However, many provisions of the law on the private economy have not been strictly implemented. The environment for business investment and start-up is still limited, with high potential risks and a lack of transparency. Freedom of business and property rights, access to business opportunities and social resources are not really equal between the private sector and other economic sectors; intermediate, unofficial costs are much more. Administrative procedures are still cumbersome and complicated; The situation of harassment, trouble, irresponsibility, and abuse of power, causing difficulties for businesses is still quite common. Assignment, decentralization and coordination among ministries, departments, branches and localities are still unreasonable and lack rigor. The efficiency of inspection and examination of the operation of the private economy

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is still low. This study analyzes the **"Private economic development policies in some Asian countries"** on that basis, drawing lessons for Vietnam's private economic development policies in the coming period.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

In recent years, the private economic sector has played an important role as follows: (i) Arousing the country's economic development potential, attracting idle capital of the society, optimally using the resources of the country. localities, making significant contributions to State budget revenues; (ii) Promoting economic restructuring towards modernity; (iii) Attracting a large part of the labor force and training new human resources for the labor market, (iv) Contributing to promoting international integration (Nguyen Dinh Luan, 2015).

According to Wendy Cunningham, Farima Alidadi (2014) pointed out that the private sector is a fundamental factor in job creation, in order to maximize the potential for job creation in the development process where the private sector has a role play as the leadership. It is necessary to determine which part of the private sector has the most potential. In order to promote the development of the private economy, this study suggests a number of policies such as: reducing barriers to encourage private enterprises to develop, encouraging enterprises to shift to knowledge-intensive stages of the economy. global regional value chains. Along with that, Solmaz Filiz Karabag (2018) also points out factors including political risks, macroeconomic regimes, national technology policies and industry dynamics as major factors affecting the development of the economy. private economic development in countries.

In Vietnam, research by Nguyen Thi Minh Hue, Tang Thi Thanh Phuc (2012) shows that enterprises in the private sector in Vietnam have faced with many challenges since 2012, the risk of collapse due to lack of capital due to the influence of the economy. The impact of the economic recession made the vibrant picture of this economic sector bleak. Faced with that situation, the State Bank implemented a tight monetary policy (notably the regulation to limit credit growth for commercial banks), so commercial banks limited lending, causing Private enterprises, which were previously difficult to access credit, are now even more difficult. The study analyzed the current situation of accessing capital of benevolent enterprises, thereby proposing some solutions to remove difficulties from the perspective of accessing bank credit capital on both sides (banks and private enterprises). In particular, the study emphasizes that at present, the scale of private enterprises is still small, fragmented and strong, so it is necessary to create links between businesses, and at the same time, it is necessary to create mechanisms and policies favorable business mergers and acquisitions.

Mr. Le Duy Binh (2018) gave an overview of the development situation of Vietnam's private economy, from which he proposed policies to promote the development of the private economy. In particular, it is especially emphasized that the policy of private economic development should give priority to improving competitiveness in the application and improvement of technology levels. The private sector needs to be better prepared for the fact that the population is aging, that the "golden population" period will soon pass and costs are increasing. This study emphasizes the need for a policy that clearly affirms that the domestic private sector will be the mainstay of the national economy and national competitiveness.

Thus, the approach to research on policies affecting the development of the private economy has received much attention in recent times. In fact, over the past time, Vietnam has also paid much attention to policies to support the development of the private sector. However, to be able to propose more effective policy recommendations in the new context, it is necessary to have more specific assessments of the experience of private economic development policies in some countries, based on which proposes lessons for Vietnam's private economic development in near future.

3. METHODS OF THE RESEACH

To clarify the research objectives, the research uses many different research methods, including qualitative analysis methods. In particular, this study uses *"the stakeholder analysis method"* which helps the researchers to have a multi-dimensional and comprehensive view of the development policies of the private economy in some Asian countries. Using data from previous studies to collect accurate information in many different aspects and positions to make the most scientific analysis and assessment on the issue of private economic development in a number of countries in Asia.

4. PRIVATE ECONOMIC DEVELOPMENT POLICIES IN SOME ASIAN COUNTRIES

4.1. Japan's private economy

Japan is currently considered as the country with the most modern market economy in the world. By extraordinary measures of reform in all socio-economic aspects, along with the abolition of feudal rules and laws that restrict economic freedom; focus on promoting the development of infrastructure and financial system, Japan promulgated policies to encourage private enterprises to develop modern industries and privatize state-owned enterprises. The achievements of Japan's private sector development are shown through the following highlights: According to the statistics of Japan's White Paper (2019), in the period 2012-2016, the number of enterprises in the private sector assigned to the private sector. from 3,860,000 to 3,590,000 enterprises. Japan's technology sector is dominated by the private sector. Japan's R&D funding structure, the high share of commercial technologies in the country's science and technology budget, its historic technology policy focus on commercial industries, and large market shares in industrial sectors. Dual-use technology shows that the private sector plays an essential role in the technology sector, and by extension, in the effectiveness of Tokyo's economic security policy.

Despite owning many powerful private economic groups, in the overall economy, the number of small and medium enterprises (SMEs) in Japan accounts for a very high proportion. In 2016, the number of SMEs reached 3,580,000 enterprises (99.7%). It is noteworthy that even industries controlled by monopoly such as ferrous and non-ferrous metal production, machine manufacturing, and very small enterprises still exist and develop. The SME sector also provided more than 45 million jobs in 2016 (97%) (Source: Nhat Nam White Paper, 2019).

Policy of the Japanese Government on private economic development

Japan considers the private sector to play a decisive role in the development of modern advanced industry. Going through a long period from recovering from the war's aftermath to later economic development, Japan has always focused on making appropriate policies for each period of private economic development. It can be said that the management motto of Japan is *"The government does not interfere too deeply in the activities of enterprises, especially between the Government and private enterprises, there must be a transparent relationship"*. On that basis, the Japanese Government has implemented a series of policies to support private economic development as follows:

Firstly,the policy to increase the efficiency and production results of the private economic sector

In 2010, Japan changed its target to be more suitable with the fluctuations of the economy, this is shown through policies such as: Policy shifting from the task of promoting SME development, improving efficiency production, and at the same time compensate for losses in production scale in relation to large enterprises; Policies to promote creative activities at enterprises; The policy encourages the establishment of new businesses as well as the formation of venture capital enterprises. In addition, the policy system also focuses on strengthening and securing management resources, ensuring support for cooperation activities, linking and exploiting commercial - industrial groups; ensure the rationalization of transactions and opportunities to receive orders from the Japanese Government.

However, on the way to develop after the global crisis, Japan suffered an unprecedented disaster. After the magnitude 9 earthquake accompanied by the devastating tsunami on March 11, 2011, the economy really came to a standstill. The slump in global demand, combined with the appreciation of the Yen, threatens the recovery of an economy that is heavily dependent on exports. Japan immediately embarked on the reconstruction of the country and tried to improve the situation with many economic stimulus measures, resulting in economic growth in 2019 reaching 0.9%. With the goal of doubling productivity to 2% by 2020, a key area of Japan's reform is corporate governance. To encourage companies to use their large cash for fixed investments and pay salaries, in 2015 Japan enacted the Corporate Governance Code, and significantly cutting corporate income tax has facilitated the private enterprises consolidate and perfect corporate governance and invest in business development (source:baomoi.com).

Secondly, support access to capital

Activities to support access to capital are implemented. People's Life Finance Corporation (NLFC) and Japan Finance Corporation for SMEs (JASME) specialize in providing loans to SMEs. Participating in capital support activities for SMEs, there is also the Central Bank serving industrial and commercial cooperative organizations. The government has expanded the scope of credit guarantees for SMEs and the proportion of secured loans. In addition, strengthen incentives for banks to provide appropriate oversight to assist SMEs in increasing productivity. The successful implementation of programs that promote entrepreneurship by the private sector has produced innovative companies.

"In 2020, Japan takes Key measures to support SME and entrepreneurs' liquidity include: JPY 720 million Safety Net Loan Scheme and JPY 300 million Loan for Crisis Response to support SMEs through low interest rate loans by government financial institutions; Cash Grants for SMEs (of up to JPY 2 million) for those seeing declines of 50% or more in yearon-year monthly revenue. Structural measures have also been taken: JPY 117 trillion Economic Stimulus Package for the establishment of rent fee support benefits for SMEs; JPY 430 billion (USD 4.1 billion) Package directed at SMEs, including in particular subsidies to support teleworking, and encourage SMEs to adopt IT solutions and develop ecommerce sales channels" (source: OECD, 2021).

Thirdly, the land reform policy is effective

Land reform is the most important and most effective among economic reforms, with the goal of overcoming and strengthening democratic tendencies, and breaking the economic constraints that negatively affect the economy. to the peasants of Japan during the feudal period. The land reform policy created a more equal distribution of wealth and income. After the ownership of the land was transferred, people carried out production and business activities on the basis of applying new farming techniques, increasing labor productivity. From these steps, create momentum for the private economic sector to develop in the following years.

Fourthly, salary policy for employees

In the context of a shrinking labor force, Japanese companies and businesses are constantly competing to attract human resources, thereby supporting this country's workers to enjoy the highest salary increase in two years. past decade. According to Nikkei (2018) data, businesses raised the average salary to 2.41% in 2018. This increase far exceeds the average increase of 0.35% last year, when Japan had a salary increase. first in 3 years. In terms of value, monthly wages increased by an average of 7,527 yen or $70 per month, the strongest increase since 1998. (source: vietnamexport.com/).

4.2. Singapore's Private Economy

Singapore continues to hold the position of the world's most competitive economy for the second year in a row (in 2018 and 2019) according to the world competitiveness ranking of the Swiss-based Institute for Management Development (IMD). As of the fourth quarter of 2021, Singapore's economic growth recovered quite well after the impact of the Covid-19 epidemic at 5.9% over the same period last year. Thereby raising the growth rate for the whole year 2021 to 7.2% *(vietnamplus.vn)*.

Factors contributing to Singapore's success include: aggressive government measures to support the recruitment sector and the labor market; strong international trade and investment promotion; as well as having a skilled workforce and leading technology infrastructure; In particular, Singapore has many policies to facilitate effective private economic development, thereby creating a driving force for this economic sector to develop and contribute significantly to the country's economy. Singapore is an open economy and has a vibrantly developed AI sector. In 2017, there were 220,100 enterprises operating in Singapore; of which 99% are SMEs, accounting for 49% of the country's value added and 65% of employment (Singstat, 2017). Some specific policies are as follows:

Firstly, the private economy sector has an important voice in Singapore's economy

The voice of the private economic sector is institutionalized and selected to represent the development strategies of this country. On that basis, Singapore has a policy to improve the legal and regulatory environment for businesses in the private economic sector, develop simplified procedures and platforms when submitting tax forms, social security as well as company registration. These policies and programs are continuously monitored and commented on by the private sector.

The main organization responsible for formulating SME policy in Singapore is the Ministry of Trade and Industry (MTI), which is responsible for formulating, leading and coordinating all corporate development strategies, including corporate strategy. for startups and SMEs.

Secondly, improve the digital infrastructure, promote capacity building and expand the application of digitization in the private economic sector.

Singapore is one of the first countries to apply electronic payments in the world. E-commerce activities develop at a relatively fast rate. Singapore developed fiber optic system and 4G network, thereby significantly increasing the speed of information transmission. Thanks to the fiber optic network, Singapore's average Internet connection speed has increased from 5.4 megabits per second (Mbps) in 2012 to 20 Mbps in 2016 (on par with Japan and Finland). Similarly, Singapore is also among the top countries with the fastest 4G connection speeds in the world, thanks in part to continuous investment in improving network infrastructure.

In the enterprise sector, investments in digital assets to strengthen the digital capabilities of businesses are also increasing. Responding to the Government's policy of promoting the application of digital technology, businesses also increased the use of digital tools in daily business activities, increased the application of electronic payments and mobile services in business. business. Many successful businesses such as: Technology company Razer proposed the unified e-payment initiative. The solution is to use RazerPay, a type of electronic wallet based on cloud technology, which can be deployed in many different forms, from a VSF (Stored Value Facilities) card. value) to a mobile wallet app, a chip, or more. Ride-hailing app company Grab implemented its QR payment system at 1,000 retail stores and small merchants by the end of 2017 (Source: Central Institute for Economic Management, 2018).

Thirdly, encourage the private sector to employ Singaporean workers

This is considered a possible solution in the context of many changes in the world economy. In the face of the Covid-19 pandemic, the Singapore Government has focused on encouraging employers to recruit more Singaporean workers. For eligible Singaporean workers aged 40 or older, the government will support businesses about 40% of the cost of paying wages within 6 months, up to a maximum of SGD 12,000, while for Singapore workers under 40 age, support level is 20% within 6 months, maximum is 6,000 SGD (source: Tapchitaichinh.vn). This policy can both use domestic labor and help businesses avoid depending on foreign workers in the context of changing world economic developments.

Fourthly, fiscal and monetary policies create conditions to promote the development of the private economy

The goal of Singapore's fiscal policy is to promote long-term economic growth, not just cyclical adjustments or income distribution. Accordingly, the Government of this country has applied two principles: Creating a stable and favorable environment for the private sector to invest and develop; and Tax policy and public expenditure focus on areas such as encouraging saving, investment and entrepreneurship… Meanwhile, with monetary policy, the Government focuses on managing the exchange rate with the objective of medium-term stability as a solid foundation for sustainable economic development.

Singapore's flexible trade policy not only helps domestic private enterprises expand their business activities, but also encourages foreign enterprises to invest capital and advanced technology in manufacturing industries. business with high value. Singapore is the first country of the WTO to accept the Trade Facilitation Agreement, supporting the multilateral system such as the expansion of the Information Technology Agreement. At the same time, it also implements trade facilitation for businesses under the 5-level program from simple to complex.

4.3. China's private econony

China started to open up in 1979 and recorded the formation of the private economy in 1980. Over the past 40 years, China has recorded many outstanding achievements in the development of the country's private economy, such as:

The number of new registered businesses. 1980 was the first year that China recorded registered private enterprises. By 2021, the number of newly registered private enterprises in China has reached more than 8.5 million enterprises (rose up 11.7% over the same period in 2020); bringing the country's total number of private enterprises to more than 44.57 million. With such a strong increase, the proportion of China's private enterprises accounted for 92.1% of the total number of enterprises in this world's second largest economy. This number is more than 4 times higher than the same period in 2012 - the total number of enterprises is more than 10 million enterprises (accounting for 79.4% of the total number of enterprises nationwide).

Sales and market value: The number of enterprises with high turnover, listed in China's Fortune Global 500 ranking, is generally increasing, from 15 companies in the 2005 ranking to 130 years. 2021. The average revenue of Chinese enterprises increases from US$2.8 trillion in 2010 to US$8.8 trillion in 2020 (Piie.com). In which, the number of private enterprises tends to grow in both revenue (total number of enterprises) and market value (listed enterprises). In the mid-2000s, China did not have a single private enterprise with large revenue in the Fortune rankings. By 2021, in Fortune's ranking, Chinese private enterprises have accounted for 19% of the proportion (corresponding to 1.7 trillion in US$ 8.8 trillion) of enterprises with high revenue. this country. The market value of listed private enterprises, which accounted for about 8% in 2010, has spiked to 50% in 2020 (Piie.com).

The country's participation rate in GDP: The private economic sector is currently one of the areas that account for the highest proportion of China's GDP. Since 1998, the share of the private sector has accounted for 45% of the total GDP of the country, far exceeding the two-state sectors (37%) and the joint venture sector (12%) (Chunlin Zhang, 2019). This gap was widened in 2018 when the total proportion of the private sector accounted for more than 76.9% of the country's total GDP, of which: the proportion of foreign-invested private enterprises (FIEs) was 9, 7%; individual households is about 7.2%; China's domestic private enterprises (POEs) constitute more than 60% of the country's GDP (Chunlin Zhang, 2019).

Labor force participation in the private economy. Along with the growth in both quality and quantity of the private sector, the number of workers participating in the private sector is also increasing day by day. Typically in 2017, China's total employment was 776.40 million people, with 341.07 million people working in POEs or self-employed (getihu), accounting for 43.9% of the country's total employment. Besides, in the same year, the number of household workers in rural areas was 237.46 million people (accounting for 30.6%); and 25.81 million people working in FIEs (a share of 3.3%). In other words, the number of workers in the private sector is about 604.34 million people, nearly 78% of the total number of workers in the country in 2017 (Chunlin Zhang, 2019). This shows that the private sector economy has a strong, direct influence on China's labor market.

It cannot be denied that China can develop rapidly, and sustainable economic growth in the past four decades has an important contribution to the private economy. The private sector is defined differently in each stage of China. China has issued policies for the development of the private economy in accordance with each stage of the country's development. Some typical policies include:

Enhance the role of the Government in the development of SMEs in particular and the development of the private economy in general. The policy is the main factor contributing to deciding whether the private economy and SMEs can survive and develop. Through supportive policies, allowing the private sector to operate from the early stages of opening, has helped China create a good operating environment for the private sector as well as domestic SMEs. Specifically, China affirmed that "The State protects the legitimate rights and interests of the individual economy and the private business economy" in the second session of the 9th National Assembly in 1999; promulgated the "Law on enterprises with 100% personal capital" on January 1, 2000; committed to support, encourage and guide the healthy development of businesses in this area in the 10th 5-year plan (2001-2005). The role of the Chinese government in supporting the development of SMEs is shown more and more clearly, though: the increase in the quality of facilities; providing and connecting convenient financial access channels for SMEs; preventing corruption and expropriation, etc. (Xiaoning Long et al, 2022).

Policies to support micro, small and medium enterprises in local government. China recognized early on the importance of micro-enterprises and SMEs in providing business development services to develop the local market and the domestic market. Since then, China has enacted the Law on Promoting SMEs in 2003, under which local governments will commit to establishing SME support systems to stimulate and sustain the growth and development of the private sector. across the country (Atherton, 2008; Atherton and Smallbone, 2013). The policy will improve "the broader business environment for SMEs, creating an enabling environment for SMEs to develop in the private sector; improving avilability of SMEs' access to loans, . . .

Completing a number of policies related to the activities of SMEs and the private economic sector. The formalization and improvement of contractual institutions between private parties are reflected in more formal mechanisms for corporate governance and stronger reliance on formal external sources of finance. The advantage of this is that Chinese SMEs will quickly adapt, taking advantage of contractual institutions for their businesses and organizations. In addition, China continues to improve its commercial legal system, becoming more dependent on the court system to resolve conflicts, thereby gradually improving the protection of intellectual property rights. These policies will contribute to creating more favorable operating conditions for SMEs. The Property Rights Law was promulgated by China in 2006, creating a landmark that demonstrates China's clear protection of private property rights, related to corporate value, especially in the domestic stock market. geography. At the same time, the Law on Property Rights was also promulgated, helping to provide better contract organizations and better asset protection organizations for SMEs (Xiaoning Long et al, 2022). Policies to break down barriers restricting industries for the private sector have also been implemented by China, through which businesses in this region are promoted to expand their operating areas and diversify their industries in all areas of the country. In addition, China's Western development strategy has begun to be seen as a major economic decision, the development space for diversified types of private ownership; The private economy in the western provinces of China is strongly developed.

5. EXPERIENCE LEARNED FOR VIETNAM'S PRIVATE ECONOMIC DEVELOPMENT

The world's economic and political situation is still unstable and volatile, but the economic development prospects of the Asian region are said to be expanding. Vietnam's economy is no exception to that trend. From the experience of developing the private economy in some Asian countries, some recommendations for Vietnam are proposed as follows:

Firstly, pay attention to start-up and creative activities in the private sector. Based on the experience of countries such as Japan, Singapore, and China, in the coming period, Vietnam needs to issue policies to encourage and support start-ups and innovation for the private economic sector, such as consulting implementation. , providing free guidance for enterprises to carry out procedures for business registration; start-up support consultancy, funding support for research, transfer, and application of science and technology topics to production and business; Support to provide information and expand the market,…

Secondly, promote efficiency improvement of administrative procedures reform, and create an open investment environment. Vietnam needs to continue to improve its system of institutions and policies, especially in the field of investment attraction in order to create the most favorable conditions for businesses. It is necessary to speed up the reform of administrative procedures, continue to review, simplify and reduce the time to carry out administrative procedures in the fields of State management, especially administrative procedures in the fields of investment, land, construction, and tax.

Thirdly, improve the infrastructure, improve the application of information technology in the area. It is necessary to strengthen activities to support the private economic sector to access and use modern technology. However, with the current conditions in Vietnam, the import of modern technical machinery and improving the quality of human resources should be given more attention. In addition, it is necessary to combine technology improvements to improve productivity and efficiency as well as avoid turning Vietnam into an "industrial landfill". The province needs to promote scientific research to easily own modern technology at a reasonable price.

Fourthly, facilitate access to capital, and improve the quality of human resources and entrepreneurs. It is necessary to quickly implement policies to support the private economic sector to access capital. Along with that, there should be policies to support the implementation of short-term and quality training courses for private enterprises to participate in.

CONCLUSION

On the basis of analyzing lessons learned from private economic development of Asian countries, the study draws lessons for Vietnam's private economic development including: *pay attention to start-up and creative activities in the private sector; promote efficiency improvement of administrative procedures reform, and create an open investment environment; improve the infrastructure, improve the application of information technology in the area; And facilitate access to capital, and improve the quality of human resources and entrepreneurs*

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EXPERIENCE OF FOREIGN DIRECT INVESTMENT OF SOME COUNTRIES IN ASEAN AND LESSONS LEARNED FOR VIETNAM

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Abstract: *Direct investment abroad is the transfer of capital by investors; or payment for the purchase of part or all of the business premises; or establish ownership to carry out investment and business activities outside the Vietnamese territory; and at the same time directly participate in the management of such investment activities in order to earn profits. In the context of actively forming the AEC economic community, with its active role, Vietnam is actively seeking investment opportunities in ASEAN to ensure three goals: service liberalization, investment liberalization and labor liberalization. The article focuses on studying the experiences of countries similar to Vietnam in promoting foreign direct investment in order to draw lessons for Vietnam.*

Keywords: *ASEAN, Southeast Asia, Investment, Vietnam, direct,...*

1. SINGAPORE'S DIRECT INVESTMENT IN ASEAN

Singapore has long faced difficult problems in terms of labor and land costs, high production costs, low population growth, an aging population structure, coupled with increasing economic competition. should be harsh. To deal with these challenges, Singapore advocates to further improve the competitiveness of the economy, increase labor productivity, increase investment abroad and seek new markets, resources and technologies, especially focusing on the establishment of development triangles and quadrilaterals with neighboring countries to serve the above policy and turn Singapore into a center for coordination of production, processing and assembling products of industrial companies. multinational company in the world. The countries receiving the most investment and the earliest of Singapore companies are Southeast Asian countries. After that, investment activities have been expanded to other markets such as Europe and North America, Latin America.

The Singapore government plays an important role in promoting investment activities of domestic enterprises in foreign markets. Although there is no specific Law on promoting foreign direct investment, the government has taken measures to promote this activity through 3 main helping departments: International Business Association Singapore (IE Singapore) , Economic Development Board (EDB), Standards, Productivity and Innovation Board (SPRING). These parts will have some main functions such as:

Helping Singapore-based businesses with their internationalization process (IE Singapore); promote Singapore businesses to implement regionalization (EDB).

Creating competitiveness of Singapore businesses through the following forms: Encourage technological innovation; Focus on training human resources to supply domestic enterprises and corporations, helping to increase business opportunities and access the market... (SPRING). This

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is the main difference of Singapore compared to some other countries. The focus on resources allows to enhance the competitiveness not only of businesses, but also of the nation, creating the Singapore brand for the flows of capital and technology.

Providing grants and concessional loans (EDBs) to help companies improve their access to overseas finance in their investment process, encouraging innovation to create growth potential. market development on a global scale

Implement tax incentives and investment insurance (IE and EDB) for businesses. The geographical proximity and economic relations make countries in Southeast Asia a familiar destination for direct investment flows of Singaporean businesses. Asia with many emerging and fast-growing markets is increasingly attracting the attention of many foreign businesses, including Singaporean ones. In 2018, according to the Singapore Bureau of Statistics, the Asian region accounted for 55.3% of Singapore's FDI, of which, capital flows to other countries in ASEAN accounted for about 19.4% of the country's total outward FDI. Singapore.

In Singapore, offshore investment businesses are divided into two categories: locally owned companies and foreign owned companies. Domestically owned companies are those with more than 50% of the legal capital owned by Singaporeans, while foreign owned companies are, on the contrary, are those with more than 50% of the legal capital owned by Singaporeans. foreign ownership. Domestic-invested companies own more than half of all outward investments, and have a large number of overseas branches. These companies thus play an important role in building Singapore's outward-looking economy.

Enterprises investing in ASEAN are mostly small and medium-sized enterprises, locally owned, investment activities are mainly based on familiar and trusting interactions with authorities and businesses in the country. Bilateral and multilateral investment incentive agreements and agreements signed between Singapore and ASEAN member countries also create conditions to promote investment activities of Singapore businesses.

Singaporean businesses choose to invest in the service sector mainly to take advantage of the comparative advantages of high-quality human resources, in the service sector, especially services such as warehousing, transportation, retail sales and take advantage of a large network of branches and partners around the world to conduct investment abroad and into the ASEAN region in particular.

Building large corporations to promote investment activities abroad, helping businesses survive in the market without deep intervention from the state.

2. THAILAND'S DIRECT INVESTMENT IN ASEAN

The Thai government has many policies to promote foreign direct investment enterprises. Most of the companies invest in the fields of: textiles and garments, restaurants, construction of hydroelectric power stations, agricultural machinery, etc. The investment of Thai enterprises is within the policy of the Ministry of Commerce of Thailand. encourage investment abroad. The above trend shows that the Thai government's orientation is not only based on exports but also has to invest strongly abroad to increase profits.

The aim of the Thai Ministry of Commerce will focus on encouraging businesses to increase border trade. The trend of shifting production lines to neighboring countries, such as mainly with Singapore, Cambodia and Vietnam, contributing to a decrease in import demand is considered as the main reason why border trade fell below target in 2015.

Investors in special economic zones will receive many incentives from the Thai Investment Board, such as corporate tax exemption for 8 years, 50% preferential tax reduction calculated on total profits from investors. within 5 years, double the reduction in transportation, electricity and water costs over 10 years and further reduce the tax on installation and construction costs by 25%. Other incentives include reductions in import duties on machinery, a five-year exemption for raw materials and necessary in production for export, and permission to recruit unskilled foreign workers for some projects.

Thai businesses often choose to invest in countries that are geographically close, culturally similar. The two governments also pay special attention to creating favorable conditions for investment cooperation. Therefore, Thai investors do not face many difficulties when investing in these countries. At the same time, Thai companies' investments abroad stem from enhancing competitiveness, diversifying investment portfolios, and hedging the risks of the domestic economy, which is exposed to chronic political risks.

Thai businesses are most favored where there are abundant raw materials and potential markets. The push by Thai companies to invest abroad much of this investment flows to Vietnam, Myanmar, Cambodia and other Southeast Asian countries, where wages are lower and economic growth is higher than Thailand's. Lan. However, the problem that Thai businesses want is to reduce the hassle of transferring money out of the country. Thai investors said that in recent years, there are still difficulties and obstacles in foreign direct investment activities, such as delays in negotiations to sign investment items and facilities. The weak infrastructure of the host country, especially the strict foreign currency management regime of some countries, has made it difficult for Thai partners to transfer foreign currency abroad.

Not only that, the wave of Thai companies investing abroad comes from the desire to enhance competitiveness, diversify investment portfolios, and hedge against risks faced by the domestic economy. with chronic political risk. In particular, Thai companies have reached a scale where the domestic market alone is no longer sufficient for them. Therefore, they expand outwardly to target their growth strategy.

(Unit: billion USD)

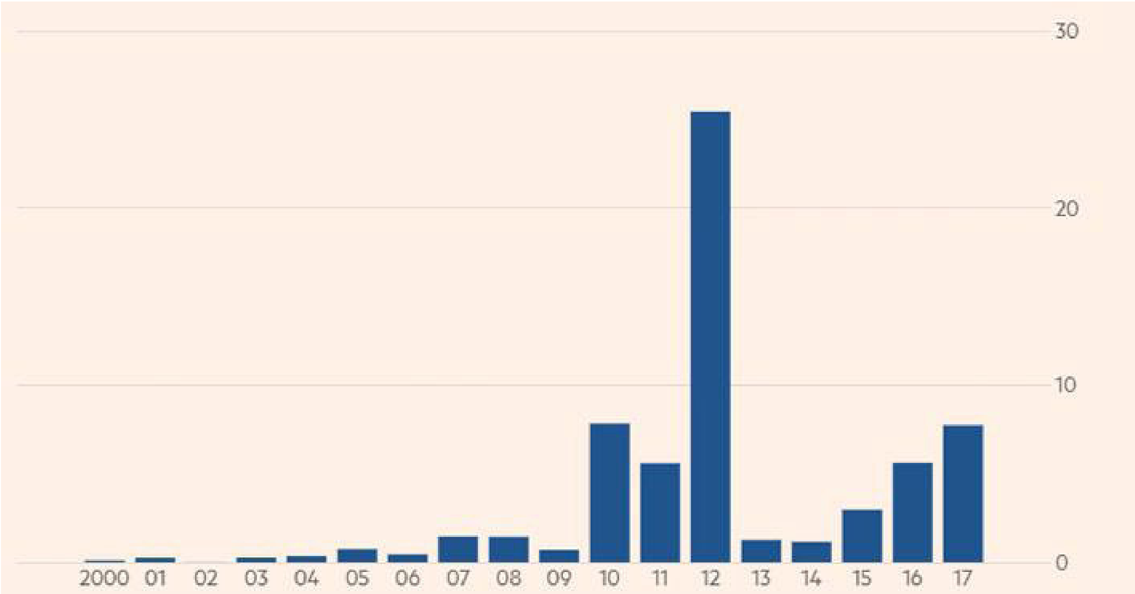

Figure 1.1. Value of M&A cases of Thai enterprises abroad from 2000-2017

Source: Dealogic/FT

Data from Dealogic shows that Thai companies were involved in five overseas mergers and acquisitions (M&A) deals totaling $5.6 billion in 2016. This year, 59 overseas M&As. was done by Thai businesses, worth $2.8 billion, not including the case of Minor buying shares of Corbin & King and ThaiBev's acquisition of shares of Sabeco. If these two deals are included, the value of overseas M&A of Thai companies this year has reached 7.6 billion USD.

3. LESSONS LEARNED FOR VIETNAMESE ENTERPRISES IN DIRECT INVESTMENT ACTIVITIES IN ASEAN

Firstly, choosing an investment location has many incentives.

Vietnamese enterprises that choose to invest in other countries need to pay attention to investment places that have many good policies to attract investment; geographical proximity between the two countries; mutual understanding between leaders and businesses of the two countries; harmony of culture and people. When investing in another country, usually, investors focus on a number of issues, such as political institutions, economic mechanisms, investment regulations, etc. to see if it is suitable for them or not. are not. Besides, the process, procedures and papers to get an investment license are not too complicated, trouble is also an important factor in inviting foreign investors...Vietnamese investors should find a market where they can encourage them to invest. However, what not only Vietnamese businesses are interested in is how investment projects will be supported in terms of finance, tax, tax refund, investor protection policy, etc., so that they can be considered. , investment decision. Businesses, including small and medium enterprises, expand to the outside through, taking advantage of the support of specialized agencies, promotion programs and incentives in finance, tax,...

Secondly, businesses should choose to invest in products that are strong in the country.

When investing abroad, Vietnamese enterprises should choose foreign direct investment projects whose products are goods and raw materials for domestic production in line with socio-economic development orientations. The association of the country places the investment capital in each specific period as well as the field of strength of the business. Enterprises develop business strategies, product and brand strategies to gradually improve their management capacity. Along with that, enterprises also need to research and develop new products, innovate technology, and apply an advanced quality management system.

Thirdly, improve competitiveness in the international market.

Vietnamese enterprises themselves also need to constantly enhance their competitiveness. By improving their financial strength, science and technology, and human resources to expand markets, take full advantage of Take advantage of the available advantages, especially the special privileges of the government of your country for Vietnamese businesses to find ways to exploit new resources. Enterprises research and innovate technology, focus on producing strategic products and have training policies for domestic workers to develop key investment areas and products. Enterprises need to focus on training and fostering human resources. On the other hand, the Government needs to have a reasonable remuneration regime, creating motivation for workers to actively participate in working abroad. Vietnamese enterprises investing abroad should also strengthen chain links and distribution systems, expand markets, take advantage of capacity and capacity, open up business opportunities, create jobs and sources of income. These activities have also formed a team of Vietnamese businessmen who are able to negotiate in international tenders, in joint ventures with foreign countries to enter the country. organize the implementation of investment cooperation projects and have made positive contributions to the economic development and social security of the host country, creating jobs for local workers working for the project. judgment..

Thus, it can be affirmed from the practice when the TTC to ASEAN over the period of Singapore and Thailand can be suggested for Vietnam to base on its specific conditions and circumstances in perfecting the mechanisms. , policies on information investment to ASEAN in the coming time.

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ACCESS TO FINANCIAL RESOURCES OF SMALL AND MEDIUM BUSINESS IN THE CONTEXT OF COVID-19

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Abstract: *This article aims to analyze the accessibility to financial resources of SMEs in the context of Covid-19 in Vietnam. By using methods of synthesizing and systematically evaluating the factors affecting the financial accessibility of SMEs combined with method of statistical analysis based on primary and secondary statistics from the survey, the authors have evaluated the situation of access to financial resources at 4 main sources of capital mobilization. The results have shown that SMEs have had better chance to access the financial resources from commercial banks but had still faced a lot of difficulties with the financial market channel. The main sources of these enterprises are family, friends, acquaintances and other informal sources. Based on research results, the authors have made some suggestions to help the Government come up with appropriate support policies to enhance the access to financial resources of Vietnamese SMEs in the coming period.*

Keywords: *Small and medium enterprises, financial resources, Covid-19, financial markets.*

1. GENERAL INTRODUCTION

Small and medium enterprises (SMEs) have a very important position in the economy of each country, including countries with a high level of development. However, the complicated situation of the Covid-19 epidemic has caused many difficulties for SMEs in production and business. According to the General Statistics Office, in 2021, there were 119.8 thousand enterprises withdrawing from the market, an increase of 17.8% compared to 2020, of which the majority are enterprises established under 5 years with small capital scale due to the epidemic situation and was on the brink of bankruptcy due to a sudden drop in demand, leading to a decrease in sales. Therefore, the issue of financial resources of enterprises is still very weak, which is called urgent at this stage.

The problem of accessing financial resources of enterprises, especially SMEs, is not new but a long-standing problem in enterprises in this area. Although it is a major contributor to GDP growth of the country, SMEs are facing many difficulties in accessing finance, especially medium and long-term capital sources. The lack of capital in production and business is the biggest barrier to the development of SMEs in Vietnam. In addition, the instability of the world economic situation and the internal difficulties caused by the complicated development of Covid-19 have strongly affected the business environment of enterprises. Accordingly, it is more difficult for SMEs to access bank

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credit as well as other financial sources to restore production activities damaged by the negative impact of the unstable economy.

To find out and clarify the ability of SMEs to access financial resources during the Covid-19 epidemic, the authors have selected the topic "Access to financial resources of small and medium-sized enterprises in the context of the Covid-19" to research.

The research is conducted during the period 2020-2021 when the outbreak of the Covid-19 epidemic occurs. This study concentrate on small and medium enterprises (SMEs) in Viet Nam.

The overall objective of the study is to find out in-depth about the situation of accessing financial resources of SMEs in the context of Covid-19, the extent of the epidemic's impact on the ability of SMEs to access financial resources and its' impact on the performance of enterprises and the development of the country's economy. The results of the study can provide some suggestions to help the Government come up with appropriate support policies to enhance the access ability to financial resources of SMEs in Vietnam in the coming period.

2. LITERATURE REVIEW AND PREVIOUS RESEARCH STUDIES

A study conducted by Levine in 2002 found that the more developed the financial system, the easier it is for SMEs to access external capital. A developed financial system helps to overcome information asymmetries and enhance the legitimacy of the application of contractual provisions. In a weak financial system, even good companies find it difficult to find other sources of capital to raise investments. Research by Bass and Schrooten (2006) shows that SMEs do not have many investment opportunities to publish detailed financial statements due to weak accounting legal requirements, so banks will not be willing to lend. In addition, financial statements issued by companies can be used to assess future performance, thereby determining whether borrowers will be able to pay interest and principal. It also affects SMEs' access to financial resources.

Research by Mohammed & Obeleagu-nzelibe in 2014 shows that business skills help SMEs to enhance their access to better financial resources. Ayyagari et al (2011) found that bank financing has a significant impact on the growth of firms; and that growth is largely driven by alternative financing channels.

Research by Nguyen Thi Hong Nham in 2019 shows that the business environment system plays an important role in the access to finance of SMEs and that improving the quality of the business environment has a positive impact on the ability of SMEs to borrow from official capital, reducing dependence on informal financial sources and participating in financial markets, positively impacting SMEs' access to formal finance. In addition, for financial intermediary activities: When lending procedures of commercial banks are complicated and time-consuming, it will reduce SMEs' ability to access these capital sources, official costs (interest rates) and Informal finance (support costs, aid, purchases...) has an impact on SME's access to formal finance. The results of production and business activities of the enterprise (reflecting the solvency of the enterprise) such as: ROA, income, assets,... have an influence on the ability of SMEs to obtain funding and the position of SMEs. The geographical location of the business does not affect the probability of receiving financing Loans from commercial banks.

Research by Nguyen Thu Thuy, Nguyen Thi Kim Hao and Do Dinh Long in 2019 has drawn the conclusion that there are many reasons affecting SMEs' access to bank credit such as limited business capacity of SMEs, the accounting system is not professional, the ability to develop production and business plans is poor. The dynamism and flexibility of some business owners are still weak, so their understanding of the mechanism, grasping new policies as well as preferential credit assist is slow.

3. RESEARCH METHODS

The methods of systematically synthesizing, analyzing and evaluating empirical study on the factors affecting the financial accessibility of SMEs.

Statistical analysis method: Based on secondary statistics and primary data from the survey, this paper assess the current situation of SMEs, their ability and factors affecting the ability to access financial resources of SMEs in Vietnam.

4. CURRENT SITUATION OF ACCESSING FINANCIAL RESOURCES OF SMALL AND MEDIUM ENTERPRISES IN THE CONTEXT OF COVID-19

It can be seen that the Covid-19 epidemic has greatly affected the ability of SMEs to access financial resources in Vietnam, business performance declines, leading to difficulty in accessing formal capital sources and having to look to informal capital sources.

The reality of accessing financial resources of SMEs from the commercial banking chanel

The outbreak of the Covid-19 epidemic has made banks more cautious when a business submits a loan plan. In addition to the issue of collateral, the bank also meticulously evaluates to ensure liquidity in case the business defaults. Unsecured loans at this time are more limited than before. It can be seen that the period of 2020-2021 is a time when the epidemic is very complicated, this has made most SMEs exhausted and no longer qualified to meet the credit requirements of banks due to continuous losses, bad debts or no collateral. However, to recover and expand business production, enterprises still need new capital.

In fact, many businesses are in great demand for medium and long-term loans to restructure production and business activities due to the impact of the pandemic. Therefore, if the roadmap to reduce the ratio of short-term capital for medium and long-term loans remains the same, it will certainly affect the ability of banks to supply capital, when mobilized capital has been increasing. low growth. Although reducing the use of short-term capital for medium and long-term loans will help ensure the safety of the banking system, in the current context, it is still advisable to consider delaying the application deadline to reduce the ratio of short-term capital for medium and long-term loans. Because this is an urgent requirement, especially in the context that all resources need to be devoted to supporting SMEs to accelerate the recovery process.

In order to support businesses, especially SMEs, with financial resources in the context of Covid-19, many banks have had policies for SMEs. VietcomBank, VPBank, ABBank, KienlongBank, VietinBank, MB or TPBank have launched programs to support and reduce interest rates for corporate customers affected by the Covid-19 epidemic. Branches and transaction offices always update the production and business situation and the level of impact and damage caused by the Covid-19 epidemic on businesses that are customers of VietinBank to provide timely support. Besides, transaction offices focus on reviewing heavily affected areas such as: tourism, accommodation service business, export of agricultural and aquatic products, transportation, consumer goods; activities of import-export enterprises with China, take the initiative to consider rescheduling appropriate repayment terms, reduce interest rates, etc., under the direction of the State Bank.

For enterprises whose business activities for the Chinese market have been interrupted or faced with difficulties due to the epidemic but have feasible production and business plans, VietinBank branches will continue to consider new loans. Customers affected by the epidemic are also entitled to a preferential interest rate mechanism in accordance with VietinBank's regulations, customers in priority areas are entitled to an interest rate of 6%/year, and other customers are entitled to an interest rate 6.8%/year.

Military Commercial Joint Stock Bank (MB) is also applying for a preferential credit assist of 10,000 billion VND for small and medium enterprises (SMEs) - one of the bank's important strategic customer segments.

According to MB bank, in the context of the economy facing many negative impacts from the Covid-19 epidemic, in order to create favorable conditions for businesses to access bank credit capital and promote business activities, MB is deploying a credit assist for SMEs with a preferential lending interest rate of only 6.5%/year for short-term loans (normally short-term lending interest rates at this bank fluctuate at 7.7%).

Customers participating in the credit assist are small and medium-sized enterprises (SMEs) who need short, medium and long-term loans to serve their production and business needs in the following fields: Production and trading of pharmaceutical and medical services; chemical production and trading; production and trading of consumer goods, food and beverages; electrical, electronic and refrigeration equipment; invest, upgrade and expand factories, invest in building hospitals and schools.

In addition, MB also actively supports businesses in the fields of transportation, tourism, restaurants and catering, businesses whose main import-export market is China facing difficulties due to the impact of the epidemic..., on that basis evaluate cash flow, make a structured plan to help the enterprise stabilize its business operations and quickly overcome the crisis.

To support SMEs, the Small and Medium Enterprises Development Fund (SMEDF) and Saigon - Hanoi Bank (SHB) have just signed a framework contract for indirect lending. Support capital will be for innovative start-up SMEs, SMEs participating in industry clusters and value chains.

Enterprises may borrow capital from the Fund when they meet the following conditions: Having a feasible business project; to ensure equity sources for participation in projects, production and business plans, and to ensure sufficient capital sources for the implementation of projects, production and business plans.

Accordingly, businesses will enjoy preferential interest rates with short-term lending interest rates of 4.16%/year, medium and long-term lending rates of 6%/year, this interest rate will remain unchanged throughout the period. The maximum loan amount for each project, production and business plan shall not exceed 80% of the total investment capital of each production and business project or plan.

The loan term is determined in accordance with the capital recovery ability, the debt repayment ability of the enterprise and the specific conditions of each project, production and business plan, but must not exceed 7 years. The maximum extension time for a project (medium and long-term loans) is 2 years. Enterprises are entitled to pay their debts early without having to bear any money or fees for early repayment. The Fund performs the function of lending directly or indirectly through allocating capital to commercial banks, financing innovative start-ups for SMEs; support capacity building for SMEs.

Facing the complicated situation of the epidemic, TPBank has just announced the implementation of preferential loan facities in VND and foreign currencies with a total value of nearly 3,000 billion VND and interest rates are reduced from 1% - 1.5% compared to the current interest rate table of TPBank to support businesses affected by the epidemic.

The beneficiaries of incentives are customers whose production, business, import and export activities of goods and raw materials are affected by the Covid-19 epidemic. The program is charged from February 12 to June 30.

The Bank will consider extending debt, structuring debt without applying penalty interest, considering reducing interest or recommending to the State Bank for permission not to transfer debt groups with these customers. At the same time, TPBank will continue to consider lending to implement new business plans for customers.

Moreover, the bank will also consider a policy to reduce interest rates for individual customer groups affected by the Covid-19 epidemic with a reduction of 0.5% - 1% from now until the end of June 2020. TPBank will consider the original 3-month grace period for groups of customers who have completely lost their revenue due to the epidemic.

At VietcomBank, the outstanding balance of existing loans with the above customers is about 30,000 billion VND. With a 1%/year reduction in lending interest rates for existing loans in VND; reducing interest rates for medium and long-term loans by 1.5% in 2020, the bank reduced interest rates by 300-450 billion dong.

Vietcombank determines that at this time, bank profits are only a secondary goal. The bank's top priority today is to review customers' difficulties to take timely support, companionship and sustainable development measures. Because when customers have difficulties, credit quality is also affected. Therefore, bad debts may increase, provisioning expenses will increase accordingly.

On the other hand, loans at the bank require a lot of procedures, time consuming, effort, cost and even exceeding the capacity of SMEs. Administrative procedures are sometimes complicated and annoying for businesses in the business activities such as: Land procedures, ground clearance, social insurance, business registration and specific guidance on business support for startups from the state budget source have not been issued in detail, so the activities to finance SMEs from funds with budgetary origin cannot be widely deployed. Especially in the period of Covid-19 epidemic, there is a risk of outbreak, all businesses have a need to owe debt, but for now, to get debt relief, the procedures are extremely complicated, most of the time, only large and super large businesses can access this support policies, but it is much harder for small businesses to access.

The reality of accessing financial resources of SMEs from the financial market mobilization channel

In 2021, the corporate bond market issued a total of 722,700 billion VND, an increase of 56% compared to 2020. According to a report from SSI Securities Company, the total amount of corporate bonds in circulation at the end of the year reached about 1.4 million billion VND (equivalent to an average growth rate of 46%/year in the period 2017-2021). Consequently, the size of the corporate bond market has increased sharply, from 4.9% of GDP (2017) to 16.6% of GDP (2021). Corporate bonds are mainly still issued privately in the country, accounting for 89% of the total issuance. Generally for the first nine months of 2021, the total issuance of corporate bonds is more than 443 trillion VND, up 18.6% over the same period in 2020. The average interest rate of corporate bonds (excluding bank bonds)) in the third quarter of 2021 is 9.3%, down from the end of 2020. However, it is still about 4%/year higher than the average savings interest rate. The demand for investment in corporate bonds from individual investors remains positive because the difference between bond interest rates and deposit rates remains high.

In fact, the development of the corporate bond market in the past period has followed the guidelines and orientations of the National Assembly, the corporate bond market has always been the component with the strongest growth of the financial market, becoming an increasingly important mobilization channel for enterprises. The average growth rate of the corporate bond market is about 48% per year, the size of the corporate bond market by the end of 2020 reached nearly 16% of GDP, more than four times higher than 2016. In the 2016-2020 period, the proportion of individual investors buying corporate bonds accounts for less than 10% of the total issuance volume and tends to increase. For corporate bonds issued to the public, the issuer must comply with the provisions of the Securities Law, have to meet the criteria on capital, production and business situation, etc., and be issued by the State Securities Commission. issuance license, thus suitable for all types of investors. However, for privately issued corporate bonds, the issuance conditions and procedures are relatively simple, investors must self-assess the level of risk to make investment decisions. Besides, retail investors buy privately-issued corporate bonds when they do not have full access to information on issuance purposes, financial situation, debt repayment ability and lack the ability to analyze and evaluate which is very risky for investors themselves. As a result, it causes instability to financial markets and society when the issuer fails to fulfill its commitment to investors or is unable to repay its debt. Moreover, SMEs have small assets but mobilize a large amount of capital, and financial operations are still limited, so accessing financial resources in the financial market is difficult and only a few well-run businesses can access this source.

Actual situation of accessing financial resources of SMEs from family, friends and acquaintances channel

It can be seen that the outbreak of the Covid-19 epidemic has made accessing financial resources quite difficult, which makes it possible for SMEs to look for informal financial sources such as family, friends and acquaintances. This is the most accessible source of capital for SMEs due to convenient loan procedures, lower interest rates and borrowing costs compared to the commercial banking sector. However, the stability of this mobilization channel is usually not high because when family, friends and acquaintances change their plans to use idle capital, it will lead to the risk that SMEs are subject to early debt collection, capital sources are not available and uneven. In addition, when accessing this capital, it is difficult for businesses to legitimize borrowing costs and report tax, the actual costs of using this capital will be very high, reducing the business efficiency of enterprises.

Status of accessing financial resources of SMEs from informal capital sources

Difficulty in accessing formal financial resources causes SMEs to seek capital from the informal market. It can be seen that SMEs are mainly start-ups, do not have a lot of mortgaged assets, especially the outbreak of the Covid-19 epidemic has significantly affected the operation results of businesses. Therefore, in the past 2 years, SMEs have tended to have more access to informal sources, although this is short-term loans with high interest rates because of the quick loan application procedure, which can mobilize large capital. Some businesses that do not have access to informal sources will choose to stop operating. As a result, the activities of the majority of SMEs were stagnant during this period.

5. SOME POLICY RECOMMENDATIONS TO INCREASE THE ACCESS TO FINANCIAL RESOURCES OF SMALL AND MEDIUM ENTERPRISES IN THE CONTEXT OF THE COVID-19 EPIDEMIC

Based on the research results, the authors suggest some solutions to improve the access to finance of SMEs in the context of Covid-19.

On the part of the Government

Firstly, diversifying the channels of access to capital for SMEs. In fact, SMEs have access to capital from many different sources but access to capital from credit institutions is still the main and most important channel for SMEs. Therefore, in order to overcome difficulties, the Government needs to strengthen its support for the provision of information, operation and affordability of enterprises, thereby encouraging credit institutions to create a data system on SMEs as well as transparency of necessary criteria on access to credit for enterprises.

Secondly, creating an equal business environment in economic fields: Promptly issuing resolutions on improving the business investment environment and improving national competitiveness, promoting administrative reforms, and constantly improving the business environment. In addition, there is a need for legal assistance related to enterprises: By providing legal training and consultancy services related to enterprises, state management agencies help enterprises understand correctly and accurately legal issues, and gradually consider the compliance with laws, mechanisms and policies as the self-interest of all enterprises.

On the part of banks and credit institutions

Firstly, banks need to remove some barriers to appraisal, prove the damage caused by Covid-19, prove the collateral and prove the ability to repay... because this is considered the biggest bottleneck for businesses to access loans. Institutional reforms in issuing documents and policies related to SMEs of enterprises; dismantling and reducing administrative procedures, accelerating the process of granting land-attached asset ownership certificates to enterprises; supporting enterprises to increase their ability to improve management mechanisms, business management capacity, financial management in the direction of transparency, clarity, investment in technological innovation, improve competitiveness.

Secondly, regularly provide timely, complete and accurate information on loan conditions, time, loan procedures of lending organizations to each enterprise; Support enterprises in the stages of: setting up business projects, mobilizing and using capital effectively; Develop more preferential lending policies for SMEs, for example: lowering interest rates, more convenient mortgage and credit mechanisms...

On the side of enterprises

Firstly, SMEs must innovate the management capacity of business, risk management and financial management in order to focus on the key production and business sectors with strengths, capable of generating stable cash flows to increase the ability to repay bank loans. On the other hand, SMEs must be responsible and conscious in cooperating and coordinating with credit institutions in debt restructuring, debt payment and business plan development in accordance with the capacity of capital, technology and people of their enterprises.

Secondly, SMEs need to pay attention to market research and use the financial support of the Government and foreign organizations to obtain preferential capital sources. In addition, join the network of production and business alliances to leverage the resources of the network of enterprises in the industry.

Thirdly, SMEs need to focus on improving business capacity: Enterprises need to make annual business plans and strategic development plans. Establish a database of business, market and internal audit and control activities to assess the current state of business operations.

Fourthly, improving the accounting work of enterprises, focusing on the transparency of financial activities. Accordingly, SMEs need to regularly review the criteria for assessing the financial situation of enterprises, such as: the degree of financial independence of enterprises. Transparent financial operations help financial institutions speed up customer assessment and help make loan decisions faster, in addition to helping businesses identify potential risks early to take effective measures.

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RESEARCH METHOD OF BRAND FINANCE VALUATION AND APPLICATIONS TO BRAND VALUATION OF DA NANG RUBBER JOINT STOCK COMPANY

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Le Thi Mai Huong[2]

Abstract: *The article further elucidates the basic theory of brand, brand valuation, the importance of brand value; Theoretical research on the brand valuation of companies according to the Brand Finance model, the steps of brand valuation in the company according to the Brand Finance model. From there, it is applied to research on brand valuation of Da Nang Rubber Joint Stock Company (DRC).*

Keywords: *Brand, valuation, Brand Finance model, Da Nang Rubber Joint Stock Company (DRC).*

1. INTRODUCTION

Brand is one of the important factors contributing to maintaining, expanding and developing domestic and foreign markets for businesses, improving commercial civilization, contributing to combating unfair competition. In the context of our country's international economic integration, businesses face stiff competition, especially when many foreign goods enter the Vietnamese market. Therefore, it is very necessary for businesses to build a brand for their goods (Aaker, 1996a).

Brand value is the financially meaningful value that customers are willing to pay when buying a brand or a part of a brand such as the brand's products, the brand's services, etc. For businesses, brand value is the guarantee of the business's income streams. Brand equity is the customer's assessment of a meaningful difference between branded and unbranded products (Keller, 1998).

A brand is clearly valuable to an organization because it provides future funding for the organization. This is only achieved when the brand brings value to customers, if customers do not appreciate the brand well or the brand value for customers increases or decreases, this will have a negative impact on the organization.

2. RESEARCH ON BRAND VALUATION MODEL ACCORDING TO BRAND FINANCE

Brand Finance is the world's leading brand valuation consulting firm, established in 1996, headquartered in London, has made valuations of thousands of transactions of brands and intangible assets worth billions of dollars. According to the valuation formula of Brand Finance, the value of a brand is aggregated based on the main pillars of brand strength index, business results and future growth forecast.

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Proposed by David Haigh and applied by Brand Finance, this method is based on the assumption that businesses do not have a brand and must pay a fee or rent to the owner to use the brand. Brand Finance's valuation method is usually based on discounted cash flow (DCF) analysis.

Analysts often use this method to reduce the future cash flows of a particular project to present value (expected future income brought by the brand), thereby assessing the brand premium or is the financial value of the brand. According to David Haigh, historical financial data combined with macro and micro analysis is a useful tool to forecast the value of cash flows or the value of profits (earnings) earned in the future, then discount to present value by the most appropriate discount rate.

Using information provided by Bloomberg and market research organizations, Brand Finance conducts financial valuation of all brands in all different markets and industries. The calculation technique is recognized and appreciated, so the results from the method reflect relatively accurately the financial value of the brand. From there, the determination of tax obligations and the recognition of the brand as a valuable asset on the balance sheet is completely grounded.

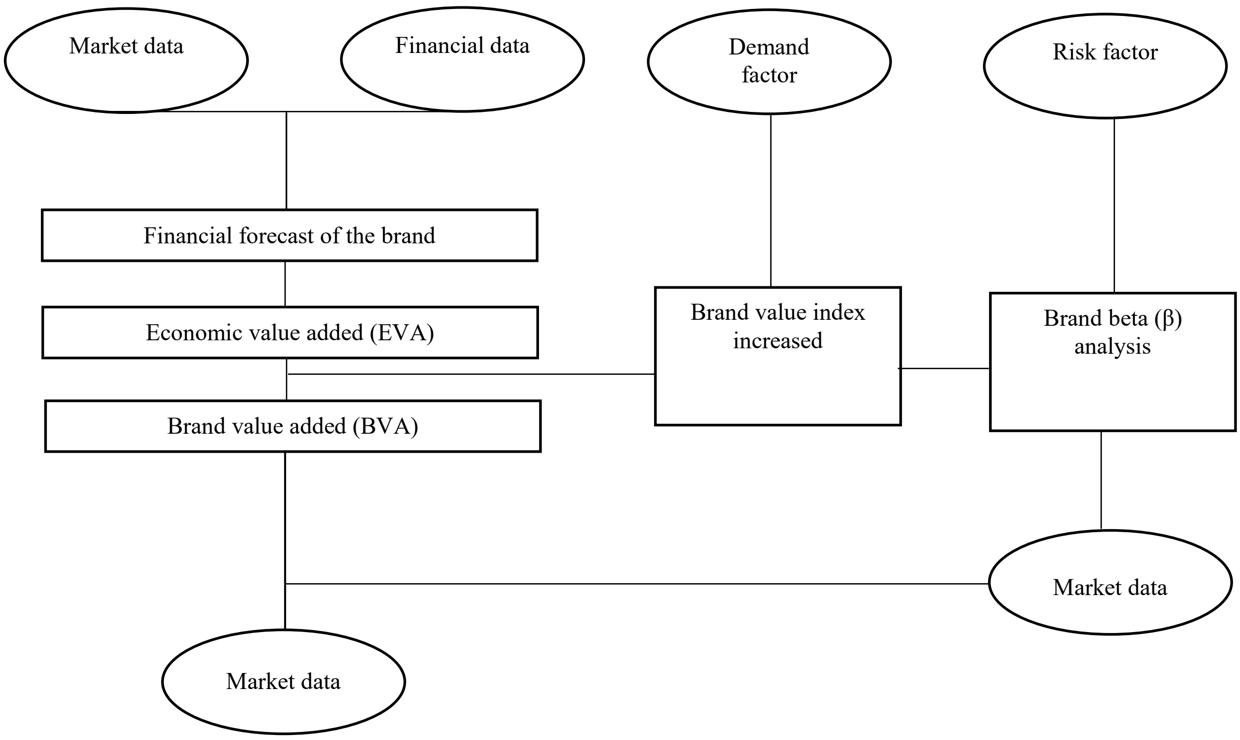

Diagram 1. Brand Valuation Model of David Haugh

Source: David Haigh (2000)

Steps in brand valuation according to Brand Finance model

Step 1: Market Segmentation

Different market segments will affect brand and brand valuation. Through the process of market segmentation will help businesses identify:

- Characteristics of the target market with the specific content of customers, operating areas and products.

- Clearly establish competitors, characteristics as well as strengths and weaknesses of competitors.
- Some other information related to the target market.

Step 2: Financial forecast

Is the process of collecting financial and market information to have useful data on the macro economy such as technology background, administrative structure, legal system, consumer culture, economic environment, etc. business... the information on the financial statements... from there to forecast the revenue - expenses of the business in the next 3-5 years - thereby calculating the added economic value in the future.

Step 3: Determine the added brand value BVA

Brand Value Added (BVA) is a proprietary brand Finance method that determines the percentage of remaining economic profit allocated to brands. This analysis is based on a comprehensive review of the market research available in companies. This is the central calculation step of the brand valuation process. The brand fee rate is calculated based on all existing resources of the brand such as capital, human resources, technology... and customer research results. BVA analysis is a research-oriented process that estimates the proportion of income attributable to each type of intangible asset, including the brand, to determine the percentage of return that should be attributed to the brand. From there, calculate the brand role index.

Step 4: Determine the discount rate

This is the final step of the brand valuation process. The discount rate must take into account factors such as the time value of money and the risks that may be impacted.

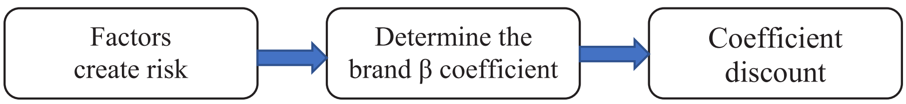

Diagram 2. Discount coefficient calculation model

Method using the average cost of capital WACC as the basis of discounting:

$$\text{WACC} = \sum_{i=1}^{n} \text{W}_i \times r_i$$

In which:

- WACC: Average cost of capital
- Wi: Proportion of funding (i) in total funding
- ri: After-tax cost of capital of capital (i) (*where the cost of equity is adjusted by the brand β coefficient, calculated by the CAPM model*)
- i: Funding sources in order (i = 1, n)

After determining the WACC, this ratio is used to reflect the brand β coefficient (using the CAPM model).

Applying CAPM model:

$$\text{The cost of capital is adjusted by coefficient } \beta = \text{Risk-free rate} + \text{Risky cost of equity} \times \text{Area } \beta \times \text{Brand } \beta \text{ coefficient}$$

Table 1. Brand β scorecard

Numerical order	Element	The point
1	Time on the market	0-10
2	Distribution system	0-10
3	Market share	0-10
4	Position in the market	0-10
5	Revenue growth rate	0-10
6	The price paid extra for the product	0-10
7	Price elasticity	0-10
8	Support, costs for marketing	0-10
9	Advertising awareness	0-10
10	Brand awareness	0-10
	Total	**0-100**

The brand coefficient is calculated based on the brand ß coefficient Scoreboard, the minimum composite score is 0 and the maximum is 100. The composite score is a measure of brand strength testing, when the brand has a score equal to 0 corresponds to a weak brand, no development ability, facing a lot of risks that cannot survive in the market. Score 100 is a strong brand, very good growth potential, almost no risk

After having a score of ß brand, it will be converted into a discount coefficient (factor ß brand). The score is inversely proportional to the brand coefficient (discount coefficient), the higher the score, the smaller the discount coefficient and vice versa.

3. APPLYING BRAND FINANCE MODEL TO BRAND VALUATION

Da Nang Rubber Joint Stock Company has been established for more than 35 years, so far the company has affirmed to be one of the largest rubber manufacturing companies in Vietnam with the ability to grow rubber trees, exploit and process high latex. rubber, trading and processing rubber wood... high production capacity as well as revenue and market share are among the leading in the industry for many consecutive years. In the following, the author will calculate the brand value of the company according to the valuation model of Brand Finance as follows: First of all, Brand Finance applies the discounted cash flow method of Damodaran to calculate the value of enterprise A by Table 1 is as follows:

Table 2. Enterprise Value

Unit: million VND

Targets	2021	2022	2023	2024	2025	2026	Note
Profit before tax	364.122	382.328	401.445	421.517	442.593	464.722	get a raise 5%
Corporate income tax rate (after adjustment)	73.294	76.466	80.289	84.303	88.519	92.944	
Profit after tax	290.828	305.862	321.156	337.213	354.074	371.778	
Corporate discount factor	0						
Earnings After Discount – EAT)		254.885	223.025	195.147	170.753	149.409	
Enterprise value to 2026	993.219						
Long-term business growth rate	0						
Enterprise value from year 6 onwards	390.287						
Enterprise value	**1.383.506**						

Source: author's own calculation

Calculating the enterprise value of Da Nang Rubber Joint Stock Company is not a difficult job with existing business valuation methods. However, based on the corporate valuation method, Brand Finance proposes the following basis for corporate brand valuation: [2]

Ratio of brand contribution to earnings: 25% [4]

From a score of the brand derives a brand discount factor of 15% [4].

Brand long-term growth rate (g): 4% [5]

Table 3. Brand Value Spreadsheet A

Unit: million VND

Targets	2021	2022	2023	2024	2025	2026
Profit before tax	364.122	382.328	401.445	421.517	442.593	464.722
Ratio of brand value to pre-tax profit	25%					
Profit from brand before tax	91.031	95.582	100.361	105.379	110.648	116.181
Corporate income tax	18.206	19.116	20.072	21.076	22.130	23.236
Earnings from brands after tax	72.824	76.466	80.289	84.303	88.519	92.944
Discount factor	0					

Targets	2021	2022	2023	2024	2025	2026
Earnings from the brand after discount		66.492	60.710	55.431	50.611	46.210
Brand value up to year 5	279.453					
Long-term growth rate (4%)	0					
Brand value from 2027 onwards	217.213					
Brand value	**496.666**					

Source: *author's own calculation*

Thus, of the total business value of VND 496,666 million, the brand contributes 25% of the value, plus the long-term brand growth rate is 4%, the brand score converts to a discount factor ß is 15%, the brand value is valued at VND 496,666 million.

4. CONCLUSION

The article shows an overview of the brand valuation method according to Brand Finance, from which it is applied to build a valuation model of Da Nang Rubber company. In the current period, when brands occupy an increasingly important position in companies, the awareness of brand value and brand valuation is more important than ever.

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THE ROLE OF TUORISM IN ECONOMIC GROWTH –AN EMPIRICAL RESEARCH ON SEVERAL SOUTHEAST ASIAN NATIONS

Dr. Nguyen Thanh Giang[1]

Abstract: *Tourism is an economic sector which plays an increasingly important role in the social and economic development. The development of tourismwould contribute to economic restructuring, increase national budget revenue, attract investment capital and export local goods, thus positively affecting the development of relatable economic sectors. Tourism also contributes to the implementation of policies on hunger eradication and poverty reduction by creating jobs and providing income for workers in many different regions. From a social perspective, tourism is an activity to serve people's needs for relaxation, entertainment and learning. These are very common needs as the higher the standard of living, the greater the travel needs. In Vietnam, the tourism industry is considered as one of the three key economic sectors that has been constantly developing and making positive contributions to the national economy. According to many researchers, since 1986, Vietnam's economy has undergone significant changes in many fields, such as agriculture, industry and tourism. More and more tourists visit Vietnam, tourist attractions are exploited and business activities are expanded in Vietnam.*

The purpose of this paper is to present empirical evidence on the impact of tourism on economic growth in several Southeast Asian nations, including Brunei, Indonesia, Cambodia, Laos, Myanmar, Malaysia, Philippines, Singapore, Thailand, East Timor and Vietnam. Research data were collected over 25 years from above 11 countries between 1995 and 2019. The study uses random-effects and fixed-effects models, as well as the heterogeneity of each country. The paper examines the dependence of the real income per capita of the countries in the sample on the previous year's per capita income, number of tourists and tourism revenue. The results indicate that the previous year's per capita income and tourist arrivals have a positive and statistically significant impact on economic growth in Southeast Asian countries.

Keywords: *Tourism, economic growth, Southeast Asia.*

1.INTRODUCTION

Many studies have shown that tourism is an effective channel for economic growth (Sharpley, 2010). For many countries, this sector is considered a strong stimulus to the national economy because it affects the economic sectors associated with it, while creating jobs, increasing demand in water, contribute positively to the balance of payments and enable a better redistribution of wealth. Recognizing this importance, research to find empirical evidence on the impact of tourism in Southeast Asian countries has become an important necessity.

Tourism combines many different factors due to the interdependence of the related necessary activities to form the overall tourism product. A widely accepted definition of tourism was presented

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by the United Nations World Tourism Organization (UNWTO) at the International Conference on Tourism and Travel in Rome in 1963. Tourism is classified are "activities performed by individuals during the travel and stay in places other than their usual residence for a continuous period not exceeding one year for the purposes of leisure, business and other activities" (Naudé and Saayman, 2004). Also at the same conference, the term "tourist" was defined as "any person visiting a country or region other than his or her place of residence, for any motive as long as that person is not perform a paid activity in the place visited" (Naudé and Saayman, 2004). Furthermore, visitors are classified as tourists when they stay at the visited location for at least 24 hours, and are considered excursionists when they stay for less than 24 hours. When people visit a particular area with the aim of taking advantage of accommodation, transportation, food and entertainment services, among others, they stimulate the economy of the receiving area and create a market, called "tourist market". The tourism market is defined as an atypical market because the product is not delivered, but the right to use goods or services is available in a location other than the place of residence.

Tourism contributes to an increase in the investment rate in tourist areas and destinations through the construction of necessary facilities and infrastructure for the production of tourism goods and services, which requires a high level of investment, from both public and private sectors. Despite the high level of investment in infrastructure and equipment, tourism development is not capital intensive compared to most industries, as tourism is characterized by the prevalence of small and medium-sized enterprises (SMEs), covering a wide range of products and services. Therefore, the high level of investment in tourism infrastructure and superstructure is undertaken by the state and should be seen as a means to stimulate employment, economic growth and social promotion of small investors.

Tourism affects employment, inflation, money supply and the velocity of money, on production, on balance of payments, on investments in creating the physical infrastructure that makes tourism a feasible and ultimately for the state budget, increasing public spending through public services but also increasing public income with the collection of direct and indirect taxes. The determinants of tourist attraction can be stimulated by tourism as it creates new sources of employment with an increase in both the size and number of accommodation establishments, the opening of more restaurants and the increase of transportation chief. Tourism also creates jobs indirectly, related fields provide for the expanded manufacturing sector. The countries of the Southeast Asia also recognize the importance of this economic region for economic growth and have established a network of tourism stakeholders in the region to begin to realize the value of the economic growth cooperation and exchange of best practices.

The remaining paper is as follows: Section 2 presents a literature review. Section 3 presents the results of the study, and Section 4 presents the conclusions.

2. LITERATURE REVIEW

Over the past decade, the concept of sustainable tourism development has become the focus of attention of tourism theorists. Many of them have published articles and plans to develop tourism. Tourism contributes to national production by creating an additional demand through intermediate consumption in the areas of activity (e.g., consumption in the food industry and restaurant supply agriculture) and due to the need for new investment (Vaz and Silva, 2010). The balance of payments is also affected by tourism due to the increase of international flows, in which tourism exports are calculated through foreign currency imports by foreign visitors and imports through the exit of people abroad, as well as imports of goods and services to provide tourism services in typical, atypical, indirect activities and payments abroad (Cruz, 2004).

Brida and Risso (2009) found that tourism is an important source of economic growth. According to Soukiazis and Proença (2008), tourism contributes to national economic growth and development, raising living standards, thus promoting regional integration and stimulating domestic demand. Tourism can generate significant revenue in the public sector, especially when regulators stimulate business sector dynamism, when effective tax collection systems are in place, and when tourism destinations are well managed, with the creation of services and activities that expand tourism services and increase direct spending by tourists. In addition, tourism development brings added value through increased investment, increased employment, improved balance of payments, boosted tourism industry and has a positive impact on GDP.

Alba Kruja (2012)concluded thattourism is an important sector that can generate foreign exchange income and employment for a developing country like Albania. This sector is still in its infancy and requires in-depth investments. Cerovic et al (2015)pointed out that tourism contributes directly to economic growth of the countries surveyed, through an increase in foreign tourist arrivals. The extent to which tourism contributes to economic growth is generally variable and is mainly related to the variety and quality of supply.

The big challenge for Southeast Asian countries is to overcome their differences and find ways to work together to benefit from the opportunities presented by their natural and cultural heritage. The tourism industry in these regional countries needs to expand their thinking and connect with partners in neighboring countries to offer their services in the region's sustainable tourism portfolio. However, there are no studies providing empirical evidence on the impact of tourism on economic growth for these countries. Therefore, the author conducted this study to fulfill the above research gap.

3. RESEARCH RESULTS

This paper uses year-over-year data collected from the World Development Indicators dataset. The study countries in Southeast Asia include Brunei, Indonesia, Cambodia, Laos, Myanmar, Malaysia, Philippines, Singapore, Thailand, East Timor and Vietnam. Data were collected for the period from 1995 to 2019 and analyzed using Stata 15. The variables studied include GDP per capita at current prices representing the dependent variable: economic growth economy, denoted by GDP. The independent variables include: GDP per capita last year (GDP(-1)), number of tourists (ARRIVAL) and revenue from tourism (RECEIPT). The variables are taken as natural logarithms to measure the relative impact and elasticity of tourism on economic growth in countries. For panel data, the study uses a random effect model (REM) and a fixed effect model (FEM).

First, Table 1 presents descriptive data for 11 Southeast Asian economies for the 25 years from 1995 to 2019. For each country, the study collects several key indicators such as the mean, minimum value, maximum value, standard deviation and number of observations.

Table 1. Descriptive statistics

	lnGDP	lnARRIVAL	lnRECEIPT
Medium	12,674	14.869	21,359
Smallest value	6,101	9.546	16,454
The greatest value	17,952	17.502	24.898
Standard deviation	2.871	1,708	2.087
Number of observations	234	234	234

Source: Author

To perform the regression, the study used fixed effects model (FEM) and random effects model (REM). To compare between REM and FEM, Hausman test with probability value is very close to 0, less than 0.05, so we reject the original hypothesis, or FEM model is more suitable to use than REM. As a result in static analysis, FEM is the best option. However, when performing FEM model tests, the model still suffers from autocorrelation defects and variable variance, which should be overcome in the FEM* model as shown in Table 2.

Table 2. Coefficients estimated in each model with the dependent variable GDP

Independent variables	Regression coefficient and probability value in each model		
	REM	FEM	FEM*
lnGDP(-1)	0.990** (0.000)	0.915** (0.000)	0.915** (0.000)
lnARRIVAL	0.027 (0, 202)	0.065* (0.000)	0.065* (0.011)
lnRECEIPT	-0.037* (0.022)	-0.020 (0.237)	-0.020 (0.478)
OLD	0.605** (0.000)	0.623** (0.000)	0.623** (0.005)

Note: ***, * denote the coefficient of statistical significance at 1% and 5% significance level.*

Source: Author calculated using STATA15

4. CONCLUSION

First, the study results find a positive impact of last year's GDP per capita on this year's GDP per capita. This confirms that Southeast Asian countries are on the way to developing with high growth rates. This is a good sign for countries in the region.

Second, the focus of this study is to find empirical evidence on the impact of tourism on economic growth, which is a statistically significant positive relationship at the 5% level. Specifically, when the number of international tourists increases by 1%, the impact on GDP per capita increases by an average of 0.065%. This result is achieved because each country in Southeast Asia has strengths in tourism development. Tourism has been and is a key factor in the economic development of many Southeast Asian countries, especially Cambodia. According to UNESCO, "tourism, if conceived correctly, can be a tremendous tool of development and an effective means of preserving the cultural diversity of our planet". In 1995, Singapore was the leading country in the region in terms of tourism revenue relative to GDP at over 8%. By 1998, that revenue had fallen below 6% of GDP while Thailand and Laos increased revenues to more than 7%. Since 2000, Cambodia has surpassed all other ASEAN countries and generated nearly 15% of GDP from tourism in 2006. Of which, Vietnam is considered an emerging power in the Southeast Asia due to the fact thatthere are many foreign investment opportunities and the tourism industry is booming, despite the trade embargo being lifted in 1995. And Southeast Asia's tourism industry has flourished between 1995-2019 contribute greatly to the economic growth of these countries. However, this study only assessed the impact of tourism on economic growth before the Covid-19 pandemic. The situation has changed, leading to the tourism industry experiencing a long period of crisis, which will be the time when countries in this region gradually restore the tourism industry.

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DISCUSSION ON THE RELATIONSHIP BETWEEN HUMAN RESOURCE DEVELOPMENT AND ECONOMIC GROWTHIN VIETNAM AND ASEAN COUNTRIES

Dr. VoThi Van Khanh[1]

Abstract: *Human resources, especially high-quality human resources, play a decisive role in the socio-economic development of each country. In the context that the Fourth Industrial Revolution is taking place strongly, each country attaches special importance to building and developing high-quality human resources to meet the requirements of accelerating industrialization, modernization of the country and international integration, with the ultimate goal of sustainable economic growth. In this study, the author will analyze the currentsituation of human resources in Vietnam and ASEAN countries in the period of 2000-2020, thereby offering some solutions to develop high-quality human resources in the future.*

Keywords: *Human resources, ASEAN economic community, international integration, digital economy...*

1.INTRODUCTION

Human resources, capital, natural resources, material and technical facilities, science - technology,... have a close relationship with each other, in which human resources are considered as the endogenous capacity that dominates other resources and the socio-economic development process of each country. As compared with other resources, human resources with the leading factor being intelligence and gray matter have the outstanding advantage of not being exhausted if being rationally fostered, exploited and used. Meanwhile, other resources, no matter how abundant, are only limited factors and can only become efficient when combined with human resources effectively. Human resources are a decisive factor in the exploitation, use, protection and regeneration of other resources; in which high-quality human resources determine the socio-economic growth and development process of each country. It has been proved that, if a country has no rich resources and favorable natural conditions, their economy can still grow quickly and develop sustainably when they know how to set the right economic policy and organize to successfully implement it, along with having ateam of worthy leading cadres, managers andintellectuals, a large number of highly skilled technical workers and talented entrepreneurs.

In the modern world, when gradually shifting to a knowledge-based economy and in the trend of globalization and international economic integration, human resources, especially high-quality ones, are increasingly playing a decisive role. Recent growth theories indicate that an economy that wants to grow rapidly and at a high rate must be based on at least three basic pillars: the adoption of new technologies, the development of modern infrastructure, and the improvement of human resources quality. In particular, the most important driver of sustainable economic growth is

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people, especially high-quality human resources, meaning those who are invested in development, have skills, knowledge, experience and creativeness capacity to become "capital - human capital". In the context of global fluctuations and fierce competition, the victory will be in the hand of countries with high-quality human resources, favorable legal environment for investment and stable socio-political environment. The following analysis will further clarify this issue.

2. THE CURRENT SITUATION OF HUMAN RESOURCE DEVELOPMEN TO ECONOMIC GROWTH OF VIETNAM AND ASEAN COUNTRIES IN THE PERIOD OF 2000 - 2020

Vietnam is considered a fast-growing economy. From one of the lowest-income countryin the world, Vietnam has implemented a number of economic and integration reforms, and has gained high economic growth and increased income levels. Investment in education has become increasingly important, which has improved the quality of the country's human resources and ensured development requirements.

Table 2.1. Vietnam's primary school enrollment rate over the years

Year	Primary school enrolment rate (%)	Year	Primary school enrolment rate (%)
1976	110	1999	112
1977	113	2000	110
1978	112	2001	107
1979	104	2002	103
1980	110	2003	100
1981	108	2004	99
1983	105	2005	98
1984	105	2006	98
1985	104	2007	100
1986	105	2008	102
1987	109	2009	102
1988	110	2010	106
1989	108	2011	107
1990	105	2012	108
1991	107	2013	108
1992	108	2014	110
1993	111	2015	110
1994	112	2016	111
1995	114	2017	109
1996	115	2018	111
1997	116	2019	115
1998	115	2020	117

Source: World Bank

Table 2.1 shows that Vietnam's primary school enrollment rate over the years has always remained stable, showing that Vietnamese Government has paid serious attention to primary school enrollment, and children of school age are always strongly encouraged and given favorable condition by parents and schools, as well as the Party and State, in order to give them access to education services and thereby build high-quality human resources in the future.

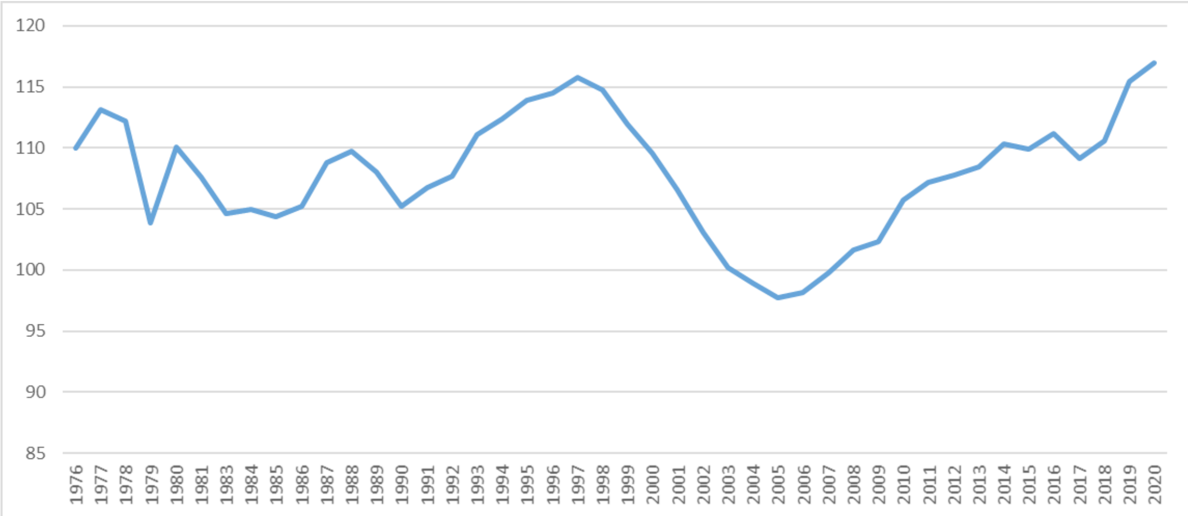

Figure 2.1. Vietnam's primary school enrollment rate over the years

Source: Drawn from World Bank data

Although being facilitated access to schooling, especially at the primary level,the primary school enrollment rate varies greatly from year to year. The primary enrollment rate was especially high in the years from 1976 to 1997, when the country implemented education universalization for the whole people, setting the goal that everyone are assessable to schooling. However, the period 2003-2005 saw a sharp decline in primary school enrollment, when some education reforms and changes in incomes decreased children's ability to attend school in some localities.

To assess Vietnam's primary school enrollment rate, the comparison with other ASEAN countries shows that Vietnam's primary school enrollment rate has improved strongly in the 2000-2020 period and Vietnam is considered as a country with a high primary school enrollment rate. In contrast, most of the ASEAN countries have not improved enrollment rates, with Laos and Myanmar's typically being low. In the case of Myanmar, due to political upheavals in recent years, children's opportunities to go to school have been reduced. For Laos, although the country has implemented policies to send children to school, the implementation results have not been positive and sustainable.

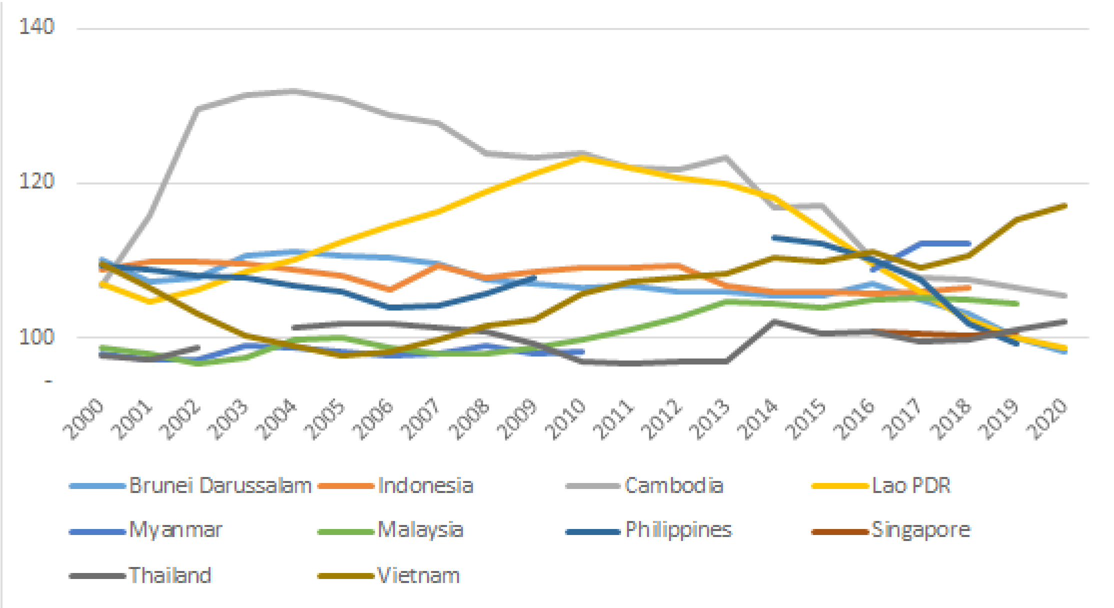

Figure 2.2. Primary school enrollment rates of ASEAN countries over the years

Source: Drawn from World Bank data

In addition to assessing primary school enrollment rates, recent studies have shown that secondary education can create career changes in the future and is the level of education that can create career orientations, forming career orientations for human resources in the future. In some countries like Singapore, right from the high school level, the education system has a relatively good orientation to classify students who can choose the path of further study to higher levels or vocational education. It can be seen that the time spent in secondary school is valuable to classify the strengths and weaknesses of each student to have optimal career orientations.

Figure 2.3 shows that the lower secondary school enrollment rates are quite different across ASEAN countries. The three countries with the lowest lower secondary school enrollment rates are Laos, Cambodia and Myanmar, while Brunei, Thailand and Singapore have very high secondary enrollment rates. However, Vietnam's lower secondary school enrollment rate is considered to be quite good in the ASEAN region, reaching only 89-92.8% and much lower than Thailand and Singapore, which confirms that many Vietnamese students havingno opportunity to study at the secondary level may stop studying after primary school graduationand choose find suitable jobs in the labor market. It can be seen that a labor force of Vietnam has not been trained immediately at high school level, more or less being an obstacle to economic development, especially compared with Thailand and Singapore.

Looking at the change in the lower secondary school enrollment rate between 2009 and 2019, Thailand's high school enrollment rate improvement was very high, increasing from 80.8% to 115.2%, which is considered the most impressive in the region. Other countries such as Laos, Cambodia, and Myanmar also have relatively good levels of improvement. In contrast, Brunei saw its lower secondary school enrollment rate drop from 98.2% to 92.1% and is the only country in the region with a decline in secondary school enrollment. Particularly for Vietnam, the secondary school enrollment rate has not increased significantly, much lower than the improvement rate of

Thailand, Myanmar, Laos or Cambodia. This shows that despite huge investment in education, Vietnam's access to secondary education remained limited, and the level of improvement is slow. This fact put a lot of pressure on the Government of Vietnam to have appropriate policies to improve students' access to school at the secondary level.

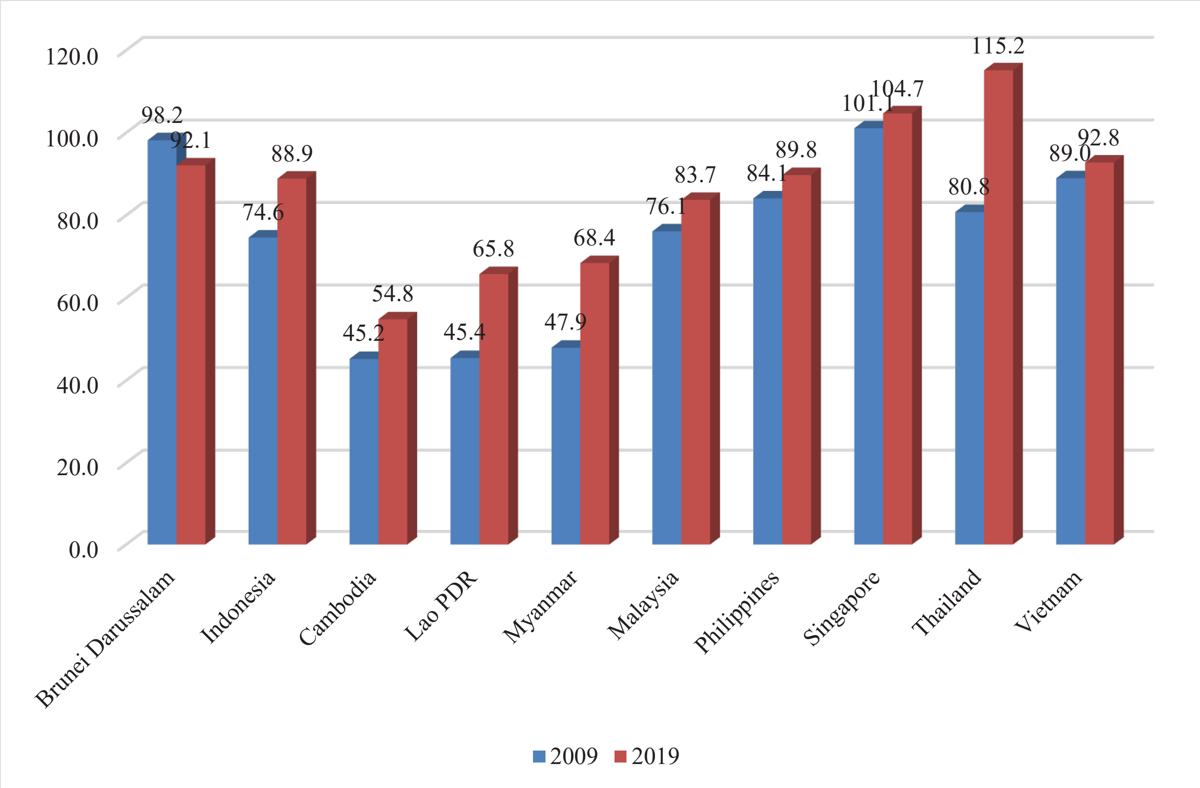

Figure 2.3. Comparison of lower secondary school enrollment rates of ASEAN countries in 2009 and 2019

Source: Drawn from World Bank data

Regarding high-quality education and training in the context of the rapid Industrial Revolution 4.0, high quality education, especially higher education system, is a challenge for any country to seize the opportunity of economic development. Higher education is a continuation of high school, a place to train human resources with the role of leading entrepreneurship and innovation activities, forming qualified and capable human resources with competitive strength for the entire economy. Therefore, a country can only succeed when it has a strong enough higher education system. During secondary education, many countries segregate students into vocational programs, and a small portion will continue their education at the undergraduate or graduate level. Figure 2.4 depicts the university enrollment rates of ASEAN countries between 2000 and 2019, Thailand, Malaysia, and the Philippines have higher tertiary enrollment rates compared to the region, due to early achievements in infrastructure investment of the higher education system. In contrast, Laos and Cambodia with small economy have relatively low university enrollment rates, which also reflecttheir low human resource development.

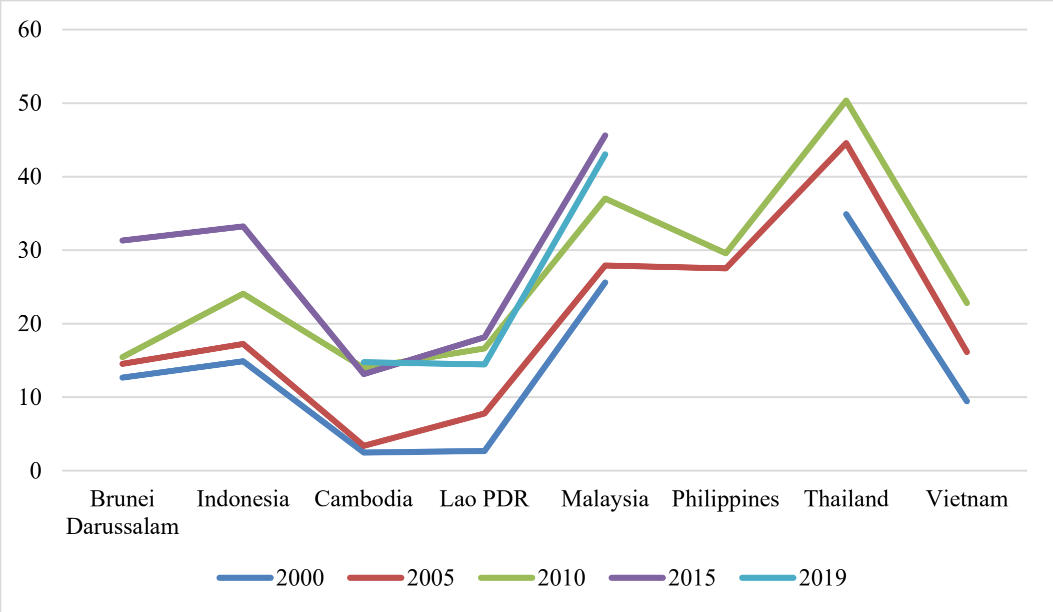

Figure 2.4. Undergraduate enrollment rates of ASEAN countries over the years

Source: Drawn from World Bank data

However, the enrollment rates at primary, secondary or tertiary levels may not fully reflect the quality of human resources. To diversify ways of analyzing human resource quality in Southeast Asia, the approach to building human resource quality through literacy rate can be an important indicator. Indeed, during the war years, countries like Vietnam, Laos, Cambodia or many other countries had very low literacy rates when people did not have the opportunity to go to school, the education system was not properly invested.

Overtime, more and more Southeast Asian countries have close links with each other on comprehensive relations in economy, politics, investment and people-to-people exchanges. Currently, all Southeast Asian countries are part of the Association of Southeast Asian Nations (ASEAN) and especially the ASEAN Economic Community, which has brought many opportunities for economic development in general and human resource development in particular in the countries of the region. Education and training have been concerned by countries and have achieved certain achievements, making an important contribution to improving the quality of human resources in order to best meet the requirements of economic development. The literacy rate in 2019 saw a sharp improvement, ranging from 80.5% for Cambodia, 84.7% for Laos, or 95.8% and 87.5% for Vietnam and Singapore, respectively. Other countries such as Indonesia, Brunei, Philippines and Malaysia also achieved similar results with high literacy rates, at 95.7%, 97.2%, 96.3%, 95% respectively.

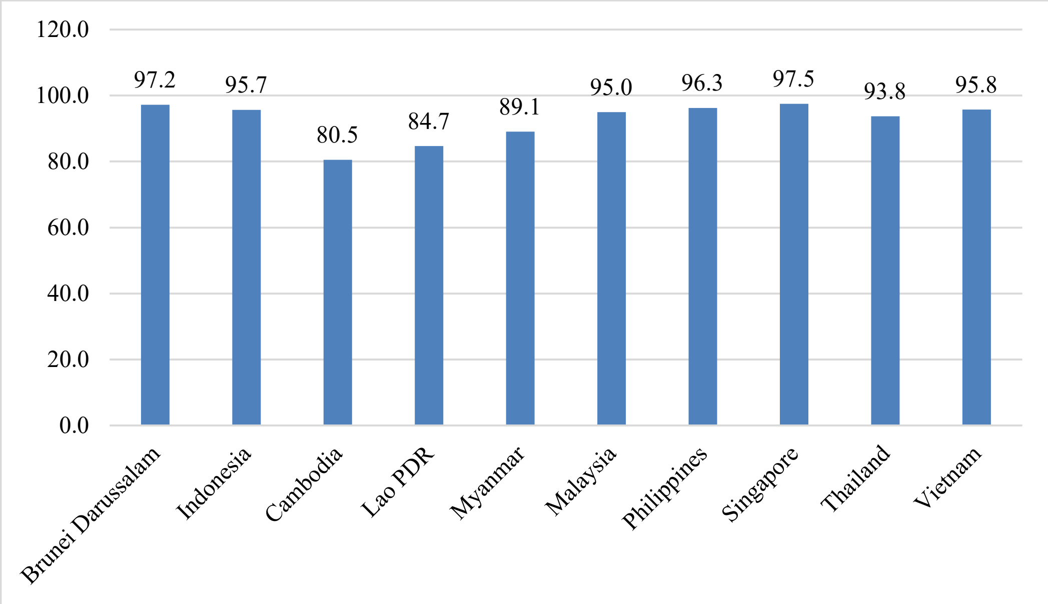

Figure 2.5. Literacy rate of ASEAN countries in 2019

Source: Drawn from World Bank data

Through the analysis of human resource quality, it is confirmed that, despite a low starting point, ASEAN countries all have improve the quality of human resources. Primary, secondary and tertiary enrollment rates and literacy rates have improved, thereby contributing to improving the quality of human resources in countries, making an important contribution to socio-economic development. However, countries with a low starting point such as Laos, Cambodia and Myanmar have improved rapidly compared to the remaining groups of countries, but there is still a relatively large gap which requires these countries to make more efforts to improve the quality of human resources. Meanwhile, Singapore is still the country with the highest quality of human resources in the region, followed by Thailand and Malaysia.

3. SOME SOLUTIONS TO DEVELOP HUMAN RESOURCES TO ECONOMIC GROWTH

High-quality human resources help promote economic growth, therefore proper attention and investment in human resource training should be paid through annual and periodical training activities. Training forms should also be diverse, from face-to-face, online and distance training combined with international cooperation activities in training and research. These can be appropriate instructions for governments of countries, typically Myanmar, Laos or Cambodia and some other economies that need to improve the quality of human resources towards the essence, in which the goal of human resources be trained regularly and have the ability to increase labor productivity for the country.

Through this study, some solutions are proposed to improve the quality of human resources in Southeast Asia.

Firstly, countries in the region continue to invest in their education systems to improve schooling opportunities for all levels of education, from primary school to university level, thereby creating a well-educated, trained future generationwho canacquire the necessary knowledge and skills to meet the requirements of the labor market. In Southeast Asia, although human capital has improved over the past time, there are differences in each country at different times, between countries, reflecting that the quality of human resources in Southeast Asian countries is significantly different. Thereby, countries with low levels of development need to further increase investment in human capital in order to be able to catch up with the development of the above-mentioned countries in the region. In fact, the primary school enrollment rate of all countries is high, thus, the average primary school enrollment rate in Southeast Asia is very high, at 106.93%. With proper attention from countries, the young generation's opportunity to go to school is almost completely covered in countries in the region. However, primary school only provides very basic knowledge and skills so that students can study at higher levels, typically high school and university. However, the group of countries with high enrollment rates at the lower secondary level are Singapore, Thailand, the Philippines, Malaysia and Brunei which have enrollment rates above 80%, especially in the case that Singapore has a higher enrollment rate at above 100% reflecting that all primary school graduates in Singapore have the opportunity to enter higher education. At the university level, there is a huge difference between countries. Thereby, the higher the education level, the greater the difference in access to learning.

Secondly, in order to meet development requirements, countries need to focus on training human resources at the secondary school level and especially the university system, which can give workers the specialized skills to best meet the needs of society and economic development. Cambodia, Laos and Myanmar need to improve the quality of human capital, in which to create favorable conditions for primary school graduates to have the opportunity to continue their studies at lower secondary schools and universities. Meanwhile, other countries such as Vietnam, Philippines, Indonesia, and Thailand continue to expand higher education to improve access to specialized education. Currently, the world is transitioning from the production of the 3.0 technology revolution to the 4.0 technology revolution with smart and green production, in which machines are connected to produce high productivity, requiring workers with higher specialized skills, the ability to learn and self-adapt to be capable of meeting all the strictest requirements of society. However, in order to achieve smart production, it needs high-quality human resources, especially education and training, typically higher education and vocational training. Meanwhile, training high-quality human resources cannot be completed overnight, but requires efforts from central to local government levels to local authorities, as well as the first attention from individual families. In order to develop higher education, countries need to increase financial and resource investment in expanding schools, improving training quality and increasing practical schools to help students with potential best skills and knowledge. The development of higher education will create many opportunities for the development of all countries in the region, affirming that investment in higher education is the shortest way to grasp technology, and create a generation capable of grasping smart technology and applying it to production and business activities, thereby increasing labor productivity and economic development.

Last but not least, there should be a combination of schools, scientists and businesses in human resource training. Moreover, it is necessary to regularly develop and supplement policies and remuneration regimes in a timely manner to attract high-quality workers, in which, special attention should be paid to policies, salary regimes and bonuses based on work performance to motivate and encourage employees to constantly learn to improve their own capacity.

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SUSTAINABLE DEVELOPMENT OF THE PRIVATE ECONOMY IN VIETNAM TODAY

MA Nguyen Thi Hang[1]

Abstract: *The article analyzes the development of the private economy in Vietnam today. By qualitative methods and partly by quantitative methods. Combined with scientific research methods such as: statistical methods, synthetic methods for general assessment of research problems, comparison methods, the author has clearly pointed out the role of the private economy: (1)The private economy plays an increasingly important role in the economy, (2)Contribution to the economy and the performance of the private economic sector, (3)The Party and State are aiming to create favorable conditions for the private economic to thrive, (4)The development of the private sector has contributed to attracting a large number of workers and training high quality labor force for the labor market, (5)The private economic sector contributes to the promotion of the nation in the international economic integration. Besides, the private economy also has certain limitations. The author also proposes a number of solutions to overcome the limitations, helping the private sector become the engine of economic growth in Vietnam today.*

Keywords: *Private economy, sustainable economic development.*

1. INTRODUCTION

Since the reforms have been carried out in Vietnam until now, the views of the Party and State on the private economy have changed a lot. Recognizing the position and role of the private economy in the policy of developing a multi-sector economy has contributed to promoting the private economy to develop and become one of the factors that create the economic growth. In particular, in the reform process in Vietnam today, the private sector plays an increasingly important role in achieving the countrys, socio-economic goals, especially in the context of restructuring, adjusting the scope of state-owned enterprises. However, the private economy has not yet met an important driving force role of the economy. Typically: management level, financial capacity, competitiveness, financial capacity, ability to link and join the value chain are still limited. So, how to see more clearly the role the role of the private economy in the current economic growth of Vietnam? Is a matter of significance both in terms of theory and practice. Therefore, the author chose the topic: Sustainable development of the private economy in Vietnam today.

The 13th Party Congress affirmed: strongly developing the private sector in terms of quantity, quality, efficiency and sustainability, really becomes an important driving force in economic development. Remove all barriers and prejudices and create favorable conditions for the development of the private economy. This is a big and consistent policy of the Party while promoting the development of the private economy. At the same time, while promoting the role of this economic sector in socio-economic development, strengthening national security in the new situation. Affirming the

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important role and driving force of the private sector in international integration. The private economy has played an important role in mobilizing social resources, transforming the economic structure, creating jobs and increasing incomes for workers, especially in the fields of investment, business and tourism. urban areas, automobile production, high-tech agriculture, commerce and services. The outstanding performance of recent private economic groups shows this quite clearly. Building a socialist-oriented market economy in Vietnam, including developing the private economy. The private sector is an important driver of the economy.

In order to promote the role of the private economy as a development engine of our country's economy, it is necessary to give higher priority to the task of perfecting the socialist-oriented market economy institution. It is necessary to properly, fully, qualitatively and effectively perform the role of the State in economic orientation, planning and regulation. Improve the effectiveness and efficiency of the implementation of policies and laws in order to create a favorable business environment, promote the development of the private economy, improve production and business capacity, and innovate. The private economy is an important driving force in economic development and encourages the formation and development of private economic groups, in order to arouse the desire of the whole society to get rich. Create a basis for the maximum mobilization of resources for socio-economic development, construction and defense of the Fatherland.

2. METHODOLOGY

To the Study of the process, uses computational methodology and part of quantitative methodology. Combined with scientific and methodological research such as: systematic methodology, method synthesis to assess concept of problem Methodology study, author comparison method clearly indicates the role of economist. In addition, the private economy also has certain institutions. It is necessary to implement a number of synchronous solutions to serve the limitations, making the private economic sector the main force of economic growth companies in Vietnam.

3. RESEARCH RESULTS

3.1. The Situation of development of the private sector in Vietnam in recent years

3.1.1. Successful

In Vietnam, the private sector is an economic type outside the state economy. Including: individual economy, small owner and other types of private enterprises, based on owner-manufactured consulting. Currently, the type of private economy in our country is very diverse: private enterprises, private joint stock companies, joint stock companies with less than 50% state capital, owner's liability companies, households. sole proprietorship business.

After more than 35 years of renovation, the private economy has continuously maintained a good growth rate, an important rate of 39-40% of GDP, attracting about 85% of the economy's labor force, making an important contribution to the economy. in mobilizing social resources for investment in production and business development, economic growth, economic restructuring, increase in budget revenue, job creation, improvement of people's living standards, and social security assurance festival. Typically, such as: Sun Group, Vingroup, Thaco, Masan, FPT... These corporations are not only leading in the fields of domestic activities, but have been building and developing into regional products and projects. region and the world. The private economy contributes to standardization and modernization, changing the country's surface, making an impression, and enhancing Vietnam's position and prestige in the international arena. During the recent Covid-19 pandemic, many private businesses joined hands with ministries, sectors and the Government to effectively fight, demonstrating the effective companionship between the Government - Enterprises - People. The development of the private economy in recent years has directly or indirectly contributed to stabilizing the socio-political environment, strengthening the main strength - spirit, economic capacity, scientific and technological potential of the country. national defense. The widespread development of the private economy and special zones in rural, remote, border and island areas directly contributes to perfecting the national defense posture of the whole people. Individual economic householders, smallholders and private enterprises in all regions of the country have effectively participated in the implementation of many policies behind the army. That makes the potential, role and valuable contribution of the private economy to the work of building and defending the Fatherland is extremely great.

Vietnam's private economic sector has grown strongly in terms of quality, quantity and scale, continuing to be the main driving force in Vietnam's economic growth. In particular, the game, the position of the private economy is increasingly managed and clearly expressed through the contributors to socio-economic development. The private economy continuously maintained a good growth rate, accounting for 42-43% of GDP, attracting about 85% of the labor force of the economy, making an important contribution to mobilizing social resources for investment. investment in production and business development, economic growth, economic restructuring, increase in budget revenue, improvement of people's living standards, assurance of social security... Especially, the business force in the region The private sector contributes to standardization and modernization, changing the country's surface, making a mark, and enhancing Vietnam's position and prestige in the international arena.

In 2021, In the wake of the Covid-19 pandemic, the private sector will continue to be an important source of investment capital in the total investment of the economy. Social investment from the private sector in the third quarter of 2021 decreased by 1.4% over the same period and was the highest decrease in the 3 sectors (the state sector decreased by 20.6%; the private sector decreased by 20.6%), foreign direct investment decreased by 20.7%). In the first nine months of 2021, social investment capital increased by only 0.4%, mainly thanks to the pull of investment from the private sector. Investment from the private sector reached VND 1,100.5 billion in capital ratio, equaling 58.9% and increasing by 3.9% and is the only sector with growth in investment over the same period (state sector decreased by 4 .7%; FDI sector decreased by 3.4%. And constantly increasing the number of private enterprises. From 2011 to 2021, there were more than 900,000 registered private enterprises. The number of active private enterprises also increased rapidly with 321,416 enterprises in 2011 to… in 2021. The private sector has contributed more than 40% of the economy's GDP, nearly 40% of the total social investment capital, over 36% of the state budget, and solved more than 80% of the jobs. As a result, the private economy has strongly contributed to the modern economic transformation structure, along with the implementation of social welfare policies.

3.1.2. Limit

In addition to the achieved results, the private sector in our country has grown and played an important role. However, the reality shows that the growth rate of the private economy is on a downward trend, which has not met the important role of the economy's driving force. This economic sector still has some limitations affecting the development of the private economy in our country today:

One is, in terms of the number of businesses. According to the General Statistics Office, by the end of 2018, the number of business establishments in the private sector (including private enterprises and individual business households) was about 700,000 enterprises. During the period 2011-2018, the number of business establishments increased by 3.4% on average each year. Considering the business sector alone, the proportion of the number of non-state enterprises (private) accounted for about 96%-97% of the total number of enterprises in the period 2010-2018, and this proportion was maintained in 2019 and accounted for about approx. 96.88%. Meanwhile, the number of individual business households increased from more than 4.12 million in 2010 to over 5.14 million in 2019, an average increase of 3.25% per year during the whole period. The productivity growth rate of the private sector is still low, equal to only 34% of the labor productivity of the state-owned enterprises and about 69% of the labor productivity of foreign-invested enterprises. Science and technology capacity is still limited, investment of enterprises in technological innovation only accounts for about 0.3% of revenue, much lower than in countries such as India (5%), Korea (10%)… Vietnamese enterprises have not focused on improving linkages and competitiveness to participate in regional and global value chains, only about 21% of small and medium-sized enterprises can partially participate, global value chain, 14% succeed in linking with foreign partners. The cause of these inadequacies is due to a number of institutional barriers. In particular, the system of mechanisms and policies on private economic development is still inadequate, inconsistent and not close to reality. Regarding the business investment environment, although improved, it is still limited, access to business opportunities and development resources is not really equal, generating many intermediary and unofficial costs. In the context of the prolonged Covid-19 epidemic, the resilience of businesses in general and businesses in the private sector in particular is increasingly declining. The basic difficulties of enterprises are still lack of capital, rising raw material prices, increasing logistics costs, increasing production and business costs; pay salaries, pay social insurance, health insurance, unemployment insurance, trade union fees; pay the loan bank; pay for electricity, water and input materials; pay rent for warehouses, factories, offices and equipment.

Private enterprises grew in number, but the rate of shutdowns also tended to increase. In 2021, the number of enterprises withdrawing from the market will increase by 20% due to the impact of Covid 19. In 2021, there were 119.8 thousand enterprises withdrawing from the market, an increase of 17.8% compared to 2020. Of which the share Large enterprises are enterprises established under 5 years with small capital scale. If in the period 2006-2014, each year, the whole country has about 70,900 newly established private enterprises, in the period 2015-2020, this number will increase to 122,500 enterprises. Not only increasing in quantity, capital scale and capacity of private enterprises also improved. In 2021, despite being heavily affected by the Covid-19 pandemic, there are still over 93,000 newly established businesses. The number of operating private enterprises has also increased significantly, for example, in 2011 there were about 325,000 private enterprises operating, but in 2019 this has increased to 647,000 enterprises. The scale of production and business capital of private enterprises also increased sharply, from VND 6,875 trillion in 2011 to VND 24,024.5 trillion in 2019, an increase of 3.5 times. According to a report of the Ministry of Planning and Investment, only about 1.7% of private enterprises have large scale, the rest more than 98% have medium, small and micro scale, of which micro enterprises accounted for 78.2%. Most private enterprises are formed after a short accumulation period, rely on their own capital, receive little support from the State, and mainly operate in the field of real estate and services, so they have experience in management, model and business model. development model, the ability to link... Still has many limitations. A number of private economic groups have been formed, which are quite large, but mainly operate in the fields of finance, real estate business, and production of consumer goods. For non-agricultural individual business households, the capital and labor size of these households is also very low: 150.61 million VND and 1.69 people. According to the Asian Development Outlook Report of the Asian Development Bank, so far, only 21% of Vietnam's private enterprises have joined the global supply chain.

Regarding labor, workers in the business community in our country are increasingly larger, in which, workers in non-state enterprises in 2019 accounted for nearly 60% of the total number of employees in the business community in the same year. Regarding labor in labor at the limited liability company with the largest number of employees (4,992.1 thousand employees in 2019), the second place is joint-stock companies (3,774.6 thousand employees). The worrying point about labor in non-state enterprises is that the number of employees in private enterprises tends to decrease sharply, from 631 thousand employees in 2010 to 301.8 thousand employees in 2019. Thus. In terms of labor structure in non-state enterprises in 2019 by type of enterprise, employees in limited liability companies accounted for the highest proportion of about 55% and employees in joint stock companies stood at ranked second, accounting for nearly 42% of the total number of employees in non-state enterprises. This shows that these two types of businesses are not only growing in popularity in our country, but more importantly, are attracting more workers.

Second, about labor productivity. Labor productivity of the private sector is still low. Although there is the participation of a large number of labor forces, the participants in this economic sector are mainly small businesses, individual business households, and households, labor, so labor productivity is not high, production capacity is limited, lack of capital to invest in applying science and technology to production... Statistics show that, in 3 large areas of the economy In the economy, the state-invested sector always leads in terms of labor productivity, followed by the state economic sector. The non-state economic sector (including the private sector and the collective economic sector, the individual economic sector) has the lowest labor productivity. In 2018, the labor productivity of the foreign-invested economic sector reached 225.12 million VND/worker, about 1.3 times higher than the state sector and 6.9 times higher than the non-state sector. The non-state economic sector is assessed to have the lowest labor productivity, but the collective economic sector has a relatively high level of labor productivity. The number of employees working in this sector also decreased sharply from 364,127.7 employees in 2010 to 81,362 employees in 2018. The private sector has a labor productivity of 44.58 million VND/worker. Lower than the collective economic sector, the state economic sector and the foreign-invested economic sector, but higher than the individual economic sector and the overall labor productivity of the economy.

Third, on the efficiency of private economic activities. In the period 2011-2021, the average social labor productivity of private enterprises is only 28.59% of state-owned enterprises and 58.62% of foreign-invested enterprises. In 2021, the labor productivity of private enterprises will increase and reach 228.4 million VND/employee, equal to 33.68% of state-owned enterprises and 69% of foreign-invested enterprises. Low labor productivity of private enterprises has affected the overall labor productivity of the entire enterprise sector. Including business households, the labor productivity of the private sector is much lower, equal to only 17% of the state economic sector and 14.42% of the foreign invested economic sector. The profitability of the private economy is quite low. On average in the period 2011-2021, the rate of return on assets of private enterprises is only nearly 3.8%, lower than the general level of the whole enterprise (nearly 6%). The same goes for return on sales (1.7% vs 3.8%) and return on capital (1.23% vs 2.63%)(8). Low profitability affects the ability to self-accumulate and expand the size of the private sector.

Fourth, about the level of business owners and employees of the private economy. Private enterprises are the most advanced type in the private economy, but most private enterprises use low technology, of which 52% of private enterprises use outdated equipment, 38% use average equipment, only 10% use relatively modern equipment. With small scale and little capital, most private enterprises have not invested in applying science and technology, especially core and pioneering technologies, and have not paid much attention to innovation. Up to now, Vietnamese private enterprises have spent only 0.2%-0.3% of their revenue on technological innovation, while those in India spend 5% and Korea 10%. In addition, the level of business owners and employees is also very low: over 55% of the total number of small and medium-sized business owners have intermediate or lower qualifications, of which 43.3% have educational qualifications. from elementary and high school. Therefore, it is still limited to seize opportunities as well as implement reforms that provide the right vision for the development of private enterprises. The workforce in the private sector is 75% untrained. For individual production and business establishments, the labor force is mainly unskilled.

Fifth, regarding the legal environment for the private sector is not yet complete, many regulations are incomplete, unclear, inconsistent and overlapping. Although the business environment in our country has improved a lot over the years, it has not really created favorable conditions for the private sector to thrive. Private enterprises are also treated unfairly compared to other businesses. Some regulatory policies only mention state-owned enterprises, but do not mention private enterprises.

Sixth, the competitiveness of the private sector is still limited. Due to their small scale, many domestic enterprises are not competitive enough to export to foreign markets or join the global production network. At the same time, the limited governance capacity and international economic integration also affect the competitiveness of the private sector. Lack of market, lack of production and business premises are the biggest obstacles for private enterprises. The resolution of barriers to administrative procedures is mandatory, but in order for businesses to develop, market issues, employees, up to 50% of enterprises have not participated in social insurance for employees and there are many businesses that owe insurance. Many private enterprises report dishonest financial statements, overdue bank loans, long-term tax evasion and debt, causing bad socio-economic consequences and weakening trust of people and agencies. functions for the private economy.

3.2. Some solutions for sustainable development of the private economy in Vietnam in the presentation

In order for the private economy to be an important driving force of the economy in the coming time, it is necessary to implement a number of specific solutions as follows:

Firstly, improving the leadership capacity of the Party and the management of the State in the economic development of the country. There should be unity of awareness, thought and action in the implementation of undertakings and policies on private economic development, avoiding contradictions and overlapping in documents regulating programs and policies. policy for the private sector. Do better ideological work, unify awareness of the role of the private economy in the cause of national construction and defense. Raising awareness and properly understanding the Party's policy of encouraging the development of the private economy is a strategic and long-term issue in the development of a socialist-oriented market economy. It is the correct application of the law of conformity of production relations with the level of production forces in our country. The private sector plays an important role as the driving force of the economy. Strongly developing the private economic sector in terms of quantity, quality and efficiency really becomes an important driving force in economic development, at the same time, continues to set requirements to improve the mechanism, policies to encourage and facilitate the development of the private economy in most economic sectors and fields, to encourage the formation of multi-owned private economic groups; perfecting laws, mechanisms and policies so that private enterprises can have equal access to all opportunities and resources, especially capital, land and natural resources, etc, contributing to building an independent economy, self-control, self-reliance, high resilience. In addition, the 10-year socio-economic development strategy (2021 - 2030): rapidly and harmoniously develops economic sectors and types of enterprises. Private economic development is indeed an important driving force of the economy. Remove all barriers and prejudices and create favorable conditions for the development of the private economy. To encourage the formation and development of large private economic groups with strong potential and regional and international competitiveness. Striving to 2030, there are at least 2 million enterprises with the proportion of the private sector's contribution to GDP reaching 60-65%. The role and position of the private sector continues to be affirmed, creating an important foundation for the private sector to be the driving force of the economy.

Second, to create a favorable business and investment environment for private economic development. Ensure firm macroeconomic stability, control inflation at a reasonable level, operate monetary policy proactively and flexibly according to the market mechanism. Creating favorable conditions for households and individuals to do business on an increasingly large scale, with higher efficiency, to convert to business activities under the enterprise model. To soon develop multi-owned private economic groups capable of competing in domestic and international markets. Ensuring mechanisms and policies encouraging and supporting the development of the private economy must be consistent with market principles and promote the autonomy and competitiveness of the private economy. Limit mechanisms and policies that create inequalities between the private economy and other economic sectors, between actors in the private economy, especially in competition and access to social resources, factors of production, business opportunities, market participation, with the focus on land, capital and resources of the State. Enhance transparency for state monopolies, corporate monopolies and control business monopolies, ensuring fair competition in the market. Support the private economy to innovate, modernize technology and develop human resources, improve labor productivity. To encourage and support the private sector to invest in research and development activities, to apply and transfer advanced technologies, and to promote innovation and creativity in order to improve labor productivity. Completing laws and effectively implementing measures and regulations to ensure intellectual property rights and trademarks. Promote the implementation of the national strategy on human resource development with a synchronous system of policies and solutions. Encourage and encourage the spirit of entrepreneurship, business and innovation in the whole society, especially the business community. In addition, encouraging private enterprises to invest in agriculture and rural areas, especially high-tech agriculture. Specific solutions for each type of business object such as large enterprises, small and medium enterprises, start-ups, enterprises operating in the informal sector. Strengthen connections and linkages between private enterprises, private enterprises with state enterprises and FDI enterprises. Improve the effectiveness of the State's support for the private sector, reduce costs for businesses to improve efficiency and competitiveness.

Third, promote support for the development of private enterprises, specifically, it is necessary to focus on effective support for two groups of businesses: start-ups, small and medium enterprises. For start-up businesses, it is necessary to have regulations and policies to support capital, technology, administration, etc, and favorable conditions for businesses to be easily established in terms of administration and enter the competitive market. compete, develop and market new products. For small and medium enterprises, the force that accounts for the largest number, is the most dynamic, with undeniable contributions to the socio-economic, but is also a vulnerable area, it is necessary to have policies specific support is clearly regulated by law, removes all informal burdens, is easily accessible, and allows the efficient exploitation of national resources. Along with encouraging the development of the private economy, it is necessary to accelerate the renewal, arrangement, consolidation and development of the state economy, cooperative economy and cooperatives, so that the state economy can play a good role. The mainstream together with the collective economy has increasingly become a solid foundation of the national economy. It is necessary to continue to study the expansion of self-defense organizations in private enterprises in order to practically establish the all-people defense posture in the whole country. To do that, first of all, it is necessary to pay attention to the development of socio-political organizations: parties, youth unions, trade unions in private enterprises and legalize their activities in these enterprises... Changes in institutions and policies have created achievements in the development of the private sector in Vietnam. The private sector has become an important driving force for the renewal and development of the country, contributing over 40% of GDP, 30% of the state budget and attracting about 85% of the country's labor force. In the context of the complicated and prolonged Covid-19 pandemic from the beginning of 2020, the private sector continues to promote its internal strength.

Fourth, build and complete the legal framework to create more favorable and equal conditions for the development of the private economy. The State should strengthen capacity building and effective implementation of policies, creating a favorable and safe business and investment environment for the private economy to develop healthily and in the right direction. Strengthen the effectiveness of supervision, inspection and accountability of local governments at all levels for the observance of the Party's guidelines and the State's laws on private economic development. Strengthen the management, inspection and supervision of the State over production and business activities of the private economy in order to protect enterprises and ensure that all enterprises of all business sectors legally free to do business. Strengthening an effective dialogue mechanism between state management agencies and enterprises in order to grasp and promptly handle problems related to private economic development.

Fifth, have policies to encourage and support the private economy to innovate and modernize technology. The State should strengthen the encouragement and support of the private economy Sixth, increase investment in the development of synchronous and modern socio-economic infrastructure, especially traffic, urban areas, water supply and drainage, irrigation, waste treatment and environmental protection, in order to create favorable conditions for business activities of all enterprises of all economic sectors. The State needs to have a mechanism to attract the private sector to participate in the provision of infrastructure services in order to contribute to additional investment capital for the society and reduce the burden of capital for the State. Create all possibilities for private enterprises to easily access development resources such as finance, land, technology, human resources... Rapidly develop a synchronous and modern infrastructure system to support supporting production and business and creating favorable conditions for the private economy to access and use conveniently and equally at reasonable costs, while ensuring publicity and transparency. Strengthening access to resources, perfecting mechanisms, policies and laws on land, natural resource management and environment, creating favorable conditions for the private economy to access land and natural resources. Transparently and equally according to the market mechanism serving production and business. To restructure and develop quickly, safely and effectively financial markets, especially the system of credit institutions and capital markets, to create equal and favorable conditions for the private sector to access capital, develop strongly and smoothly the markets of goods and services. There are mechanisms and policies to create conditions for the private economy to actively participate in the process of international economic integration.

Seventh, private enterprises need to actively develop a reasonable planning strategy on the basis of perfecting the organizational and management apparatus, practicing measures to reduce risks in business and many measures to improve efficiency. Other performance results. In order for the business strategy to be highly feasible, private enterprises need to carefully study the country's socio-economic goals, industry and profession development strategies; at the same time, grasp their ability to build strategies for the future. Each business needs to develop its own strategy, in accordance with its capital capacity, human capacity, development goals, and business lines. Improve governance capacity of the private economic sector. Private business owners must actively and actively cultivate knowledge of market economy, corporate governance, business law, knowledge of integration, and seize opportunities to develop business strategies. and governance in accordance with market requirements and available resources, avoiding legal risks. Only then, new types of private economy can survive, adapt and develop sustainably.

Eight, build business culture, build brand, value credibility with customers. The private economic sector, represented by private enterprises, individual business households must have a sense of building and implementing a business culture, building a brand expressed through the following actions: honest business, implement social responsibility, ensure benefits for employees and consumers; focus on improving product quality, diversifying products... Focus on removing barriers, creating a favorable business and investment environment for the development of the private economy. Support education and training to improve the cultural level, business knowledge as well as management capacity of business owners and employees in the private sector. Creating opportunities and conditions for the private economy to exploit and use national resources for economic development. To drastically change the economic growth model from breadth to depth, restructure the economy in the direction of shifting from developing the fields of resource exploitation, real estate, etc. to the manufacturing sectors. Agriculture, industry and services have strengths. It is necessary to create conditions for the private economy to participate in the economic restructuring process, the process of equitization of state-owned enterprises, to enjoy incentives in interest rates, loans, training, space rental, etc. Administrative procedures when participating in new production and business fields. At the same time, enhancing the effectiveness of the State's management, inspection and supervision over the implementation of guidelines and policies for private economic development as well as production and business activities of enterprises. Thereby, timely detect mechanisms, policies and solutions for the development of the private economic sector that are not suitable to adjust and replicate reasonable mechanisms and policies.

The solutions mentioned above, if well implemented, will create favorable conditions for the private sector to develop stronger and more breakthrough in the coming time.

4. CONCLUSION

The role and position of the private economy in our country has been raised, becoming the driving force of the economy. Therefore, it is necessary to continue to improve institutions, especially directing practical organizations to properly implement guidelines and policies, further promote the potential of the private economy, and contribute to economic development - society and people, successfully building socialism in our country. A number of solutions have been given that are synchronous, comprehensive, from awareness, ideology to specific solutions. Thereby, contributing to support the private economy to innovate, modernize technology and develop human resources, improve labor productivity. Improve the effectiveness and efficiency of state management, renovate the contents and methods and strengthen the leadership of the Party, socio-political, socio-professional organizations in the private economy.

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SOCIAL ENTERPRISE MODEL - SOLUTION TO MEET THE EQUALITY GOAL BETWEEN ECONOMY AND SOCIAL SECURITY

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Abstract: *Poverty is not just a post-covid market problem. In developing countries, the proportion of poor people still accounts for a large proportion. In the past, businesses paid little attention to the needs of these groups. They know for sure that not all of their customers are wealthy, and many companies have invested significantly in creating low-cost products and services, designed specifically for those on a tight budget. . Social enterprises were born to meet the needs of poor customers with low-cost, low-cost products but still generate profits. This model needs to be developed to both meet economic goals and address social security.*

Keyword: *Social enterprise, sustainable development, security, society.*

1. INTRODUCTION

a. Concept

Social Enterprise is understood as an organization formed from social initiatives, based on the community's need to solve a specific social problem, led by the entrepreneurial spirit of the founders. This particular spontaneity and dynamism makes society's awareness always far behind the vivid reality of the social enterprise model. According to common understanding, social enterprises are understood as businesses that operate not for the purpose of profit maximization. It was established with the goal of solving a certain social problem that the business pursues, most of the profits are used to serve social and environmental goals. The rich practices of social enterprises also make the views on social enterprises very diverse and multidimensional. However, from any point of view, Social Enterprises also have three main characteristics: Setting social goals and missions on the top right from the beginning; use business activities, fair competition as a means to achieve that social goal; Reallocate most of the profits from the business back to the organization, the community, and the social cause.

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Here is a comparison of the social enterprise model and the low-cost enterprise model:

Table 1. Comparison of low-cost and social enterprise models

	Low-cost Enterprise	**Social Enterprise**
Value solution	**Target**	
	Generate profits by improving access to products and services	Improve access to essential products and services in a financially sustainable way
	Distinctiveness	
	All customers can buy products and services	The company decides who its target customers are and how to find them
	Quality	
	Lower	Constant
	Focus	
	Cheap products and services	Affordable solutions to social problems
	Operate	
	Reshape product supply chains to reduce costs	Reshape distribution supply chain to reach target customers
Source of value	**Partnerships**	
	Optional co-creation with profit-maximizing organizations	Compulsory co-creation with third parties with social welfare goals
	Renew	
	Product-centric	Customer-centric and ecosystem
	Encourage employees	
	Feebleness	Strong
	Reputation	
	Can be quite low	Usually tall

Source: Muhammad Yunus, 2021

2. BENEFITS OF THE SOCIAL ENTERPRISE MODEL

Firstly, social security

Social enterprises always set goals, social mission is the most important thing right from its establishment. The social goals of enterprises are announced transparently, widely and publicly. When social enterprises are founded by the founders, they have predetermined specific social goals that the enterprise needs to solve, which is a common problem of a defined community or group of people in society, not serving. for an individual. Social enterprises always use business activities as a means to achieve their social goals.

Social security benefits are verified in many countries around the world, including the UK. There have been many social enterprise models implemented such as: providing public services through contracts with the government, microfinance, income generating activities for charity organizations, fair trade, etc. vocational training and job creation, self-help groups and social housing. Social enterprises here operate under many different types of organizations and legal status, including: trust funds, social companies, housing unions, development funds, cooperatives, people-owned enterprises self-employed workers, credit funds, business branches of non-profit charitable organizations, joint stock companies, limited companies and companies for the public benefit. According to a survey by Social Enterprise UK, by 2015 there were about 70,000 social enterprises in the UK with an estimated revenue of £24 billion and created nearly one million job opportunities here. Most of the income of social enterprises is from commercial activities. Some directions have gradually formed, that is, traditional NGOs choose to transform into business models. In Asia, Korea was one of the first countries with the development of the social enterprise model associated with the economic crisis, specifically in the financial sector in 1997. When unemployment here appeared Alarmingly, the social welfare services of the State cannot serve all the basic requirements of the people, the urgent problem for the State is to quickly find timely measures. At that time, civil society organizations here really showed their role when joining hands to support the State to create new job opportunities, for the sake of the community during the years from 1998-2006. contribute significantly to reducing social pressure on caring for the elderly, creating jobs for young people and the unskilled labor force. On the basis of the Law on Social Enterprises Development in 2007, the activities of Social Enterprises here are shown more clearly and continue to have positive change trends. By the end of 2014, there were more than 1,000 businesses certified as social enterprises and Korea's goal is to continue to increase 2.5 times by 2017. In Southeast Asia, the Philippines is one of the countries with significant number of social enterprises. In the past nearly a decade, this country has achieved some success in terms of GDP growth, but besides that there are still some difficult situations such as natural disasters, poverty rate... These are the problems that social enterprises have been supporting the Government to solve together. A significant number of entrepreneurs have set up organizations under a new organizational model that is not a charity fund but a social enterprise with the desire to use profits from business activities to partially overcome difficulties. above. In this country, there are more than 80,000 social enterprises classified into groups including: NGOs, cooperatives and enterprises operating in many industries such as education, healthcare, trade in consumer goods,...

Second, Economic Goals

Social enterprises, like other traditional enterprises, have the right to do business in areas that are not prohibited by law. Business activities are a special feature as well as an advantage of Social Enterprises compared to non-profit organizations, non-governmental organizations and charity funds because these organizations almost receive funding and carry out social programs without any problems. no business function. Social enterprises use business activities and fair competition as a tool to realize social goals. In today's market economy, when there are many commercial enterprises, the business of Social Enterprises is really not a simple challenge, but it will give Social Enterprises an autonomous and independent position in their operations. move and manage your organization. Revenue may not cover all costs for social goals and Social Enterprises may rely on funding. It is an advantageous choice of social enterprises

Social enterprises play the full role of businesses in general, have a particularly important position in the economy, (enterprises are a major part of generating gross domestic product (GDP)). In recent years, the activities of enterprises have had a sudden development, contributing to the liberation and development of production capacity, mobilizing and promoting internal resources for socio-economic development, making a decisive contribution to the recovery of enterprises. economic recovery and growth, increase export turnover, increase budget revenue and effectively participate in solving social problems such as creating more job opportunities, eradicating hunger and reducing poverty... important subjects, deciding the process of transforming major structures of the national economy, such as: structure of diversified economic sectors, structure of business lines, economic structure between regions and regions and local. The development of enterprises, especially those operating in the rapidly growing industries, technology and tourism is one of the factors ensuring the realization of the goals of industrialization and modernization of the country, improve economic efficiency, maintain stability and create stronger competitive advantages of a country's economy in the process of global economic integration. It can be said that the role of enterprises not only determines the sustainability of the economy but also determines the stability and health of social issues. The fast-growing business in recent years has yielded the following important results:

- Create a large number of job opportunities, increase income and improve the lives of workers.
- The establishment and development of enterprises is one of the decisive factors to the outstanding and stable growth of the economy in recent years.
- Enterprise development will be the driving force affecting the process of restructuring in the national economy and within the industry.
- Business development impacts on better solving social problems.

3. TYPES OF SOCIAL ENTERPRISE MODELS IN VIETNAM

The majority of social enterprises in Vietnam, are in the early stages of establishment and development and have only stopped at a very modest number, but have fully accepted the three most popular social enterprise models in the world. These are funded non-profit social enterprises (leveraged non-profit ventures), non-profit social enterprises (Hybrid non-profit ventures), social business ventures.

(i) Funded non-profit ventures: This is considered the most popular model in Vietnam so far and it exists under very familiar names such as: association, fund, club, group/group, center. This model social enterprises look for new solutions to support the poor, meet more and better the needs and aspirations of the community, solve social and environmental problems, from which they call or collect money. attract financial and political support from individuals or organizations willing to cooperate for the common benefit of the community and society. The funded capital is used for the purposes of human development, social development, environmental improvement,... specifically, providing directly to people with special circumstances, helping them improve their lives. life quality.

This model is sometimes confused with NGOs because both realize social goals through donations from well-intentioned individuals and organizations. However, the difference is that non-profit social enterprises must come up with creative ideas and solutions to solve a certain social problem to have the opportunity to receive investment capital. NGOs provide goods and services to beneficiaries through funds already sponsored by benefactors.

(ii) Model of social enterprises not for profit (Hybrid non-profit ventures): The model of not-for-profit social enterprises is welcomed by many people and many parts of the world, and is chosen as a model for development. The most obvious advantage of this model is the harmonious and sustainable combination of social goals with business solutions that are mainly based on own resources. With this model, Social Enterprises affirm their independence, self-reliance, promote creativity and fully demonstrate the humanistic social entrepreneurship spirit and resilience. Currently, not-for-profit social enterprises mainly exist in the form of limited companies and joint stock companies. The first root cause leading to the establishment of these companies is that they see a pressing social/environmental problem. However, they do not "beg" for donations or sponsorships from others, but they actively come up with creative solutions, production and business to generate income to support themselves. When there is a surplus of revenue, they continue to expand investment or use it for community development. Social enterprises in this model do not maximize profits like normal businesses, but they need profits to realize a higher goal of bringing positive impacts to the community and society, especially weak people.

(iii) Social business Ventures: This is a business model that pursues both goals: profit and society. Entrepreneurs who build this model offer solutions to both attract profits and bring positive social or environmental changes. for the society. This model is somewhat similar to the model of non-profit social enterprises and ordinary commercial enterprises.

The model of a social business enterprise is similar to a traditional commercial enterprise in that it sets the goal of creating profits and distributing it to shareholders (or investors), but social business enterprises are not governed by profit, they will together share benefits, responsibilities and goals to support community development and environmental improvement. Leaders or investors for this type of business need to have a high consensus on the common goal of the business, otherwise it is very easy to be "out of phase", internally divided when not agreeing on the two profit and social goals.

Compared with the sponsored non-profit social enterprise model and the not-for-profit social enterprise model, the social business enterprise model has more advantages because: i) The best financial guarantee; ii) The ability to attract many interested people and participate; iii) Easier to cooperate with different types of enterprises; iv) More favorable access to capital and markets; v) The ability to develop large scale and influence.

In Vietnam, the fields that social business entrepreneurs choose to invest the most today are agriculture, education, health care, microfinance, and environment. Some enterprises are following this model successfully, such as: Bao Lam Fertilizer Company, Huong Hoa Tapioca Starch Factory, HELP Corporation, CEP Fund,...

4. SOME RECOMMENDATIONS

Vietnam is a developing country. The development of social enterprises will simultaneously fulfill the two goals of economic and social security. However, the approach to social enterprise model is still new, so we need:

(i) It is necessary to build a complete legal system for Social Enterprises: The State must clearly see the active role of Social Enterprises as “an effective strategic partner, an effective tool” together with the State to create new social enterprises. great impact on society. Therefore, the State needs to create a legal corridor with favorable conditions to promote social enterprises to develop and expand in both size and quantity. Currently, in the Law on Enterprises, there is only one provision specifically for Social Enterprises, which was issued on November 26, 2014 but has not been specifically guided for implementation, so active social enterprises have not been approved yet. Any different incentives compared to normal businesses. Therefore, a detailed guiding Decree is very necessary in the nearest time, in addition, it is necessary to continue to amend and supplement relevant legal documents on tax, investment, land,... to create leverage for social enterprises.

(ii) It is necessary to promote research, education and consulting activities on social enterprises, and at the same time strengthen linkages and cooperation between organizations in this field. In Vietnam, although a new concept has only been adopted for about 5 years, academic researchers and intermediary organizations have quickly organized seminars, conferences and meaningful programs. means attracting the attention of a large number of different subjects while strengthening linkages and cooperation at home and abroad in order to share and create new opportunities. However, all of this is only the first step to open the way. To create a favorable and solid foundation for social enterprises, it is necessary to promote in-depth, methodical and systematic research activities. The research results will be the basis for policy advice, program proposals and action plans, and solutions to improve the legal framework; In addition, it is the foundation for training, education and consulting in order to raise awareness and capacity about Social Enterprises, opening up as a potential new field for everyone.

(iii) It is necessary to propagate and disseminate widely through the mass media and also through the form of education and training. In Vietnam, very few people know the concept of Social Enterprise and its true meaning. This is also one of the reasons why the number of social enterprises is still too small, the social influence is not much and not commensurate with its potential. Therefore, it is necessary to promote propaganda and education so that more and more people understand the positive impact of this type of business, and at the same time encourage and guide everyone to join hands to contribute to the benefits of this type of business. community.

(iv) For traditional commercial enterprises, they have the capacity to manage and operate the business, effective business experience and financial and material conditions, they can become partners or sponsors. investment of social enterprises to support each other’s development. Social enterprises always have the spirit of contribution and dedication to the social community, clearly understand the purpose and actions to be taken, have ideas and time to implement, they will help ordinary commercial enterprises to develop. most effectively deploy CSR activities or in the social sector that businesses often cannot do.

(v) On the part of social enterprises, although they are facing many difficulties stemming from their own limited resources and unfavorable environment, they must first understand the situation, promote the spirit of mutual love, improve self-reliance, constantly make efforts to learn, connect and share, seek opportunities to attract more and more attention and investment from the society, gradually they will accumulate the necessary resources to stand on their own and create an important place in society, in the economy, and in people's hearts.

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SOLUTIONS TO CONTRIBUTE TO SUSTAINABLE DEVELOPMENT IN THE MEKONG DELTA PROVINCES CURRENTLY

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Abstract: *The Mekong Delta is one of the key economic regions of the country, therefore, economic growth in association with environmental protection in the region is an urgent issue. By analytical and synthetic methods, the author indicates that the region has been paying much attention to both growth and environmental problems. However, the Mekong Delta is now facing difficulties and challenges from the combination of economic growth and environmental protection. Based on the obtained results, the author proposes a number of solutions to harmoniously combine economic growth and environmental protection in the region.*

Keywords: *Economic growth, environmental protection, sustainable development, Mekong Delta.*

1. INTRODUCTION

Very early on, Marx and Engels warned: "We should not be too proud of our victories over nature. Because, every time we achieve a victory, every time nature takes revenge on us" (Le Huy Ba, 2004). We can see that this statement is becoming more and more meaningful. Currently, there are many extraordinary natural phenomena such as natural disasters, floods, environmental problems that are taking place with increasing intensity, the frequency is increasing and the consequences are also very heavy, one of the reasons is that humans destroy the natural world itself.

Realizing the urgency of protecting ecosystems and improving the polluted environment in association with economic growth, in many years, our Party and State have issused resolutions and policies towards sustainable development and response to climate change in the whole country in general and Mekong Delta region in particular. Besides the remarkable achievements in economic development and environmental protection, at present, the Mekong Delta region still has many major limitations that need to be overcome such as pollution of water sources and resources, soil resources, air, salinization of arable land and climate change causing adverse natural phenomena, etc., the imbalance between economic growth and environmental protection, are currently hindering factors economic growth of the region and is an urgent issue affecting the overall development of the country.

2. THEORETICAL BASIS

2.1. Some concepts

Today, the concept of economics is understood with two basic meanings: The sum total of certain production relations in history consistent with each certain level of development of the productive

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forces. All branches of the national economy or a part of the national economy. It includes production forms by economic sector, economic sector and economic region (ie economic structure) and economic management mechanism.

Economic growth is the increase in income of the economy over a certain period of time, usually a year (Ho Chi Minh National Academy of Politics, 2007). The income of the economy can manifest in kind or in value. Income of the economy is expressed as a value reflected through indicators of gross domestic product (GDP) or gross national income (GNI). Economic growth is measured by two indicators. One is the indicator of growth scale. The second is the growth rate indicator.

According to the United Nations: "Sustainable development is development that meets the needs of the present without hindering the ability of future generations to meet their own needs" (Vietnam Association for the Protection of Nature and Environment, 2018).

From the research works of scientists, inheritance and development, according to the author: "Sustainable development is the historical-natural process of human and human society in all fields of the world people's social life in the present without harming or affecting the development of future generations.

Environmental protection is understood as a set of measures to preserve, use or recover in a rational way the living world (microorganisms, plants, animals) and the environment (soil, water, air, underground). , climate...), researching and testing equipment using natural resources, applying technology with little or no scrap... in order to create an optimal space for people.

According to the Law on Environmental Protection 2014, environmental protection activities are understood as: "Activities to preserve, prevent and limit adverse impacts on the environment; responding to environmental incidents; overcome pollution, degradation, improve and restore the environment; exploit and rationally use natural resources in order to keep the environment clean" (National Assembly of Vietnam, 2014).

2.2. Some theories on the relationship between economic growth and environmental protection

Traditional economics

Traditional economics studies the basic issues of traditional economics, studies the resources involved in the production process and uses the "invisible hand" factor, ignoring the basic role of state in direct intervention in the economy (Adam Smith, 1776).

This theory deals with economic sustainability, sustaining growth in a reasonable and efficient manner. Unlike Adam Smith, the Keynesian school is known as a global economic school with the view that the state plays a leading and important role in regulating the economy, masking the defects of the market, overcome factors affecting the unsustainability of the economy such as environmental impacts, rich-poor divide, etc. to orient the economy to develop in a beneficial direction for society. Therefore, Keynes's ideas can be considered as pioneering ideas in sustainable economics because it deals with all three aspects of economy - society - environment from the perspective of economic regulation of the country. It can be seen that traditional economics has not directly put the issue of sustainable development as an object of research and solutions, but there have been some rekindled ideas for sustainable development. The reason is that in this period, the world economy in general and in the studied countries in particular has not really exploded and has not set up urgent requirements for sustainable development.

Neoclassical economic theory of the environment

The basic view of this school is that environmental protection is a central task because only then can the use of resources be guaranteed for generations. The protection of natural resources is seen as a purely economic matter. The motto of neoclassical environmental economic theory is that using limited resources can still improve the living standards and welfare of the population (Vietnam Association for the Protection of Nature and Environment, 2018). The view that emphasizes state intervention in environmental protection and anti-pollution is considered a very important development of the neoclassical school of environmental economic theory. However, placing nature as an economic system has led to consequences that are not consistent with the principles of sustainable development because, in their view, which natural resources are not beneficial to humans? people are not protected. The view of nature as a substitute product through the development of technology will lead to the fact that nature's load capacity will not be recognized as an absolute limit, whereby all Both natural resources can be exploited and used up.

Theory of ecological economics and sustainable economics

Eco-economic theory born in the mid-1980s, provides four core elements, which refer to the fact that human material activities must be within the limits of nature, limited to the exploitation of natural resources natural resources to serve economic development and improve people's living standards.

From the theory of eco-economy came the birth of sustainable economics that appeared in the 90s of the twentieth century. The school of sustainable economics introduces the concept of sustainable development as a development process that achieves a high enough ecological, economic, and socio-cultural standard for present and future generations to come nature's tolerance.

From the concept of sustainable development, the school of sustainable economics has given its view on the content of sustainable development. It's about sustained economic growth over the long term, and nature's tolerance must be kept to an acceptable level. Along with that is selective economic growth. Select industries with low energy consumption based on the development of high-level science and technology, emphasizing the quality of growth and that growth must have low impact on the environment and environmental pollution, but It is an efficient use of natural resources. On the other hand, it is necessary to grow the economy without causing social risks, narrowing the gap between rich and poor, without violating human rights.

In the Vietnam Development Report 2010 (VDR 2010) titled "Natural Resource Management" conducted by World Bank experts and published in December 2010 warned that "if an increase in If economic growth sets a "zero cost" for environmental impacts, markets and decision makers will get the wrong signals and thereby undermine the benefits of development (Pham Thanh Hang & Do Lan Hien, 2019).

Theory of economic growth and environmental protection

Economic growth and environmental protection have a relationship with each other and are considered too many different criteria: GDP growth rate of the country and added value of industries. The ultimate goal of economic growth is to get as high a GDP growth rate as possible.

The degree of depletion of natural resources and environmental pollution. The interplay between economic growth and environmental protection issues is considered for each type of environment: natural resources; land and water resources…

Economic growth and environmental protection are related through many different characteristics, and each economic or environmental feature is influenced by many factors, in which the relationship between them is not simple which is becoming more and more complex.

Theory of green economy

The term green economy associated with the context of climate change is becoming more and more obvious, and its negative impact on the implementation of sustainable development is increasing, even becoming an increased risk threatens to disrupt the progress of sustainable development both nationally and globally. That reality requires finding new development management tools and transforming the current development model to solve problems in the development process towards sustainability.

The current economic model is being agreed and transformed by countries around the world, including Vietnam. In the practice of management and development strategy planning, there is also a concept mentioned as green growth and this concept also goes hand in hand with the concept of green economy whose core content is environmentally friendly growth nature, achieving both economic growth and environmental protection at the same time.

Green economy not only includes economic goals, but it also extends to include social and ecological goals. Green growth, green economy is a way to show sustainable development in the context of climate change, with more emphasis on environmental resources. Sustainability in environmental resources, response to climate change is considered the focus of green economy (Vietnam Association for the Protection of Nature and Environment, 2018). It can be seen that, historically, there are many theories about the relationship between economic growth and environmental protection that have enriched and deepened the important issue of economic development in each country should be associated with environmental protection issues. Among many of the above-mentioned theories, the theory of "green economy" is the latest approach and has profound practical value in the current period of international economic development and integration. The application and development of this theory in practice and in research has very important value, contributing to the creation of new perspectives and important new solutions in the process of nation building in Vietnam today.

3. RESEARCH METHOD

In this study, the author uses secondary data collected from domestic and foreign scientific articles, reports, legal documents, researches... related to economic development and environmental protection. Analytical and synthetic methods are employed to clarify the research concepts, as well as the reality of economic development associated with environmental protection in the Mekong Delta region. Based on the analysis of the theoretical basis and the actual situation, the author makes a number of proposals to promote economic development associated with environmental protection towards sustainable development in this region.

4. RESEARCH RESULTS

4.1. About investment and science and technology

Regarding development investment in 2012, the total investment capital was estimated at 186,646 billion VND, up 5.44% over the same period. In 2015, investment capital of the whole region was estimated at 258,687 billion VND, reaching 103.67% of the plan. Traffic infrastructure construction investment projects in 2015 were implemented very actively, implementing investment in 6 projects using state budget capital with a total investment of VND 2,600 billion; 7 projects funded by government bonds with a total investment of VND 18,072 billion; 6 projects using ODA capital with a total investment of 41,226 billion VND and calling for many sources from socialization to invest in other projects (Nguyen Quoc Dung, 2016). By 2020, invest in clean energy for the Mekong Delta with a total capacity of coal and gas power reaching 22,650 MW. As of June 20, 2021, the Mekong Delta has 1,818 FDI projects, with a total registered capital signed about 33 billion USD, equal to 10% of the total number of projects and registered capital of the whole country and the main field of investment is the processing industry. Medium-term investment capital in the 2021-2025 period for the Mekong Delta with the total estimated budget allocated over VND 266,000 billion, an increase of 20% compared to the 2016-2020 period [9].

Investing in the application of science and technology in production is considered the most effective way to help the Mekong Delta promote agricultural restructuring and sustainable development, especially in the context of climate change faster than forecast. As the largest agricultural and fishery production center in the country, the Mekong Delta needs to take the lead in applying technological solutions to agricultural production in order to bring into full play the region's advantages. Localities and businesses in the region have been supported to apply science and technology from key national science and technology programs; rural and mountainous program; support the development of intellectual property; national program to improve productivity and quality of products and goods of Vietnamese enterprises.

However, the Mekong Delta is facing many challenges due to climate change and sea level rise happening faster than forecast, causing extreme weather phenomena, directly affecting production and life of the people citizen. Therefore, it is necessary to further promote the application of new technology, advanced technology, intelligent technology and automatic technology solutions to production.

4.2. About the economic structure

In recent years, the economy of the provinces and cities in the Mekong Delta has continuously grown at a high rate. In 2015, the economic growth rate is estimated at 7.8%. However, the economic structure is still changing slowly, agriculture - forestry - fishery still accounts for a large proportion. In the 10 years from 2005 to 2015, the whole region has mobilized total social investment capital of 627,000 billion VND; in which, the state budget is 139,000 billion dong, the rest 488,000 billion dong comes from investment capital of enterprises and other social investment capital, accounting for 77.8% of total social investment (Nguyen Quoc Dung, 2016).

According to Mr. Tran Tuan Anh, Politburo member, Head of the Central Economic Commission, speaking at the seminar "Socio-economic development in the Mekong Delta to 2030, with a vision to 2045": " The economic growth of the Mekong Delta is maintained at a relatively high rate; GRDP scale of the region in 2020 will reach VND 596 trillion, contributing 11.95% to the total GDP of the country; the structure of industry - construction and trade in services are getting closer and closer to the economic structure of the whole country". The investment environment has been improved, the competitiveness index (PCI) of the provinces and cities in the region is in the group of good, good and very good. In terms of agricultural production, due to favorable weather conditions and relatively low flood levels, the norms of area and productivity of crops have increased year by year. The industrial production value of the region has increased continuously over the years, in the period 2001-2010, an average increase of 18.8%/year. In 2015, the industrial production value reached VND 578,586 billion, up 13.3% over the same period, the index of industrial production (IIP) was estimated to increase by 8.3% (Nguyen Quoc Dung, 2016), in the period 2010-2015, the region's average economic growth rate reached 11.5%/year. There are 3 to 6 provinces in the Mekong Delta in the group of 10 leading provinces and cities every year.

Growth in the first 6 months of 2020 of the Mekong Delta reached 2.08%, higher than the national average (1.81%) but the lowest level in many years. The number of newly established enterprises decreased by 2.9% over the same period in 2019, production and export of some key products such as pangasius, shrimp and fruit decreased by -39.0%, respectively. -14.5% and 21.0% respectively due to temporary supply chain disruption in the early stages of the outbreak in China [9]

It is possible to see an overview of the economic restructuring situation of the Mekong Delta over the years. However, in general, it is still necessary to have a sustainable economic restructuring towards long-term development. The economic structure has changed rapidly in a period, but overall, it is still slow, it is necessary to have appropriate measures and directions. On the other hand, economic restructuring needs to focus on environmental issues and sustainable development. Economic restructuring is the common direction of the Mekong Delta and the whole country, but it cannot be exchanged for the environment. The hasty shift will cause ecological imbalance, loss of agricultural land while the application of science and technology is still limited, services are not really professional, causing environmental consequences. These are issues that still need to be discussed a lot in order to come up with solutions for the process of economic restructuring.

4.3. Environment of water, air, land and trees

Flooding regime in the Mekong Delta, concentrated in the provinces of Dong Thap, An Giang, Tien Giang, Kien Giang, Can Tho, Vinh Long... lasts from July to December every year. Annual rainfall is unevenly distributed, the dry season lasts 7 months a year, the rainfall accounts for 10%, and the rainy season lasts 5 months accounts for 90% of the year. Currently, with climate change, the rainy and dry seasons are tending to come faster, the amount of rain is very heavy in the rainy season but in the dry season it is much lower than before. Therefore, it has affected the water flow in large rivers, typically the Mekong River. For Vietnam, the Mekong river basin stretches about 65,000 square kilometers, accounting for 8% of the basin area, 20% of the national area. In which, the basin in the Central Highlands is 25,000 km^2, 39,500 km^2 in the Mekong Delta (Ta Ngoc Tan, 2018).

Along with the unusual change of climate, the warming of the earth, the sea level also tends to rise more and more. The Ministry of Natural Resources and Environment has forecast: "By 2100, the average temperature may increase by about 3 degrees Celsius and sea level will rise by 1m. By

2070, the sea level will rise from 15cm– 90cm" (Pham Thanh Hang, 2019), with more than 80% of the land area having an elevation lower than 2.5m above sea level, the Mekong Delta is assessed as an area that is heavily affected by global climate change and sea level rise. Data in 2013 released by the Ministry of Natural Resources and Environment, if the sea level rises by 1m, about 40,000km2 of the coastal plain of Vietnam will be flooded every year, of which 90% of the area belongs to the Mekong Delta provinces was almost completely flooded.

Especially in the Mekong River Delta, there are quite large alkaline soil areas, concentrated in Dong Thap Muoi, Long Xuyen Quadrangle, Ca Mau Peninsula... with an area of about 1.5 million hectares. The impact of agro-forestry-fishery activities has taken place the process of spreading alum which has an impact on the water and soil environment in the Mekong Delta.

In the current economic structure of the Mekong Delta, the agriculture-forestry-fishery sector accounts for 48%, the industry and construction sector accounts for 22%; service sector accounts for 30%. It shows that the economy here is still mainly an ecologically dependent economy, in which the state and quality of the water environment, the soil environment and the ecosystems are decisive to the quality and production quantity of agricultural, forestry and fishery products. As the largest agricultural production region in the country, however, the Mekong Delta is facing a number of environmental problems that need to be resolved to ensure sustainable development in the region.

Water sources on Tien River, Hau River and estuaries leading to the sea... have shown signs of organic and microbiological contamination caused by industrial, urban and residential waste sources, and aquaculture waste aquatic products, agricultural production, etc., which have not been thoroughly treated, continue to be discharged into the river and canal system in the area. Underground water sources are exploited and used for daily life, industrial production, agricultural-forestry-fishery farming, etc., which have not been strictly controlled, causing the impact of reducing groundwater levels in some places, causing pollution dirty groundwater.

The lands converted for shrimp and fish farming are mostly alum-contaminated; The alum stratum is usually shallow, so in the process of renovating and constructing ponds and farming fields, farmers accidentally or intentionally created dangerous disturbances, deepened and brought the alum formation to the surface, allowing it to be exposed to the air becomes active alum, causing the iron and soluble aluminum content to increase. Toxic gases H2S, NH3... caused by the decomposition of dead plants and algae during the farming process also develop, which is toxic to aquatic species and pollutes the air environment.

The process of using land in agriculture, aquaculture, industry, urbanization... changes the land, degrades the land, causing environmental pollution. The area under aquaculture has increased rapidly. Along with the process of agricultural production and urbanization in the Mekong Delta, the problem of environmental pollution is very serious, especially soil pollution. Agricultural production according to the old style of farming, which is the excessive use of pesticides and chemicals and stimulants, has made the soil environment polluted and degraded. The agricultural waste has not been fully decomposed, along with the slow regeneration of productive land, which has not met the basic requirements in the regeneration process, which has resulted in a shrinking arable land area. Pollution is now of poor quality, affecting agricultural production and decreasing output.

It can be seen that all of the above pollution problems have a direct or indirect impact on the green environment. The contaminated land and polluted flooded areas are habitats for many types of green plants, thus greatly affecting the absorption of nutrients by plants, limiting the ability of plants to absorb nutrients growth of green plants. Air waste reduces the ability of plants to photosynthesize, besides in places with heavy air pollution, trees cannot grow.

4.4. Mechanisms, policies and people

For the society-economic development of the Mekong Delta, the Party and State have issued many policies and resolutions to promote and develop production and improve the social life of the people, especially in the rural areas in agriculture such as: Decree 109/2010/ND-CP dated 4-11-2010 of the Government on rice export business. This Decree has opened a new direction in the business and export of rice and rice to our country. Strictly regulate the business and export of rice in order to ensure food security, promote production and development, and encourage the use and application of science and technology in rice production and processing to serve rice production and business activities trading and exporting rice. Create a strict legal framework to control the production, processing and export of Vietnam's rice, ensuring the interests of producers in general and farmers in particular so that they can peace of mind in the production and consumption of goods they make, strengthen people's confidence in the guidelines of the Party, policies and laws of the State.

The Mekong Delta is home to many ethnic groups, of which there are four main ethnic groups: Kinh, Hoa, Khmer and Cham. The Kinh ethnic group accounts for 92.2% of the total population of the region. The Chinese account for about 6.1%, the Khmer account for about 6.3% and the Cham have about 14,000 people living mainly in An Giang (Bui Van Nghiem, Duong Trung Y, 2018). Per capita income in the Mekong Delta in 2015, was estimated at 40.27 million VND/person/year compared to 2014 (38 million VND/person/year), an increase of 2.2 million VND. In 2018, the total GDP of the whole Mekong Delta was 818,523 million VND, an average of 46 million VND/person/year.[9]

According to the 2014 Labor and Employment Survey Report of the General Statistics Office, labor in the agricultural sector in the Mekong Delta accounted for 50.4% of the total labor force in the economy, the rest were activities active in other fields. Structure of rural laborers in the Mekong Delta by professional and technical qualifications (2014): No professional and technical qualifications accounted for 93.0%; vocational training: 1.7%; professional secondary school: 1.6%, college: 1.0%, university and higher: 2.7% (Nguyen Thanh Hung, 2017).

4.5. Achievements

According to the Ministry of Natural Resources and Environment (2021), the GRDP growth of the Mekong Delta had always been at a high level before the Covid-19 pandemic: for two consecutive years 2018 and 2019, the GRDP growth both achieved impressive growth rates at about 7.3%. The cultural and spiritual life of the people had been gradually improved. The traditional cultural values of the region were gradually preserved, promoted and exploited effectively to serve the people and international tourists. In 2019 alone, the number of tourists to the region were about 47 million, and 13.5 million of staying guests, earning tens of trillions of dong.

In order to achieve the above results, in recent years, the Mekong Delta region has undergone drastic changes and transformation towards sustainability. Specifically, economic transformation in the region is accelerated based on natural strengths, forming a smart production network. In industrial sector, Mekong Delta focuses on processing industry, green industry with low emission. In agricultural sector, agricultural production was initially transformed in the direction of forming large-scale concentrated production areas, specializing in the cultivation of key agricultural products in association with processing technology and consumption according to the value chain, in line with the policy of increasing fisheries, fruits, and reducing rice. In service sector, the ecological, cultural and historical advantages are preserved; the tourism and service are promoted.

In addition, the Mekong Delta Coordinating Council was established, whose main function is to provide strategic solutions and address challenges to help the Mekong Delta develop sustainably, adapting to climate change and ensuring a happy and prosperous life for the people in the region. The Mekong Delta Coordinating Council plays a very important role in organizing the implementation of the regional plan, ensuring the effectiveness in coordination, linkage, and resolution of inter-sectoral and inter-provincial issues.

The Mekong Delta also promotes basic investigation, builds a data foundation for effective management, administration and exploitation of resources such as the completion of the digital elevation model, the handover of the groundwater map to all localities in the Mekong Delta, the completion of the construction of the Environmental Monitoring Center in the Mekong Delta... Up to now, the Ministry of Natural Resources and Environment has handed over the groundwater map to all localities in the Mekong Delta for investment and construction into centralized water supply works.

Besides, the region has focused on improving the capacity of observation, monitoring, weather forecast and disaster warning. Investigations, surveys, warnings and forecasts on the environment and climate have been enhanced under natural laws. Specifically, the network of climate and weather monitoring has been enhanced; the quality of hydro-meteorological forecasting and early warning of natural disasters has been improved to serve the implementation of adaptation solutions, in which attention has been paid to non-structural solutions such as water storage, cropping season change, crop-livestock restructuring, etc., which have minimized adverse impacts on daily life and production. Particularly in the 2019-20 salinity drought, its severity and extent was larger than the historical drought in 2015-2016 but thanks to proactively accurate forecasting and timely restructuring of production, it decreased 90% of the affected rice area, people got a good harvest and high price (Ministry of Natural Resources and Environment, 2021).

4.6. Limitations and difficulties

Besides the aforementioned achievements, the Mekong Delta has to deal with many difficulties and challenges in the process of economic development associated with environmental protection. Currently, the region is still facing strong impacts of climate change such as high tides, droughts, and landslides. In addition, hydropower development and resource exploitation with high intensity in the upper Mekong River make the Mekong Delta the most affected region, while the sub-regional coordination mechanism remains weak.

The regional linkage mechanism stays difficult because some localities face the problem of "conflict of interest". Every localitiy wants to break through, triggering competition among localities.

On the other hand, the Mekong Delta lacks large enterprises to invest with and build large-scale projects with the government. The mechanism to attract investment from the private sector and society still faces many difficulties and has not yet made a breakthrough. The development of 3 eco-economic zones have been slowly implemented, the investment in infrastructure development is still awkward.

Infrastructure projects lack synchronous and multi-purpose connectivity to create a driving force for the development of the commodity market. The level of information technology application to the access of climate change scenarios, disaster prevention, updating information on the environment, water sources, etc. to serve agricultural and fishery production is very low.

5. SOME SOLUTIONS TO CONTRIBUTE TO SUSTAINABLE DEVELOPMENT IN THE MEKONG DELTA PROVINCES TODAY

5.1. Educational solutions to raise awareness and responsibility in economic development and protection of the natural environment in the Mekong Delta

Education, raising awareness and responsibility for the current environmental protection issue must first start from Managers and authorities at all levels so that they are aware of their responsibilities, powers, and consequences of balancing and approving projects, making guidelines and policies in the field of environmental protection. Their words, behaviors and attitudes towards the environment are examples for the masses to follow.

In addition, it is necessary to further strengthen the education of environmental protection awareness for business owners, investors and people so that they can see their responsibility in preserving the common living environment. Businesses still make profits but also need to pay attention to environmental protection, this is both a responsibility, an obligation and also a guarantee for the interests of businesses because environmental protection will ensure If the raw material area of the enterprise is not polluted in the agricultural, forestry, fishery industries, etc., on the other hand, a healthy environment and sustainable development will be a lever for the business to develop.

5.2. Socio-economic, scientific and technological solutions in economic development and protection of the natural environment in the Mekong Delta

Closely combine agricultural and rural economic restructuring towards industrialization and modernization with increased investment in construction of rural infrastructure. Closely associate the agricultural and rural economic restructuring process with the migration to build new economic zones in order to redistribute labor, create jobs, and contribute to poverty alleviation.

Restructuring the agricultural economy in the Mekong Delta provinces to promote agricultural production in the region towards multi-cultivation and specialization, contributing to improving the efficiency of agricultural production and improving the quality of agricultural products agricultural products, at the same time exploiting and bringing into full play the agricultural characteristics, potentials and strengths of each locality and region, thereby enhancing the competitiveness of the value of goods.

It is necessary to innovate technology, increase the application of science and technology to the work of overcoming, preventing and minimizing the impacts of environmental pollution, climate change, and economical use of natural resources. . It is necessary to have many inventions, inventions, machines and technologies to serve the work of overcoming and preventing environmental pollution.

5.3. Solutions on human resource development for economic development and natural environment protection in the Mekong Delta

Promoting the human factor in the process of industrialization and modernization associated with environmental protection in the Mekong Delta is in fact promoting positivity, dynamism and creativity in both cognitive and environmental activities both in terms of practical human activities, promoting socio-economic development for the sake of sustainable development. In order to implement the strategy of sustainable development in the Mekong Delta, an important and indispensable factor is that people must be conscious in the exploitation and use of environmental resources, that is, they must be conscious of the environment ecological environment protection. But in order to do so, the basic thing that must be solved first is to improve and enhance the people's living standards on the basis of exploiting and using the strengths and potentials of people and natural resources, but not doing so damage to the environment.

In addition, the Party and State together with authorities at all levels need to create conditions for environmental workers to study and train to improve their professional capacity, and to practice in many places to prepare Gain practical knowledge to serve the mission of the agency or unit. On the other hand, it is necessary to study and foster political theory in order to improve the capacity to assess problems, understand the Party's guidelines, the State's laws and policies, and have the correct worldview and methodology science in handling work. Priority should be given to training young cadres, having a strategy for training, building and fostering the next team, ready to replace the cadres who are about to retire.

5.4. Solutions on completing mechanisms, policies and laws to strengthen state management in economic development with environmental protection in the region

Supplement and complete policies directly related to economic development and environmental protection. Continue to improve a number of laws such as: Law on Land, Law on Water Resources, Law on Forest Protection, Law on Minerals, Law on Biodiversity, Law on Environmental Protection... in order to suit the situation of growth and development economy, in line with international economic integration commitments towards the efficient use of natural resources. It is necessary to have policies to limit investment and exploitation of natural resources in sensitive areas upstream of rivers, border forests and mountains, land, security and defense buffer zones, islands, etc. maximum licensing acts to exploit natural resources that are in danger of being exhausted and are not renewable. In addition to supplementing and perfecting mechanisms and policies, it is necessary to continue to improve the legal system to protect the environment against the requirements of sustainable development, which is very necessary in the current period. The law will create a favorable legal corridor for economic actors, on the other hand, is a tool to handle violations of economic actors themselves.

Strengthen the review, re-evaluate and perfect the organization and personnel in performing the tasks of natural resource management and environmental protection in both quantity and quality assurance. Strengthening capacity of officers in law enforcement and inspection, supervision of exploitation, use and management of natural resources and environmental protection for staff working in the resource sector and environment, customs, coast guard, forest rangers, border guards, etc. are working in remote and isolated areas where many mineral resources and diverse biological systems are concentrated.

5.5. Solutions on development, promoting international cooperation in efforts to overcome the impact of climate change, environmental pollution

Increase the attraction of FDI with high technology, environmentally friendly and labor intensive. Encourage investment in building infrastructure and supporting industries, renewable energy, new materials, electronics, information technology, plant varieties, livestock, human resource training and health care high-quality health… has a flexible mechanism for specific projects. Encourage the establishment of research and development centers of foreign-invested enterprises in Vietnam.

5.6. Solutions on applying green technology in the development of high-tech agriculture in the Mekong Delta region

Currently, high-tech agriculture is the top priority of the Mekong Delta in the economic development of the region. With the application of high technology in agriculture, clean agricultural production has been promoted, towards sustainable development. This is a new direction for sustainable economic growth in the region. Green technology is now considered a driving factor in sustainable economic growth in every country, including Vietnam. The application of modern, environmentally friendly science and technology is a new direction of our country's agriculture, and this is also a breakthrough in the economic development strategy of the Mekong Delta.

For sustainable development and environmental protection, it is necessary to apply green technology and biotechnology in production to increase productivity and protect the environment. The current era of the fourth industrial revolution allows the application of information technology and digital technology to all stages in the production process. Large sample fields have developed very strongly, including the application of modern scientific and technological achievements from production to processing. This is a solution and a vital breakthrough for the development and economic growth of the Mekong Delta in the future in the face of strong natural and social changes that bring and need to be addressed must act now.

6. CONCLUSION

Economic growth and development associated with environmental protection towards sustainable development is an inevitable path chosen by Vietnam and other countries around the world. The Mekong Delta is one of the key areas for economic development of the country, so the issue of economic growth with environmental protection and response to climate change is a matter of utmost urgency and needed today. It is necessary to pay more attention to protecting the foundation for socio-economic development, improving the quality of human life, which is natural resources and living environment.

Economic growth and environmental protection are two important factors of sustainable development, there is a dialectical relationship between them. Environmental protection is the basis and foundation for sustainable economic growth and reasonable economic growth is the goal and motivation for environmental protection.

At present, solving the relationship between economic growth and environmental protection is an urgent requirement for countries, for Vietnam in general and for the Mekong Delta provinces in particular, on the development and international integration. In order to harmoniously combine economic growth with environmental protection in the Mekong Delta provinces today, the author gives some historical and current views as arguments to offer solutions aiming at the goal of sustainable economic development, green economy for the Mekong Delta today, contributing to the economic development, building socialism of the country in general. The groups of solutions aim at the important issue of environmental protection and response to climate change in the economic development of the region. To ensure sustainable economic development, it is necessary that all levels, sectors and the entire people join hands and participate, so that the proposed solutions can be successfully implemented for the cause of industrialization and modernization modernization of the country.

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VIETNAM'S POLICY ORIENTATIONS FOR FOREIGN DIRECT INVESTMENT ATTRACTION IN THE NEW CONTEXT

MA Vu Thi Quynh Ngan[1]

Abstract: *Vietnam has adjusted institution and policy to ensure that the attraction of FDI meet the demand for socio-economic development in each period for the 35 years of attracting FDI (between 1987 and 2022). As a result, FDI inflows to Vietnam have obtained some achievements and increasingly contributed to economic growth, promotion of industry restructuring and technology transfer. The FDI inflows to several countries, including Vietnam, have been changing by the context of trade disputes in the world, the rise of protectionism and anti-liberalization of multilateral trade, the development trend of the Fourth Industrial Revolution, the outbreak of the global Covid-19 pandemic. In such circumstances, Vietnam needs to identify opportunities and challenges in attracting FDI to have appropriate countermeasures and policy adjustment orientation.*

Keywords: *Policies, FDI attraction, new context.*

1. CONTRIBUTION OF FDI SECTOR TO VIETNAM'S ECONOMIC DEVELOPMENT

In the 35 years of FDI attraction in Vietnam, FDI inflows in 2008 (USD 64 billion) is the largest, followed by the investment flows in 2019. The significant amount of FDI inflows in 2019 is result of relocating foreign investments away from China after the US-China trade war. The wave of China's investment (including Taiwan and Hong Kong) into Vietnam has increased sharply in order to avoid the negative effects of the US-China trade war. Investment from China in 2019 increased nearly 1.65 times and from Hong Kong increased 2.4 times compared to 2018. In the context of the Covid-19 pandemic in 2020, the total registered FDI capital was USD 28,530 billion, which is lower than that of 2018 and 2019 but much larger than the average amount of years following the 2008 financial crash. That reflects the effectiveness of the FDI attraction policies, the high confidence and expectations of foreign investors for Vietnam.

In 2021, there were two consecutive periods of pandemic, in which the 4th Covid-19 outbreak of the Delta variant spreads throughout the country, especially in the northern and southern key economic regions, Ho Chi Minh City and neighboring industrial provinces. This led to many provinces and cities having to implement social distancing according to Directive 16. Consequencely, tens of thousands of businesses including FDI enterprises have to cut down on or even stop their production. The system of transportation, supply and circulation of goods were congested. Production and supply chains were disrupted and series of orders were canceled. However, FDI into Vietnam reached USD 31.15 billion, increasing by 9.2% compared to 2020. Newly registered and adjusted capital investment both increased compared to 2020, especially adjusted capital increased sharply by 40.5%. The result of FDI attraction is recognized as a bright spot in Vietnam's economic picture and is considered an "impressive" figure in the context that global investment flows are declining and having many adjustments due to the impact of the Covid-19 pandemic.

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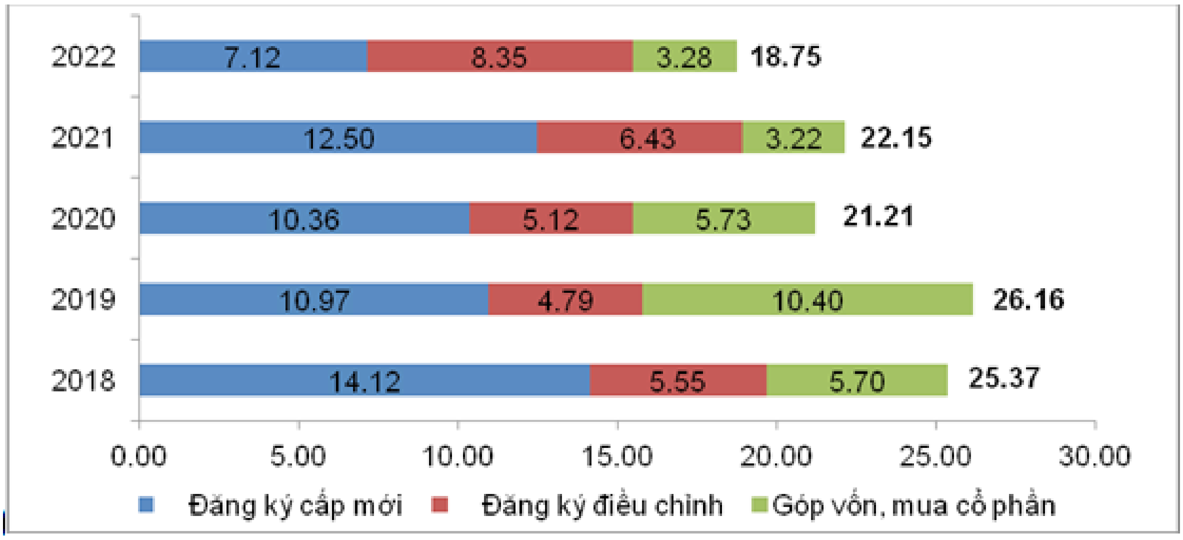

Figure 1. Foreign capital investment registered in Vietnam as of September 20th, 2018-2022 (Billion US dollars)

Source: General Statistics Office of Vietnam (2022)

FDI inflows to Vietnam are expected to increase in 2022, thanks to the policy of investment attraction and reopening the economy after post-lockdown transition period. According to the Foreign Investment Agency (Ministry of Planning and Investment), as of September 20th, 2022, the total newly registered capital, capital registered for adjustment and capital contribution and purchase of shares or stakes reached more than USD 18.7 billion, which equals 84.7% of the same period in 2021. The total newly registered capital, reaching USD 7.12 billion (down by 43% compared to the same period), has not yet recovered fully after the interruption of anti-pandemic measures and the unpredictable global events. Besides, in the early months of 2022, the number of projects with large capital investment of over USD 100 million was lower than the figure of the same period in 2021.[1]

However, the positive point in attracting FDI in the first 9 months of 2022 is that the number of new investment projects has been increasing monthly since the beginning of the year2. Adjusted capital and capital contribution and share purchase by foreign investors continued to increase by 29.9% and 1.9% respectively.

During the 35 years of implementing the Doi Moi process, attracting FDI has always been considered as one of the outstanding achievements of Vietnam's economy. Accumulated to September 20th, 2022, the country had 35,725 valid projects with a total registered capital of over USD 431.5 billion. The accumulated realized capital of foreign investment projects was estimated at USD 267 billion, which equals 61.9% of the total valid registered capital investment. Currently, there are about

[1] In 2021, the newly registered capital of projects of over USD 100 million accounted for 62.3% of the total newly registered capital in the first nine months of 2021, of which the two largest projects were the Long An I and II LNG Power Plant Project which had a capital investment of over USD 3.1 billion and O Mon II Thermal Power Project which had a capital investment of over USD 1.3 billion. In 2022, in 9 months, projects with capital scale of over USD 100 million accounted for only 37.2% of the total new capital investment of 9 months.

[2] In September 2022, the figure increased by 6.8% compared to August and 46.2% compared to July.

140 countries and territories having investment projects in Vietnam, of which South Korea ranks first, accounting for 26.4% of the total number of projects and 18.6% of the total valid capital investment; followed by Singapore with 8.4% of the total number of projects and 16.2% of the total valid capital investment; Japan ranks third with 13.8% of the total number of projects and 15.3% of the total valid capital investment.

The figures indicate that the FDI sector continues to make important contributions to socio-economic development, which is shown in some highlights as follows:

Firstly, FDI is an important resource contributing significantly to the total development capital investment of the whole society and has become a driving force of growth of the economy. The proportion of FDI in total capital investment of the society had gradually increased, from nearly 18% in 2000 to the highest level of 30.9% in 2008; this rate tended to decrease and remains relatively stable in the period of 2009-2021 with an average of about 24%.

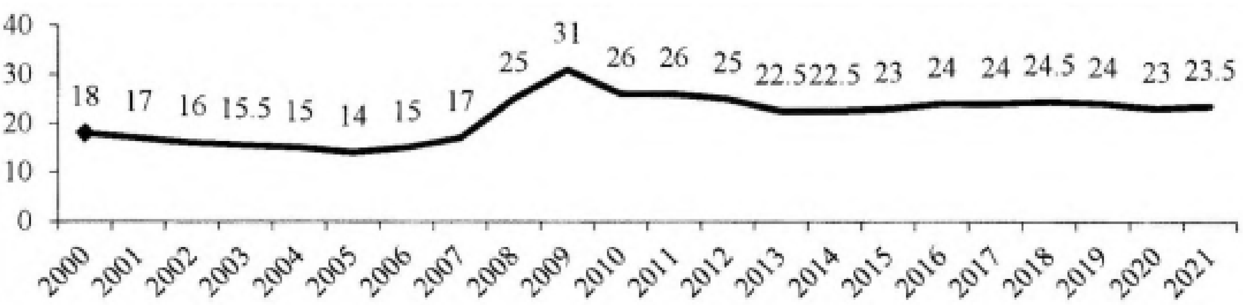

Figure 2. The proportion of FDI in total capital investment of the whole society

Source: Calculation based on data of Foreign Investment Agency, 2021

Secondly, FDI is contributing to economic growth and the state budget. In particular, for economic growth, in the period of 1986-1996, the foreign investment sector contributed 15.04% and in the period of 2010-2021, it contributed about 18% in economic growth. The FDI sector has also contributed significantly to state budget revenue, with the value of payment to the state budget increasing from USD 1.8 billion in the period of 1994-2000 to USD 14.2 billion in the period of 2001-2010. In the period of 2011-2021, the state budget revenue from the FDI sector was relatively stable, accounting for nearly 14% of the total state budget revenue.

Thirdly, the FDI sector makes an important contribution to promoting economic restructuring. Through investment in the processing and manufacturing industry, FDI has become an important factor paving the way and promoting the development of many new industries and products, contributing to the formation of a number of main export industries of our country such as oil and gas, electronics, information technology, textile and garment, footwear, etc., thereby creating an important foundation for long-term growth, as well as promoting the process of modernization - industrialization of the country. Accumulated to September 20th, 2022, FDI projects in the processing and manufacturing industry accounted for 44.3% of the number of projects and 60% of the total registered capital of valid projects.

Fourthly, FDI makes important contributions to promoting and expanding the export market and transforming the structure of export products, gradually brings Vietnam into the production network and improves its position in the global value chain. The foreign-invested enterprise sector is increasingly having a dominant impact on Vietnam's export, import and balance of trade. In the period of 2000-2021, the FDI sector always accounted for over 60%, especially in the period from 2015 up to now, the export proportion of the FDI sector accounted for over 70% of the total export turnover of the country. The export of the FDI sector has contributed to changing the structure of export products in the direction of reducing the proportion of exports which are minerals and preliminarily processed goods while gradually increasing the proportion of manufactured goods. The FDI sector has also provided the domestic market with quality products that can replace imported goods.

Unit: %

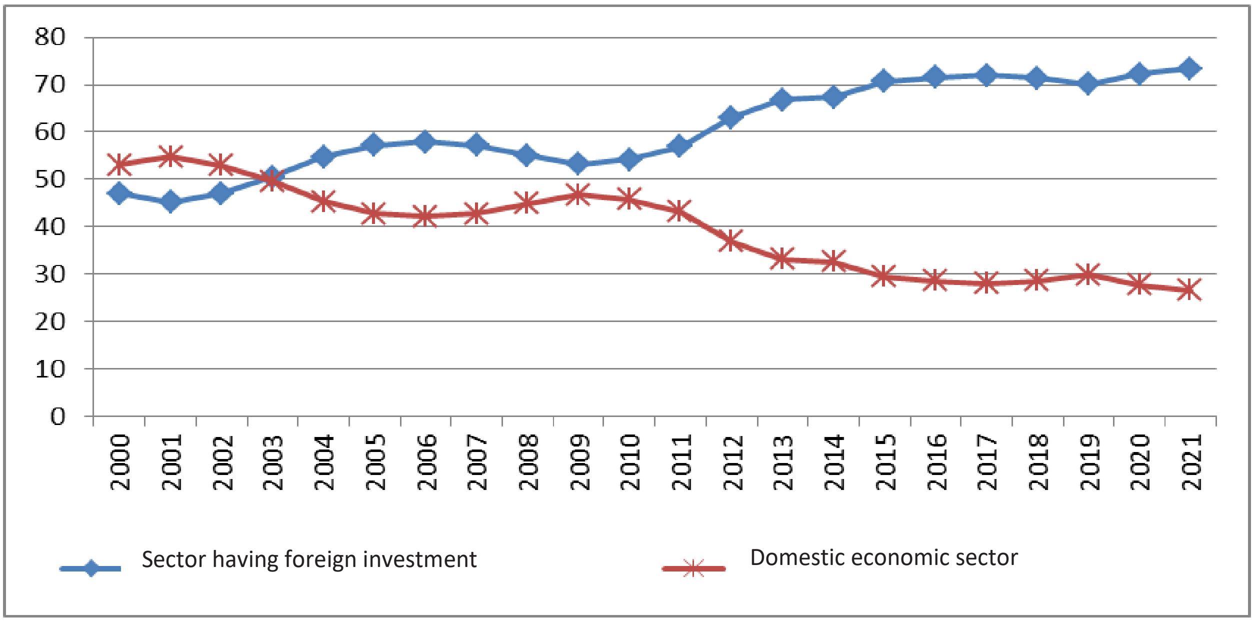

Figure 3. Export structure by economic sectors

Source: General Statistics Office of Vietnam

Fifthly, the FDI sector contributes to creating jobs and improving the quality of human resources for Vietnam. As of December 31, 2021, the FDI sector had created jobs for over 4.7 million direct workers and about 5-6 million indirect workers. In which, large number of workers have been trained abroad. Large number of officials and employees in the FDI sector have been considered as the "nuclei" to develop the highly qualified and skilled workforce of Vietnam.

Unit: thousand people

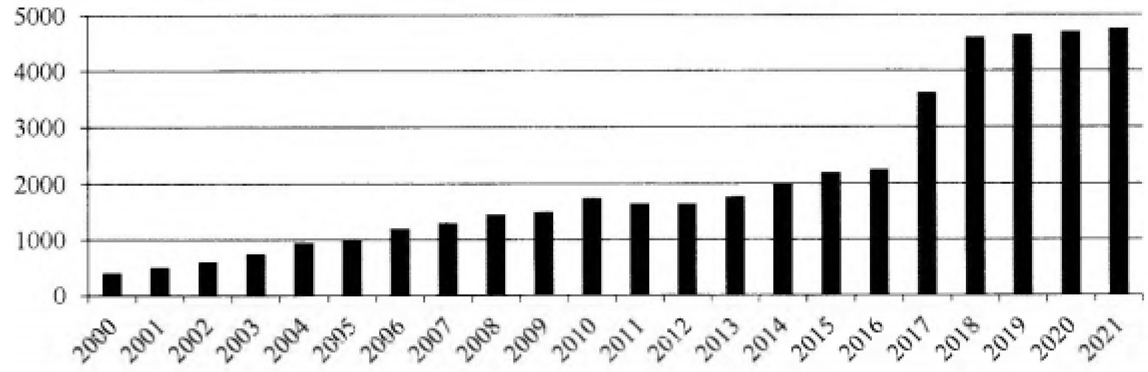

Figure 4. Number of employees working in the FDI sector

Source: Nguyen Tien Long et al (2022)

However, looking at the results of attracting FDI in Vietnam, it can be seen some limitations of the policies. FDI enterprises have not yet brought a strong "boost" to other business sectors compared to the benefits they have received from investment attraction policies. Most of the FDI enterprises have not yet formed linkage chains and clusters of industries with domestic businesses.

In addition, FDI inflows to Vietnam have not yet achieved the objectives of the investment attraction polies. Firstly, FDI flows into priority sectors such as agriculture, processing agricultural products, aquaculture, software production and renewable energy, etc. accounts for a minority proportion, with FDI in agriculture only accounting for about 1%. Secondly, FDI inflows, accounting for 80% of the total number of projects and 67% of the total registered capital investment nationwide, are concentrated in areas with favorable infrastructure such as Hanoi, Ho Chi Minh City, Binh Duong, Ba Ria Vung Tau, Dong Nai, Hai Phong, Bac Ninh, etc.. Meanwhile, FDI inflows to difficult and extremely difficult socio-economic areas only accounts for a modest number, with about 4% of projects and 5% of total registered capital investment in mountainous provinces and remote areas such as the Central Highlands and the Northern Midlands and Mountains1. Thirdly, the transfer pricing and thin capitalization by FDI enterprises are complicated, causing losses to the state budget. Forthly, FDI also increases the environmental security risks, for instance the marine environmental disaster caused by Formosa Group's steel project in four provinces2 in the Central region. Such type of disaster led to short-term and long-term damage to both ecological environment and people's lives. Finally, the links between FDI enterprises and domestic suppliers are weak. FDI projects are mainly assembly and processing. Hence, the target of localization rate has not achieved and the added value created in Vietnam is not high.

[1] Calculation based on data of valid investment projects accumulated until September 20, 2022 of the Foreign Investment Agency

[2] Ha Tinh, Quang Binh, Quang Tri, and Thua Thien-Hue

2. NEW CONTEXT, OPPORTUNITIES AND CHALLENGES IN ATTRACTING FDI

Attracting FDI in Vietnam takes place in the context of the global economy being affected by several factors. The world geopolitics has many changes and potential risks, particularly, the Russia-Ukraine conflict has slowed down the globalization process, and the regionalization trend tends to become stronger. Industry 4.0, based on digital technology and integrating smart technologies to optimize production processes and methods, brings new opportunities and challenges to the entire economy, including FDI. Besides, the free flow of capital, goods, services, and skilled labor in the ASEAN Economic Community has made competition in attracting FDI among countries in the region, especially for some countries such as Thailand, Malaysia, and Indonesia, take place more intensely in high-tech, modern service industries. Global foreign investment activities are gradually changing in terms of investment methods through value chains. Multinational corporations turn to new forms of FDI (such as outsourcing, service outsourcing, agricultural contracting, franchising, licensing and management by contract) to look for better business results. Meanwhile, for the purpose of optimizing production, reducing costs to optimize profits, minimizing risks from political conflicts and trade wars, as well as utilizing achievements of scientific and technological development, FDI fuels the shift of supply chains from one country to another in three directions, including: (i) shifting the supply chain to countries in the same geographical area to reduce dependence on or avoid risks from trade wars or sanctions between economies; especially the trend of moving all or part of FDI out of China; (ii) moving the supply chain back home, taking place in developed countries such as the US, Japan, and the EU; (iii) restructuring and rearranging the supply chain by diversifying supply sources, expanding the network of suppliers for spread of risks, such as ordering raw materials and components from many suppliers in different countries.

Vietnam has several opportunities in attracting FDI in the new context. Vietnam has transferred from a period of international economic integration to a new phase of increasingly closer integration into the regional and global economy with new-generation FTAs such as CPTPP, EVFTA, RCEP, etc.. That provides opportunities for Vietnam to receive more FDI from FTA partners. Moreover, Vietnam has large number of advantages such as political stability, favorable geographical position, cheaper production costs compared to other countries in the region. Business environment and infrastructure also gradually improved. Vietnam has several cultural similarities with investment partners from Northeast Asian areas..., which means Vietnam have the opportunity to take advantage of the FDI inflows displaced by the impact of the US-China trade war and the impact of the Covid-19 pandemic. In fact, Vietnam is benefiting from this trend. This is reflected in the expansion of capital investment that has continuously grown in the past two years, despite the impact of the Covid-19 pandemic. A number of investors have announced plans to increase capital and expand the scale of operation in Vietnam in the first nine months of 2022. An example for this is Goertek, the largest AirPod manufacturer in Vietnam, which has raised capital to over USD 500 million to expand production in Bac Ninh and Nghe An, or Foxconn which is expected to invest an additional USD 300 million in a new project in Quang Chau industrial park (Bac Giang) to produce iPads and MacBooks.

Nevertheless, Vietnam faces various challenges in attracting FDI. The first challenge is the policy instability, unclear legal regulations and lack of transparency, causing difficulties for investors in the investment implementation process. Infrastructure in general and logistics infrastructure in particular have not been developed synchronously. High-quality human resources are relatively limited and administrative procedures are complicated.

Furthermore, the connectivity between FDI enterprises and domestic enterprises is weak. Ancillary industries have not yet developed and domestic businesses have difficulties in participating in supply chains. Moreover, global value chains are creating barriers in attracting FDI, especially after the global supply chain disruption due to the Covid-19 pandemic.

Attracting FDI in Vietnam is also facing the threat from declining global FDI flows. According to the World Investment Report 2022, the United Nations Conference on Trade and Development (UNCTAD) forecasts that global FDI flows in 2022 will be on a downward trend because the impact of the conflict in Ukraine, high energy prices and the Covid-19 pandemic still being unpredictable. However, the report indicates that FDI flows into production will gradually decrease while newly invested FDI in the fields of finance, technology, and renewable energy will increase.

3. ORIENTATIONS TO DEVELOP FDI ATTRACTION POLICY IN THE NEW CONTEXT

Resolution No. 50/NQ-TW of the Politburo on directions for improving institutions and policies and enhancing the quality and effectiveness of foreign investment cooperation by 2030 clearly states that the FDI sector is an important component of Vietnam's economy. This sector is encouraged and facilitated for long-term development, cooperation and fair competition with other economic sectors. In order to improve the quality of FDI inflows in the coming time, Resolution No. 50/NQ-TW by 2030 aims to increase the localization rate from the current 20-25% to 30% by 2025 and 40% by 2030.

Most recently, on June 2, 2022, the Prime Minister signed and promulgated Decision No. 667/QD-TTg approving the Foreign Investment Cooperation Strategy for the 2021-2030 period, setting three goals. The first goal is increasing the proportion of registered capital investment from countries and territories in some regions (Asia, Europe and the Americas) in the total foreign capital investment to more than 70% in the period of 2021-2025 and 75% in the period of 2026-2030. The second goal is increasing by 50% the number of multinational corporations in the group of 500 largest corporations in the world ranked by Fortune Magazine (USA) having presence and operation in Vietnam. The final goal is being in the group of 3 leading countries in ASEAN and the group of 60 leading countries in the world according to the World Bank's Ease of doing business rank by 2030. At the same time, the implementation of the global minimum tax rules from 2023 is expected to cause some problems to Vietnam in using tax incentives to attract investment.

In the coming time, Vietnam still maintain the competitive advantage in attracting the capital flows of major partners and multinational corporations which rearranges their global production and diversify their supply. Therefore, Vietnam needs to have strategic orientations in completing mechanisms and policies to attract FDI. In particular, mechanisms and policies to attract FDI need to continue to thoroughly grasp the perspective that foreign investment cooperation is for supplementing internal resources and creating conditions for more effective use of internal resources. In addition, the completion of mechanisms and policies should focus on priority sectors and fields, such as high and advanced technology, environmentally friendly technology, clean energy, renewable energy, investment in people (financial policy, investment policy in health care, health care services, education and training), logistics, high-tech agricultural production, smart agriculture, development of modern technical infrastructure structure, especially new industries on the basis of the Industry 4.0.. The priorities of the policy should be on developing areas and regions in the direction of enhancing regional and local linkages, etc.

Some orientations in completing policies to attract FDI in the new context are as follows:

Firstly, the reform of the business investment environment is speeded up and the competitiveness of the economy is improved. Prerequisites for investment decision of multinational corporations from developed countries are publicity, transparency, stability and predictability of institutions, policies and laws; strict and uniform enforcement of the law, protection of legitimate rights and interests of investors; simple administrative procedures that ensures the prescribed time. Besides, the studies of OECD, Rolfe and White (1991), Morisset and Pirnia (2001), etc. find that tax incentives or low tax burden are not as attractive as a favorable business environment. Therefore, in the completion of the institution, the issue of business environment reform should continue to be considered as a priority task and a top priority.

Secondly, investment attraction portfolio should be built and issued. Accordingly, it is necessary to review the overall list of eligible sectors, fields and areas for investment incentives. The review should include the effectiveness evaluation of investment incentive policies from the perspectives of capital investment scale, realized capital scale, ratio of realized capital to capital investment, number of jobs created, export turnover, localization rate, etc., in correlation with investment incentives. Such evaluation is to eliminate inappropriately and ineffectively preferential sectors and fields. Moreover, the policies should give priority to attracting foreign investment in high and advanced technology sectors, environmentally friendly technologies, clean energy and renewable energy. Medical equipment should be manufactured and healthcare services, education and training, high quality services, financial services, logistics and other modern services should be provided.

Thirdly, the completion of investment incentive policies should be directed to sectors and fields which have possibility of creating "positive externalities for the economy", creating products with high added value, contributing to improving competitiveness and innovation capacity for Vietnamese enterprises. At the same time, the tranformation from the current policy of incentive and support in advance with a fixed term to the support policy after having the results and meeting the conditions for investment cooperation should be researched. Incentives based on location and incentives according to size should be gradually changed to incentives based on sectors, professions and fields and incentives based on economic - social - environmental effectiveness.

Fourthly, reviewing and completing policies related to technology transfer and creating linkage chains with domestic enterprises should be received attention. For the purpose of utilizing opportunities and advantages from FDI and promoting spreading effect in attracting FDI, it is necessary to make adjustments in technology transfer policy by encouraging FDI enterprises to connect with domestic enterprises and focusing on development policies for supporting industries.

Fifthly, the quality of human resources should be improved. The Fourth Industrial Revolution has promoted the transformation of production models, business cooperation, and global value chains. At the same time, it directly affects the method of operation, organization and resource mobilization of enterprises and promotes digital transformation in enterprises. Therefore, it is necessary to continue to complete mechanisms and policies on training in order to enhance the quality of human resources and encourage the redirection of FDI attraction using high-quality human resources. Moreover, a mechanism to coordinate with large corporations and investors at home and abroad to train human resources according to "orders" should be researched and developed.

Sixthly, the effectiveness and efficiency of state management of FDI should be improved through promoting the application of information technology in the state management of foreign investment. Inspection and supervision should be strengthened and reformed in the direction of creating favorable conditions for enterprises to operate effectively. Post-inspection should be strengthened after FDI projects being licensed. Projects that pollute the environment, use land inefficiently, have business losses for many years, have unimplemented projects or do not comply with commitments should be completely handled.

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Section 4

BUSINESS MANAGEMENT

FACTORS AFFECTING EMPLOYEES' CREATIVITY AT SMEs IN QUANG NGAI PROVINCE, VIETNAM

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Abstract: *This study aims at investigating the relationship among organizational support, leader-member exchange, intrinsic motivation and employees' creativity at SMEs in Quang Ngai province. The authors use SPSS 22 to analyze the data from 386 employees working for SMEs in Quang Ngai province. Multiple regression is used to test the hypotheses. As a result, organizational support, leader-member exchange, intrinsic motivation significantly positive affect employees's creativity. From these results, some theoretical and managerial implications are provided.*

Keywords: *Organizational support, leader-member exchange, intrinsic motivation, employees' creativity, SMEs.*

1. INTRODUCTION

In the context of increasing competition in the market, the rapidly changing business environment has created great pressure on both businesses and employees to be flexible in adapting and accepting risks. SMEs are considered the engine of economic growth all over the world. Developing economies have begun to focus on the important role of SMEs in the development of the economy, that is, creating jobs and providing resources (Mead & Liedholm, 1998). In Vietnam, SMEs have emerged as an engine of economic development since the government began economic reforms three decades ago. SMEs are flexible, adaptable and play an important role in creating jobs for local people as well as contributing to the growth of the economy in general (Hương, 2017).

Shalley (1995) stated that boosting employee's creativity is essential for businesses to keep or gain competitive advantages. Creativity in workplace means that employees use a variety of skills, abilities, knowledge, perspectives and experiences to generate new ideas for decision-making, problem-solving, and fulfilling task effectively. Walton (2003) suggested that stimulating the employees' creativity is one of the decisive factors for the success of any organizations. There are many studies about employees' creativity in the world and in Vietnam. However, most of these studies have focused on the service sector and public services (Giap, 2018; Nga, 2017; Suifan et al, 2018; Vuong, 2020) and at present, there has been no research on employees' creativity in the workplace of SMEs in Quang Ngai Province. Therefore, this study is carried out to explore factors affecting employees' creativity in SMEs in Quang Ngai Province. Besides, organizational support theory and leader-member exchange theory are applied to explain these factors in this study. From then, some managerial implications are proposed to promote employees' creativity in these enterprises.

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2. LITERATURE REVIEW

2.1. SMEs

The concept of SME varies from country to country but is often based on employment, assets or a combination of both of them. (State bank of Pakistan report, 2007). According to Decree No. 80/2021/ND-CP detailing and guiding the implementation of a number of laws supporting SMEs by the Vietnamese Government, the criterias for identifying SMEs are shown as in table 1.

Table 1. The criterias for identifying SMEs

		Laborers participating in annual average social insurance (persons)	*Total turnover (billion VND)*	*Total capital (billion VND)*
Small enteprise	In the fields of agriculture, forestry, fisery, industry and construction	10 - < 100	3 - < 50	3 - < 20
	In the fields of commerce and services	10 - < 50	3 - < 100	3 - < 50
Medium enterprise	In the fields of agriculture, forestry, fisery, industry and construction	100 - < 200	50 - < 200	20 - < 100
	In the fields of commerce and services	50 - < 100	100 - < 300	50 - < 100

2.2. Theories

Leader – member exchange theory

Based on Social Exchange Theory (Blau, 1964), Leader- member exchange theory states that each employee in an organization has a special relationship with his or her supervisor (Graen & Uhl-Bien, 1995). According to some researchers, in exchange for more devotion and dedication, subordinates with high-quality relationships with their supervisors are provided with additional resources (such as powerful information) and decision-making authority (Graen et al, 1982). Therefore, because of these high-quality relationships, subordinates who receive further information and support from supervisors have more chance and are ready to carry out innovative behavior. From then, a strong relationship with the supervisor will promote an employee's belief that their innovative behavior will lead to performance and efficiency gains (Yuan, 2005). Moreover, according to Tierney (2008), when compared to people who have poor exchange with their supervisors, those who have good relationships with their supervisors are seen as being more innovative. In general, some studies proved that according to the LMX theory, innovativeness is correlated with how well a supervisor and subordinate get along (Lee, 2008; Tierney, 2008).

Organizational support theory

According to Eisenberger and Stinglhamber (2011), in organizational support theory, employees form an overall opinion of how much the company values their efforts and is concerned with their welfare (that is perceived organizational support). If the organization provides good treatment for its employees (such as appropriate rewards for performance and engagement, comfortable working conditions, supervisory support and procedural justice), employees will feel supported by the organization (Pundt, Martins, & Nerdinger, 2010). Besides, according to organizational support theory, employees develop a greater sense of global commitment to the firm the more they perceive organizational support (Eisenberger et al 2001. The exchange relationship between firms and employees outlined in organizational support theory is not restricted to a quick and direct exchange of resources for performance (Kurtessis, Eisenberger, Ford, Buffardi, Stewart, & Adis, 2017), but it is, however, long-term oriented (Dolfsma et al 2008).

2.3. Factors related to employees' creativity

Organizational support (OS)

It is stated by Eisenberger et al (2001) that organization support refers to employee's broad perceptions of how their organizations respect their contributions and interests. Besides, according to Eisenberger et al (1990), organizational support relates to the degree of organizational encouragement and resource capabilities for employees' work environment. Some research have found that organizational support has a significant impact on the willingness of the managers and employees in sharing knowledge (Kelloway & Barling, 2000; MacNeil, 2003). Amabile et al (1996) believes that organizational support may inspire, appreciate, and reward employees, resulting in significant innovation, including emotional support, technical or task support, and interpersonal support. Employees tend to act initiatively and creatively when they perceive and get creative support, work support and social support.

Leader – member exchange (LM)

According to Dienesch and Liden (1986), leader-member exchange (LMX) refers to the interpersonal connections that exist between leaders and followers. Besides, LMX is defined as an individual's perception of the quality of the leader-member connection on a scale of bad to good (Chen et al, 2007). On the other hand, higher levels of trust and respect between leaders and followers characterize high-quality relationships, whereas disloyalty and neglect characterize low-quality relationships (Graen & Uhl-Bien, 1995). In their research, Wayne and Liden (1997) proved that employees in high-quality LMX relationships believe that their leaders are aware of their requirements and value their ideas.

Intrinsic motivation (IM)

According to Lai and Kapstad (2009), intrinsic motivation refers to the extent to which a person undertakes a work because he or she enjoys it and derives satisfaction from it, without receiving any payment or reward. Employees with high intrinsic motivation may upgrade their talents because they believe that performing well at work will help them achieve their career goals (Kuvaas & Dysvik, 2009). Moreover, employees that are intrinsically motivated are more likely to persevere in the face of adversity (Ryan & Deci, 2000), to seek out alternative or unconventional solutions to problems (Yidong & Xinxin, 2013), and to be creative at work (Fuller et al, 2006). On the other hand, Dysvik & Kuvaas (2013) claim that intrinsic motivation is linked to creativity, and that people with strong intrinsic motivation are more likely than those with low intrinsic motivation to display creative.

Employees' creativity (EC)

According to Mumford and Gustafson (1988), creativity refers to the generation of new ideas. More specifically, creative engagement bears on participation in the creative process of developing new ideas (Reiter-Palmon & Illies, 2004). Following this, this process includes one or some cognitive aspects such as: problem identification, information seeking and encoding, generation and evaluation of new ideas.

Besides, Tierney et al (1999) defined creativity as employees' distinctive and useful solutions to work-related problems based on the goals and visions of their organizations. While George and Zhou (2001) stated that "Creative behavior is the production of novel and useful ideas by employees which can be the starting points of innovation". According to Dewett (2004), creativity in organizations has two important factors: novelty and usefulness to the organization. In this study, the employees' creativity is understood as the creation of new and useful ideas for the organization of employees in that organization.

Relationship between organizational support and employees' creativity

Organizational support is a factor that is mentioned quite a lot when it comes to the meaning of work, work motivation, employee engagement, work efficiency, etc. Regarding the working environment, the organizational support is to create conditions for employees to work well, freely develop their capacity, assign appropriate work, encourage, motivate and train employees. Organizational support is a factor that the leader of an enterprise, an organization can actively influence, to make it better.

According to Amabile et al (1996) the working environment can affect creativity in organizations. Creativity is at the core of all innovation and innovative ideas will emerge in an organization that motivates and promotes new ideas. In this study, the organizational support factor was shown to have an influence on the employee's creativity. In other studies, the organization's role towards employees' creativity is also highlighted. For example, Dul and Ceylan (2011) confirms that the organizational environment affects the employees' creativity. Ibrahim et al (2016) argue that organizational support affects employees' creativity. Horng et al (2016) also share the same view on the role of organizational support for employees' creativity. In addition, the research of (Ngan, 2019) also shows a positive relationship between organizational support and employees' creativity. From the above synthesis and analysis, the hypothesis is formed as follow:

H1: Organizational support has a positive impact on employees' creativity.

Relationship between leader-member exchange and employees' creativity

The degree of cohesion in the relationship between leaders and employees, characterized by favorable exchange between leaders and employees (Blau, 1964) is related to many positive outcomes, such as: better performance, higher job engagement and higher job satisfaction (Wayne et al, 1997). Creativity requires a great deal of autonomy. The freedom and autonomy experienced by employees is often beneficial to employees who are engaged in creativity (Hackman et al, 1980). Spreitzer (1995) defines psychological empowerment as an overall construct expressed in four perceptions: meaning (value or purpose of job goals), competence (perceived ability to accomplish work-related tasks), self-determination (with the choice or ability to initiate action) and impact (the extent to which an individual can influence job outcomes).

High leader-member exchange can foster psychological empowerment through these four dimensions. Leaders having high exchange with employees tend to enhance the meaning of their work by providing information about the organization's mission and performance of their followers (Spreitzer, 1995). Task information is an important antecedent of empowerment because it helps employees perceive the meaning and purpose of their work. Secondly, with high leader-member exchange, leaders demonstrate confidence in their employees' abilities and prospects for high performance. According to Bandura (1986), people who are verbally convinced that they are capable of mastering the assigned tasks will make more persistent efforts than if they have doubts about themselves and think about their own shortcomings when facing with difficulties. Specifically, when managers give verbal encouragement, employees perceive their self-efficacy and have the ability to positively orient the work they are undertaking (Gist & Mitchell, 1992). Thirdly, leaders provide employees with autonomy and the prospect for self-determination by encouraging individuals to decide how to do their jobs (Pearce et al, 2003). Finally, leader-member exchange motivates an employee in the decision-making process (Manz & Sims Jr, 1987). This process has the potential to give employees a greater sense of control over the immediate work situation and an enhanced sense that their own behavior can make a difference in job results. Employees with a high perception of leadership-member exchange not only assume greater job responsibilities, but also contribute more to their department (Liden & Graen, 1980).

Creativity is closely related to trials and errors, success and failure, so employees need to try new ways when facing with failure. However, individuals cannot try new ways of doing their jobs without receiving freedom and encouragement from their supervisors. In addition, empowered employees, equipped with more information and resources, feel more confident and effective about their mission activities. Therefore, they are willing to change and creativity (Spreitzer, 1995). In the study of Tierney et al (1999), the authors found that there is a positive relationship between the leader-member exchange and the employees' creativity. Besides, Duy (2019) also points out a positive relationship between leader-member exchange and employees' creativity at auto dealers in Ho Chi Minh City. This study was conducted at auto dealers in Ho Chi Minh City to demonstrate that there is a positive relationship between communication between leader-member exchange and employees' creativity. From the above synthesis and analysis, the hypothesis is formed as follow:

H2: Leader-member exchange has a positive impact on employees' creativity.

Relationship between intrinsic motivation and employees' creativity

Human motivation includes internal motivation (intrinsic motivation) and extrinsic motivation. Intrinsic motivation is the determining factor that an employee will actually do/perform an activity, they have the ability to solve problems that arise at work and they will definitely do it and in which intrinsic motivation is said to increase creativity more than extrinsic motivation (Amabile, 1997). Intrinsic motivation is also an important component of Amabile's three-component model of creativity. She believes that intrinsic motivation is the most important factor affecting creativity and any creativity also needs intrinsic motivation. A person who has talent, knowledge, but without intrinsic motivation cannot create anything new.

Research by Horng et al (2016) has demonstrated that intrinsic motivation significantly increases the employees' creativity. People are rarely creative if they don't really love what they do and focus on the work rather than the reward. This emphasizes the intrinsic motivation factor that drives creativity. Many studies have shown that intrinsic motivation affects creativity because intrinsic motivation can increase positive influences, flexible perception, risk-taking ability and persistence. Research by Coelho et al (2011) also makes a similar conclusion about the role of intrinsic motivation when it is necessary to increase employees' creativity. Intrinsic motivation helps employees focus on work that requires creativity, helps them love exploring new ways of doing things, taking risks. Intrinsically motivated employees will perform work more excitedly, more interested and thus increase creativity. Eder and Sawyer (2008) test the model of components that increase creativity, including job-related skills, goals; intrinsic motivation; creative process. Although the research objects of this study are different from the above studies, the results are similar, intrinsic motivation positively affects the employees' creativity. Research by Ngân and Phương (2021) confirms that intrinsic motivation has a positive impact on the creativity of employees working in public universities. In addition, the research by Duy (2019) and Ngan (2019) also shows a positive relationship between intrinsic motivation and employees' creativity. Thus, there have been many studies in many different fields, including the field of higher education, which have confirmed that intrinsic motivation is an important factor affecting the employees' creativity. From the above synthesis and analysis, the hypothesis is formed as follow:

H3: Intrinsic motivation has a positive impact on employees' creativity.

Research framework

Based the research's objectives and above hypothesis, the authors gave the proposed research framework as follow

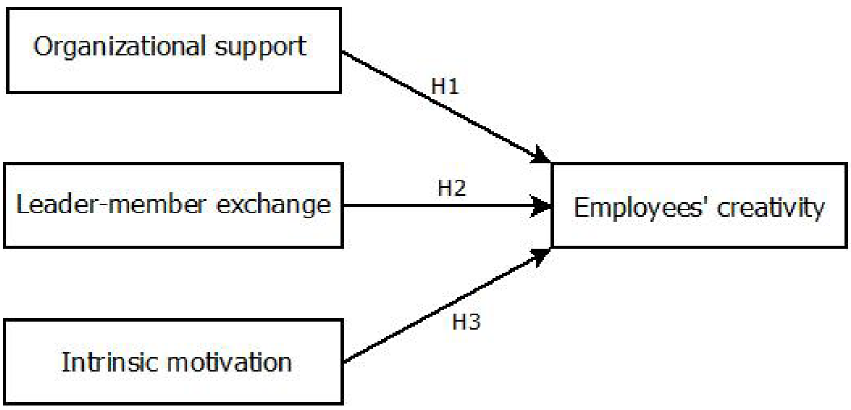

Figure 1. Proposed research framework

3. METHODS

This study used quantitative research method and primary data to examine relationships among variables. The primary data was collected via questionnaire using five-point likert scale (from totally disagree to totally agree). The survey questionnaire includes two main parts. The first part consists of 21 items to gather information about the depedent variable (employees' creativity) and three independent variables (organizational support, leader-member exchange and intrinsic motivation) as shown in table 2. Of those 21 items, 5 items of organizationl support are adapted from Houghton and DiLiello (2010). 6 items of leader-member exchange are adapted from Graen and Uhl-Bien (1995). 5 items of intrinsic motivation are adapted from Tierney et al (1999). 5 items of employees' creativity are adapted from Tierney et al (1999). The second part includes 9 questions to define demographics of the participants such as: gender, age, education level, marital status, length of employement, current job position, workplace, monthly income, how many employees who are the participant are working in the enterprise.

The population of this research is employees who are working for SMEs in Quang Ngai province. The sample was collected by sending questionnaires through Facebook and email, then the respondents filled out the questionnaires. Finally, 400 questionnaires were sent out.

Table 2. Items of variables

Variables	Items	Measurement	References
Organizational support	OS1	This organization has a good mechanism for encouraging and developing creative ideas	Houghton and DiLiello (2010)
	OS2	Ideas are judged fairly in this organization	
	OS3	People are recognized for creative work in this organization	
	OS4	Rewards are given for innovative and creative ideas	
	OS5	People are encouraged to take risks in this organization	
Leader-member exchange	LM1	I usually know how satisfied my leader is with what I do	Graen, and Uhl-Bien (1995)
	LM2	My leader recognizes how well my potential is	
	LM3	My leader understands my job problems and needs	
	LM4	Regardless of how much formal authority he/she has built into his/her position, my leader would use his/her power to help me solve problems in my work	
	LM5	Regardless of the amount of formal authority my leader has, he/she would "bail me out," at his/her expense	
	LM6	I have enough confidence in my leader what I would defend and justify his/her decision if he/she were not present to do so	

Variables	Items	Measurement	References
Intrinsic motivation	IM1	I enjoy finding solutions to complex problems	Tierney et al (1999)
	IM2	I enjoy coming up with new ideas for products	
	IM3	I enjoy engaging in analytical thinking	
	IM4	I enjoy creating new procedures for work tasks	
	IM5	I enjoy improving existing processes or products	
Employees' creativity	EC1	I take risks in terms of producing new ideas in doing job	Tierney et al (1999)
	EC2	I find new uses for existing methods or equipments.	
	EC3	I try out new ideas and approach to problems	
	EC4	I generate novel, but operable work-related ideas	
	EC5	I identify opportunities for new products/processes	

4. RESULTS AND DISCUSSION

4.1. Pilot study

The preliminary study with 30 participants used a random selection method. The purpose of a pre-test questionnaire was to examine whether or not the instructions, the statements, and the questions are clear. The participants' responses and the preliminary analyses indicated that the questionnaire was valid and the questions were clear and understandable.

4.2. Demographic Characteristics

400 questionnaires were sent out for this study and 386 valuable questionnaires were collected (occupied 96,5%). The demographic data of this study includes questions about gender, age, education level, marital status, length of employement, current job position, workplace, monthly income, how many employees who are the participants are working in the enterprise. As a results, the majority of participants are male (57,5%), from 25 to under 35 years old (47,9%), married (72%), having bachelor degree (30,6%), from 2 to under 5 years of employment, workers (45,9%), from 6 to under 10 billion VND of montly income, working in factory (64%) and working in the enterprice with from 10 to under 100 employees (74,6%).

4.3. Validity and reliability test

To measure the validity of the sample, this study uses Principal component extraction method and Varimax rotation, which means that factors with Eigenvalue value greater than 1 will be extracted. Through SPSS 22, factor loadings were carried out and as a result, all items were greater than 0.5 indicatin a valid data set (Moslehpour et al, 2018). Besides, the sample adequacy will be checked via KMO and Bartlett's test of Sphericity. As shown in table 1, the KMO was 0,925 and Bartlett's test of Sphericity was less than 0,05. These results proved that this study has a valid data set (Moslehpour et al, 2018).

On the other hand, to measure the reliability of the sample, Cronbach's alpha coefficient (α) will be tested. According to Sekaran and Bougie (2016), if the value of Cronbach's alpha is between 0.6 and 0.8, the sample is reliable, and if the value of Cronbach's alpha is greater than 0.8, the sample is very reliable. From the table 3, all values of Cronbach's Alpha of all variables and every variable of this study were from 0,858 to 0,902 indicating that the instrument of this study is very reliable.

Table 3. Validity and reliability test

Variables	Items	Factor loadings	Cronbach's Alpha		
	OS1	0,680	0,831		
	OS2	0,779	0,817		
Organizational support	OS3	0,712	0,830	0,858	
	OS4	0,658	0,832		
	OS5	0,624	0,835		
	LM1	0,785	0,857		
	LM2	0,743	0,868		
	LM3	0,682	0,863		
Leader-member exchange	LM4	0,688	0,865	0,885	
	LM5	0,679	0,865		
	LM6	0,675	0,869		0,944
	IM1	0,715	0,844		
	IM2	0,715	0,835		
Intrinsic motivation	IM3	0,789	0,819	0,862	
	IM4	0,656	0,838		
	IM5	0,652	0,831		
	EC1	0,679	0,888		
	EC2	0,767	0,867		
Employees' creativity	EC3	0,718	0,877	0,902	
	EC4	0,786	0,883		
	EC5	0,754	0,886		
KMO	0,925				
Bartlett's Test of Sphericity	0,000				

4.4. Regression analysis

The results of regression analysis were shown in table 4. The dependent variable (employees' creativity) was regressed on predicting variables of organizational support, leader-member exchange, and intrinsic motivation. The independent variables significantly predict employees' creativity, $F(4,382) = 150{,}131$, $p < 0{,}001$, which indicates that the three variables under study have a significant impact on employees' creativity. Moreover, the $R^2 = 0{,}541$ depicts that the model explains 54,1 % of the variance in employee's creativity.

Table 4. Regression analysis

Hypotheses	Regression weights	β	t-value	p-value	Results
H1	OS → EC	0,328	6,782	0,000	Supported
H2	LM → EC	0,181	3,408	0,001	Supported
H3	IM → EC	0,370	7,639	0,000	Supported
R square			0,541		
F (3,382)			150,131		

Moreover, coeffients were further assessed to ascertain the influence of each of the variables on the criterion variable (employees' creativity). H1 evaluates whether organizational significantly affects employees' creativity. The results revealed that organizational support has a significant impact on employees' creativity (β = 0,328, t = 6,782, p = 0,000). Hence, H1 was supported. This finding is consistent with the prevísous research (Horng et al, 2016; Ibrahim et al, 2016). In this study, employees in SMEs in Quang Ngai province are recognized for their creative work in the organization, rewarded by the organization for innovative and creative ideas, all creative ideas are fairly evaluated by the organization and the organization has a good mechanism to encourage employees to develop creative ideas. Thus, there is a positive relationship between organizational support and employees' creativity. This is also appropriately explained in organizational support theory.

H2 evaluates whether leader-member exchange affects employees' creativity. The results revealed that leader-member exchange has a significantly positive impact on employees' creativity (β = 0,181, t = 3,408, p = 0,001). Consequenly, H2 was supported. Some previous studies revealed the similar results (Duy, 2019; Tierney et al, 1999). According to these researchers, when employees are highly aware of the exchange between leaders and employees, meaning they are empowered, equipped with more information and resources, they are more willing to change and innovate. This relationship is also explained by the leader-member exchange theory.

H3 evaluates whether intrinsic motivation affects employees' creativity. The results revealed that intrinsic has a significant impact on employees' creativity (β = 0,370, t = 7,639, p = 0,000). Hence, H3 was supported. This result meets the relevant literature (Duy, 2019; Horng et al, 2016; Ngan, 2019). These authors argue that when employees are intrinsically motivated, they will perform their work more excitedly and interestedly and thus increase their creativity in their work.

5. CONCLUSION AND IMPLICATIONS

In this study, the authors discovered a number of factors affecting the creativity in the work of employees at SMEs in Quang Ngai province. Specifically, this study examined the relationships among the variables of organizational support, leader-member exchange, intrinsic motivation and employees' creativity with 3 hypotheses. As a result, organizational support, leader-member exchange, intrinsic motivation significantly positive impact employees' creativity. Three variables organizational support, leader-member exchange, intrinsic motivation explained 54,1 % of the variance in employee's creativity in case of SMEs in Quang Ngai province. The findings of this study may offer some useful implications for academics, policymakers and employers seeking to foster creativity in the work of employeess in the workplace in SMEs in Quang Ngai province.

Beside providing the valuable findings for academics, this study offers some managerial implications for policymakers and employers to enhance the employees' creativity at SMEs in Quang Ngai province as follow:

Enhancing the exchange between leaders and employees

The research results show that the leader-member exchange variable affects the creativity of employees at SMEs. Therefore, the leaders should communicate more frequently with their followers to know their desires and needs. Besides, SMEs can operate direct conversations and sharing among leaders and employees and everyone can freely discuss on emotions, perceptions related to creativity. Moreover, to bring about high interaction in a business, leaders can empower employees to make decisions in several situations. In addition, the creativity is the process that comes from a series of small observations, the recombination of ideas, and small experiments. Therefore, leaders need to follow up and give positive feedback to employees' creative ideas.

Promoting intrinsic motivation of employees

The research results show that the intrinsic motivation has a positive impact on employees' creatitivy at SMEs in Quang Ngai. This affirmation has important implications in human resource management. When employees achieve a positive psychological state, believe in their own abilities, and are satisfied with their current job, they will grow up more at work. Thus, the organizations should design motivational work including sharing information and work content. Enterprises should have and maintain training sessions or bring employees to participate in training courses to update new knowledge, improve professional skills; motivate employees to become more and more confident to develop the ability to generate new ideas in personal and corporate work. Besides, the enterprise need assign tasks that are suitable for employees' abilities and are challenging in order that they feel more confident to finish their tasks well. In addition, the enterprise should give autonomy to employees. This helps empowered employees feel happier and more active, contributing to a more positive work space.

Increasing organizational support

Regression analysis present that organizational support significantly positive affects employees' creativity. Therefore, the enterprises should build an employee-oriented work environment by ensuring working conditions and safety for employees, keeping the work area neat and tidy, building a friendly working environment, developing team spirit, arranging a rest area for employees so that they can regenerate their labor. Moreover, there is a need to create a culture of creativity at the enterprise. Enterprises also have a policy of recognizing, praising and rewarding employees' efforts in creativity. In addition, the enterprises need to set up a lean management apparatus by eliminating unnecessary policies or procedures that will have a positive impact on employees' creativity.

In general, the content of the proposed solutions is logical and scientific, making it easy for SMEs to apply in promoting creativity in the work of employees at SMEs in the coming time.

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THE IMPACT OF CORPORATE SOCIAL RESPONSIBILITIES ON EARNINGSS MANAGEMENT: EVIDENCE FROM VIETNAM

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Abstract: *This study aims to assess whether listed companies comply with regulations on social responsibility disclosure and with the regulatory role of CEO power have an impact on earnings management. The study uses a data sample of 418 companies listed on the two stock exchanges HOSE and HNX in the period 2016 - 2020 through the method of general feasible least squares (FGLS) estimation to measure the impact of corporate social responsibility and the impact of social responsibility with the regulation of CEO power on earnings management. The research results admit that companies that comply with regulations on CSR disclosure have limited profit management and in the case of powerful executives, the impact of CSR on profit management is stronger. Therefore, this empirical evidence has provided reliable evidence to help listed companies have the incentive to comply with regulations on CSR disclosure to increase prestige and attract investment.*

Keywords: *Corporate social responsibility, earnings management, Vietnam.*

JEL code: M41

1. INTRODUCTION

In the current trend of deeper and broader integration, corporate social responsibility (CSR) has become a decisive factor to business performance, decisive to the sustainable existence of enterprises in the world competitive environment (Buckingham, 2012; Mark, 2012; Yinyoung et al, 2016; Enric H.Kao, 2018) and also a concern in the context of many concerns about social and environmental issues. Therefore, in recent years, Vietnam has issued many legal documents related to promoting social responsibility disclosure such as Circular 155; Circular 96 of the Ministry of Finance replaces Circular 155 about CSR disclosure, which requires businesses to perform social responsibility in their business activities. Therefore, the compliance with CSR in Vietnam is the compliance with the legal regulations that contribute to the financial reporting to achieve the objective of honesty and fairness.

With the increasing awareness of the international community and stakeholders about environmental and social issues, the role of businesses is no longer simply interested in profits, increasing benefits for investors., increase the level of contribution to the budget that must care about the environment, contribute to the community towards the goal of sustainable development (Carroll, 1999; Chapple et al, 2005). Vietnamese businesses that want to integrate and develop sustainably need to operate in accordance with international practices and disclose information

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about social responsibility, which is to contribute to increasing the brand value of enterprises in the market. international.

According to the sustainable development orientation in general and complying with the regulations on corporate social responsibility in particular, the person who plays the role in building a culture of ethical behavior and social responsibility is none other than the the leader of the unit - typically the chief executive officer (CEO). If a business is run and led by CEOs who have professional vision, reputation, experience, always adhere to business ethics, and always aim for the common interests of the community, it will create a strong bond. Connecting with employees, connecting with stakeholders, thereby helping the unit realize its sustainable development goals. Senior managers can influence policy implementation regarding CSR (Waldman and Siegel, 2008). The role of managerial leadership is imperative in stakeholder theory because strategic decisions are made by organization' powerful actors (Hambrick & Mason, 1984). The strategic choices of his or her experiences, values, and personality (Hambrick, 2007). Thus, on the basis of these issues, we conduct an empirical analysis to see whether the implementation of relevant government-issued CSR regulations helps entities behave more responsibly by Transparency of information on financial statements, limiting profit management. At the same time, we also use upper echelons theories to test whether CEO characteristics can predict differences in CSR across companies. Therefore, this article is designed to test companies that comply with CSR regulations with limited profit management and are regulated by an executive with expertise in finance and accounting. Does it change CSR in listed companies?

This study contributes to the overall picture of CSR and EM research, typically providing very convincing empirical evidence that listed companies practice different earnings management behavior when complying with different CSR regulations. At the same time, this study also acknowledges that companies run by CEOs have different characteristics, so the policy on CSR disclosure is also different. Thus, our findings have provided a reliable theoretical foundation on the impact of CSR on the behavior of using accrual policies affecting profitability as well as the role of the CEO in complying with the policies. CSR disclosure policy and is also important evidence for policy makers, regulators and investors participating in the Vietnamese stock market.

In addition to part 1, which is the introduction, the rest is structured with the second part: research overview, research hypothesis, part 3: research method, research results and the last part is conclusion.

2. RESEARCH OVERVIEW AND RESEARCH HYPOTHESES

2.1. Corporate social responsibility and profit management

Corporate social responsibility is a strategic behavior that reflects the extent to which an entity carries out activities for the common good of society with compliance with legal requirements (McWilliams & Siegel, 2001). Carroll (1999) extended corporate social responsibility from traditional economic and legal responsibilities to ethical and philanthropic responsibilities in response to growing concerns about ethical issues in business. Meanwhile, the theory of three concentric circles sets out guidelines and principles for assessing and reporting CSR achievements of enterprises and this is also a specific measure for the level of CSR commitment of enterprises (Elkington, 1997).

The studies on the link between CSR and EM are quite rich but the results are quite different from each other depending on the perspective of the theories. Referring to stakeholder theory, CSR has a positive impact on earnings management. Jensen (2001) and Leuz et al (2003) argue that CSR increases agency problems, which makes managers more motivated to use profit manipulation techniques with the aim of concealing Debts. This view has been corroborated by research results when it is recognized that the more companies comply with regulations on social responsibility disclosure, the higher the EM (Jensen & Meckling, 1976; McWilliams et al, 2006; Hemingway & Maclagan, 2004).

Meanwhile, from the point of view of signaling theory, a negative relationship between CSR and EM is detected. According to this theory, the implementation of CSR reduces the information asymmetry among business partners (Grougiou et al, 2014) assuming a negative relationship between CSR and EM. The more a company engages in CSR disclosure, the less accruals are made and the less earnings management is involved. The results of the studies show that the higher the CSR, the lower the EM, which means that the companies implementing CSR will act responsibly to prepare transparent financial statements, based on ethical perspectives (Carroll, 1979; Donaldson & Preston, 1995; Jones, 1995; Phillips et al, 2003; Kim et al, 2012; Ben Amar & Chakroun, 2018) and these results confirmed the point of signal theory. Kim et al (2012) with his research results have proven that companies implementing CSR are less active in manipulating profits on accruals, through economic activities than other companies. company does not implement CSR. Similarly, other studies Lim and Choi (2013), (Cho & Chun, 2016; SH Kim et al, 2019) also agree when admitting that companies implementing CSR are less likely to implement profit management through economic activity or through accruals.

2.2. Corporate social responsibility and CEO characteristics

Hambrick and Mason (1984) argues that an organization's performance, both strategy and CSR, is reflected by the values and perceptions of the powerful manager in the organization - the chief executive officer. They recognize the decision maker's personal perceptions and values as important screens or filters when analyzing complex situations in ways that affect strategic choices and operational outcomes. CEO observable characteristics such as age, experience, expertise, gender can often be used as indicators for filters based on their perceptions and values. Thus, hypotheses about the impact of CEO on CSR are also argued based on the high-level theory of Hambrick and Mason (1984).

Chief Executive Officer (CEO) is involved in corporate CSR implementation (Bernard et al, 2018; Chen et al, 2019). Companies with high CSR reduce the likelihood of corporate change by CEO (Orij et al, 2021). Therefore, previous studies have acknowledged that CEO characteristics have an impact on corporate CSR implementation (Chin et al, 2013; García-Sánchez et al, 2020; Bernard et al, 2018). The upper echelons theory, Hambrick and Mason (1984) argues that the strategies enacted in joint stock companies are governed by the attributes of the CEO (Sanders & Carpenter, 1998) and also assumes a decision The more complex, the stronger the influence of CEO characteristics (Bernard et al, 2018), so CEOs explain about 30% of the variation in CSR (Wernicke et al, 2021).

2.3. Changes in CSR in Vietnam in recent years

Although the issue of corporate social responsibility is still a relatively new issue in Vietnam, in the early years of the 21st century this issue has also been paid attention by a number of ministries and sectors. For example, in 2005, the Vietnam Chamber of Commerce and Industry, the Ministry of Labour, Invalids and Social Affairs, the Ministry of Industry and Trade together with the Leather, Footwear and Textile Associations awarded the "Corporate Social Responsibility towards sustainable development" in order to honor businesses that well perform their corporate social responsibility in the context of integration.

In 2014, for the first time, the concept of corporate social responsibility was included in the Law on Enterprises in Article 8 of the law with provisions such as: the responsibility of enterprises to comply with business conditions; the responsibility of the enterprise to the customer, the responsibility of the enterprise to the tax and financial obligations; responsibilities of enterprises towards employees; corporate responsibility for the general order of society.

On October 6, 2015, the Ministry of Finance issued Circular 155 guiding the disclosure of information on the stock market with disclosure requirements on social responsibility and has now been changed, replaced by Circular 96 issued by the Ministry of Finance on November 16, 2020 guiding the disclosure of information on social responsibility with requirements on: environmental issues; human problems; community service activities.

Thus, with the support of the government, the issues of corporate social responsibility information disclosure have been guided quite detailed and specific, meeting the increasing integration requirements according to international practices.

2.4. Research hypothesis

Corporate social responsibility and profit management

Based on the empirical studies mentioned, it is difficult to assess the impact of CSR on income management because those studies have mixed results. Earnings management behavior distorts the business situation of the entity, typically information about profit, so it has negative impacts on the decision to use resources of investors (Healy & Wahlen, 1999), value and the company's relationship to stakeholders (Cho & Chun, 2016; JB Kim & Sohn, 2013).

Companies that engage in activities that meet ethical requirements, such as performing social responsibility, will not be able to manage profits and provide honest and reliable financial statements because following ethical theories when businesses carry out activities that contribute to the welfare and interests of society with ethical business practices (Carroll, 1979; Donaldson & Preston, 1995). At the same time, the signal theory suggests that CSR disclosure is a signal to investors and financial markets that managers can control risk, commit to carry out social responsibility (Sun et al, 2010) and reduces information asymmetry (Grougiou et al, 2014). Therefore, according to the signal theory, the more companies engage in CSR activities, the less the company will perform earnings management (Chih et al, 2008). The results of this study are also consistent with the results of (Y. Kim et al, 2012) conducted in the US in the period 1991-2009 or the study of (Gras-Gil et al, 2016) also acknowledged a negative correlation between CSR and earnings management. Therefore, hypothesis H_1 is proposed:

H_1: Enterprises implement CSR according to regulations restricting profit management.

Corporate Social Responsibility in Regulatory Roles of CEO and Profit Management

According to the upper echelons theory, the CEO has a great influence on decisions related to the accrual basis, so the tendency of businesses to implement CSR can be influenced by the CEO's personality and values (Chatterjee & Hambrick, 2007; Hambrick & Mason, 1984). The upper echelons theory also suggests that CEOs with personal characteristics and specific skills can influence value creation, strategic choices and accounting policies, and also CEO characteristics can be used to predict their behavior and role in a company's success (Hambrick & Mason, 1984). Executive management really plays an important role in implementing strategies related to CSR (Bernard et al, 2018; Chen et al, 2019), so some previous studies suggested that CEO characteristics have can affect the effective implementation of CSR (Chin et al, 2013; Tang et al, 2015; García-Sánchez et al, 2020). In addition, agency theory predicts that managers have a primary incentive to manipulate earnings, they have an incentive to pursue their own interests and increase agency costs for shareholders (Jensen, 1986). At the same time, Choe et al (2014) argues that the more powerful directors are, the greater the compensation and benefits they receive, and they can use the power given to influence or influence. It affects the performance and decisions of others in the company (Friedman, 1970) and can also affect the decisions of the chief financial officer (Feng et al, 2011). Therefore, in this study, we want to examine whether, with the regulation of the powerful CEO, the impact of CSR implementation on earnings management. The second hypothesis is proposed:

> *H_2: Firms implementing CSR with the regulation of powerful CEO are negatively correlated with EM.*

3. RESEARCH METHODS

3.1. Research Database: The study uses a data sample of all companies listed on the two stock exchanges of Ho Chi Minh City and Hanoi in the period 2016-2020. After excluding companies in banking, insurance, real estate, securities, investment funds and companies that do not have enough data on CEO power. The final data sample used in this study is 418 companies. Data related to the calculation of accruals for the dependent and control variables are taken on the datastreamer database. For the data serving the independent variable of CEO power, we load the annual report and view the CEO's characterization on the Board of Directors report as CEO and founder. After finding all the information of the CEO in the annual report (founder and professional in finance - accounting) but still missing, that observation was excluded from the sample.

In addition, to collect information on social responsibility, we base on the criteria required to be disclosed according to Circular 96 of Ministry of Finance BTC and use annual reports or sustainable development reports. of listed companies with full information about the CEO collected above at Vietstock.vn. Finally, the data sample includes 418 companies with 2,090 observations.

3.2. Regression model

Model 1: $\mathbf{DA_i t = \alpha_0 + \beta_1 CSR_{it} + \beta_2 ROA_{it} + \beta 3SIZE_{it} + \beta_4 LEV_{it} + £_{it.}}$

Model 2: $\mathbf{DA_i = \alpha_0 + \beta_1 CSR_{it} *CEOPOWER++ \beta_2 ROA_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + £_{it}}$

Where:

- DAit : discretionary accruals estimated by the Modified Jones Model (Dechow et al, 1995);
- CSR: CSR core obtained from Circular 96 issued by the Ministry of Finance;
- CSR*CEOPOWER: Corporate social responsibility with CEO regulation;
- SIZE: log of total assets;
- LEV: total liabilities divided by total assets;
- ROA: return on assets;
- α_0 is intercept term;
- $\beta_{1,}$ β_2, β_3, β_4 are coefficients of regression;
- ε_{it}: is the error term.

Measuring the dependent variable in the regression model

Dependent variable

Regarding the view on the appropriateness of the accrual measurement model, Dechow et al (1995) admit that his model is the best one to identify the earnings management or as Chen (2011) identifies the Dechow et al (1995), Kothari et al (2005) has the most optimal model in the Chinese market; Pham (2012) thinks that the model that is not suitable to identify earnings management is the Jones model (1991). In this study, the author uses the Dechow et al (1995) to estimate discretionary accruals representing earnings management.

$$\frac{TA_{it}}{A_{it-1}} = \alpha_i\left[\frac{1}{A_{it}-1}\right] + \beta_1\left[\frac{\Delta REV_{it} - \Delta AR_{it}}{A_{it-1}}\right] + \beta_{2i}\left[\frac{PPE_{it}}{A_{it-1}}\right] + \varepsilon_{it}$$

Where, for fiscal year t and firm i, TA represents the total accruals defined as the difference between earnings and operating flows; A_{it-1} represents the total assets in t-1, ΔREV is the change in revenues from the preceding year (REV_t -REV_{t-1}); ΔAR it is the change in net accounts receivables from the preceding year, PPE stands for the gross value of property, plant, and equipment.

From there, the non -discretionary accrual is calculated by substituting the parameters into the corresponding model and finally calculating the discretionary accruals of each enterprise at each time to be studied through the excell data table according to the formula $DA_{it} = TA_{it} - NDA_{it}$.

Independent variables

(1) The CSR disclosure index in terms of social responsibility includes 20 standards of information that need to be disclosed according to Circular 96 of the Ministry of Finance, showing the requirements on three issues: disclosure of environmental issues, public announcement on labor, announcement on community. In the view of Bose et al (2018), it is possible to quantify the indexes of CSR disclosures according to unweighted or weighted approaches. Therefore, in this study, we use an unweighted approach to quantify the CSR disclosure index, in which each disclosure request item will receive a value of 1 if the company discloses information such information in the annual report or sustainability report, otherwise, the value is zero.

After determining each point for each standard for each company in each year, the company's social responsibility index is calculated as follows:

$$CSRi = \frac{\sum SCOREi}{n}$$

Where CSRi is the sum of all the scores received by company i for the social responsibility aspect divided by the total number of standards (n = 20). The average calculation of the criteria to determine the CSR score in terms of social responsibility is based on (Cavaco & Crifo, 2014).

(2) CEO power: CEO power (CEOPOWER) is a composite variable consisting of two characteristics CEO is the founder and the CEO has expertise in finance and accounting[3]. Based on, Le et al (2020), the study measures CEOPOWER as a binary variable that takes the value of 1 if the company's CEO is both the founder and has financial-accounting expertise, otherwise get value as 0[4].

Controlling Variables

The controlling variables are setected based on prior studies. This study includes three variables to control other factors influencing earnings management (Liu & Lee, 2019). Previous studies found a relationship between company size and earnings management (Dechow & Skinner, 2000; Ben Amar & Chakroun, 2018). Also, this study controls for leverage and proposes a negative association between leverage and earnings management. It is expected that companies with high leverage are likely to decrease earnings management (Bédard et al, 2004; Dechow & Skinner, 2000). Finally, Return on assets (ROA) is other factors influencing earnings management. Many studies acknowledge the higher quality of financial statements for firms with higher ROA (Dechow & Dichev, 2002; Barua et al, 2010; Alzoubi, 2018).

4. EMPIRICAL RESULT

4.1. Decriptive statistics

Table 1 shows the descriptive statistics for the variable used in the tests. The mean value of discretionary accruals (DA) are -0.002. The mean value of CSR is 0.527, which implies that, on average, Vietnamese listed firms have announced more than 50% of social responsibility disclosure targets according to regulations with a large difference between businesses. Listed companies have a financial performance is relatively good (approximately 50%) but operating efficiency is not good with the disparity between enterprises is quite large (0.0001 to 0.60).

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[3] According to Aier et al (2005), in this study the author measures financial expertise using past experience as CEO or experience os chief financial officer, certificate degree related to finance accounting.

[4] Based on the study of Le et al (2020) on building representative composite variable CEOPOWER.

Table 1. Descriptive statistics of variablles

Variables	observation	Mean	Standard error	Min	Max
Discretionary accruals (DA)	2.090	-0,002	0,149	-0,996	2,6111
Corporate social responsibility (CSR)	2.090	0,527	0,2101	0,05	0,95
Corporate social responsibility with CEO regulation (CSR*CEO)	2.090	0,019	0,099	0	0,85
Firm size (SIZE)	2.090	11,938	0,705	10,199	14,626
Financial leverage (LEV)	2.090	0,497	0,221	0,013	0,965
Return on Assets (ROA)	2.090	0,081	0,073	0,0001	0,602

***Notes**: Variable definitions: DA= Discretionary accruals estimated by the modified Jones Model Dechow et al, (1995); CSR = CSR scores obtaine from Circular 96; SIZE = log of total assets; LEV = total liabilities divided by total assets; ROA = Return on Assets*

4.2. Main regression results and test results

Table 2. Pearson correlations and VIF values

	DA	CSR	CSR*CEO	SIZE	LEV	ROA	VIF
DA	1						
CSR	-0.0502	1					1.02
CSR*CEO	-0.0385	0.0131	1				1
SIZE	0.0527	0.079	0.0154	1			1.19
LEV	0.0213	-0.048	0.0097	0.3725	1		1.38
ROA	0.0442	-0.0329	-0.0147	-0.05	-0.3777	1	1.18

According to the correlation matrix (Table 2), the absolute value of the pair correlation coefficient between the variables is very small than 0.7. This shows that there is no strong correlation between the independent variables. However, to make sure that the problem of multicollinearity does not occur between the variables in the research model. At the same time, this article also test the variance exaggeration factor (VIF) to conclude about the problem of multicollinearity collinear. The table 2 of results show that the correlation coefficient between the variables is relatively small and the factor components in the model for the VIF coefficient are very small (VIF < 10), showing that the model does not have multicollinearity serious line.

4.3. Multiple Regression Analysis

Bảng 3. Estimating regression using POOL, FEM, REM, FGLS

DA	Regression model							
	POOL		FEM		REM		FGLS	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
CSR	-0.037** [-2.35]		-0,08*** [-3,27]		-0.037** [-2.36]		-0.037** [-2.35]	
CSR*CEO		-0.058* [-1.77]		-0.086* [-1.68]		-0.058*** [-1.77]		-0.058*** [-1.77]
SIZE	0,011** [2.2]	0.009** [1.98]	0,142*** [3,61]	0.09** [2.52]	0.014** [2.16]	0.01*** [1.93]	0,011** [2.2]	0.01** [1.98]
LEV	0,021 [0,74]	0.017 [0.99]	-0,008 [-0.15]	0.04 [0.64]	0.014 [0.78]	0.018 [1.03]	0,012 [0,75]	0.017 [0.99]
ROA	0,107** [2.2]	0.113** [2.34]	0.444*** [4.47]	0.485*** [4.92]	0.113** [2.28]	0.119** [2.42]	0,107** [2.21]	0.113** [2.34]
Hằng số	-0,13** [-2,27]	-0.136** [-2.39]	-1.69*** [-3.76]	-1.143*** [-2.74]	-0.131** [-2.24]	*0.137** [-2.35]	-0,13** [-2,27]	-0.137** [-2.39]
Statistics F/Waldchi2	F(4, 2085) = 4.24***	F(4,2085) =3.64***	F(4, 1668) =10.08***	F(4,1668) =8.78***	Wald chi2(4) = 17.23***	Wald chi2(4) =14.77***	Waldchi2(4) = 17.01***	Waldchi2(4) = 14.46***
White test Chi2(14)			40.65***	23.84**				
Woolridge test F(1, 417)			4.667**	4.685**				

Note: *Statistical significance: ***; **;* de note significance at the 1%, 5%, 10% levels, respectively; statistics in brackets [ ].*

Regression results (table 3) show that all 3 models POOL, FEM, REM have F-statistics, Wald has Prob value <1%, so all are evaluated as suitable. The results of selecting FEM and POOL by the F-test of the two models, respectively, with F (417, 1668) = 1.14 and F (417, 1668) = 1.12, both have Prob>F values less than 5%, which is enough evidence for proving that there are specific differences between enterprises in the research model means that the FEM model is the most suitable model.

The results of Hausman's test of choosing FEM or REM in both models give results with Prob > chi2 = 0.000, which is enough evidence to prove that the FEM model is more suitable than the REM model. Thus, the FEM model will be used for the next analysis.

After selecting a suitable model, the study continued to test the variance of change and autocorrelation (dependence between the cross units) by the White test and the Woolridge test with the results at respectively two models with Chibar2 value have Prob>chi2 less than 5% and Prob>F value also less than 5%. This shows that the FEM model has variable variance and autocorrelation, which reduces the effectiveness of the FEM model. In the condition that the assumptions about the phenomenon of variance and independence between the cross-units are violated, the feasible generalized least squares (FGLS) estimation method is a suitable choice for the research results. The study was unbiased and efficient (Beck & Katz, 1995).

Based on the FGLS regression results in Table 3, it shows that the responsibility to disclose information of enterprises in terms of social responsibility has had a negative impact on earnings management in the period 2016 to 2020. Specifically:

- For model 1: CSR has negative impact at 0.037 level at 5% significance level. This means that businesses that implement CSR in accordance with regulations, the more information related to social responsibility is disclosed, the lower the earnings management. At the same time, other control variables also show that the larger the enterprise, the more efficient the operation on total assets, the more earnings management tends to increase.

- For model 2: CSR*CEO has negative impact at 0.058 level at 5% significance level. This recognizes that businesses controls by CEOs who have expertise in finance and accounting and are founders when implementing social responsibility have a higher impact on earnings management and reduce the earnings management.

The results of the above study are completely consistent with Chih et al (2008), Y. Kim et al, (2012), Gras-Gil et al (2016) and is also consistent with ethical theory when it is recognized that firms that perform activities that contribute to the welfare and interests of society are less likely to perform earings management. This is consistent with the signaling theory, which suggests that the disclosure of CSR information is a signal to investors and financial markets that managers can control risk, commit to fulfilling their responsibilities society (Sun et al, 2010) and reduce information asymmetry (Grougiou et al, 2014), so the more companies engage in CSR activities, the less likely they are to practice earnings management. At the same time, the research results in model 2 also acknowledge that enterprises implementing CSR with the regulation of CEO power limit the behavior of earnings management but the level of impact on corporate governance is higher if there is no regulation by the CEO and the results are consistent with the upper echelons theory that the CEO has a great influence on decisions related to the accrual basis, so the tendency of businesses to implement CSR can be influenced by personality, the value of CEO (Chatterjee & Hambrick, 2007; Hambrick & Mason, 1984).

5. CONCLUSION

This article focuses on analyzing the impact of corporate social responsibility on profit management and the impact of CSR with the regulation of CEO power on EM. Research results show that CSR, CSR with the regulation of CEO power has a negative impact on earnings management, this impact is consistent with previous empirical studies and also consistent with the agency theory, the upper echelons theory, ethical theory

This shows that the more businesses comply with socially responsible information disclosure with the executive role of a CEO with financial expertise and as a founder, the less information asymmetry is, lower agency costs and limited earnings management.

With the above experimental results, the author can suggest implications for companies: companies can increase investment attraction, increase the credibility of the financial market through the strategy to comply with regulation on CSR implementation. At the same time, the implementation of CSR reduces information asymmetry, thus increasing the trust of stakeholders and can help the unit increase operational efficiency.

Finally, the study only examines the impact of CSR combined with CEO power, so it is not possible to have an overview of the CEO's impact on the implementation of corporate CSR on EM, as well as CSR in regulation. of corporate governance to EM. Therefore, this is the author's future research direction when considering this issue.

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DETERMINANTS OF BRAND LOYALTY: AN EMPIRICAL EXAMINATION ON ONLINE CUSTOMERS

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Abstract: *This paper examines elements influencing brand loyalty of online customers in the Vietnamese retailing sector. Based on the SOR (Stimulus-Organism-Response) theory, this study develops a theoritical framework to investigate website quality (WQ) affects on Brand relationship quality (BRQ) which in turn influences online brand loyalty (OBL) regarding to word-of-mouth (WOM) and brand-swiching intention (SI) through cognitive experience (CE), affective experience (AE). The result obtained in a sample of 319 valid interviewees reveal the statistically significant affects of those determinants on the brand loyalty of online customers. The study offers insights to retailers about how to focus on cognitive experience versus emotional experience, or both in their website design to enhance customer loyalty. The findings of this study are important as it examed the correlations in Vietnam scenario where witnessing a fast-paced growth in online selling which can tremendously fold these relationships.*

Keyword: *Website design, cognitive experience, affective experience, loyalty, Vietnamese retailing sector.*

JEL codes: M30, M31, M39

1. INTRODUCTION

Internet integrated in business creates the new entrants to retailing industry, online retailers. Thanks to these new ones, the georaphic barriers in sale – purchase journey is blurred, and the purchase activities become easier and more efficient. Recently, the fast-paced growth of e-commerce has been shapping the new customer's habits and online shopping becomes the preffered way for customers all over the world. Since 2019, with the hit of Covid-19 lockdown circumstance, customers are becoming familiar with buying things through internet. For the future of retailing, as internet users is still growing, with close to five billion globally, the number of people making purchases online is ever-increasing. Evidence from Statista illustrated that in 2021, e-retail sales surpassed the figures of 5.2 trillion US dollars worldwide while in 2017 this figure is 2.3 trillion (Statista, 2021).

Keeping customers loyal is a crucial issue for both online and offline retailers. The first reason is the cost of attracting new one is higher than that of retaining old one (Liu et al., 2011). The second one is loyal customers purchase more products, their willingness to spend is higher than non-loyal one, and they spread positive words about products or service providers (Harris & Goode, 2004). Therefore, enhancing online customers' loyalty is the forever interest among accademics

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and practicers in accordance with new circumstances and new inventions created to communicate virtually with those ones.

Traditionally, store image plays an important role in engendering the loyalty of customers (Konuk, 2019). In the same way, online store image, also called web store image, has the same influences on customer loyalty by creating emotion of joyfulness as well as functioning like the guidance to customer complete their purchasing (Gogoi, 2017). (Konuk, 2019) found that behavioral intention of online customer is impacted by website features. The components of online web store can be found in literature such as website design (van der Heijden & Verhagen, 2004), website design, product related factors, delivery issue and price (Dholakia & Zhao, 2009). In fact, the retailing-context literature gives evidence that store image is an antecedent of service quality (Konuk, 2019) which plays crucial role to generate and retain customer's satisfaction and loyalty. However, in this platform of retailing, study addressing the web image aspects like web design as an antecedent of customer's loyalty is still scant. Hence, to fill the gap in the retailing research field, present study examines the impacts of website design on customer's loyalty through the mediating role of creating customer emotional and cognitive experience.

The context where the research is conducted has tremendous impact on the relationships which makes the study relevant (Hsu et al, 2013), so this study chose Vietnam where having the high rate growth of e-commerce to conduct the examination. In particularly, Vietnam is currently considered as a promising land of e-retailing sector because of its young population, high rate of internet and smartphone penetration to examine these correlations. There is a fact that Vietnamese adjusted their behavior even before the circumstance of pandemic started in 2019. The value of online purchasing witnessed the increase by 1 billion US dollar only in one year from 2017 to 2018, reaching 6 billion US dollars in 2018. Vietnamese government reports indicated that there are 59 million internet users in Vietnam and their spending is estimated lightly close 2.2 billion US dollars for goods. Especially, there is 93% of Vietnamese would like a 5G phone and 67% belive in virtual shopping prospects in the future and approximately 50% are interested in purchasing intelligent speakers or artificial intelligent assistants. In short, Vietnam is considered as suitable context for testing the association between website design and online customer's loyalty.

This study is organised as follows. The literature review on SOR theory is presented after the introduction section, follows by theoretical framework and hypotheses establishment. Next section focuses on the explaination of methodology application and measurement all the conducts in mentioned theoretical framework. The analytical results are showned in the next part. The final gives main findings, implication, discussion, and the paper conclusion.

2. LITERATURE REVIEW, THEORETICAL FRAMEWORK AND METHOD

2.1. Review of SOR theory

The SOR paradism was generated by Mehrabian & Russell in 1974 and has been used as a foundation framework to investigate customer behavior (Chang et al, 2011). The SOR model describes the association between inputs (stimuli), processes (subjects), outputs (responses), and assumes that an individual's perception of the environment (context) can affect experience which ultimately affecting behavioral responses (Shen & Khalifa, 2012). Particularly, (Ha & Lennon, 2010) referred the detail of S, O and R as follows: Regarding to S, it is considered as environmental factors like color, taste, music, and lighting that stimulate human senses. O is represented to inner state of customer such as the feelings of satisfied, excited, confident, sad, happy, and more. The last one is R expressed the customer reactions like intend to buy, refuse to buy, repeat the action of buying. Initially, this framework can be used to address the attributes on customer behavior.

This framework is first applied in studying customer behavior in 2002 by the author named Jacoby. (Jacoby, 2002) argues that not only does the stimulus affect the subject (SO relationship) and from there the subject has the response (OR relationship), but also the stimulus can lead to the response directly (SR). Regarding to SOR path, shopping is a process of experiences, from cues like hearing or seeing the products on display as well as interesting information will generate trust and satisfaction to customer (SO), which in turn leads to pruchase intention, repeat the purchasing, perceived the value of seller's brand (OR). However, in some circumstances, customer immediately responses to the stumulus from the environment like buying something unconciously at fair, and this is called SR path by (Jacoby, 2002).

Since the first implication, the SOR framework has been widely applied to examine the effects of stimuli during the customer's shopping experience on consumer responses in the online context (Liu et al, 2011).

In an online retail context, customers assess products through verbal and visual stimuli deployed on Web pages (Bleier et al, 2019). Thus, shopping experience depends on aspects online retailers can control such as web design, quality of the information… and other factors that are outsid the retailer's control like communication between consumers, shopping motivations. In this research, customer is considered as responses to managerial stimuli, so Website quality is the adjustable force created by retailer to boost the active responses from customer. Following the framework of (Mehrabian & Russell, 1974), stimuli impact the subject's body, specifically, the cognitive and affective processes, which explained the coming up responses. And, (Holbrook & Hirschman, 1982) affirmed experience as a component of cunsumer behavior and suggested this concepts as a kee variable in understanding the internal behavior process and customer response. Therefore, in this study, O in SOR framework is represented by experience (specifically, emotional experience and cognitive experience). In conclusion, the input is Website quality, the mediators are emotional experience and cognitive experience, and the output is online customer loyalty.

2.2. Theoretical Framework

2.2.1. Website quality

Website quality is the characteristics of the website that meet the requirements of customers when shopping online (C. Liu & Arnett, 2000). A good quality website can help strengthen the relationship between the seller and the buyer that could increase customer loyalty. The latent reasons are customers will visit the website more frequent and the growth of the ability to purchase new things or repeat buying previous products. Website quality is assessed through three different aspects of: website usefulness, website service quality, and website accessibility (Al-Debei et al, 2015).

2.2.2. Cognitive Experience

Perceived experiential value is defined as beliefs about a place, people and products found in that place (J.-H. Kim, 2019). Accordingly, a customer's positive (or negative) perception can lead to positive trust (or negative) on the infomation.

2.2.3. Emotional Experience

Emotionally experiential value is expressed through the user's emotional responses and consists of three states: Enjoyment, Emotional Involvement, and flow state (Huang, 2017; J.-H. Kim, 2019).

2.2.4. Quality of brand-customer relationship

Brand relationship quality is the concept originating from research in the field of marketing. Although, the concept of relationship quality is expressed quite widely in different research results, the aspects of relationship quality expressed by researchers are quite unconcentrated. In this study, relationship quality is made up of 3 components: satisfaction (Satisfaction), trust (Trust) and customer commitment (Customer commitment) (J. I. Shin et al, 2013a).

2.2.5. Brand loyalty

Luarn and Lin (2003) in line with Oliver (1999) who defined loyalty is "a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing, despite situational influences and merketing efforts having the potential to casue switching behavior". Online loyalty is specifically defined by a customer's favorable attitude towards an online business, leading to repeat purchases on that business's sales page (Srinivasan et al, 2002). Online loyalty positively impacts profitability of the providers by encouraging repeat purchases and attracting new customers without fee through nice words about their trust.

Online customer loyalty to a website is like customer loyalty to a brick-and-mortar store. In specific word, the number of times a customer visits the store. and buy back products/services from that store is the same as the number of times customers come back to visit and buy from the E-commerce site. In the context of online services, Luarn and Lin (2003) concluded that loyalty degree and behavior arising from the trust, satisfaction, and perceived value of a product or service service, regulations submit deliver. To conclude, online loyalty is a long-term commitment between an online retailer and an online consumer. The expression of online loyalty is that consumers buy back from the same website, instead of switching to the other website.

2.2.6. Switching intentions

A switching intention is the end of a relationship with a certain brand and moving towards a more compelling solution (Pine & Gilmore, 1998). This means that users abandon a service or product provider (Keaveney & Parthasarathy, 2001; Rundle-Thiele & Bennett, 2001). Switching from one brand to another is an important issue for a business because it shows that the original brand is no longer meeting customer expectations and the new brand is more appealing.

2.2.7. Word of Mouth (WOM)

Word of mouth (WOM) is one of the oldest ways of conveying information (Dellarocas, 2003) and it has been defined in many ways. One of the earliest definitions, (Menzel & Katz, 1955), described word of mouth as the exchange of marketing information between customers in a way that plays a fundamental role in shaping their behavior and changing attitudes toward customers. with products and services. Word of mouth is "informal *communication directed to customers about the ownership, use, or characteristics of particular goods and services, including those providing them*" (Westbrook, 1987). Word of mouth is defined as communication between customers about a product, service or company where the sources are considered independent of commercial influence (Litvin et al, 2008).

2.3. Research hypotheses

Zeithaml et al (2002) examine the key differences between traditional service quality and online service quality. The study suggests that when applying traditional business environment metrics to the online environment, additional factors should be considered, which may include flexibility, efficiency, aesthetics and website security. Sadeh et al (2011) studied the relationship between online service quality, customer satisfaction, trust, customer perceived value and online customer loyalty, results indicated that service quality has a direct influence on loyalty in the online environment. According to (Carrillat et al, 2009), service quality affects customers' attitudes towards service or product providers. Cronin Jr et al (2000) also suggested that the higher the perceived service quality, the more positive and favorable the customer's attitude towards the supplier will be and reduce the change in intention to change. suppliers of customers, as well as strengthen customer loyalty. Furthermore, the SOR model also suggests that cognitive and emotional experiences mediate the relationship between arousal and behavioral responses (Mehrabian & Russell, 1974).

The proposed research hypotheses

Hypothesis	Independent variables	Dependent variable	Describe
H1	Website quality	Cognitive experience	Positive effect
H2	Website quality	Emotional experience	Positive effect

Jani and Han (2015) have based on the SOR paradism to clarify the behavior of tourists when experiencing at the hotel. Jang and Namkung, (2009), W. G. Kim and Moon (2009) have extended the SOR framework to explain consumer positive/negative behaviors through cognitive and emotional experiential values in the field of restaurant service sector. Based on the SOR model, positive perceptions can generate positive beliefs, and have an important impact on consumers' intention to return to visit in the restaurant sector (W. G. Kim & Moon, 2009). These authors demonstrated that emotional experiential value has a positive relationship with behavioral intention. Therefore, in this study, it is assumed that cognitive experience, affective experience has an impact on the quality of the brand-customer relationship.

The proposed research hypotheses

Hypothesis	Independent variables	Dependent variable	Describe
H3	Cognitive experience	Brand relationship quality	Positive effect
H4	Affective experience	Brand relationship quality	Positive effect

Mosavi and Ghaedi (2012) suggest that customer satisfaction with online shopping experience has a positive influence on their trust in suppliers. Previous studies also show that satisfaction can lead to commitment or in other words, customer's attachment to the brand. For example, the studies of Gounaris et al (2010), Shin et al (2013). Satisfaction underpins a consumer's decision to maintain an exchange relationship with an online supplier. The relationship between satisfaction and commitment is very important in online shopping because the online environment is always uncertain and risky. Most studies have shown that customer satisfaction has a positive influence on online shopping loyalty (Gounaris et al, 2010). A study by Curtis et al (2011) showed that satisfaction and intention to repurchase have a strong relationship.

The proposed research hypotheses

Hypothesis	Independent variables	Dependent variable	Describe
H5	Brand relationship quality	Online brand loyalty	Positive effect
H6	Online brand loyalty	Word of mouth	Positive effect
H7	Online brand loyalty	Brand switching intention	Negative effect

2.4. Theorical framework

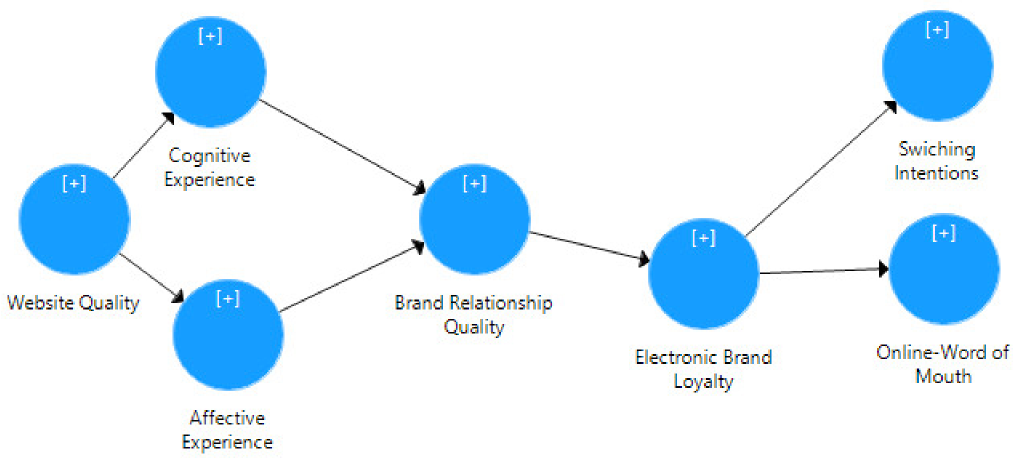

Figure 1. Theorical framework

2.5. Measurement

Quantitative research methods are used to test the relationship between factors in the research model. The website quality (WQ) drawn from the study of Al-Debei et al (2015). Observations on Cognitive Experience (CE), Affective Experience (AE) used from the survey questionnaire of Cleff et al (2018). Research by Algesheimer et al (2005) contributes to the scale of Brand relationship

Quality. Scale of Online Brand Loyalty derived from the research of Anderson and Srinivasan (2003). Scale measures brand switching intentionaccording to research D.-H. Shin & Kim (2008). Finally, the scale of the Positive Word of Mouth Scale is referenced by the authors from the study of (Srinivasan et al, 2002).

3. RESULTS AND DISCUSSION

3.1. Sampling procedure, data collection and instrument development

Empirical data was gathered using self-administered questionnaire. A cross-sectional survey was conducted with questionnaire administered to randomly selected customers in Ho Chi Minh City, Vietnam. Over the period of one month, a total of 700 respondents from a convenient sample have participated online in the main survey. Of this, 319 questionaires were returned and were found to be complete, so all these is used to the next step. University students were selectd since students at this age are involved online shopping frequently (Yang, 2005). Furthermore, these students come from all over Vietnam and consist of different races, religions and background, hence the findings may be generalized to represent the overall Vietnam context.

The survey instrument consists of two parts. The first part is about the demograpic profiles of the participants. The remain part was developed based on the constructs of WQ, CE, AE, BRQ, EBL, SI and WOM as mentioned. A five-point Likert scale was used to measure all of these constructs, ranging from “Strongly disagree” (1) to “strongly agree” (5). To ensure both validity and reliability of the constructs are met, the items in the questionnaire were adapted from past studies. Prior to the main survey, we have conducted a pre-test involving 30 respondents to validate the instrument. The respondents were asked about the clarity, word and format of the instrument. After that, to further validate both the reliability and validity of the instrument, a pilot-test was conducted.

3.2. Research results

3.2.1. Statistical analysis

There is the fact that data for both independent and dependent variables were gathered from a self-reported questionnaire, so the problem of common method bias (CMB) might arise. CMB refers to whether variance among two variables overlapped due to the relationship between the underlying constructs. Therefore, Harman’s single factor analysis was conducted and found that the common variance is just 26.982 % (<50%). Then this rate of latent factor is just 16.485% whereby all indicators were regressed to a common factor and marker variable wa assgined and concluded that there was evidence of CMB non-issue. The next step was confirmatory factor analysis (CFA) for the purpose of validating the convergent and discriminant validity of the constructs. Furthermore, for the moderator effects, multi group analysis was conducted.

The validity of the instrument was also concerned before conducting any statistical analysis. To ensure this prerequisite, items was adapted from previous researchers. It is vital to examine the criterion validity of the construct to assess how good a predictor can predict the outcomes of a dependent variable. This is done by examining the correlation coefficents of all independent variables with the response variable. Besides, this study also used Goodness-of-fit Index to test the unidimensionality of each construct, and the output indicated that fit indices are above the threshold of 0.90 (Hair, 2009).

3.2.2. Construct reliability, convergent and discriminant validity

Reliability indicates that a scale should consistently reflect the construct it is mearsuring. As recommended by (Nunnally, 1994), the Cronbach's alpha value should not less than 0.70. (Kline, 2011) further stressed that the composite reliability (CR) which is calculated based on the actual loadings of the construct must exceed 0.70 while the average variance extracted (AVE) surpasses the 0.50 threhold. Convergent validity is defined as the ability of a construct to produce the same outcomes even though various approaches are utilized. According to (Fornell & Larcker, 1981), convergent validity is manifested if: (1) all factor loadings are larger than 0.50, (2) all CR exceeded 0.70, all AVE exceeded 0.50. Table 2 down here illustrated that these criteria have been met. Hence, it has been statistically verified and confirmed that the reliability and convergent validity of the dataset has been met.

Table 1. Construct correlation coefficients, distriminant, validity, and criterion validity test

	GoF index	Cronbach's Alpha	Rho_A	Composite Reliability (CR)	Average Variance Extracted (AVE)	MSV	ASV
Brand relationship quality	0.988	0.823	0.824	0.895	0.739	0.292	0.148
Website quality	0.987	0.859	0.870	0.898	0.638	0.289	0.132
Online brand loyalty	1.000	0.815	0.823	0.869	0.530	0.029	0.011
Positive word of mouth_	1.000	0.858	0.863	0.904	0.702	0.093	0.046
Emotional experience	0.998	0.887	0.894	0.917	0.688	0.216	0.119
Cognitive experience_	1.000	0.761	0.811	0.796	0.543	0.207	0.098
Intention to change brand	0.988	0.700	0.624	0.780	0.544	0.278	0.176

3.2.3. Confirmatory factor analysis (CFA)

To ensure that each item in the instrument is uniquely different from each other, discriminant validity test is conducted. Discriminant validity is met if all MSV and ASV are less than the AVE, and these can be seen from Table 1. As an alternative, the Fornell-Larcker value was used to evaluate discriminant validity. Confidence intervals for correlation estimate between factors (Table 2) indicated that all confidence intervals donot include 1 (Hernández et al, 2011). Inshort, all constructs have statistically passed the discriminant validity test.

Table 2. Confidence intervals for correlation estimate between factors

	Quality brand relationship	Website quality	Online brand loyalty	Positive word of mouth	Emotional experience	Cognitive experience	Intention to change brand
Quality brand relationship	0.859						
Website quality	0.452	0.799					
Online brand loyalty	0.377	0.438	0.728				
Positive word of mouth_	0.527	0.566	0.557	0.838			
Emotional experience	0.382	0.435	0.63	0.537	0.829		
Cognitive experience	0.398	0.916	0.435	0.535	0.433	0.737	
Intention to change brand	-0.212	-0.206	-0.16	-0.198	-0.179	-0.215	0.737

3.2.3. Multi-collinearity test: coefficients

Multivariate assumptions are the prequisite of an SEM analysis. Hair (2009) asserts that among the assumptions to be fulfilled are the nonexistence of outliers and multi collinearity problem, linearity, and normality of distribution as well as adequate sample sixe. No outliers were detected since all Mahalanobis d2 distances are in acceptable range. Multi-collinearity problem which arises from the high inter-correlations between the independent variables was evaluated by inspecting the Variance Inflation Factor (VIF) and its tolerance. Referring to Table 3, all VIF values should not exceed 10 and tolerance value must be greater than 0.10. In addition, Hair (2009) opined that an adequate and satisfactory sample size for SEM should be between 100 and 200. Since the sample size in this study is 319 which has exceeded the satisfactory range and deem adequate. There for the multivariate assumptions were not violated in this study.

Table 3. Multi-collinearity test: coefficients

Collinearity Statistics (VIF)	Affective Experience	Brand Relationship Quality	Cognitive Experience	Electronic Brand Loyalty	Online-Word of Mouth_	Swiching Intentions	Website Quality
Affective Experience		1.23					
Brand Relationship Quality				1			
Cognitive Experience_		1.23					
Electronic Brand Loyalty					1	1	
Online-Word of Mouth_							
Swiching Intentions							
Website Quality	1		1				

3.2.4. Examination of the hypotheses in the structural model

Path analysis based on the P-value was employed in order to verify the significance of a hypothesis. From the SEM analysis illustrated in Table 4, it was found that WQ has positive significant direct effect on CE and AE so H1 and H2 were supported. CE and AE have positive direct significant effect on BRQ and H3 and H4 was supported. BRQ has positive direct significant effect on OBL

Hence, H5 was supported. Moreover, OBL has possitive WOM but negative relationship with SI so H6 and H7 were supported.

Table 4. SEM analysis results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Supported
Affective Experience -> Brand Relationship Quality	0.259	0.261	0.057	4.545	0	Yes
Brand Relationship Quality -> Electronic Brand Loyalty	0.377	0.382	0.046	8.207	0	Yes
Cognitive Experience_ -> Brand Relationship Quality	0.286	0.286	0.053	5.405	0	Yes
Online Brand Loyalty -> Online-Word of Mouth_	0.557	0.561	0.036	15.459	0	Yes
Online Brand Loyalty -> Swiching Intentions	-0.164	-0.176	0.045	3.67	0	Yes
Website Quality -> Affective Experience	0.435	0.437	0.047	9.261	0	Yes
Website Quality -> Cognitive Experience_	0.916	0.917	0.007	136.39	0	Yes

3.2.5. Discussion

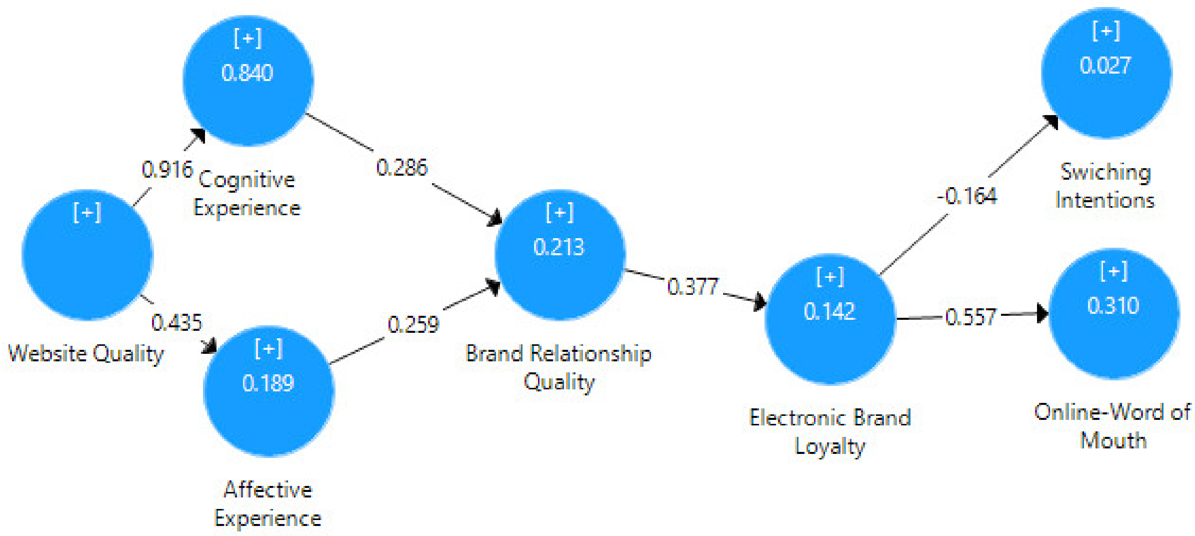

Figure 2. SEM analysis results

From Figure 2 WQ has strong effect on CE compared to AE but both latent vairiable have equal impact on BRQ which directly influence the loyalty of online customer. These effects are in agreement with findings of (Ha & Lennon, 2010; Konuk, 2019; van der Heijden & Verhagen, 2004). Thus, it can be conluded that WQ is crucial for successful BRQ and EBL. Online customer loyalty exhibits to positive WOM and reduction in switching intention. The findings are consistent with (Bleier et al, 2019; Dholakia & Zhao, 2009).

4. CONCLUSIONS AND POLICY IMPLICATIONS

Theoretically, the research results help to confirm the SOR theory in the context of online retailing in order to enhance the loyalty of online customers through managing the quality of the brand relationship with those ones. In addition, the author adds two factors of cognitive experience and affective experience that are important mediators in the correlation among website quality, quality of brand-customer relationship and loyalty. These paths were confirmed in the context of Vietnamese retailing sector. Moreover, the concept of online brand loyalty has also been studied, but mainly based on the concept borrowed from traditional shopping context.

The study proposes managerial implications for online retailers such as they should concern to the emotional experience of the customer through the color, or the images shown on the website as well as pay more attention on the variety of the products or interesting information.

This study also has certain limitations. First, the survey samples of the study are mostly under the age of 25 which might be not enough to represent a large population in the market. In addition, website quality and brand relationship quality are recognized by many authors as a second-order factor. Future studies should conduct this factor analysis as a multi-level factor.

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CHEF EXECUTIVE OFFICERS' CHARACTERISTICS AND CORPORATE SOCIAL RESPONSIBILITIES: EVIDENCE IN VIETNAM

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Abstract: *The study was conducted to evaluate the impact of CEO characteristics on the level of CSR disclosure in Vietnam. The study uses a data sample of non-financial companies listed on HNX in the period 2016-2020. The dependent variable in the Random -effects model represents social responsibility measured according to Circular 96 of the Ministry of Finance, the independent variables representing CEO characteristics include age, education and gender. The research results show that CEO characteristics are positively correlated with the level of social responsibility disclosure at the 5% significance level. This study has contributed to the theoretical foundation of CSR and also contributed to the assessment of CSR.*

Keys words: *Chef executive officers, corporate social responsibilities, VietNam.*

1. INTRODUCTION

Implementing an effective corporate social responsibility strategy is very important for businesses (McWilliam & Giegel, 2001) and allows businesses to seize competitive advantages for sustainable development (McWilliam & Giegel, 2001). Shareholders believe that the purpose of the company is to maximize shareholder value (Friedman, 1970) Therefore, corporate social responsibility has become an inevitable part of an organization's governance (Yuan et al, 2020), in which the role of the CEO is extremely important, so large corporations like Wal-Mart – Mart, Nike and Starbucks have started to incorporate corporate social responsibility into their corporate strategy to meet the needs of their stakeholders. The question was asked "Is CEO characteristics important for CSR implementation in enterprises?" Society not only requires businesses to create economic value, but also expects companies and CEOs to behave responsibly (Aramburu & Pescador, 2019); (Raimo et al, 2021). This wish is especially true at a time when the world is facing an economic and social crisis caused by the Covid-19 pandemic (Hassan et al, 2021).

The superiority theory holds that executives act on the basis of judgments about the strategic situations they face that are related to their experiences, values, and personality (Hambrick & Mason, 1984; Hambrick, 2007). Therefore, previous studies based on the theory of superiors stated that the company's CEO has an impact on CSR activities (Carpenter et al, 2004; García-Sánchez et al, 2020) and CEO characteristics provide a strong explanation for CSR differences between companies (Chin et al, 2013; Wang et al, 2016).

Therefore, the purpose of this study is to determine which characteristics of the CEO have an impact on CSR implementation in enterprises and whether CSR implementation is different in companies. We use a data sample of companies listed on the stock exchanges HNX and the results

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obtained are that qualification fo CEOs and age of CEO have positively correlated with CSR at the 1% and 5% significance level, respectively.

This study further contributes to the literature on corporate governance and CSR in several respects: we provide the concept of CEO characteristics to explain CEO behavior when making decisions related to CSR, The follow-up study also provides a theoretical foundation for a deeper concept of CEO in the field of CSR, and we provide more information to strengthen the view on the relationship between CEO and CSR (Chin et al, 2013; Saridakis et al, 2020).

In addition to the overview, the paper is structured as follows: first, the underlying theory and the research hypothesis. Then there is the data sample, the method of measuring the amount of variables. Next are the research results. The study ends by stating conclusions and proposing future research directions.

2. LITERATURE REVIEW AND HYPOTHESICS

The CSR report is not only an important management tool for businesses to assess the effectiveness of a sustainable economic development strategy, but also an important source of non-financial information for stakeholders to help they have a comprehensive picture of the operation of a business.

Corporate social responsibility is a form of strategic behavior (Waldman & Siegel, 2008) that reflects the extent to which a company actively engages in social activities to meet the interests and expectations of its owners (Waldman & Siegel, 2008); McWilliam and Giegel, (2001), go beyond legal requirements to provide benefits to society (McWilliams and Siegel, 2001). Meanwhile in Vietnam, corporate social responsibility includes economic responsibility (creating economic benefits for shareholders), legal responsibility (operating must comply with the provisions of current law) implementation, ethical responsibility (operation must be fair), responsibility to do good to the community (Circular 96/2020/TT-BTC) and requirements for disclosure of environmental protection information in 3 aspects: environment, people and community service.

Ethical theory is based on the idea that companies should exercise social responsibility as a moral obligation in any respect. Therefore, companies should contribute to the common good of society by adding value to the company and providing goods and services in an efficient and fair manner (Gatti et al., 2019) to ensure that results are consistent with the goals of social and ecological sustainability (Wheeler et al., 2003).

The CEO really plays an important role in implementing CSR-related strategies (Bernard et al., 2018; Chen et al., 2019), so some previous studies suggested that CEO characteristics have can impact on effective CSR implementation (Chin et al., 2013; Tang et al., 2015; García-Sánchez et al., 2020) or outsourced CEOs also impact CSR (Bernard et al., 2018).

The upper echelons theory (Hambrick & Mason, 1984) argues that decisions made in public companies reflect the characteristics of the CEO (Sanders & Carpenter, 1998), which also suggests that decisions are more complex. the greater the influence of these characteristics (Bernard et al., 2018; Zhang et al., 2021). Therefore, there is a study that suggests that CEO characteristics explain about 30% of the variation in CSR (Wernicke et al., 2021).

CEO age and CSR

CEO age is an attribute of CEO characteristics as it affects their behaviour, attitudes, interests, motivations and also their interest in career (Li et al, 2017). Therefore, there are many studies on the impact of CEO age on CSR, but the research results are not similar. In the study by (Oh et al, 2016), the older the CEO and the near-retirement, the less interested they are in implementing CSR and this result is similar to the study of (Borghesi et al, 2014). Meanwhile, (X. Liu, 2020) found that the older the CEO, the more concerned they are with their reputation and ensuring compliance with legal regulations, the more motivated they are in implementing CSR. In addition, some studies did not find evidence to show the impact of CEO age on corporate CSR implementation (Chen et al, 2019; Huang, 2013; Li et al, 2017; Li et al, 2017). With those research background, we propose the following hypothesis:

H_1: CEO age has a positive effect on CSR implementation.

Gender CEO and CSR

Previous research has suggested that female senior leaders tend to take fewer risks than men, are more conservative in their decisions, and exercise better oversight of company operations. with stakeholders (Cooper, 2017). Several studies found a positive and significant relationship between CSR and CEO gender (Borghesi et al., 2014; Huang, 2013; Manner, 2010). Carpenter et al. (2004) argue that the gender characteristics of CEOs must be studied from the perspective of superiority theory and current empirical studies have not provided enough evidence on the impact of CEO gender on CSR. Moreover, the presence of female CEOs is a necessity not only in the case of companies with CSR that focus on diverse issues (Saridakis et al, 2020). Therefore, we propose the following hypothesis related to female CEO characteristics:

H2: Female CEO gender has a positive impact on CSR implementation in listed companies.

Qualifications of the CEO and CSR

The superiority theory (Hambrick & Mason, 1984) suggests that CEOs with technical expertise use cognitive models in decision making that are distinct from CEOs with business expertise. At the same time, the study of Finkelstein et al. (2009) acknowledged that CEOs with a master's degree in business administration or a master's degree in economic science use human resources more effectively, and are more skilled in creating new solutions, strategic decisions and proactively view CSR. Furthermore, CEOs with MBA and MSC degrees have a positive and significant impact on CSR (Huang, 2013). Therefore, we also propose the following hypothesis:

H_3: CEO with MBA or MSC degree has a positive impact on CSR implementation in listed companies.

3. RESEARCH METHODS

3.1. Research database

The selection of our sample begin with all non -financial firms listed on the HXN stock exchange in VietNam from 2016-2020. After excluding companies operating in banking, insurance, real estate, investment funds, securities companies, and companies with insufficient information on CEO characteristics, the final sample is used in this study included 257 listed companies from 2016 to 2020 with a total of 1.285 observations. The annual reports to these firms are used for collection of CSR data and CEO characteristics. To collect firm size and financial leverage data, we use the DataStream database.

3.2. Regression model

Using quantitative research method, based on table database, with the help of stata 16 software, this research was conducted to build regression model with on dependent variable (CSR – Corporate Social Responsibility) and independent variables (CEO characteristics) and control variables (company size – Size; financial leverage – Lev). Our model testing research hypothesis is formulated as follows:

$$\mathbf{CSR = \alpha_0 + \beta_1 CEOAGE_{it} + \beta_2 CEOEXP_{it} + \beta_3 CEOGEN_{it} + \ + \beta_4 SIZE_{it} + \beta_5 LEV_{it} + \pounds_{it}}$$

Where:

- CSR is the social responsibility of enterprises, showing the level of social responsibility information disclosure.
- α_0 is intercept term;
- $\beta_{1,}$ β_2, β_3, β_4, β_5 are coefficients of regression;
- ε_{it}: is the error term.

3.3. Measuring the dependent variable in the regression model

Dependent variable

The dependent variable in this study is the CSR disclosure index (CSR) and comprises 20 items of information for quantifying CSR disclosure according to Circular 96 of the Ministry of Finance, with this list of items such as "environment", "employees", "community". The 20 information about social responsibility that needs to be disclosed according to Circular 96 of the Ministry of Finance is measured as a dummy variable that takes the value of 1 if there is disclosure of information and otherwise takes the value of 0 if no information is disclosed. Therefore, CSR is a composite variable of 20 observed variables that receive value from 0 to 20.

Independent variables

The CEO age variable reflects the number of years of the CEO at the time of data table construction (Oh et al, 2016). The gender variable is assigned a value of 1 if the CEO is male, otherwise it has a value of 0. Regarding professional qualifications, the value is 1 if the CEO has an MBA, MSc degree, otherwise, the value is 0 (Huang, 2013) .

Controlling Variables

In addition to the independent variables in the research model, we expect that firms with larger size (SIZE) and better prospects, including higher profitability are more likely to invest in CSR because they tend to have ample resources to support CSR (Chen et al., 2019; Rashid et al., 2020). As a firm with idle financial resources is better able to afford CRS, we expect a negative association between firm and CSR (Chen et al., 2019). We expect a negative association between firm leverage (LEV) and CSR (Chen et al., 2019).

4. EMPIRICAL RESULTS

The analysis will start by the descriptive statistics, followed by the correlation analysis and then the results of the regression analysis are met and discussed to see whether the hypotheses are validated or not.

The descriptive statistics results presented in table 1 show that the median CSR is about 10 for the sample of Vietnamese listed company in HXN. Moreover, CEOEXP are about 80% and approximately 11.09% of Vietnamese CEOs are female; average of CEO's age is abbout 49.

Table 1. Descriptive statistics

Variable	**Obs**	**Mean**	**Std. Dev.**	**Min**	**Max**
CSR	1285	10,73463	3,497051	2	19
CEOGEN	1285	0,055253	0,228562	0	1
CEOAGE	1285	48,86148	8,01135	24	73
CEOEXP	1285	0,798287	0,401436	0	1
SIZE	1285	11,55401	0,561573	10,19989	13,41973
LEV	1285	0,498319	0,237061	0,013113	1,16782

The table 2 shows the Pearson correlation coefficient between the dependent and independent variable. This is given in table 2 that all of variables in the regression model have no intact correlation (correlation coefficient <0.8) and not multicolinear phenomenon (vif <10). This shows that the model has enough value to predict.

Table 2. Pearson Correlations and VIF Values

	CSR	SIZE	LEV	CEOEXP	CEOGEN	CEOAGE	VIF
CSR	1						
SIZE	0,0385	1					1,29
LEV	0,0841	0,4667	1				1,29
CEOEXP	-0,0625	0,0131	-0,0434	1			1,07
CEOGEN	-0,3654	-0,0738	-0,0966	0,2018	1		1,06
CEOAGE	-0,1492	-0,113	-0,0552	-0,1487	0,0329	1	1,04
Tổng							1,15

Besides, based on the regression model to argue, the study tested the variance change and the phenomenon of autocorrelation.The study uses two tests, White and Woolridge, with the results, respectively, Prob>chi2 = 0.000 (less than 5%) and Prob>F = 0.1812 Meaning the model has variable variance and no autocorrelation.

Finally, for the purpose of determining which regression model is the most suitable to interpret the results, the study performs related tests with the results. Our F test ((Prob>F=0.0000), Breusch -Godrey serial correlation LM test (Prob > chibar2 = 0.000) and Hausman test (Prob >Chibar2 = 0,2240) idicates that Random -effects panel least squares methods should be applied for the dataset emloyed in this research. To ensure the reliability of the assessment, research used the REM-ROBUST model because of variable variance (*table 3*).

Table 3. Estimating regression using Pooled OLS, FEM, REM and REM ROBUST

CSR	Pool OLS		FEM		REM		***REM ROBUST***	
	Coef.	P-value	Coef.	P-value	Coef.	P-value	***Coef.***	***P-value***
CEOGEN	-1.773	0.000***	-1.568	0.663	-0.3672	0,278	***-0.3672***	***0.277***
CEOAGE	0.0236	0.063*	0.0261	0.01**	0.0255	0.008***	***0.0255***	***0.018****
CEOEXP	0.2117	0.398	1.140	0.000***	1.046	0.000***	***1.046***	***0.000*****
SIZE	0.5881	0.003***	1.551	0.000***	1.030	0.001***	***1.030***	***0.003****
LEV	-8.772	0.061*	-1.302	0.021**	-1.033	0.033**	***-1.033***	***0.078****
_cons	31.497	0,18	-8.726	0.079*	-2.713	0.432	***-2.713***	***0.496***

*With: *, **; *** at 10%, 5% and 1% significance level; Observation: 1.285, Prob>F = 0.000.*

Table 3 has given the regression results that the study has enough evidence to admit that the CEO has an MBA, MSc degree; CEOAGE are positively correlated with CSR at the 1% and 5% significance level, respectively. The results of this study are connsitent with view that CEOs with a master's degree in business administration or a master's degree in economic science use human resources more effectively, and are more skilled in creating new solutions, strategic decisions and proactively view CSR (Finkelstein et al, 2009; Huang, 2013). The study also admits that the older the CEO, the more concerned the reputation is, the more interested in implementing social responsibility disclosure and agree with (H. Liu & Lee, 2019). The research results also support the ethical theory with the view that the more qualified and older CEOs are, the more they comply with legal regulations, typically regulations on CSR information disclosure. Therefore, this is reliable evidence to help listed companies issue policies in line with their sustainable development. Therefore, this is reliable evidence to help listed companies issue policies in line with their sustainable development. However, CEO in emerging markets tend to use their power to influence profitability (Le et al., 2020) CEOs with financial expertise reduce the quality of financial statements.

In addition, the study also shows that controlling variable like LEV, SIZE correlated with discretionary accruals at 5% and 10% significance level, respectively. Specifically, the larger the size of the company is the more the managers tend to publish more information about social responsibility.

5. CONCLUSION

The article with quantitative method through data collected on annual reports and financial statements of companies listed on HNX provides reliable evidence to admit that CEO's characteristics have impact on CSR such as CEO's expertise, CEO's age.

The results of empirical research show the positive impact of CEO qualifications, CEO age on CSR, so VietNam listed companies want to gain the trust of society, comply with disclosure regulations, and increase operational efficiency (Wang et al., 2016; Nguyen et al., 2022) should implement CEO recruitment policies with a master's degree in business administration or a master's degree in economic science and takes care about CEO's age.

Finally, given the revealed importance of the CEO education in the CSR of the organization, we consider that CSR should be an essential part of the education of tomorrow's leader. With a deeper understanding of CSR among the CEOs of the future, they will be able to conduct their business in a more socially responsible manner. Thus, universities that teach management major must boost the integration of a more formal way of the CSR topic in curriculum (Marcus & Fremeth, 2009).

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THE IMPACT OF CONTROLLED COVID 19 SITUATION ON THE CAPACITY OF TOURISM BUSINESS

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Abstract: *The complicated development of the Covid-19 pandemic has strongly affected all aspects of social life as well as the whole economic sector. As an industry directly affected, tourism businesses has suffered heavy losses, the number of international tourists as well as domestic tourism has decreased significantly compared to before the epidemic appeared. Although up to now, the epidemic has been basically controlled, but in order to survive and develop, tourism businesses must operate effectively, maintain and improve their profitability. This study was conducted with the aim of showing the impact of the Covid-19 epidemic under control on the profitability of tourism businesses. From there, suggest a number of issues to help tourism businesses improve profitability in the current situation. Research data is compiled from financial reports of tourism businesses in the period of 2018 - 2022.*

Keywords: *Tourism; Profitability, ROE, ROA, ROS.*

1. INTRODUCTION

Tourism is a important industry in the national economic development, so it has become a spearhead economic sector of many countries in the world, especially, for Vietnam, the tourism industry is now considered as a is one of the three key economic sectors, focusing on investment, constantly developing and making positive contributions to the growth of the whole economy. With the worldwide crisis, Vietnam's tourism is also not outside of the suffering from the Covid-19. How can develop and recover effectively the operation of tourism after the pandemic and then adapt to the new opening stage? Vietnam's tourism needs to build a model with more development, sustainability and flexibility, especially for the businesses. Functional profitability is a useful tool for economic management that will help the managers operate their businesses the best they can be. This research aims to consider and identify the degree of Covid-19 pandemic on the profitability of Vietnam's tourism businesses.

2. THEORETICAL BASIS

Profitability analysis is the research process to help businesses review the whole progress and the business operation and then make clear of the business's qualification and exploit the essential resources that they can use. For Profitability evaluation and the Business Operations Analysis, content and ratios analyzed are of the highest importance for the analysts. Basing on the analyzed content, the analysts can conduct the other parts such as the Indicator system, method and procedures of analysis, types of analysis, analysis reports. Recently, some researchers have measured the business operation by the financial indicators like the Return of Assets (ROA), Return on

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Equity (ROE) and Return on Sales (ROS) (Deloof, 2003; Gill, 2011; Mansoori & Muhammad, 2012; Napompech, 2012). The elements of measuring the profitability are as below:

- ***Return on assets (ROA):***

This indicator is the relation between the profit after tax and the total current assets of a business. It shows how effectively that a company uses its assets by a comparison between the profit and its assets. According to Phan Duc Dung (2008), the return on assets is a financial indicator to measure the profitability of every penny of the business's assets. According to Nguyen Thi Ngoc Trang and Nguyen Thi Lien Hoa (2007), if this indicator is more positive than 0, the business has a profit. The higher indicator, the better profit. Otherwise, the indicator is more negative than 0, the loser they have got. The profit and loss cause the percentage of the total assets. The indicator shows the effectiveness of management and usage of the resources to create income for the business. The return on assets depends on the seasons and businesses. Thus, the financial analysts use this indicator in the comparison of a business in its sector or with other businesses in the same category and the same period. This indicator is the division of the net profit (or the profit after tax) in a monthly/quarterly/half-yearly/yearly report and the average of the total assets in the same period. The logistics of the net profit or the profit after tax is from the business report, the asset evaluation is from the accounting balance sheet. The equation is as below:

Return on assets = Net income/average assets

ROA can not be used for the businesses with the different categories because the typical sectors make the different scales and the asset mix. Therefore, ROA is used for businesses in the same branch or one business in the many past years.

- ***Return On Equity (ROE):***

According to Nguyen Minh Kieu (2009), return on equity is a financial indicator to measure the profitability per capital of a business. Return on equity (ROE) shows that every 100 capital of the equity creates the profit. If this ratio is positive, it will be profitable. If it is a negative number, the business will get lost (Nguyen Thi Ngoc Trang & Nguyen Thi Lien Hoa, 2007). The profit in this indicator is the shareholders' net income which is from the business report in a certain period (a month, a quarter, haft-year or a year) called the reporting period. The capital in this ratio is the common equity. The equation is:

Return on equity = net income/average equity

- ***Return On Sales (ROS):***

According to Phan Duc Dung (2008) and Nguyen Minh Kieu (2009), return on sales is a financial indicator to monitor the profitability situation. It reflects the relationship between the shareholders' net income and the company's revenue. This indicator informs the percentage of the profit from the revenue. If it is positive, the business has profit; the higher the ratio, the more profit they get. The negative ratio means the lost business. However, this indicator bases on the features of each business. Thus, when considering the profitability, it is compared the business's ratio with the whole department that it belongs to. On the other hand, this ratio and the asset turnover tend to be opposite. Therefore, the analysts usually review both this ratio and the asset turnover (Nguyen Thi Ngoc Trang & Nguyen Thi Ngoc Hoa, 2007). This is the equation:

Return on Sales = Net Profit/Net Sales

ROS is the percentage of profit on the sales, so the positive ROS means a profitable company. The higher ROS is, the bigger profit the company has. As usual, a company has a good ROS which is considered to manage the expense well or conduct the strategies the cost competence.

ROS should be used in the same group of businesses, as the other ones have the big various ROS.

In summary, there is no specific number to evaluate ROS-ROE-ROA. If only these ratios were high and always be positive (ROE), it can be said that the investment and business are effective. Moreover, the evaluation is dependent on the business characteristics and the asset scale compared with each business's revenue. That is why in this research, the writer has mentioned the financial indicator ROE, ROA, ROE to analyze the business efficiency in years and the pandemic Covid-19.

3. THE REALITY OF THE TOURISM' PROFITABILITY

The impact of the Covid-19 epidemic on Vietnam's tourism, it can be seen that when the epidemic occurred, travel bans and restrictions were applied to all tourist destinations. Operations in the hotel, motel, restaurant and transportation sectors have mostly been postponed due to the nationwide shutdown order.When the Covid-19 outbreak appeared, the world economy got huge damage and the first business that suffered the most is the tourism industry. With many synchronous solutions, the first 6 months of 2022 have recorded a strong recovery of Vietnam's tourism. The positive growth in the number of international and domestic tourists and the revenue of travel and tourism services has confirmed the correctness of the policy of promoting tourism development after the Covid-19 epidemic is controlled.

According to statistics, from May 2022, the number of international visitors increased, although not much, but a very positive signal. The recovery of the aviation industry is a key factor to promote tourism development. Following the reality of the epidemic, from April 27, 2022, Vietnam has suspended regulations on medical declaration. From May 15, 2022 continue to suspend Covid-19 testing for people entering the country. Along with the complete opening of international routes to and from Vietnam from March 15, the removal of the requirement for Covid-19 testing for people entering the country from May 15, the aviation industry is expected to be in 2022, reaching 70-80 million visitors. In which, international visitors are approximately 10 million and domestic visitors are 60-70 million. International visitors to Vietnam in May reached 172900 arrivals, up 70.6% over the previous month and 12.8 times higher than the same period last year. Generally in the first 5 months of 2022, international visitors to Vietnam reached 365,300 arrivals, 4.5 times higher than the same period in 2021. Out of a total of 365,300 international arrivals to Vietnam, arrivals by air reached 320,700 arrivals, accounting for 87.8% of international arrivals to Vietnam, 6.3 times higher than the same period last year; road reached 44,500 turns of people, accounting for 12.2% and increasing by 47%; Besides, along with the socio-economic recovery of the country, the quality of tourists in the first 5 months of 2022 also increased by 243% compared to the same period in 2021 with the total number of domestic tourists reaching 48 million arrivals.

A strong and inclusive tourism recovery also drives revenue from travel, accommodation and catering services. Specifically, tourism revenue in the first 5 months of 2022 increased by 34.7% over the same period last year. Vietnam tourism is recovering with impressive numbers. Localities, tourism and travel businesses also continuously create new tourism programs and products in line with post-pandemic tourism trends such as green tourism, community tourism, culture and tourism resort…. The recovery of tourism has brought job opportunities for hundreds of thousands of direct and indirect laborers.

From now until the end of 2022, localities across the country will continue to focus on investing, developing and innovating mainstream tourism product lines. In particular, sea and island tourism products have been shaped more clearly with the image of high-quality hotels, resorts, and entertainment, meeting international standards. Some complementary products will also be interested in developing such as sports tourism, tourism combining medical examination and treatment, adventure tourism. Guide to improving the competitiveness of Vietnam's tourism in the international market. Tourism recovery after the Covid-19 pandemic is a trend of all factors and a common goal of many countries in the region. Therefore, continuing to maintain the speed of tourism recovery in the direction of increasing visitors and increasing revenue will be the basis for managing the role and contribution of tourism to the country's socio-economic development.

After June 2022, the disease was managed well which brought the hopeful sign to aviation so many businesses have done promotion packages to raise the domestic demand. However, the outbreak of the disease has come back, become more complex and keep putting this business under pressure in the future.

The order to make clear the business activities of the tourism company before and during the pandemic, the research was collected the relevant information from the financial reports which are being public on Vietstock, Finance.vn…

In Vietnam, there are many travel companies, of which 35 are listed on the stock exchange. The author chooses 5 typical companies of the tourism industry for analysis. companies located in many regions of the country differ in size, operating characteristics... After collecting and presenting on the Excel, the author calculated the indicators. The profitability of some tourism businesses listed in the before and after the period of Covid Pandemic with the indicators of ROA, ROE and ROS are as follow:

Table 1. The Indicators of Profitability from the Survey Businesses (%)

Year / Ratio	2018	2019	2020	2021	Second quarter of 2022
1. ROA					
- DSP	4.4	-16	-15.6	-7.7	-3.9
- VTR	4.7	2.1	-5.3	-17	-3.5
- BTV	3.0	2.9	-10.7	-7.8	-2.2
- HOT	13.2	8.7	-28.1	-27.8	-29.5
- MTC	2.6	0.2	-2.5	-18.5	-10.5

Ratio \ Year	2018	2019	2020	2021	Second quarter of 2022
2. ROE					
- DSP	4.6	-16.9	-16.8	-8.1	-4.3
- VTR	25.0	10.0	-58.3	-4.3	73.5
- BTV	4.4	4.7	-18.6	-13.5	-4.7
- HOT	16.3	10.9	-32.1	-37	-42.2
- MTC	2.9	0.2	-2.6	-19.5	-9
3. ROS					
- DSP	20.0	-138.2	-204.6	-144.9	-31.8
- VTR	0.8	0.6	-6.5	-38.1	-5.4
- BTV	1.3	1.36.9	-10.1	-7.4	-2
- HOT	10.2	0.3	-65.2	-79.7	-62
- MTC	4.6		-7.8	-35	-12
4. Average					
- ROA	5.6	-0.4	-12.4	-15.8	-9.9
- ROE	10.6	1.78	-25.7	-16.5	13.3
- ROS	7.38	-25.8	-58.8	-61.1	-22.7

Source: The writer has analyzed and collected from Vietstock (2022a), Vietstock (2022b), Vietstock (2022c), Vietstock (2022d), Vietstock (2022e)

The profitability from 2018 to 2019 in table 1 showed evenly from 10% to 20% until the big change of the year 2020. In which, Hoi An Tourism Service Joint Stock Company (code: HOT) and Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR) fluctuate the most in profitability through 3 ROA indicators, ROE, ROS.

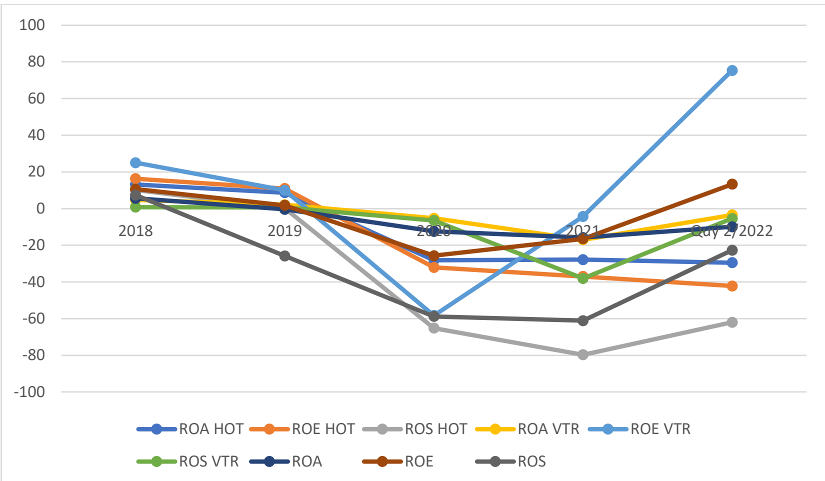

Figure 1. The Profitability of Hoi An Tourism Service Joint Stock Company (code: HOT) and Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR) and the Industry Average from 2018 to 2022

Source: The Author collected from the financial report of the survey companies

Figure 1 shows that the Profitability of Hoi An Tourism Service Joint Stock Company (code: HOT) and Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR) and the Industry Average declined in 2020. By the first half of 2022, there are signs of recovery and growth, especially Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR).

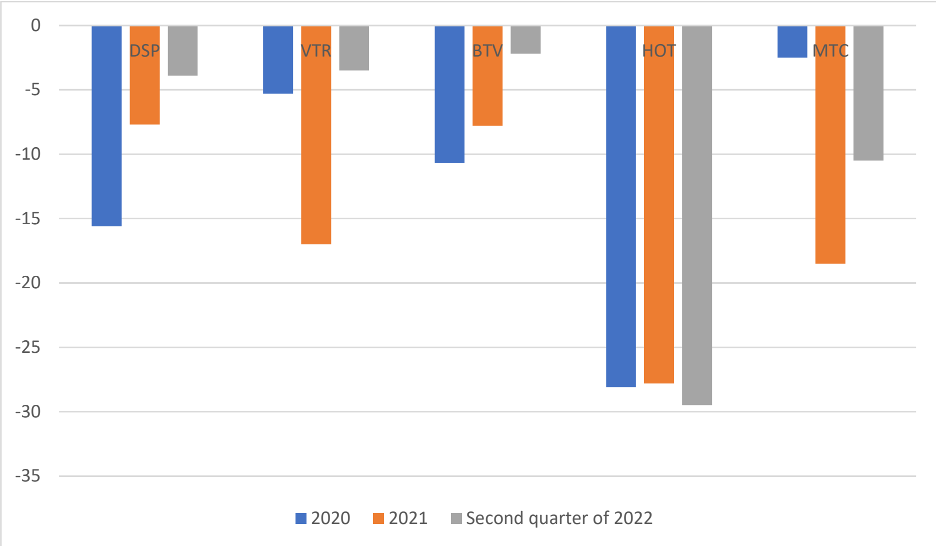

Figure 2. Return on Assets (ROA) of the Survey Companies from 2020 to 2022

Source: The author collected from the base of the companies' financial reports

From Figure 2, the profitability of the companies in 2018 and 2019 had not much difference but in 2020, it declined sharply, 2021 and 2022 shows signs of recovery. In which, Hoi An Tourism Service Joint Stock Company (code: HOT) ROA in 2020 fluctuated the most, asset utilization efficiency decreased by 400% because of the impact of the epidemic situation.

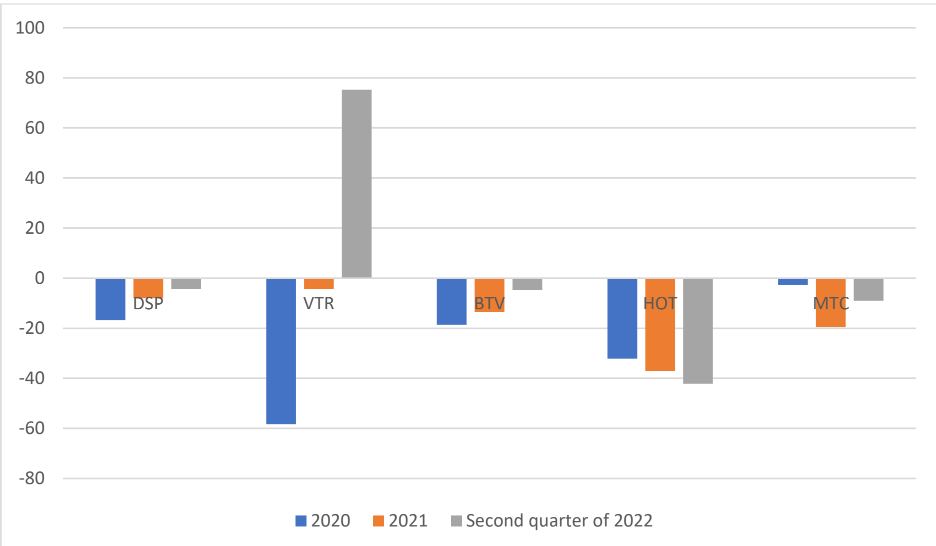

Figure 3. Return on Equity (ROE) of the Survey Companies from 2020 to 2022

Source: The author collected from the base of the companies' financial reports

From Figure 3, the Return on Equity in 2018 and 2019 had not much difference, but it dropped strongly in 2020. the second quarter of 2022 has growth. In which, Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR) has a ROE index of -58.3% in 2020 and 2020 when the epidemic situation spreads around the world in general and The whole of Vietnam in particular has a profound effect on the company's usability.

In 2021, it is -4.3%, the company index will decrease slightly, the second quarter of 2022 is 75.3%, which tends to increase very quickly because Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR) is the largest travel company in the country with The main source of income comes from international tours with the epidemic situation in the world under control.

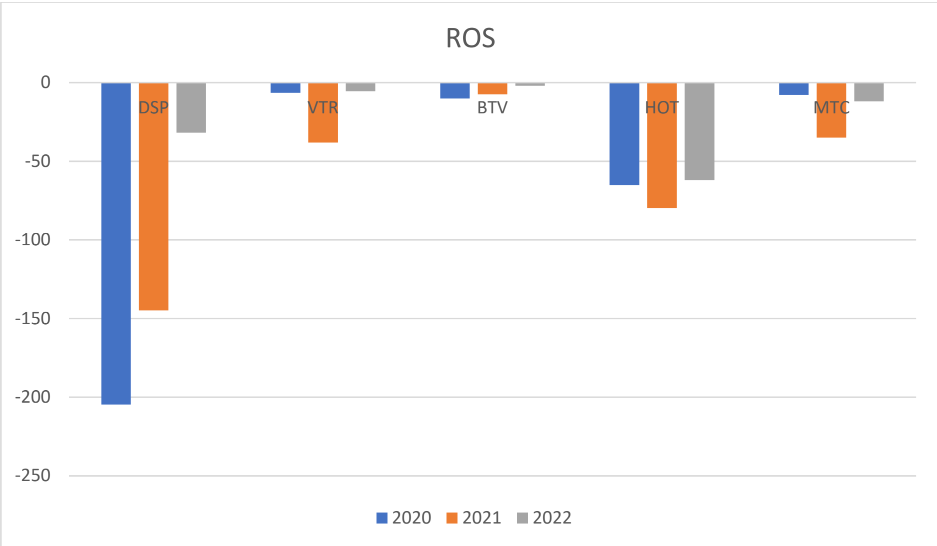

Figure 4. Return on Sales (ROS) of the Survey Companies from 2020 to 2022

Source: The author collected from the base of the companies' financial reports

From the logistics in Figure 4, the Return on Sales had no high change in 2018 and 2019, but the number in 2020 plunged so much. The Covid Pandemic made a serious influence on the tourism' revenue. To make clear how to affect the business's profitability, the research continued to analyze the trend and growth pace of Hoi An Tourism Service Joint Stock Company (code: HOT), Vietnam Travel and Transport Marketing Joint Stock Company (Vietravel, code: VTR) and the industry average in the consecutive years which can show if they were stable or changeable, then we can see the stability of the growth. The equation is as below:

$$\textit{The base growth rate of ROE } (\%) = \frac{ROE_i - ROE_{2018}}{ROE_{2018}} \times 100$$

The base growth rate reflects the growth trend, 2018 is the base year.

$$\textit{The continuous growth rate } (\%) = \frac{ROE_{(i+1)} - ROE_i}{ROE_i} \times 100$$

The continuous growth rate shows the level of the growth which is the comparison between the previous year and its next year (pair of 2019 and 2018, 2020 and 2019, 2021 and 2020, 2022 and 2021). In 2018, the base and the continuous growth rate were 0. The tourism group industry's ROE was 13.2% in 2018, 9.3% in 2019, -5.6% in 2020, -22.7% in 2021 and 5% in 2022.

Table 2. Ratios with the Trend and Level of Profitability in ROE (%)

Growth Rate / Year	2018	2019	2020	2021	Second quarter of 2022
1. The base growth rate of the industry average's ROE	0,0	-29.5	-142.4	-272	-62.1
2. The continuous growth rate of the industry average's ROE	0,0	-29.5	-17.1	-29.5	-160.2
3. The base growth rate of HOT's ROE	0,0	8.3	69.8	13.5	-400.3
4. The base growth rate of VTR 's ROE	0,0	-23.1	-28.8	-71.5	-266.1

Source: The author collected from the base of the companies' financial reports

Table 2 keeps showing the trend and the level of growth rate in profitability.

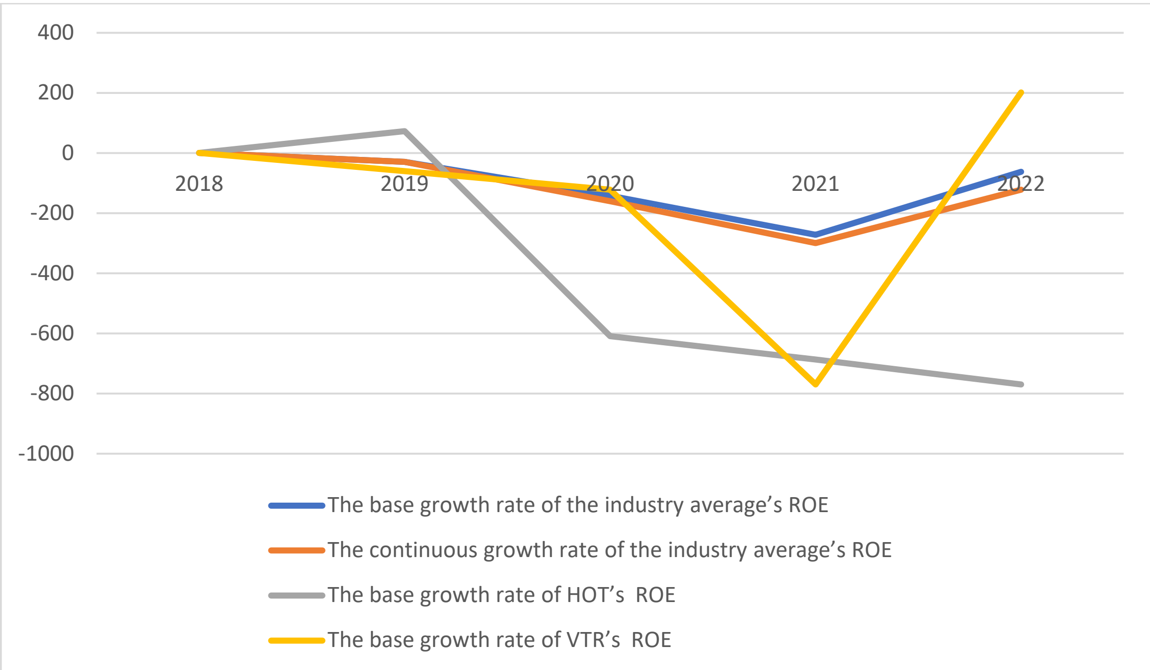

Figure 5. The Base and Continuous Growth Rate of HOT's, VTR's and the Industry Average's Profitability from 2018 to 2022

Source: The author collected from the base of the companies' financial reports

From calculating and the graph, it is evaluated the growth rate of the profitability year by year was unbalanced. It shows that the continuous growth rate in the whole period lacks stability and the rate of the two next years is low.

4. CONCLUSION

The research shows that from 2018 to 2022, there is a relation between the Covid 19 pandemic and the tourism' profitability. In 2020, the decline and fall of flights by Covid-19 was a negative effect on all aspects of the economy, including the Vietnam tourism business, compared to the time before the pandemic in 2018 and 2019. Therefore, ROA, ROE and ROS were lower than the previous period. In order to increase profitability, the airline businesses must transform to adapt well to the pandemic, promote business models that can increase revenues.

Although many travel and tourism businesses failed during COVID-19, those that survived can play a catalytic role in helping the industry and communities recover. The industry is interdependent with a broad range of industry sectors. The tourism industry can play a pivotal role in helping places to recover; however, in the future it needs to step up and play a more strategic role, for example by working in a much more integrated way with other sectors such as transport and agriculture. The sector has "traditionally suffered from being highly fragmented and lacking "one voice" in policy matters." This is often the case in individual countries, so creating aconsensus for the industry among multiple countries is a huge challenge. The following recommendations highlight ways in which local and national governments can supportbusinesses to thrive, become more resilient, and engage in emerging markets. Findings from this study have implications beyond this case study. The findings imply that over-reliance on tourism and tourism-related activities by communities around tourist locations can have serious consequences for the local economy and the livelihoods of the people in times of crisis. The global effect of Covid-19 on tourism has been devastating. While the road to recovery is likely to be slow for stakeholders in the tourism sector, the recovery will be much slower in developing countries. However, with the right strategies and support, stakeholders in the tourism sector will be able to survive and thrive amid this crisis. It is becoming difficult to ensure the quantity and quality of workforce for the tourism sector after the Covid-19 pandemic. The sector needs an influx of quality staff to meet the needs of the rising tourism industry.

For the airline businesses, when the international passenger flight can not be reopened, they have used most of the resources for the domestic ones with a big leap of flight frequency and quantity. After experiencing the Covid-19 epidemic, behavior has changed, leading to many changes in the needs of tourists, tending to pay more attention to the factors of health safety, hygiene, safety and security. travel insurance. In order to avoid crowded contact, the demand for high-end resorts in open spaces increases, in line with market trends and needs. At the same time, businesses must diversify tourism markets to avoid dependence on certain markets, thereby limiting risks before regional and world events. Open up a variety of options for nearby tourist destinations, shorten the duration of vacations, travel plans are built closer to the time of the trip and can be changed more flexibly than before. Instead of prioritizing price, customers will prioritize safety and choose high-quality travel products. Enterprises need to adjust their activities, study market demand to have suitable quality tourism products, strengthen links to increase resistance and develop strongly, associated with goods and services. no, transport, hotels, restaurants to build tourism stimulus packages, helping tourism recover quickly after the crisis period.

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FACTORS AFFECTING LIFE INSURANCE PURCHASE DECISION OF HO CHI MINH CITY CITIZENS IN THE NEW NORMAL

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Abstract: *Using Exploratory Factor Analysis (EFA) combined with multiple regression, the article identifies the determinants of life insurance consumption in Ho Chi Minh City. The data set is collected from 302 people living in Ho Chi Minh City who have or have not purchased life insurance products. The findings reveals that there are 6 factors affecting the life insurance purchase decision including: (i) Attitudes and policies on life insurance; (ii) Awareness of life insurance; (iii) Feel the convenience when participating in life insurance; (iv) The trademark of insurance companies; (v) Social influence; and (vi) Perception of risk. Moreover, the factor of "Perception of Risk" has a negative impact while the remaining factors have positive effects on people' s decisions to purchase life insurance. However, "Awareness of life insurance" is the factor having the strongest influence on the decision to buy life insurance products. Thereby, the article proposes some policy implications that contribute to the development of life insurance participants in Ho Chi Minh City in the new normal period.*

***Key words**: Life Insurance, Ho Chi Minh City, New Normal Period, Exploratory Factor Analysis.*

JEL Classification: C38; D91; G22

1. INTRODUCTION

Currently, Vietnamese people have become intimately familiar with the phrase "Life insurance". Although people are living in an advanced-civilized society and enjoying a high level of modern technology, they are also powerless against unforeseen dangers and risks. Life insurance was officially deployed in order to prevent risks and quickly recover lost losses. Life insurance in Vietnam has developed with 19 businesses providing more than 450 products and attracting more than 9.8 million participants, accounting for 10.19% of the total population of Vietnam (General Statistics Office of Vietnam, 2019). Following the development of society, Life Insurance services will also constantly develop in the future. In the final months of 2021, the Covid-19 epidemic has had a heavy impact on numerous aspects in Vietnam. In spite of this, according to Insurance Association of Vietnam, Vietnam's Insurance Market is forecasted to continue to maintain a good growth rate. However, there are many reasons why people in our country do not participate in life insurance, including the incorrect perception of insurance, the benefits when participating in life insurance or the mentality that buying insurance while still being healthy is a bad luck. In addition, with economic development, increased income makes people more strictly with poor

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quality services. At the same time, they also have many methods to invest their money such as buying gold and foreign currencies or saving in bank accounts instead of investing in insurance.

Ho Chi Minh City (HCMC) is one of the high-quality economic centers of Vietnam and plays a vital role in business activities of the southern key economic region. With a high economic growth rate, in terms of size, the city only accounted for 0.6% of the area and 9.3% of the population, but it contributed 23% of the country's GDP and 27% of the state budget revenue in 2019 (Party Committee of Ho Chi Minh City, 2020). Accordingly, with the developed economic scale and the largest population in the country, the life insurance market in HCMC will have a lot of opportunities for development. Moreover, the study of Addo et al (2020) has proven that the impact of the Covid-19 pandemic has changed people's behavior towards personal protection tools and life insurance is one of the channels that has development trend in the new normal period because people are more aware of financial protection for themselves and their families when risks relating to life and health occur.

Therefore, the results of this article aim to determine the level and direction of the factors' effects on the life insurance buying decision in Ho Chi Minh City in the context of the new normal. Furthermore, the research results might help the authors propose some implications that contribute to attracting more people to participate in life insurance services in future.

2. LITERATURE REVIEW

2.1. Theoretical background

Customers' buying behavior concepts and theory of reasoned action: Hawkins (2007) emphasized that customer behavior plays an indispensable part in all marketing decisions of companies. Therefore, the more knowledge of customer behavior the companies attain, the more successful their marketing strategies could gain. According to Schiffman et al (2013), customer behavior is defined as the behavior that consumer display in searching for, purchasing, using, evaluation and disposing of the products and services which they expect will satisfy their needs. In this way, the purchase of customers refers to buying behavior of final consumers, which is defined as a process of gathering and processing information, evaluating it and selecting the best possible option (Prasad & Jha, 2014). There are some theoretical bases relating to factors affecting customer purchase behavior such as the theory of Attitude, theory of Reasoned Action (TRA) and theory of Planned Behavior (TPB).

Assael (1998) stated that attitudes play a very important role in leading to consumer behavior and explaining the association amongst beliefs, intentions of individuals. Therefore, it is necessary to study people's attitudes in order to examine the consumer's decision to buy something. Theory of Reasoned Action (TRA) developed by Ajzen et al (2018) demonstrates the inclusion and coordination of components of attitudes in a structure that is designed to predict and explain consumer behavior in society based on two basic concepts: (i) Consumers' attitudes towards behavioral performance; (ii) Subjective norms of consumers which can be assessed through both the degree of influence from related people's attitudes and the motivation of consumers to comply with those people' views. While a person's attitude towards behavior comprises of one's belief about a particular outcome and the assessment of that outcome, subjective norm is known as "the person's perception that most people who are important to him think he should or should not perform the behavior in question" (Ajzen & Fishbein, 1975). The definition infers that when people decide to perform a particular behavior, each of individuals is likely to take into the account on the expectations of others, like their family members, friends, colleagues,...

Consumer risk recognition: In daily life, it is undeniable that people could face several uncertain events which might cause some possible losses. According to Pidgeon (1998), risk recognition is defined as the perception including people's beliefs, attitudes, and feelings they adopt towards threats, which represents as one of determinants of people's subjective norm based on the TPB. Since insurance is known as a method of risk transformation, it could be said that if people recognize about the risks they may have to face, they would tend to consider buying insurance as a protection measure (Zhang et al, 2007). Moreover, Abraham and Schwarcz (2010) has included in his research that the purchase decision toward insurance is depended on individualized predictions about risks. Wang et al (2012) also argued that the impact of Chinese people's risk awareness on insurance buying decisions.

Consumer inclination: According to the TRA and TPB, it is said that consumer insurance purchasing is the customers' motivation and the feeling of need to purchase insurance products. Like any other companies, if insurers want to attract customers' attention, their products should be satisfied people's requirements. As insurance is a business relating to customers' risk recognition and risk transfer, if people don't have awareness about risk as well as the role of insurance in their life, they could not form an inclination toward insurance services (Zhang et al, 2007). According to Ulbinaite et al (2013), customer's inclination is form from their intellect and awareness and has an impact on their purchase decision.

Customer service and insurer's reputation: In any fields of businesses, customers' service also plays an vital role in their buying decisions (Zhang et al, 2007), which performs subjective norm of people mentioned in the TRA and TPB. In this way, customer service relating to insurance products is known as the concept of convenience refers to payments of insurance fee or the process for issuing insurance contracts as well as procedures for handling insurance company commitments or claims, etc. Therefore, companies' reputation is also the perception affecting customers' behavior in general. In fact, businesses always want to have a good position in the competitive market which becomes a key factor enable people to buy their products (Ulbinaite et al, 2013).

2.2. Overview of previous studies and research gaps

In the study of Tati and Baltazar (2018), a questionnaire included several questions related to the level of awareness and attributes that investors consider when buying a Life Insurance policy. The results found a link between annual income and factors affecting the investment choice investors into Life insurance in Hyderabad City. The study concluded that there was no association between annual income and factors affecting the investment choice of investors in Life insurance. Wang (2010) used survey data to identify the key determinants of life insurance ownership among Chinese consumers, using a Probit model. The result showed that several groups of variables, including Knowledge, Trust, the importance of product attributes, and Socio-demographic, influenced the

Chinese consumers' purchase of life insurance. Esau (2015) analyzed the influence of Products, Price, Promotions and Processes in the Prudential Life Management Area on purchasing decisions. Data were collected through distribution of questionnaires to 100 consumers in the Manado Region. The results of the analysis showed that Products, Price, Promotions, People and Processes simultaneously influence consumers' purchasing decisions. Alamsyah (2015) studied the factors affecting the intention to buy SINARMAS Life Insurance's products in Indonesia. The findings of this study showed that there was a significant influence of Motivation, Customer trust on the intention to buy life insurance.

Research by Nguyen Thi Binh Minh et al (2021) identified and measured the influence of factors affecting the decision to buy life insurance through interviews with 251 individual customers in Ho Chi Minh City. The research results showed that there were 5 factors affecting buying life insurance decision, arranged in descending order of degree as follows: (1) Perception of the value of life insurance, (2) Public brand life insurance companies, (3) Barriers to buying life insurance, (4) Life insurance consultants and (5) Motivation to buy life insurance; In those factors, there was only Barriers to buying life insurance a negative impact on the decision to buy life insurance while other factors had a positive effect on buying decision. Huynh Truong Huy et al (2020) determined the factors affecting the decision to buy life insurance of retirement customers based on a survey of 295 people in Can Tho City. Descriptive statistical analysis tools and Probit and Tobit regression estimation techniques were used in data analysis. The analysis showed that the main factors affecting decisions to buy life insurance such as gender, age, education level, number of family members, average income, average savings, etc. and influence from relatives. Research of Thuong Vu Minh Trang (2016) determined the factors affecting the decision to get a Manulife life insurance product in Ho Chi Minh City. The research was conducted through 2 phases: qualitative research and quantitative research. Research results showed that insurance buying experience was a factor that had a great influence on customers' decision to join Manulife. There were also a number of factors that also affected customers' decision to buy Manulife insurance products, such as motivation to buy insurance, psychology of spending and saving, customer service, events in life, barriers to buying insurance, perceived value of products and company brand. In addition, factors such as age, gender, income, education level, occupation and marital status of customers also had more or less impact on customers' decision to buy life insurance in Ho Chi Minh City.

Through previous studies, research on life insurance that has been carried out in the world and Vietnam has created a general theory for this research field. However, due to differences in environment, culture, economic situation, etc., the studies of foreign authors might lead to differences in life insurance purchasing decisions. Besides, previous domestic studies have not fully reflected the life insurance purchase decision of consumers and they were studied at different times in different places which are not carried out in HCMC. Therefore, from the gaps of previous studies, the article will build a research model of factors affecting the decision to participate in life insurance in HCMC, which considers the level and direction of impact of each factor. Moreover, perceptions of risk referring a feeling of risk when people attend life insurance contracts is an impact factor which has not been mentioned in previous studies about life insurance. Although it has been researched in some cases relating to other type of insurance products such as Nguyen Thanh Lam (2019) and Bui Thi Tuyet Thanh (2020) which study the decision to participate in voluntary health insurance.

Therefore, this research has analyzed risk recognition of people as one key factor affecting the decision of customers in HCMC to buy life insurance products, which might not be mentioned in studies about determinants of life insurance purchase decision. Furthermore, as people's attitude and awareness about risks relating to life and health after the out-break of Covid-19 pandemic might be considered as an important determinant of life insurance buying decisions (Addo et al, 2020), this research uses data from the survey conducted from December 2021 to the end of March 2022 when HCMC entered the New Normal phase after the Directive No.18 of City People's Committee was issued to gradually restore the economy in the context of the Covid-19 pandemic. In this way, the results might also draw some policy implications for the development of life insurance participants in HCMC, especially during the New Normal Period.

3. RESEARCH METHODS AND MODELS

The research is carried out by using a combination of qualitative and quantitative research methods. Specifically, the qualitative research method is used to interview 20 persons who are experts in the life insurance field and living in HCMC such as customer consulting directors, life insurance consultants with more than 5 years and customers who have bought more than 3 life insurance products in order to get their ideas about the proposed scales of variables in this research. The list of interviewees was formed throughout some customer workshops held by insurance companies in HCMC. The content of the interviewed questions focuses on discovering the factors that influence the customer's decision to buy life insurance products by asking interviewees' opinions on whether they agree or disagree with the scales of research model offered by the authors in Table 2.

Subsequently, the quantitative research method is conducted with factor analysis methods (referred to as EFA) and multiple regression based on surveyed data collected by questionnaires. The contents of questionnaires are formed based on the scales which received the rate of agreement more than 50% from the qualitative method mentioned above. EFA solves the research goal of determining the factors affecting the development of life insurance participants in HCMC. EFA is often used to reduce a set of k observed variables into a more significant set of F ($F<k$) factors, based on the linear relationships of the factors with the observed variables. Multiple regression is used to determine the level and direction of each factor's impact on the development of life insurance participants. The survey questionnaire on factors affecting buying life insurance decision was designed with a 5 level Likert scale. The level of assessment of influencing factors can range from 1 "strongly disagree" to 5 "strongly agree".

Research samples in both qualitative and quantitative methods are selected by convenience method, one of the non-probability sampling forms. At that time, the researchers can select an accessible interviewee as well as a reasonable correspondent for the survey.

Based on theoretical backgrounds and research gaps mentioned in previous part, the author proposes the following research model and the hypothesis presented in Figure 1 and Table 1 as following:

Table 1. Research Hypothesis

Symbol	Hypothetical statement	Expected
H1	Attitudes have a positive influence on life insurance buying decisions.	(+)
H2	Policies of life insurance have a positive influence on life insurance buying decisions.	(+)
H3	Awareness of life insurance has a positive influence on life insurance buying decisions.	(+)
H4	The competence of consultants has a positive influence on life insurance buying decisions.	(+)
H5	The trademark of insurance companies has a positive influence on life insurance buying decisions.	(+)
H6	Social influence has a positive influence on life insurance buying decisions.	(+)
H7	Perception of risk has a negative influence on buying life insurance decisions.	(-)
H8	Motivation to participate in life insurance services has a positive influence on life insurance buying decisions.	(+)
H9	Barriers to buying life insurance have a positive influence on life insurance buying decisions.	(+)
H10	Feel of convenience has a positive influence on life insurance buying decisions.	(+)

Source: Compiled by the group of authors

On the other hand, inherited from theoretical backgrounds and the results of previous studies such as Vu Ngoc Huyen and Nguyen Van Song (2014), Esau (2015); Le Minh Tuyen (2017), Alamsyah (2015), Nguyen Thi Xuan Huong et al (2018), Nguyen Thi Binh Minh et al (2021), the authors suggest the scales of variables in the research model as follows:

Table 2. Proposed scales of variables in the research model

Symbols	Scales of variables	Previous studies have mentioned
1. TD	**ATTITUDES TOWARDS LIFE INSURANCE**	Vu Ngoc Huyen and Nguyen Van Song (2014), Le Minh Tuyen (2017), Alamsyah (2015)
TD1	You realize that joining life insurance is completely trusting the policies of insurance companies.	
TD2	You think that joining life insurance is a right thing to do.	
TD3	You believe in the benefits that life insurance policy offers.	
TD4	You feel that it is necessary to join life insurance.	

Symbols	Scales of variables	Previous studies have mentioned
2. CS	**POLICIES OF LIFE INSURANCE**	Esau (2015); Vu Ngoc Huyen and Nguyen Van Song (2014); Le Minh Tuyen (2017); Nguyen Thi Xuan Huong et al (2018), Nguyen Thi Binh Minh et al (2021)
CS1	You realize the appropriateness and feasibility of life insurance contracts.	
CS2	You see the level of fairness in life insurance contracts	
CS3	You suppose the benefits (subsidy level, time and conditions for enjoying the benefits ...) of life insurance that were offered by insurance companies are appropriate	
CS4	You think that the current premiums when applying for life insurance are appropriate	
3. NT	**AWARENESS OF LIFE INSURANCE**	Esau (2015); Alamsyah (2015); Nguyen Thi Xuan Huong et al (2018), Nguyen Thi Binh Minh et al (2021)
NT1	You think that buying life insurance helps you save and be disciplined	
NT2	You think that buying life insurance is an investment for your future.	
NT3	Buying life insurance helps you feel secure about your finances	
NT4	You think life insurance brings you a sense of security	
NT5	You think that life insurance helps protect your loved ones, buying life insurance is a responsibility for your family.	
4. TV	**THE COMPETENCE OF CONSULTANTS**	Esau (2015); Alamsyah (2015); Le Minh Tuyen (2017); Nguyen Thi Xuan Huong et al (2018), Nguyen Thi Binh Minh et al (2021)
TV1	You choose to buy life insurance products from a consultant who has satisfied you before	
TV2	The consultant has enough professional knowledge to answer your questions.	
TV3	You only buy life insurance from an experienced consultant	
TV4	You only buy life insurance from a dedicated and friendly consultant	
TV5	You only buy life insurance when the consultant is your relative or acquaintance.	
5. TH	**THE TRADEMARK OF INSURANCE COMPANIES**	
TH1	You choose to buy life insurance from the company that always is towards the benefit of the community.	
TH2	You choose to buy life insurance from a reputable company	
TH3	You choose to buy life insurance from a company with good after-sales policies.	

Symbols	Scales of variables	Previous studies have mentioned
TH4	You choose to buy life insurance from a company with good financial potential	
TH5	You choose to buy life insurance from a company with strong brand	
6. XH	**SOCIAL INFLUENCE**	Chu Thi Kim Loan (2013); Vu Ngoc Huyen and Nguyen Van Song (2014)
XH1	Because people around you have had life insurance, you also want to get one	
XH2	Your friends, relatives support and encourage you to buy life insurance	
XH3	Those who have been receiving the life insurance scheme have influenced your intention to join	
XH4	You think that without propaganda or social influence, you still buy life insurance.	
7. RR	**PERCEPTION OF RISK**	Nguyen Thanh Lam (2019); Bui Thi Tuyet Thanh (2020)
RR1	You think that buying life insurance is very risky in terms of money, time and effort	
RR2	You feel uncertain about the benefits that you can get from Buying life insurance.	
RR3	You realize that the health care service delivery system in life insurance products does not meet the needs (service quality, drug quality, professional capacity, etc...)	
8. DC	**MOTIVATION TO PARTICIPATE IN LIFE INSURANCE SERVICES**	Esau (2015); Alamsyah (2015); Nguyen Thi Binh Minh et al (2021)
DC1	You see an increasing number of health risks in your life	
DC2	You realize that life insurance will provide financial protection for your family.	
DC3	You find that life insurance is a savings channel, providing education and leaving inheritances for children in the future	
DC4	You find life insurance to be an effective financial investment channel.	
DC5	You buy life insurance when you have a disease that requires treatment with great expense.	

Symbols	Scales of variables	Previous studies have mentioned
9. RC	**BARRIERS TO BUYING LIFE INSURANCE**	Esau (2015); Vu Ngoc Huyen and Nguyen Van Song (2014), Le Minh Tuyen (2017), Nguyen Thi Xuan Huong et al (2018), Nguyen Thi Binh Minh et al (2021)
RC1	You think your income affects your decision to buy life insurance	
RC2	The minimum fee in the current life insurance premium bracket is high in comparison with your actual income	
RC3	You believe that the unstable job is the reason why people find it hard to get life insurance	
RC4	You think the term in which you have to pay life insurance premiums is too long	
RC5	You think that information on life insurance policy is incomplete	
10. CN	**FEEL OF CONVENIENCE**	Alamsyah (2015); Le Minh Tuyen (2017); Nguyen Thi Binh Minh et al (2021)
CN1	The profile and process of buying and making a claim is simple and easy to implement.	
CN2	Information about the procedure that is provided by insurance companies is completely, uniformly and easily to access	
CN3	Necessary forms are not complicated but simple and easy to implement	
CN4	Application processing time, participation procedures, payment are clear, convenient and fast	
CN5	Terms and conditions for participating in life insurance, payment methods are suitable and convenient	
CN6	Network is wide, and easy to access	
11. TG	**LIFE INSURANCE PURCHASE DECISIONS**	Esau (2015); Alamsyah (2015); Vu Ngoc Huyen and Nguyen Van Song (2014), Le Minh Tuyen (2017), Nguyen Thi Xuan Huong et al (2018), Nguyen Thi Binh Minh et al (2021)
TG1	You think that having life insurance policies is important for you and your family	
TG2	Life insurance meets your needs for medical care costs in the future	
TG3	I definitely continue/ rejoin life insurance	
TG4	I was persuaded to buy life insurance without any intention in the first time	
TG5	In the future, if you have enough financial capacity, you will continue to join/rejoin life insurance.	
TG6	You intend to recommend buying life insurance to your relatives and friends	

Source: Compiled by the group of authors

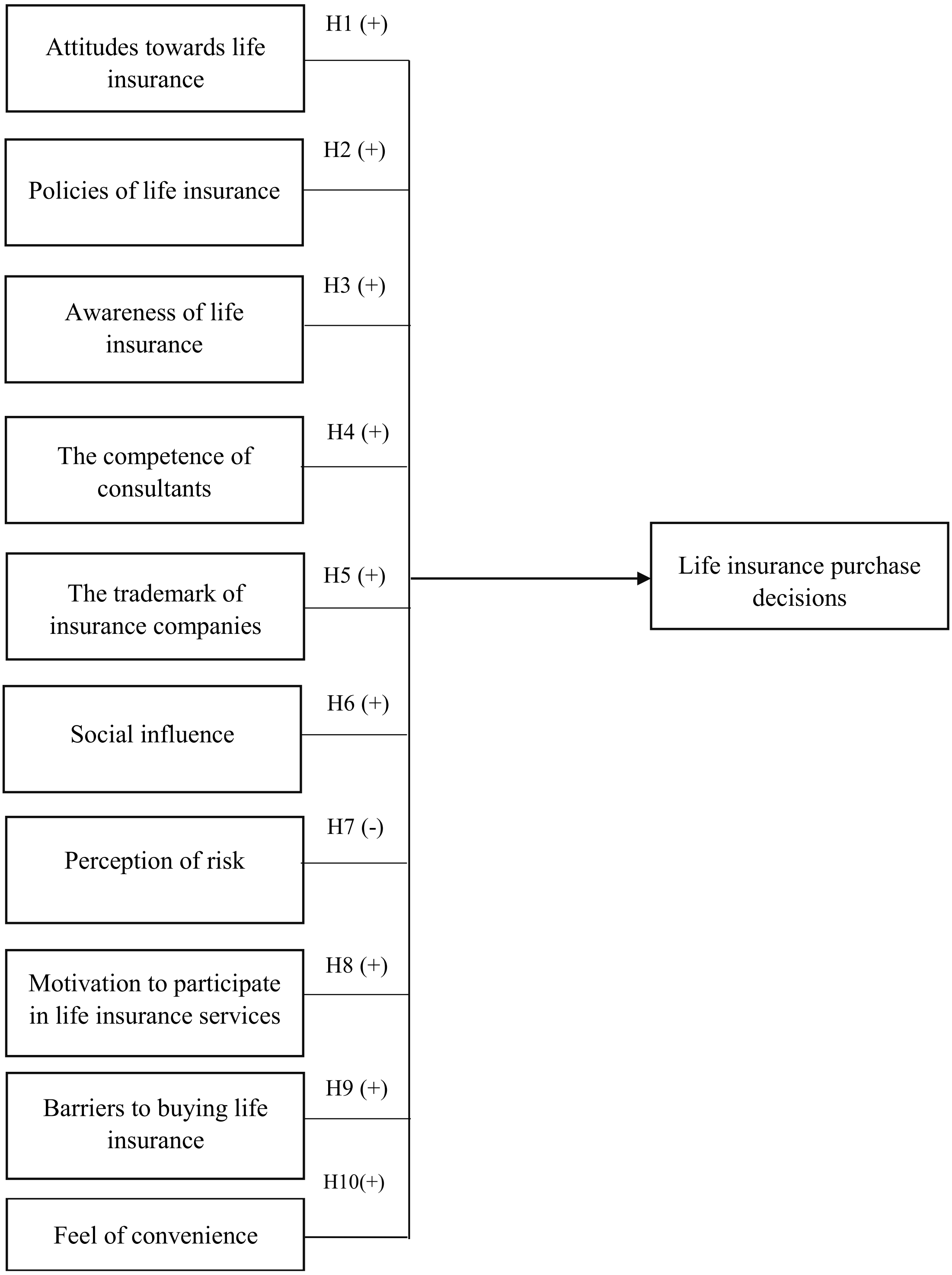

Figure 1. Proposed Model

Source: Compiled by the group of authors

After interviewing 20 experts, the results of qualitative research show that the rate of agreeing with the content of 11 proposed scales is over 50%. Therefore, all of these scales are designed as questionnaires for a survey to collect information in the stage of quantitative research.

Regarding the surveyed data, there were 302 valid questionnaires out of 350 issued. On the other hand, for the EFA factor analysis, Hair et al (1998) assumed that the sample size is at least 5 times the total number of observed variables. In addition, for multivariable regression, the minimum sample size is calculated by the formula which is: n = 50 + 8 m (where m presents the number of independent variables) (Tabachnick & Fidell, 1996). Therefore, with 52 observed variables in Table 3 and 10 independent variables in the proposed model in Figure 1, the sample size (n=302) of this research met the minimum sample condition (corresponding to 302 valid questionnaires).

4. RESEARCH RESULTS

4.1. Survey sample information

The data set was collected conveniently through a non-probability random sampling method. Then, the researcher could choose the elements (research subjects) that were accessible (Nguyen Dinh Tho, 2009). In this study, the respondents were at the ages of 18-50 years old, who usually have a stable job, civil act capacity, financial independence in order to decide to buy life insurance. The statistics of the sample are presented in Table 3.

Table 3. Statistics of survey sample

Criteria	*Have not bought life insurance products*		*Have bought life insurance products*	
	Amount	*Percentage (%)*	*Amount*	*Percentage (%)*
SEX				
Male	96	45.07	28	31.46
Female	117	54.93	61	68.54
Total	**213**	**100**	**89**	**100**
AGE				
From18 to 25 years old	149	69.95	60	67.42
From 26 to 35 years old	29	13.62	13	14.61
From 35 to 50 years old	20	9.39	8	8.99
50 years old	15	7.04	8	8.99
Total	**213**	**100**	**89**	**100**
OCCUPATION				
Students	124	58.22	54	60.67
Office workers	35	16.43	14	15.73
Managers	8	3.76	5	5.62
Teachers	18	8.45	5	5.62
Doctors	12	5.63	8	8.99
Others	16	7.51	3	3.37
Total	**213**	**100**	**89**	**100**

Criteria	*Have not bought life insurance products*		*Have bought life insurance products*	
	Amount	*Percentage (%)*	*Amount*	*Percentage (%)*
INCOME				
Under 5 mil VND	107	50.23	43	48.32
From 5 to 10 mil VND	52	24.41	16	17.98
From 11 to 20 mil VND	25	11.74	19	21.34
Above 20 mil VND	29	13.62	11	12.36
Total	**213**	**100**	**89**	**100**
MARITAL STATUS				
Single	158	74.18	70	78.65
Married	55	25.82	19	21.35
Total	**213**	**100**	**89**	**100**

Source: Analysis results from SPSS software

4.2. Examining the reliability of the scales

Before performing EFA exploratory factor analysis, the article used Cronbach's Alpha reliability coefficient to evaluate the reliability of the proposed scales. The evaluation of Cronbach's Alpha reliability coefficient combines the Corrected Item – Total Correlation before factor analysis in order to eliminate unsuitable variables and increase the reliability of the scale (Nguyen Dinh Tho, 2009). As a rule, if Cronbach's Alpha coefficient is from 0.7 or higher, the scale is reliable. However, if Cronbach's Alpha coefficient is high above the range of 0.95 or more, it shows a high possibility of multicollinearity among the explanatory variables (Nguyen Dinh Tho, 2009). In this way, the Cronbach's Alpha coefficient of the scale "Decision to join life insurance" is higher than 0.7, but the total correlation index of variable TG4 is lower than 0.3. Therefore, the authors removed the observed variable TG4 and re-tested this scale with the remaining observed variables, including: TG1, TG2, TG3, TG5, TG6. The results of testing the scale for sufficient reliability presented in Table 4 will be continued to be used to analyze EFA discovery factors.

Table 4. Summary of official scales after examining

Variable	**Corrected Item – Total Correlation (Corrected Item-Total Correlation)**	**Cronbach's Alpha if Item Deleted**	**Variable**	**Corrected Item – Total Correlation (Corrected Item-Total Correlation)**	**Cronbach's Alpha if Item Deleted**
TD	**Cronbach's Alpha coefficient: 0.839**		**XH**	**Cronbach's Alpha coefficient: 0.896**	
TD1	0.726	0.774	XH1	0.737	0.879
TD2	0.794	0.75	XH2	0.756	0.872
TD3	0.523	0.859	XH3	0.832	0.843
TD4	0.679	0.793	XH4	0.759	0.871

Variable	Corrected Item – Total Correlation (Corrected Item-Total Correlation)	Cronbach's Alpha if Item Deleted	Variable	Corrected Item – Total Correlation (Corrected Item-Total Correlation)	Cronbach's Alpha if Item Deleted
CS	**Cronbach's Alpha coefficient: 0.848**		**DC**	**Cronbach's Alpha coefficient:0.865**	
CS1	0.664	0.816	DC1	0.723	0.827
CS2	0.698	0.802	DC2	0.754	0.82
CS3	0.67	0.813	DC3	0.646	0.851
CS4	0.711	0.795	DC4	0.7	0.833
NT	**Cronbach's Alpha coefficient:0.946**		DC5	0.625	0.851
NT1	0.705	0.962	**CN**	**Cronbach's Alpha coefficient:0.908**	
NT2	0.896	0.926	CN1	0.764	0.889
NT3	0.903	0.925	CN2	0.789	0.885
NT4	0.901	0.924	CN3	0.741	0.892
NT5	0.885	0.928	CN4	0.733	0.893
TV	**Cronbach's Alpha coefficient: 0.806**		CN5	0.701	0.898
TV1	0.946	0.797	CN6	0.741	0.892
TV2	0.584	0.77	**RC**	**Cronbach's Alpha coefficient:0.813**	
TV3	0.681	0.739	RC1	0.676	0.754
TV4	0.632	0.755	RC2	0.638	0.767
TV5	0.563	0.776	RC3	0.567	0.793
TH	**Cronbach's Alpha coefficient: 0.903**		RC4	0.607	0.776
TH1	0.735	0.887	RC5	0.542	0.794
TH2	0.808	0.873	**TG**	**Cronbach's Alpha coefficient: 0.949**	
TH3	0.782	0.883	TG1	0.902	0.93
TH4	0.799	0.875	TG2	0.906	0.929
TH5	0.714	0.892	TG3	0.912	0.928
RR	**Cronbach's Alpha coefficient: 0.881**		TG5	0.722	0.965
RR1	0.822	0.783	TG6	0.887	0.933
RR2	0.85	0.755			
RR3	0.657	0.924			

Source: Analysis results from SPSS software

The statistics in Table 4 presents the scales including 51 observed variables after removing one variable namely TG4. These scales should be eligible to continue performing EFA exploratory factor analysis before applying quantitative regression.

4.3. Results of Exploratory factor analysis EFA

The article conducted an exploratory analysis of EFA for 10 scales of independent variables in the research model and one scale of the dependent variable. The authors utilized the Principal

Component Analysis extraction method with Varimax rotation and the breakpoint to extract is elements with eigenvalue greater than 1. At the same time, the KMO number index was used to determine how suited data is for EFA factors analysis. According to Hair et al (2010), if the KMO coefficient meets the condition 0.5 ≤ KMO ≤ 1, the EFA factor analysis is appropriate. Besides, Bartlett's value test is also applied. If this test is statistically significant (Sig ≤ 0.05), the EFA results can be used.

Table 5. EFA exploratory factor analysis for independent variables

KMO coefficient = 0.828; Extracted variance: 69.761%; Eigenvalue = 1.505

Rotated Component Matrix[a]

	Component								
	1	2	3	4	5	6	7	8	9
TD2	0.847								
TD1	0.817								
TD4	0.791								
CS3	0.786								
CS2	0.786								
CS1	0.754								
CS4	0.742								
TD3	0.683								
NT3		0.905							
NT2		0.894							
NT4		0.893							
NT5		0.882							
NT1		0.781							
CN2			0.851						
CN1			0.838						
CN3			0.824						
CN6			0.820						
CN4			0.810						
CN5			0.784						
TH2				0.878					
TH1				0.851					
TH4				0.846					
TH3				0.804					
TH5				0.714					
DC2					0.848				
DC1					0.827				
DC4					0.814				
DC5					0.770				
DC3					0.760				
XH3						0.860			
XH4						0.826			
XH2						0.822			

	Component								
	1	2	3	4	5	6	7	8	9
XH1						0.796			
RC1							0.802		
RC4							0.768		
RC2							0.765		
RC5							0.720		
RC3							0.715		
TV3								0.822	
TV4								0.772	
TV2								0.729	
TV5								0.708	
TV1								0.672	
RR2									0.876
RR1									0.838
RR3									0.826

Extraction Method: Principal Component Analysis0.

Rotation Method: Varimax with Kaiser Normalization0.[a]

a0. Rotation converged in 6 iterations0.

Source: Analysis results from SPSS software

According to Table 5, the result of EFA analysis indicated that the research model still has 9 factors affecting the life insurance buying decision compared to the original 10 factors. 9 factors extracted through EFA analysis method will represent 9 independent variables in the research model including: (1) Attitude and policies towards life insurance (TDCS). This factor is combined from two original factors "Attitude towards life insurance" and "Policy of life insurance"; (2) Awareness of life insurance (NT); (3) Fell the convenience when getting life insurance (CN); (4) Insurance company's reputation (TH); (5) Motivation to participate (DC); (6) Social influence (XH); (7) Barriers to buying (RC); (8) Competence of consultant (TV) and (9) Perception of risk (RR). Similarly, the results of factor analysis for the scale of "Life insurance purchase decision" showed that 5 observed variables TG1, TG2, TG3, TG5, TG6 grouped into one factor were extracted. The EFA of this group is consistent with the KMO coefficient satisfying the requirement of $0.5 < KMO < 1$ as well as the significance level Sig. = 0.000 in Bartlett's test (Sig.<0.05). Therefore, the dependent variable included in the research model means "Life insurance purchase decision" (TG). To determine the level and direction of the impact of the factors on the decision to participate in life insurance, multiple regression method is used with a generalized linear regression equation as follows:

$$\mathbf{TG} = \beta_0 + \beta_1\mathbf{TDCS} + \beta_2\mathbf{NT} + \beta_3\mathbf{CN} + \beta_4\mathbf{TH} + \beta_5\mathbf{DC} + \beta_6\mathbf{XH} + \beta_7\mathbf{RC} + \beta_8\mathbf{TV} + \beta_9\mathbf{RR} \quad (1)$$

4.4. RESULTS OF MULTIPLE REGRESSION ANALYSIS

Table 6. Analysis of multiple regression

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.865[a]	0.749	0.741	0.50863135	0.749	96.832	9	292	0.000	1.802

a. Predictors: (Constant), RR, TV, RC, XH, DC, TH, CN, NT, TDCS

b. Dependent Variable: TG

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	225.458	9	25.051	96.832	.000[b]
	Residual	75.542	292	0.259		
	Total	301.000	301			

a. Dependent Variable: TG

b. Predictors: (Constant), RR, TV, RC, XH, DC, TH, CN, NT, TDCS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.961E-17017	.029		0.000	1.000		
	TDCS	0.069	0.029	0.069	2.368	0.019	1.000	1.000
	NT	0.793	0.029	0.793	27.060	0.000	1.000	1.000
	CN	0.143	0.029	0.143	4.878	0.000	1.000	1.000
	TH	0.063	0.029	0.063	2.164	0.031	1.000	1.000
	DC	-0.032	0.029	-0.032	-1.098	0.273	1.000	1.000
	XH	0.286	0.029	0.286	9.743	0.000	1.000	1.000
	RC	0.041	0.029	0.041	1.392	0.165	1.000	1.000
	TV	0.046	0.029	0.046	1.562	0.119	1.000	1.000
	RR	-0.063	0.029	-0.063	-2.156	0.032	1.000	1.000

a. Dependent Variable: TG

Source: Analysis results from SPSS software

Table 6 shows the results of the regression of 9 factors affecting the decision to participate in life insurance by the Enter method. The results of the adjusted coefficient R2 is 0.741, meaning that 9 independent factors explain 74.1% of the decision on purchasing life insurance. Besides, the Durbin – Watson coefficient is 1.802 (within 0 < 1.802 < 4) meaning there is no first order series correlation in the model. Therefore, the model is not violated when using the multiple regression method.

According to the ANOVA table, the Sig. value is lower than 0.05 which infer that the regression model fits the total. The examining results of the regression coefficient show that there are 7 hypotheses including H1, H2, H3, H10, H5, H6 and H7 are accepted while the hypotheses namely H8, H9 and H4 are not confirmed. These results are consistent with previous studies such as: Chu Thi Kim Loan (2013); Vu Ngoc Huyen and Nguyen Van Song (2014); Alamsyah (2015); Nguyen Thi Xuan Huong et al (2018); Nguyen Thi Binh Minh et al (2021). The result of a regression equation (1) for the normalized variables has the following form:

$$TG = 1.961E\text{-}17017 + 0.069TDCS + 0.793NT + 0.143CN + 0.063TH + 0.286XH - 0.063RR$$

The results of the regression study show that life insurance purchase decisions are affected by several factors and the influence levels of the factors are not the same. According to the results in Table 6, it shows the importance of factors affecting the life insurance purchase decisions of people in HCMC presented by the coefficients of variables in the research model.

5. CONCLUSIONS AND POLICY IMPLICATIONS

The descriptive statistics show that 70.53% (213/302) of the surveyed citizens have not bought life insurance in Ho Chi Minh City. The remaining 29.47% (89/302) of the survey have ever bought life insurance. Insurers need to pay attention to exploit the large number of uninsured customers, helping them have clearer access to information policies and types of life insurance. Increasing the number of participants will help this field develop in the long term.

The results of the EFA study and multiple regression analysis concluded that there are 9 factors affecting the life insurance purchase decision in the new normal period. The factor "Awareness of life insurance" has the strongest influence with the highest regression coefficient of 0.793. This shows that life insurance purchase decisions of people depend mostly on the perception of the policyholder about benefits of this kind of product, which indicates the same result with some previous studies in Vietnam including Nguyen Thi Xuan Huong et al (2018); Nguyen Thi Binh Minh et al (2021). When the customers do not fully understand the life insurance policies of the company as well as the benefits, time, the level of allowance… they have not decided to participate. Moreover, because this study was conducted when HCMC entered the New Normal phase, the factor "Awareness of life insurance" having strongest effect also proves risk recognitions of people about life and health play the most important role in attending life insurance products. Furthermore, this proves that people in the New Normal period tend to aware more about the risk they might face in future, which encourage them to buy life insurance products to protect their lives.

The second strongest impact factor on the life insurance purchase decision in this research model is "Social influence" with a regression coefficient of 0.286. This conclusion shows that human behavior is easily influenced by relatives, friends or social opinions, which argues the same opinion with other Vietnamese authors such as Chu Thi Kim Loan (2013), Vu Ngoc Huyen and Nguyen Van Song (2014). Therefore, the life insurance purchase decision is not only affected by the participants' own perception but also by judgments and opinions from their families and society.

The third most important factor affecting the purchase of life insurance also belongs to people's perception of convenience when participating in this service, with a regression coefficient of 0.143. This result is consistent with the conclusions of previous studies in Vietnam consisting Alamsyah (2015), Le Minh Tuyen (2017), Nguyen Thi Binh Minh et al (2021). It can be said that this factor affecting the participation in life insurance mainly relates to the feelings, thoughts, and perceptions of the participants themselves. The remaining factors with less impact include the attitude and policy towards life insurance and the reputation of the insurance company. These are again factors that belong to the characteristics of the life insurance provider. Besides, the research results also show that the factor "Perception of risk" is the only factor in the model that has a significant negative impact on participation in life insurance, which confirms that feeling of risk about attending life insurance products plays an indispensable part in deciding to purchase life insurance products in HCMC.

Based on these results, some implications are proposed to attract life insurance participants and contribute to promoting the development of the insurance market in the new normal period after the outbreak of the global pandemic. Firstly, life insurance companies need to pay attention to preserving their brands and issuing insurance products more clearly and easier to understand in order to make customers believe and promote the decision to buy products. Secondly, life insurance companies need to strengthen their consulting departments to answer questions, give clear advice, provide enough information to meet customers' requirements in order to build customers' trust and help them better understand life insurance policies, which encourage them to buy life insurance products because the awareness of customers about life insurance is confirmed as the most important determinant of buying decision. Thirdly, in the new normal, life insurance companies need to come up with strong communication strategies to enhance the advantages of life insurance products, affirm life insurance as a financial investment method for the future with high assurance and safety from unexpected risks related to participants' lives, which contribute to improve people's risk recognition and encourage them to buy life insurance products.

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THE RELATIONSHIP BETWEEN TRANSFORMATIONAL LEADERSHIP AND ORGANISATIONAL PERFORMANCE – A CASE STUDY OF PRIVATE SECTOR ENTERPRISES IN QUANG NGAI PROVINCE

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Abstract: *Most of the businesses belonging to the private sector in Quang Ngai contribute greatly to the economy of Quang Ngai. The success and performance of these businesses is clearly dependent on a number of contributing factors - the manager's leadership skills and leadership qualities are reported to be two of them. The objective of this study is to determine the factors of transformational leadership affecting the performance of enterprises in the private sector in Quang Ngai province. 405 employees in private enterprises in Quang Ngai province participated in the study. According to the findings of the study, there are four transformational leadership factors that influence the performance of enterprises in the business and private sectors in Quang Ngai province: idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. Among them, the factor "individualized consideration" has the highest impact on business performance, and the lowest factor is "inspirational motivation". On the basis of the research results, the authors propose policy implications to improve the performance of private enterprises in Quang Ngai province.*

Keywords: *Leadership, performance, individualized consideration, inspirational motivation.*

1. INTRODUCTION

In the last decades of the twentieth century, when the state changed its policy towards promoting the development of the private economy, the type and number of enterprises changed in a positive direction. However, according to the data from the national business registration information, in the first 7 months of 2022, Quang Ngai province had 94,575 enterprises withdrawing from the market, an increase of 18.7% compared to the same period in 2021. The dissolution and suspension of operations for many reasons are different, but the main reason is performance. This context requires in-depth studies on the relationship between leadership behaviours and organisational performance. In Vietnam in general, and in Quang Ngai in particular, there have not been many studies on this relationship.

The purpose of this study is to investigate the impact of transformational leadership on the organisational performance of enterprises in the private sector in Quang Ngai province. It is hoped that the outcomes from this could provide evidence of which leadership behaviour would be most suitable to ensure better performance of the firms. The following section will discuss a literature review on transformational leadership, organisational performance, and the relationship between transformational leadership and organisational performance. Based on this discussion, hypotheses

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are developed. Then, the methodology and results are presented. The final section of this paper discusses key findings and identifies implications for future research.

2. LITERATURE REVIEW

2.1. Transformational Leadership

Transformational leaders inspire followers to work for common goals and achieve higher levels self-actualization needs instead of self-interest through instilling a clear mission and vision and building up trust and confidence among them (Burns, 1978).

Bass (1985) defined transformational leadership as the process whereby leaders employ the collective interest of an organization and its employees to achieve outcomes beyond ordinary performance. Leaders affect and transform organizations by increasing employees' awareness of the importance of the task and its value, elevating interest in the organizational goals instead of their personal interests, and focusing on their higher-order needs. This type of leader is "attentive to the needs and motives of followers and tries to help followers reach their full potential" (Northouse, 2007). Robbins and Coulter (2005) wrote that this type of leader inspires employees to go beyond their own self-interests for the benefit of the organisation. They are not only concerned about the situational factors the organisation faces, but they also pay attention to the individual issues and developmental needs, they inspire employees to look at old problems with a new perspective and they are able to extract extra effort from the employees through their ability to stimulate and inspire followers to achieve organisational goals.

Transformational leadership is defined as a process whereby leaders broaden and raise the interests of their employees. It occurs when they generate awareness and acceptance of the purpose and mission of the organisation and when they help their employees to look beyond their own self-interests for the benefit of the group (Bass, 1985; 1990a; Daft, 2008). There are four dimensions of transformational leadership. These are idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration.

As an *idealised influence*, a leader provides a vision and sense of mission, instils pride, and develops respect and trust among employees (Bass, 1990b). Leaders inspire and excite employees with the idea that they are able to accomplish great things by putting in extra effort (Avolio & Bass, 2004). *Inspirational leaders* communicate high expectations, use symbols to focus effort and convey important purposes to employees in simple ways about what needs to be done (Bass, 1990a; 1996; Muenjohn & Armstrong, 2008). They articulate shared goals and develop a mutual understanding of what is right and important in simple ways for their employees (Avolio & Bass, 2004). *Intellectual stimulation* involves leaders encouraging intelligence, rationality, and careful problem solving (Bass, 1990a). This type of leader encourages innovative thinking and allows employees to develop the capacity to solve problems not foreseen by them (Avolio & Bass, 2004). The *individualised consideration* aspect of transformational leadership means leaders provide personal attention and treat each employee individually (Bass, 1990a). Leaders spend time coaching and giving advice and paying close attention to differences among the employees (Muenjohn and Armstrong, 2008).

In this paper, transformational leadership theory will be employed since this theory is the most recent and commonly used by researchers in the current literature (Pawar, 2003; Lo et al, 2009; Law, 2011), and it has been shown that transformational leadership has positive impacts on the performance of organizations (Law, 2011). Matzler et al (2008) also pointed out that transformational leadership would be more relevant to the study of entrepreneurs and SME.

2.2. Organisational Performance

Organizational performance can be defined as the way an organization effectively accomplishes its goals (Sosiawani et al, 2015). Organizational performance is the result achieved in meeting the internal and external objectives of the company (Oduo, 2015).

Organizational performance is one of the most important dependent variables of interest for researchers concerned with just about any area of management (Richard et al, 2008). According to Madrid et al (2007), high-performing firms are able to generate a variety of company and societal benefits, like attracting resources, wealth creation, and job generation. These authors also claimed that an accurate measure of performance can provide reliable insight into what affects performance and how firms can develop good strategies, arrange resources, meet consumer expectations, and compete. Inappropriate measures of performance will mislead the results and lead to a poor competitive position (Madrid et al, 2007). Murphy et al (1996) confirm that growth, profitability, and efficiency are the most commonly used forms of performance factors in the entrepreneurship literature. This is similar to what has been outlined by Covin and Slevin (1991), that growth and profitability represent the dimensions of a firm's economic performance.

Lumpkin and Dess (1996) advocated that performance is a multidimensional construct and, therefore, multiple measures of performance should be used. Davidsson et al (2002) postulated that organisational growth has become the mainstream in the literature, with many types of research incorporating growth with entrepreneurship. Growth has been argued to be a necessary component of achieving long-term competitive advantages and profitability (Markman & Gartner, 2002), and it is hard to associate sustained growth without profitability (Fitzsimmons et al, 2005).

For small firms, growth has been considered as the most important performance measure since it is a more precise and easily accessible performance measure than accounting indicators and hence provides a more superior indicator of financial performance (Wiklund, 1999). Profitability, on the other hand, is also another important measure of organisational performance that must be considered as it is unlikely that firm growth can be sustained without profit contributions (Fitzsimmons et al, 2005). Taking all of these arguments and the suggestion by Covin and Slevin (1991), this study will measure organisational performance based on growth and profitability.

2.3. Transformational Leadership and Organisational Performance

In the private sector, top management's leadership behaviors can have a significant impact on the firm's innovativeness and performance (Matzler et al, 2008). As businesses become globally competitive, their development requires a new vision and set of directions to help them become more competitive and have the ability to sustain their businesses. To be able to do so, the CEO/owner's leadership behaviors would play a significant role in ensuring that direction and a clear vision are shared among employees in their establishments.

The most important qualities of transformational leaders are that these leaders can influence followers to do more than what they are expected to do (Yukl, 1994) and move them to perform beyond expectations (Bass, 1985; Bass, 1997). They are also believed to be paying more attention to the individual needs of the followers and treating each of them with respect and trust. A significant amount of evidence also suggests that transformational leadership will positively influence organisational performance (Bass & Yammarino, 1991; Bass & Avolio, 1994; Avolio, 1999).

Transformational leadership is found to have a positive impact on the performance of SMEs, and this relationship is significant (Pedraja et al, 2006; Matzler et al, 2008; Yang, 2008). Yang (2008) has found that transformational leadership contributes significantly to the prediction of organizational performance.

In Vietnam, there are many studies on the relationship between leadership capacity and corporate performance. However, studies on the impact of transformational leadership on organisational performance are not yet popular. There are only two studies by Nguyen.N.P & Hang.N.T.T. (2020) and Hang.N.T.T. (2021). Besides, research on this relationship in enterprises operating in Quang Ngai province has not yet been found. This is the gap between the researches, so it is really meaningful and necessary to carry out this topic.

3. RESEARCH FRAMEWORK AND STATEMENT OF HYPOTHESES

3.1. Research framework

The following chart shows the research framework developed for this study.

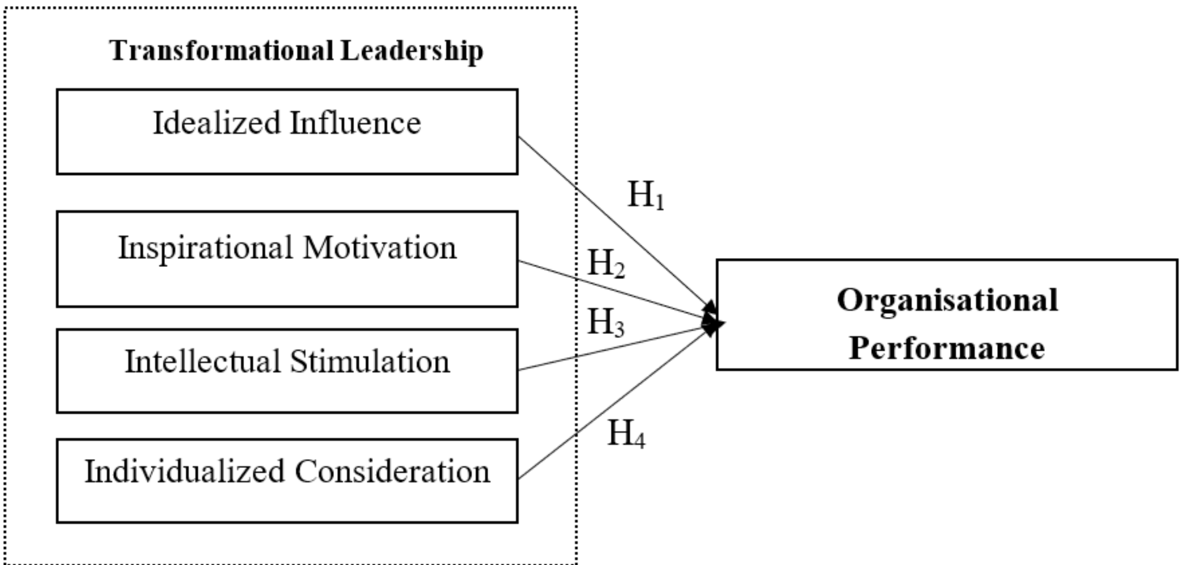

Figure 1. Research Framework

Source: Recommended by the author

3.2. Statement of Hypotheses

Due to the mixed results of research on the variables discussed previously, the following hypotheses are made:

Hypothesis H1: There is a positive relationship between idealized influence and organizational performance.

Hypothesis H2: There is a positive relationship between inspirational motivation and organizational performance.

Hypothesis H3: There is a positive relationship between intellectual stimulation and organizational performance.

Hypothesis H4: There is a positive relationship between individualized consideration and organizational performance.

4. RESEARCH METHODOLOGY

The research was carried out through 2 steps: preliminary research and formal research. Preliminary research was carried out using qualitative research methods and preliminary quantitative research. Qualitative research has been carried out through focus group discussion techniques. Information gathered from qualitative research to discover, refine, and supplement personal leadership qualities; organisational performance results and their scales to suit Quang Ngai province. The results of the qualitative research of experts agreed to retain 4 components of transformational leadership, with the same scales as the original scale. On the scale of organisational performance, experts agree with the original scale but do not separate it into two parts like the original scale. Instead, they combine the two parts into one component. The common part is called "organisational performance".

The measurements for the transformational leadership were adopted from the Multifactor Leadership Questionnaire (MLQ) by Avolio and Bass (2004). Organisational performance in this study was measured along these dimensions, which were adapted from Matzler *et al* (2008). To standardize the scaling format of the research instruments, all items were measured on five-point Likert scales ranged from *1 = Strongly Disagree* to *5 = Strongly Agree.* Due to the potential spurious influence on the variables, this study also controlled for age, gender, and area.

A quantitative research method was employed to examine the relationships between transformational leadership and organisational performance.

According to Bollen (1989), the minimum sample size for estimating 1 parameter is 5 samples. The questionnaire used in this study has 26 items, so the required minimum sample size is n = 130. It is expected that this study chooses a sample size of n = 400. But to achieve this sample size, the authors sent the number of votes to the actual survey in enterprises in the private sector, which was 405 votes by both online and in-person forms. Therefore, the author allocates 105 employee survey questionnaires to enterprises in Quang Ngai city, 150 employee survey questionnaires to enterprises in Son Tinh district, and 150 employee survey questionnaires to enterprises in Binh Son district according to the criterion of having a number of employees of 50 or more. The authors surveyed 300 votes online and 105 votes directly. After checking, there were 18 unsatisfactory votes, so they were discarded. The remaining 387 votes were satisfactory and valid for analysis.

After data cleaning, analysis of the characteristics of the research sample was carried out through descriptive statistics. Then the reliability of the scale was assessed by Cronbach's Alpha coefficient. Exploratory Factor Analysis (EFA) was then used to gradually eliminate variables with weights less than 0.5 from the scale value. The scale is accepted when the KMO coefficient value is greater than or equal to 0.5 and less than or equal to 1 (Othman & Owen, 2002), the Eigenvalue is greater than 1, and the total variance extracted is equal to or greater than 50% (Gerbing & Anderson, 1988).

5. RESULTS

5.1. Participants

55% of the respondents were women, and men made up 45%. Considering the age factor, the survey sample shows that the majority of employees in enterprises in Quang Ngai province are concentrated in the age group from 30 to 50 years old, accounting for 72.35%, while the number of young employees under the age of 30 is relatively low, accounting for 17.31%. Considering the factors of the business sector, the authors selected to survey businesses in 3 areas in the province: Binh Son, Son Tinh, and Quang Ngai city. This is consistent with the density of development focus of enterprises in Quang Ngai province, with the majority of enterprises concentrated in the above 3 areas, with the respective survey rates of 36.95%, 36.69%, and 26.36%. Considering the qualification factor of employees in the enterprise, the majority of employees have university degrees, with a rate of 59.43%, followed by other qualifications, with a rate of 33.33%. 100% of surveyed enterprises belong to the private sector.

5.2. Cronbach's Alpha and exploratory factor analysis

Reliability coefficients, or Cronbach's Alpha coefficients, were calculated for all measures used in this study. It is commonly used as a measure of internal consistency. Table 1 shows Cronbach's Alpha coefficient for idealized influence was 0.905, inspirational motivation was 0.785, intellectual stimulation was 0.854, and individualized consideration was 0.810. The overall Cronbach's Alpha coefficient for organisational performance was 0.897.

Through the analysis of Cronbach's Alpha, it shows that the scales of Cronbach's Alpha coefficient are greater than 0.7, and the Corrected Item-Total Correlation of the scale is larger than the allowed level of 0.3. Therefore, these scales are reliable (Nunnally & Burnstein, 1994) and are used in the EFA factor analysis. The results of EFA exploratory factor analysis showed that from 26 measurement variables belonging to the above 4 factors, the 4 factors that kept the original 4 factors were extracted in the proposed research framework at Eigenvalue = 1,007 (>1) and Cumulative % of Variance = 63.706% (> 50%) (table 1), showing that all observed variables have factor loading coefficients and satisfactory difference. Besides, the Keiser - Meyer - Olkin coefficient (KMO) is 0.920, with a Sig value of very small, indicating that the results of factor analysis are reliable.

Table 1. Cronbach's Alpha and EFA

	Component			
	1	2	3	4
IA01	0.766			
IA02	0.658			
IA03	0.726			
IA04	0.722			
IA05	0.583			
IA06	0.776			
IA07	0,738			
IA08	0.797			

	Component			
	1	**2**	**3**	**4**
IM1				0.763
IM2				0.635
IM3				0.752
IM4				0.667
IS1		0.762		
IS2		0.677		
IS3		0.740		
IS4		0.700		
IC1			0.684	
IC2			0.662	
IC3			0.695	
IC4			0.718	
Eigenvalue	8.538	1.958	1.238	**1.007**
% of Variance	23.669	13.853	13.513	12.671
Cumulative % of Variance	23.669	37.523	51.035	**63.706**
Cronbach's Alpha	0.905	0.854	0.810	0.785

Source: The authors' data analysis results

Measure "Organisational Performance" includes 6 items: the KMO and Bartlett's tests in factor analysis show that Sig = 0.000; KMO coefficient = 0.826 (> 0.5), so the observed variables in the population are correlated with each other, thus confirming that the data is suitable for factor analysis (EFA). Factor analysis also extracted the 6 indicators into one main factor with Eigenvalue = 3.977 and a Cumulative % of Variance of 66.280% > 50%. Moreover, the factor loading coefficients of the observed variables are all larger than 0.3 and quite high (from 0.517 to 0.772), so all observed variables are accepted on the scale (Table 2).

Table 2. Component Matrix[a]

	Component
	1
HQKD1	0.782
HQKD2	0.803
HQKD3	0.719
HQKD4	0.837
HQKD5	0.855
HQKD6	0.879
Eigenvalue	**3.977**
% of Variance	66.280
Cumulative % of Variance	66.280
Cronbach's Alpha	**0.897**

Source: The authors' data analysis results

5.3. Pearson Correlation

Before conducting multiple linear regression analysis, linear correlation between variables needs to be considered. Pearson correlation coefficient is used to test the linear relationship between independent and dependent variables. If the independent variables are closely correlated, the problem of multicollinearity must be taken into account when analyzing regression. Multicollinearity is the phenomenon of independent variables that are closely correlated. This helps increase the standard deviation of the regression coefficients and reduce the t-statistic of the significance test.

The results of the correlation test between the dependent variable and the independent variables show that there is a correlation between the dependent variable (HQKD) and four independent variables (IA, IM, IS, IC) with the coefficient Sig. < 0.05. This is a necessary condition for performing regression analysis. The Pearson test also performs correlation between independent variables. Table 3 shows that the independent variables are correlated with each other, such as IA and IS with the coefficient Sig. < 0.05 and the Pearson correlation coefficient (Pearson Correlation) has a value of 0.572 > 0.5. Therefore, multicollinearity can occur between these two variables. Similarly, several other pairs of variables also have Sig values where correlation is 0.000 < 0.05 and the Pearson correlation coefficient (Pearson Correlation) has a value > 0.5. Therefore, it is necessary to check for multicollinearity when analyzing the regression model in the next step.

Table 3. Correlations

		HQKD	IA	IM	IS	IC
HQKD	Pearson Correlation	1	0,625**	0,607**	0,682**	0,788**
	Sig. (2-tailed)		0,000	0,000	0,000	0,000
	N	387	387	387	387	387
IA	Pearson Correlation	0,625**	1	0,494**	0,572**	0,533**
	Sig. (2-tailed)	0,000		0,000	0,000	0,000
	N	387	387	387	387	387
IM	Pearson Correlation	0,607**	0,494**	1	0,538**	0,578**
	Sig. (2-tailed)	0,000	0,000		0,000	0,000
	N	387	387	387	387	387
IS	Pearson Correlation	0,682**	0,572**	0,538**	1	0,625**
	Sig. (2-tailed)	0,000	0,000	0,000		0,000
	N	387	387	387	387	387
IC	Pearson Correlation	0,788**	0,533**	0,578**	0,625**	1
	Sig. (2-tailed)	0,000	0,000	0,000	0,000	
	N	387	387	387	387	387

**. Correlation is significant at the 0.01 level (2-tailed).

Source: The authors' data analysis results

5.4. Multiple regression analysis

The analysis results are in Table 4, because F = 241.308 and Sig. = 0.000 < 0.05, so it can be confirmed that there is a relationship between the independent variables (IA, IM, IS, IC) and the dependent variable (HQKD) (Table 4).

Table 4. ANOVAa

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	105.382	4	26.345	241.308	.000[b]
	Residual	41.706	382	.109		
	Total	147.088	386			

Source: The authors' data analysis results

Table 5 shows analytical results with Sig. = p(t) corresponding to variables IA, IM, IM, and IC, they are all less than 0.05. The Tolerance coefficient is large and the VIF coefficient is small, the largest is 1.974 (<2), so the variables do not show signs of multicollinearity. Therefore, it can be confirmed that these variables are significant in the model, and the actual model is set up as follows:

HQKD = -0,353 + 0,219*IA + 0,123*IM + 0,203*IS + 0,550*IC

There are four factors including: IA, IM, IS, and IC are the 4 best explanatory variables for the transformational leadership variable affecting organisational performance. HQKD will increase by 0.219 levels with a level change in the element of "IA". The remaining factors are explained similarly as above.

According to the results of the Beta coefficient, the factor "IC" has the strongest impact on organisational performance (HQKD) (Beta =0.491); the second strongest factor is the factor "IS" (Beta = 0.202); the third factor is "IA" (Beta = 0.187); the fourth factor is "IM" (Beta = 0.122).

Table 5. Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.353	.141		-2.494	.013		
	IA	.219	.041	.187	5.326	.000	1.667	1.667
	IM	.123	.036	.122	3.450	.001	1.686	1.686
	IS	.203	.038	.202	5.293	.000	1.967	1.967
	IC	.550	.043	.491	12.833	.000	1.974	1.974

Source: The authors' data analysis results

Analytical results in Table 6, R=0.846[a] show that the relationship between the variables in the model is quite close, R^2= 0.716, which means that the 4 variables IA, IM, IS, and IC explain 71.6% factors affecting organizational performance (HQKD). So, the model fit is 71.6%. The results show that the model has a satisfactory fit with an adjusted R-Square of 0.713. This value shows that the variation of organizational performance (HQKD) is explained by 71.3% of the independent variables in the model. The significance level of the model's F-statistic < 0.05 indicates that it is safe to reject the hypothesis that all regression coefficients in the population regression model are zero.

Table 6. Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.84^{6}a	.716	.713	.33042	2.146

Source: The authors' data analysis results

6. DISCUSSION

Research results show that there is a relationship between idealized influence and organizational performance. Hypothesis H1: Leadership with high idealized influence will improve organizational performance, with β = 0.187, if leaders focus on creating idolizing influence by 1 unit, then the result organizational performance will increase by 0.187 units.

Therefore, business leaders are role models for what employees want. Communication and behavior between them is based on people-to-people orientation, building good relationships with employees, customers, and partners based on the values of tolerance, sacrifice, and ethics. In particular, they are sensitive to the business environment and have a clear vision of the future. This, in turn, will help leaders and employees stay more engaged at work. More importantly, the leader receives employee recognition. This increases employee loyalty, ultimately achieving success. Therefore, for employees to see the business as a second home, problems in the organization are always associated with ethics and morality. According to Bass (2000), the quality of idolizing influence is related to the admiration, respect, trust, and morality of leaders and managers. Typically, trust is something we all often work on because it comes from our hope that the other party will act as ethically as we did and that we will always take risks by trusting someone.

Research results are similar to those of Vinger and Cilliers (2006), Ogola (2017), and Nguyen Thi Thuy Hang (2021). According to these researchers, in order for leadership to be targeted by employees in the enterprise, leaders must know what happens in their lives, be able to communicate two-way, apply an open policy towards employee tablets; leaders should trust employees, practice ethical values, encourage employees to take risks.

According to the findings of hypothesis H2 (β = 0.122), there is a link between high inspirational motivation and organizational performance. As a result, business leaders possessing inspirational motivation are able to manifest their vision, share goals, and have a mutual understanding of what to do and how to do it. Leaders seem to know that conflict, even at work, is an obstacle to unity of will. Therefore, it can be seen that they promote teamwork, idealism, and know when to talk to motivate employees. The results of this study are consistent with Ayacko (2017) and Nguyen Thi Thuy Hang (2021), that leaders need to change the communication style from one-way to an interactive communication forum between team leader and employees, and help employees find meaning in work. This is psychologically empowering, and it has a significant impact on customer-oriented behavior.

Research results on hypothesis H3 (β = 0.202) show that there is a relationship between the intellectual stimulation and organisational performance. Business leaders possessing qualities that stimulate the minds of their employees need to invest in developing employee competencies, self-directed problem solving, and problem solving with creativity and innovation. They are being supported by investors, advising on the challenges of the status, the inappropriate obsolescence and how to address them. This result is consistent with Ayacko's (2017) and Nguyen Thi Thuy Hang's (2021). It suggests that encouraging creativity is largely due to the intellectual stimulation of employees and the evolving business environment. They are created by new technology, globalization, and instability.

The research findings for hypothesis H4 ($\beta = 0.491$) indicate that there is a link between individualized consideration and organisational performance. This result is consistent with Savovic (2017) and Nguyen Thi Thuy Hang (2021). As a result, business leaders shared the interests and needs of each individual. They almost treat employees like family members. Contact, communication, and negotiation seem to be done more often by leaders and managers, but it is not only for activities outside the business but also inside the business.

7. CONCLUSION AND LIMITATIONS

There are many ways for businesses to improve organizational performance. In this study, the relationship between transformational leadership and organisational performance has been determined. With the results obtained from the research, leaders and managers need to adjust their leadership style or look for leaders and managers who possess a transformational leadership style with the following solutions:

- Improve individualized consideration by:
    + Stimulating teamwork: Encouraging teamwork spirit to improve operational efficiency. Teamwork has many benefits: creative, active employees come up with better ideas and are more productive than employees who work independently. Teamwork helps businesses increase productivity as well as reflexes. Employees are satisfied and stick around to work longer.
    + Creating an environment that encourages teamwork: Creating an environment that encourages teamwork can be difficult at times, especially in Vietnam, where the concept of personal development is still paramount. However, many businesses today are trying to create an environment that encourages collaboration and teamwork.
- Improve intellectual stimulation in the form of:
    + Material compensation is the most important tool to create and enhance employee motivation. The salary scale system or salary policy must be commensurate with the work results, ensure the employees' lives, be consistent with the common ground of the labor market, and be fair among employees and between departments in the enterprise.
    + Benefits programs must clearly show the company's interest in employees. Fully implement a number of necessary welfare regimes, such as seniority allowance policies for employees who leave or retire; accident insurance policies on the job; preferential loan policies for other needs; legitimate and urgent needs when employees face difficulties; and policies to support tuition fees for employees' children who face difficulties. Love can really increase work performance.

+ Creativity and innovation are indicators of a company's ability to compete. Creativity and innovation must accompany all business activities. To do so, leaders and managers must be pioneers in promoting those values.

- Improve idealized influence by:
  + Leaders should give employees autonomy: A good organization is built on optimizing processes. Employee engagement and satisfaction are based on process automation and autonomy. They will be more interested if the work is their own, the responsibility that they have to shoulder, and the goal that they need to achieve for themselves.
  + Clear and valuable goals: Besides autonomy and self-determination, each job also needs a certain and specific goal. When creating a set of standards and goals, leaders need to talk to employees about these changes in detail. Let employees know the goals, the business values achieved, the value brought to customers and even to the community.
  + Leaders must show a sense of talent and confidence: Leaders must have proficiency in the ability to communicate verbally, which is always a necessary skill of a good leader. Leaders always have goals and solutions to solve all difficulties in the most difficult situations.
  + Create opportunities for employees to express creative ideas: Employees who like to come up with new ideas are employees who love their work and stick with the company. Good leaders always create conditions for employees to present ideas. At the same time, leaders also need to regularly ask intelligent questions, motivating subordinates to find answers to problems.
  + Networking opportunities: People want to work to advance, to build credibility, to be loved, respected, and admired, and to learn from and be inspired by the people they respect and admire. Therefore, sincere kind words, short conversations about family and personal things if employees need to share them, will be moments that help people get closer and bond with each other more.
  + Consistency: Good leaders treat employees on the basis of fairness. Good leaders know how to communicate appropriately and consistently. When employees understand the reasons behind their leader's decisions, they are more supportive and respected.
  + Privacy when criticizing: No employee is perfect. Every employee needs constructive feedback, and they deserve subtle feedback from their leader. A calm attitude and polite words are two tools that help leaders overcome this uncomfortable situation.
  + Public praise: Sometimes all it takes is a few reasonable compliments to the right person, to the right job, and said publicly in front of other employees to improve the productivity of these employees.
  + Train employees: Any job should lead to meaningful and great things. Good leaders take the time to train employees, making them better, more stable and capable of doing more demanding jobs, even at different companies.

- Improve inspirational motivation through:
  + Communicate with your employees: Part of setting clear goals depends on effective communication with your team. Communication is a two-way street, and leaders should make sure there is a constant flow of communication between you and your employees.

+ Encourage teamwork: Encouraging and fostering teamwork boosts productivity because it makes your employees feel less isolated and helps them feel more engaged with their tasks.
+ Leaders can do this by regularly holding team building exercises and providing opportunities for your team members to bond and get to know each other.
+ Create opportunities for employees to grow: To motivate and inspire teams to achieve great results, leaders should provide their employees with growth opportunities. These opportunities should be tailored to each employee and can take the form of extra training, setting challenging goals, or spending time teaching and mentoring someone.
+ Build trust with employees: The trust that superiors build in employees will have a very significant influence on the results and performance of the business. As a leader, you must demonstrate to your employees that what the leader says always goes hand in hand.

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DEVELOPING A RESEARCH MODEL OF RELATIONSHIP MARKETING AND RELATIONSHIP QUALITY: AN EMPIRICAL STUDY IN VIETNAM BANKING SECTOR

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Abstract: *The article purpose is to test the research model on the relationship among relationship marketing, relationship quality, customer loyalty, opportunism and emotions in the Vietnamese banking industry. These relationships are verified through a sample of 300 individual customers at Vietnamese commercial banks. We have tested the conceptual model using by Structural Equation Modelling (SEM). The research results show that the impact relationships level among the variables in the research model and are presented in decreasing order is relationship marketing has a positive impact on relationship quality ($\beta = 0.811$); emotion has a direct and positive impact on loyalty ($\beta = 0.601$); relationship quality has a direct and positive impact on loyalty ($\beta = 0.340$); relationship marketing has a positive impact on emotion ($\beta = 0.148$); relationship quality directly and negatively affects opportunism ($\beta = -0.171$).*

Keywords: *Customer loyalty, emotion, opportunism, relationship marketing, relationship quality.*

1. INTRODUCTION

In a globalized world with enormous competition, the banking sector is struggling for providing good experiences to their customers. Customers expect a high level of experience from banks, which, in turn, could increase customer satisfaction and customer retention levels (Putnam, 2012). On the other hand, in order to survive and develop a business, it is not only interested in providing quality goods and services, but also more importantly, how to maintain customers and beneficial relationships (Tseng, 2007). Indeed, building quality relationships with customers for sustainable development is the main businesses goals, especially businesses can build effective relationship marketing policies to enhance relationship quality, thereby increasing customer loyalty as well as limiting opportunism in the relationship between customers and businesses. Therefore, it is necessary to understand the factors that form relationship quality, relationship marketing and its cause and result variables.

Relationship marketing was introduced earliest by Berry in the service marketing context; he believes that relationship marketing is a strategy to attract, maintain, and enhance relationships with customers (Berry, 1983). The relationship marketing purpose is to create, maintain and manage relationships with customers and partners, so that both parties can satisfy their goals and

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gain mutual benefits (Gronroos, 1994). Relationship marketing is applied when there are many competing products giving customers choices variously. In relationship marketing, relationship quality is the core and central value that managers want to aim for. In fact, the importance of relationship marketing has been seen in terms of the benefits received by both parties, the service provider and the customer.

Besides, the cognitive model states that the react process to a negative event begins with the harmful event assessment and the emotions it has produced (Lazarus, 1966). Customers' emotions influence their decision to stay with a current service provider or switch to another service provider (Ferguson & Bergeron, 2010). In a service context, when a customer experiences a service failure (i.e. a negative event), they will experience negative emotions before the service company can recover from the incident, thus the customer will dissatisfy, give negative word of mouth, and even switch to another service provider (Oznur & Pinar, 2016).

The role and effects of emotions are attracting increasing attention from marketing researchers to find ways to better understand consumers and their consumption experiences (Ladhari et al, 2007). According to Bilgihan et al (2016), emotions play an important role in service and emphasize that in service context, companies need to pay more attention to customer's emotions in order to enhance customer loyalty. At the same time, customers' emotions are influenced by marketing activities from the business, so emotions are considered an important component in relationship marketing (Shammout, 2007).This study aims to test the extended model of relationship marketing and relationship quality including relationships among relationship marketing, relationship quality, emotion, loyalty and opportunism in the Vietnam banking context. Research results will help banks have more accurate judgments about the important role of relationship marketing in improving relationship quality, thereby enhancing customer loyalty. Besides, the study also shows the role of emotion and opportunism in developing customer relationships in the banking industry.

2. THEORETICAL BASIS AND RESEARCH FRAMEWORK

There are differing views on the relationship marketing origin. However, most authors attribute the term's origin to Berry (1983), who first proposed it in the professional services context. Berry and Parsuraman (1991) defined relationship marketing as the practice of bonds multiple levels which called relational bonds to cultivate customer loyalty. In addition, Berry (1995) emphasized that there are three level of relationship marketing: financial bonds, social bonds, and structural bonds which are the core relationship marketing components.

In relationship marketing, relationship quality is the core and central value that managers want to aim for. According to Dwyer et al (1987), there are five stages of the buyer-seller relationship development process including recognition, discovery, expansion, commitment, and dissolution. Each stage in the above process is represented by communication/exchange activities which each party in the relationship demonstrates its value to the other. Dwyer et al (1987) supposed three basic concepts of the buyer-seller relationship development process including: trust, detachment and commitment.

2.1. Research concepts

2.1.1. Relationship quality

The relationship quality theory was developed from the relationship marketing theory by Crosby et al (1990) and it attracted many researchers' attention and administrators. Relationship quality is an outcomes list of a meaningful relationship and it reflects parties' ability involved to meet the needs and expectations of the relationship (Smith, 1998). Relationship quality, from the customer's perspective, is the customer's ongoing perception of service quality over time (Gronroos, 2007). According to Brun et al (2014), relationship quality is also seen as a higher-order construct made up of many other related components as satisfaction, trust, and commitment. This is also the suggestion of many researchers on relationship quality (Kwiatek, P. et al, 2020).

(1) Trust: According to Moorman et al (1993), trust is defined as the willingness to rely on an exchange partner with a certain level of confidence which has been built. Meanwhile, Alawneh, A. (2012) proposed that trust is the customers' willingness to rely on banks providing services to carry out various banking activities and transactions. Besides, trust is an important indicator of relationship quality. A relationship that lacks trust is hardly considered high-quality.

(2) Satisfaction: Oliver (1997) defines satisfaction as the level of satisfaction of fulfillment related to consumption. Satisfaction refers to the consumers' evaluation of the comprehensive performance of a product/service provider (Gustafsson et al, 2005). Furthermore, relationship satisfaction is an affective or emotional state of being in a relationship, often assessed cumulatively in exchange history (Palmatier et al, 2006).

(3) Commitment: Commitment is the desire to maintain a relationship (Moorman et al 1993). Meanwhile, Morgan et al (1994) defined commitment as an exchange partner who believes that an ongoing relationship with another counterparty is important to ensure maximum effort in maintaining it. According to Alawneh (2012), commitment is defined as the customer's intention to return in the future, a relationship that exists over time to predict the continuity of the relationship with the banking service providers in the online banking' context.

2.1.2. Relationship marketing

There are many authors studying on relationship marketing only inherited the point of view of Berry and Parsuraman (1991) and Berry (1995) about the components of relationship marketing including financial bonds, social bonds, and structural bonds. They do not divide these components according to each level as Berry (1995), they consider relational bonds as the type of relationship marketing to measure and test them in practice (Yu et al, 2013).

(1) Financial bonds

Financial bonds primarily based on the price incentives using to encourage customers to purchase goods in order to maintain customer loyalty, or to provide products cheaper or free gift for the loyal customer. Financial bonds are often called frequency marketing or retention marketing, which service providers use economic benefits such as prices, discounts or other financial incentives to secure customer loyalty (Hsieh et al, 2005).

(2) Social bonds

Social bonds refer to establishing lasting relationships with customers through social and interpersonal relationships. In this approach, companies treat customers as different individuals and try to meet the needs of different customer groups with customized services. Furthermore, social bond includes the benefits that customers receive through self-disclosure, proximity, support or advice, sympathy and feelings, sense of connection, attachment or association and experiences sharing. Lin et al (2003) and Hsieh et al (2005) provided a more holistic view by defining social bonds as individual relationships involving service components that provide interactions between individuals, friendship and identity.

(3) Structural bonds

Structured bonds achieved when companies offer more customized services to individual customers, emphasizing providing high service quality and developing the strong and long-term relationships (Kumar et al, 1995). Companies must provide partners with integrated services or offer customers innovative products to meet their specific needs (Hsieh et al, 2005). Indeed, structured bonds provide target customers with value-added benefits that are rare and costly and not available elsewhere. From the retail banking case study, Dibb et al (2001) found that some banks have invested in structured bonds such as establishing new channels, integrated customer databases, and two-way information exchange technology.

2.1.3. Emotion

Schachter et al (1962) described emotion as a general state of arousal, understood through a cognitive assessment process. Emotion is a multifaceted compound of different factors, both mental and physical (Izard, 1992; Omdahl, 2014). Emotions are valued and reliable predictors of human behavior (Carlson et al, 2007). In addition, Bagozzi et al (1999) described emotions as being "a mental state of readiness that arises from cognitive appraisals of an events or thoughts; has a phenomenological tone; is accompanied by physiological processes; is often expressed physically; and may result in specific actions to affirm or cope with the emotion, depending on its nature and the person having it".

2.1.4. Customer loyalty

According to Dick et al (1994), customer loyalty can be towards a brand, service, store or supplier. Customer loyalty is defined as a sustained relationship between an individual's attitude and repeat purchases, representing the rate, coordination, and repeat purchases ability from the same seller.

In the banking industry, Kathleen (2005) defined customer loyalty as when a customer chooses to do business with a bank and will continue to do business with that bank, recommending others to use the bank's service and when there is a need to use a new service, they will consider that bank as the first choice even though they know there may be relatively better options at other banks in terms of service prices or utilities. Customer loyalty is a bank asset. When customers are loyal, they will continue to use the bank's products/services and can introduce other customers to transact with the bank, or deliver good information to reinforce the existing customer trust for customers so that they become loyal customers.

2.1.5. Opportunism

Opportunism is the unwarranted search for self-interest (Morgan et al, 1994), taking advantage of opportunities as they arise (Wirtz et al, 2010). Opportunistic customers are more likely to want to take advantage of the rewards in the offer and when they lost, the customers easily leave to look for another company with better deals. According to Heide (2000), in business, opportunism can develop in the direction: the partners do not completely keep the promises with partners; may omit some terms agreed with the partner; may neglect the relationship after having relationship with the customer/partner. It is precisely such behaviors that result that opportunism is closely related to the concept of relationship quality.

2.2. The relationship between research concepts

2.2.1. Relationship between relationship marketing and relationship quality

Berry et al (1991) argued that relationship marketing is built by companies that offer price incentives to encourage customers to buy their products or services. They also say that the pricing strategy of the marketing mix helps convert random customers into repeat customers. Besides, customers can become aware of the company's products and have a stronger sense of trust and commitment towards the companies involved.

In research on the banking industry, Lin et al (2003) found that in establishing long-term transactional relationships with customers by relationship marketing including financial bonds, social bonds and structural bonds which all had significant positive effects on trust, satisfaction, and commitment. Hsieh et al (2005) in a study of online shoppers suggested that all types of relationship marketing (financial, social and structural bonds) all help to increase customer satisfaction and commitment to related companies. Or as in the study on the insurance industry of Yu et al (2013), there are also conclusions about the types of relationship marketing that have a positive impact on relationship quality (satisfaction, trust and commitment). From the above summarized and analyzed, we present the hypothesis as follows:

> *H1: Relationship marketing (financial, social and structural bonds) has positive impact on relationship quality (trust, satisfaction and commitment) in the banking industry.*

2.2.2. Relationship between relationship marketing and emotion

Relationship marketing includes the marketing activities that service providers use to develop and maintain relationships with their customers. Previous studies have mainly addressed the emotions importance as a result of previous relationships that customers had with their service providers.

Anderson et al (2006) argued that the buyer-seller relationship has the potential to generate positive and negative emotional responses among individuals. One of the most important aspects affecting the emotional responses intensity in buyer and seller partnerships is the nature of their previous relationships. Han (1991) emphasized that social bonds links and holds buyers-sellers together in personal relationships leading to positively emotional attachment. In contrast, the personal relationships termination in a business context is a significant emotional stress source (Dwyer et al, 1987).

As such, the more service providers build relationships with their customers through practicing relationship marketing activities, the more they encourage positive customer emotion and vice versa. Walls (2003) asserted that relationship marketing provides additional comfortable feelings, security, and belonging, while they also reduce anxiety, sadness, and alienation. According to Shammout (2007), relationship marketing (financial, social and structural bonds) has a positive impact on customer emotion in the context of hospitality services. From the above summarized and analyzed, we present the hypothesis as follows:

H2: Relationship marketing (financial, social and structural bonds) has positive impact on emotion.

2.2.3. Relationship between emotion and customer loyalty

Sivadas et al (2000) argued that customers who experience a satisfying service, they will have a positive brand attitude and a loyalty high level. Mattila (2001) proposed that only emotional connection leads to true loyalty. Such an emotional bond creates emotional loyalty between service firms and customers. In addition, Morgan et al (1994) make the point that emotional commitment reduces the relationship leave tendency of customers.

From the above summarized and analyzed, we present the hypothesis as follows:

H3: Emotion has positive impact on customer loyalty.

2.2.4. Relationship between relationship quality and customer loyalty

Gronroos et al (1994) showed that satisfaction leads to strong relationships between suppliers and customers. Heining-Thurau et al (1997) also demonstrated that customer satisfaction is a key factor in customer retention. Loyalty theory has shown that loyalty is one of the results of satisfaction and it has been mentioned by many authors in their research. Accordingly, in some studies, the authors have acknowledged the direct contribution of satisfaction to loyalty (Naoui & Zaiem, 2010).

Research results of Naoui and Zaiem (2010) showed commitment has a positive impact on customer loyalty, and commitment is a factor that creates relationship quality, from which it is easy to see if providers commit to customers, this means that suppliers have good quality relationships with customers which will easily affect customer loyalty.

Previous studies have shown a link between trust and customer loyalty. Several studies have shown that a direct result of trust is loyalty (Liu et al, 2011). This study considers relationship quality as a multi-dimensional concept, shaped by feelings of satisfaction, trust, and commitment. As an integral part of relationship quality, the impact of trust on customer loyalty is also an indicator of the relationship quality outcome.

From the above summarized and analyzed, we present the hypothesis as follows:

H4: Relationship quality (trust, satisfaction and commitment) has positive impact on customer loyalty.

2.2.5. Relationship between relationship quality and opportunism

Previous studies have shown that there is a negative effect between satisfaction and trust on opportunism (Jena et al, 2011). Minimizing opportunistic behavior will lead to a good perception of customer on the relationship, and vice versa, if opportunistic behavior thrives, the relationship quality may worsen (Nguyen & Nguyen, 2010). With the above arguments, Mysen et al (2011) have shown that satisfaction is negatively related to opportunism, that is, if there is satisfaction in the relationship, opportunism behavior manifestations will be minimized. This is understood: when two parties are satisfied with each other, they will feel more confident and have higher expectations for the outcome of good transactions in the future, thereby reducing temptations about taking advantage of the partner.

Mysen et al (2011) demonstrated the negative effect of commitment on opportunism. This can be explained as once there is a commitment to the relationship, the partners have confidence in the longevity of the future relationship, and to protect that outcome, they will act honestly and reliably, so that opportunism will be minimized in this relationship. Thus, as an integral part of relationship quality, commitment contributes to build a dimension of relationship quality outcomes, that is, it helps to reduce opportunism in relationship.

Research by Mysen et al (2011) shows an indirect effect of trust on opportunism through satisfaction. Specifically, trust has positive and direct impact on satisfaction, satisfaction has negative and direct effect on opportunism. As discussed above, previous studies have confirmed that each component of the relationship quality concept is related to loyalty and opportunism. Morever, Yu, PeiLi (2018) proposal trust to constrain opportunism. As a signal of faith in the partner, trust acts as a "moral binding" to deter opportunism (Lawson et al, 2008). Out of concern for such moral binding, providers intentionally avoid shortterm and self-interested behavior, so as to maintain a positive image of benevolence and honesty (Gulati, 1995). Besides, Huo et al (2015) demonstrated there is the negative effect of trust on opportunism.

From the above summarized and analyzed, we present the hypothesis as follows:

H5: Relationship quality (trust, satisfaction and commitment) has negative impact on opportunism.

3. RESEARCH METHODOLOGY

3.1. Sample and data collection

This study was conducted customers survey who came to trade at Vietnamese commercial banks. Sample collection research based on convenient access to customers. Out of the 330 customers, who accepted to participate, there were only 315 answering the questions. Next, 15 responses from customer were excluded due to lack information. Finally, 300 cases were used for data analysis providing a response rate of 85.7%. The study objective is to confirm the reliability and scales value. Testing scales through confirmatory factor analysis method (CFA), and SEM via AMOS 21 software used to verify the scale parameters in the model, all items used to measure the observed variables are 47 items. Based on the measurement items number and research concepts, the minimum sample size for this study is 47*5 = 235 observations. However, this work has used the observations number is 300. Thus, it is possible to conclude that the observations number n = 300 as a guarantee for the research results (Hair, 1998).

3.2. Variables measurement

As stated earlier, current study has adopted positivist approach and therefore the focus of the researchers was just limited to analyze the data collected from the validated items adapted from the previous well-known studies. All question items are measured using a five-point Likert scale, where 1 represented strongly disagree and 5 represented strongly agree. The operational definitions and methods of measurement are as follows.

Table 1. Total of Scale Items

Constructs	Items	Sources
Relationship marketing	**21**	Hsieh et al (2005), Lin et al (2003), Dibb and Meadows (2001)
Financial bonds	7	
Social bonds	7	
Structure bonds	7	
Relationship Quality	**16**	Lin and Chung (2013), Hsieh and Hiang (2004)
Satisfaction	5	
Trust	7	De Wulf et al (2001), Hennig-Thurau et al (2002), Morgan and Hunt (1994)
Commitment	4	Morgan and Hunt (1994), Sharma and Patterson (1999)
Emotion	**13**	Pullman and Gross (2004), Ruth et al (2004)
Customer loyalty	**6**	Lewis et al (2006), Celso et al (2009), Dahlia et al (2011)
Opportunism	**4**	Mysen et al (2011a), Jena et al (2011)

Source: Authors

4. RESULTS AND DISCUSSION

4.1. Results

4.1.1. Respondents Profile

The demographics of the participating respondents show the final sample reflects 65.2 % of female customers and 34.8% of male customers, which is only 1/3 compared to the number of female in the survey sample. The sample comprises 27.2% less than undergraduates, 36.6% undergraduates, and 36.2% post-graduates. It shows that most of customer's education background is undergraduates. Average age of the respondents is 45 years old.

4.1.2. Measurement model

After preliminary investigation to evaluate the scale, the authors synthesized a new scale with variables that met the measurement reliability. This new scale is used for formal investigation.

Research results shows the customer loyalty scale, opportunism scale, satisfaction scale, trust scale, commitment scale, financial bonds scale, social bonds scale, structural bonds scales, and emotion scale through reliability analysis which shows that the Cronbach's Alpha coefficient α are bigger than 0.6 to ensure reliability, and the corrected item – total correlations of the all variables in this scale are greater than 0.3. As such, the scales meet the required reliability and are eligible for inclusion in EFA analysis (Slater, 1995).

Next, exploratory factor analysis (EFA) was used to check the convergence degree. Principal Axis Factoring (PAF) and Promax rotation were used.

EFA results for the relationship marketing scale with three components including financial, social and structural bonds with coefficient KMO = 0.895 > 0.5, factor analysis is consistent with research data; and Sig.=.000 < 0.05, showing that the research data reached a high significance level (Garson, 2003). The EFA analysis results for the concepts of loyalty, opportunism, emotion and relationship quality scale with 3 components including satisfaction, trust, commitment and have KMO coefficients of 0.884 > 0.5 respectively, so analysis results are consistent with research data; and Sig. = .000 < 0.05, showing that the research data reached a high significance level.

Finally, CFA result shows that the weights of all observed variables are greater than 0.5 and are statistically significant with 95% confidence (Anderson & Gerbing, 1988), so the observed variables reach convergent value.

In this study, CFA is used to test the measurement model. The CFA (normalized) results of the critical measurement model show that this model has 998 freedom degrees. CFA shows the following results of the model: Chi-square = 2650.504 (p=.000), CMIN/df = 2.656 < 3. Other indicators show that the model is suitable with market data (Baumgartner et al, 1995), specifically: GFI= 0.924 (> 0.9), TLI= 0.955 (> 0.9), CFI = 0.916 (> 0.9) and RSMEA = 0.063 < = 0.08. Therefore, confirming the model responds well to market data.

The testing result of the discriminant validity among variables in the critical model shows that all the estimated correlation coefficients associated with the standard error (SE) for p < 0.05, so the correlation coefficient of each pair of concepts which differs from 1 at 95% confidence. Therefore, the concepts gain discriminant validity.

The Composite Reliability (CR) and Average Variance Extracted (AVE) of the scales in the research model show that all values reach, specifically CR > 0.6 and AVE > 0.5 (Fornell & Larker, 1981). This confirms that the model scales are reliable.

Results of analysis and evaluation show that all scales achieve value and reliability. All CFA results are appropriate with market data with just a few small adjustments, and variance negative values are not found. Summary of the above CFA results is shown in Table 2.

Table 2. Summary of scale testing results

	Research construct		Items	Reliability		AVE	**Suitability** (Discriminant Validity, Reliability, Convergent Validity)
	Dimensions	**Code**		**Cronbach's alpha**	**CR**		
Relationship marketing	Financial bonds	FiB	7	0.936	0.869	0.606	Fit
	Social bonds	SoB	7	0.933	0.877	0.655	Fit
	Structural bonds	StB	7	0.932	0.882	0.665	Fit
Relationship quality	Satisfaction	SAT	5	0.853	0.898	0.898	Fit
	Trust	TRU	7	0.944	0.811	0.811	Fit
	Commitment	COM	4	0.882	0.893	0.893	Fit
Opportunism		OPP	4	0.884	0.890	0.660	Fit
Emotion		EMO	13	0.967	0.867	0.601	Fit
Customer loyalty		LOY	6	0.859	0.872	0.688	Fit

Source: Authors development

4.1.3. Structural model

In this study, we test the research model by structural equation model (SEM). From the first estimation results of the SEM model, the model has 1023 freedom degrees, Chi-square/df = 2.717 (< 3) and TLI, CFI indicators are all < 0.9; RMSEA = 0.076 < 0.08 (McIver & Carmines, 1981). Therefore, the above indicators are not really suitable, it is necessary to adjust the above indicators to make the model more suitable.

During the second SEM analysis, we relied on MI criteria to improve the model to make the model more suitable for market data, as shown in Figure 2. Specifically, we chose the error pairs–ei which has the largest modification Indices (MI), use arrow heads to hook the error pairs–ei sequentially: e9 – e8, e16 – e15 and e26 – e27 together. Analysis results the second SEM show the model parameters as follows: Chi-square = 2203.654 (p =.000), Chi-square/df = 2.160 <3; GFFI, TLI, CFI indicators are all > 0.90 and RSMEA = 0.062 <0.08. Therefore, confirming the model responds well to market data.

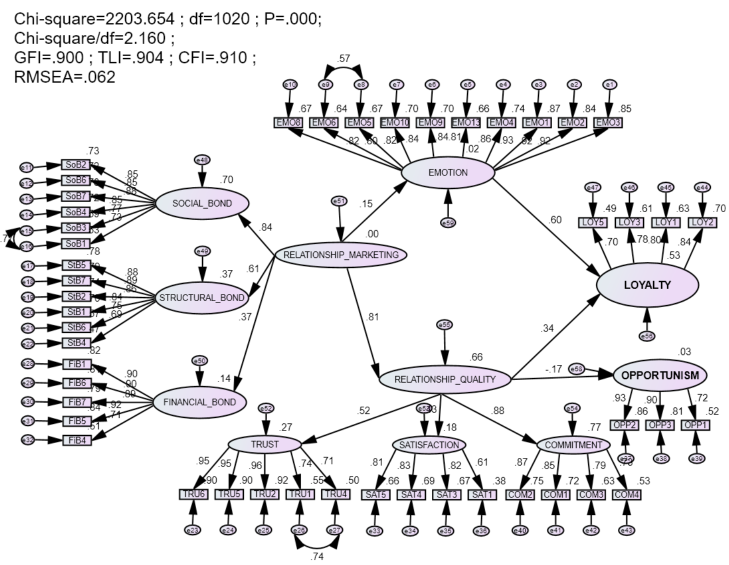

Figure 2. The second SEM results (standardized) the research model has been adjusted

- **Test hypotheses**

The estimated results (unnormalized) of the factors in the adjusted 2nd SEM model presented which show that these relationships are statistically significant at the 95% significance level because they are all significant $p < 0.05$. This can be concluded that the concepts measuring scale in the model reaches the theoretical relevance value.

All the hypothesized correlations in the research model are proved by testing SEM model. The estimated (standardized) results of the main parameters in the second modified SEM model. This result shows that the causal relationships are statistically significant at significant 0.05 because all $p < 0.05$.

Results of the standardized Regression Weights (Table 3) also show that relationship marketing has a direct impact on relationship quality ($\beta = 0.811$) and emotion has a direct impact on customer loyalty ($\beta=0.601$). Then, relationship quality positively impacts customer loyalty ($\beta=0.340$). Next, relationship marketing positively impacts emotion ($\beta = 0.148$). However, relationship quality has a direct and negative effect on opportunism ($\beta = -0.171$).

Table 3. Standardized Regression Weights

(Group number 1 - Default model)

			Estimate
EMOTION	<---	RELATIONSHIP_MARKETING	.148
RELATIONSHIP_QUALITY	<---	RELATIONSHIP_MARKETING	.811
LOYALTY	<---	RELATIONSHIP_QUALITY	.340
OPPORTUNISM	<---	RELATIONSHIP_QUALITY	-.171
LOYALTY	<---	EMOTION	.601

Source: Authors

In order to analyze the relationship between the research concepts in the research model, it should be noted that the greater the absolute value of the regression coefficients, the stronger the corresponding independent concept will affect the dependent concept.

4.2. Discussion

The research results show that relationship marketing (financial bonds, social bonds and structural bonds) has positive impact on relationship quality (trust, satisfaction and commitment) directly. This is the most influential relationship in the research model ($\beta = 0.811$), this research result is consistent with Yu et al (2013). This shows that customers using banking services are very interested in the financial benefits received issues, special attention from the bank, social relationships are connected between customers and banking, or relationship marketing activities that meet customer needs through product diversification to suit the each customer group characteristics. Upgrading the banking service system via providing for customers with online tools such as internet banking, smart banking, or banks are increasingly upgrading the security of customers' transactions through many online protection system levels. These relationship marketing activities are the core to increase the relationship quality between customers and the bank.

Meanwhile, relationship marketing has a direct and positive impact on customer emotions (β = 0.148). This result is consistent with Shamout's study (2007). This shows that relationship marketing activities have an impact on customers' emotions when they engage in transactions with the bank, the more effective the relationship marketing will be, the more positive emotions will be increased by customers, thereby leading to increasing their loyalty. Indeed, Walls (2003) asserted that relationship marketing provides additional comfortable feelings, security, and belonging, while they also reduce anxiety, sadness, and alienation which called positive customer emotions.

Next, research has shown the direct result of relationship quality is customer loyalty. Research results show that relationship quality has a direct and positive impact on customer loyalty (β = 0.340). This result is consistent with a lot of research in the service industry (Yu,et al., 2013; Garepasha, 2020). According to Garepasha (2020), improved relationship quality components (satisfaction, trust and commitment) will definitely increase customer loyalty in the banking industry. This confirms the research results of many previous researchers on the relationship quality results is loyalty, which is also true for the banking industry in Vietnam. This is also an important confirmation of the generality and popularity of the relationship quality model when applied to a transition economy and a specific business sector in Vietnam.

Finally, relationship quality negatively impacts opportunism (β = -0.171). This study results are consistent with many previous studies (Mysen, 2011a, Hoang Le Chi, 2013). Previous studies have suggested that once relationship satisfaction is diminished, partners are more likely to engage in negative actions such as opportunism, or "sneakly seek benefits for themselves" (Mysen, 2011a). In the opposite, once there is high satisfaction with the relationship, the partners will reduce the tendency to act in opportunism. In this study, when considering opportunism in the relationship between banks and individual customers as a result of relationship quality, the research model also demonstrated a negative correlation between relationship quality and opportunism (β = -0.171). This statement is significant because it leads to the management view that once the relationship between business partners achieves satisfaction, trust and commitment sense (high relationship quality), then opportunism will decrease in the partners behavior. Therefore, the supplier can be assured of how to behave cooperatively, for the both parties benefit, not for self-interest. This will be exactly the opposite when the relationship does not achieve the desired quality. At that time, the customer will act selfishly, take advantage of the supplier's preferential policies, and when they can no longer take advantage, there may be actions that harm the bank.

5. CONCLUSION

In this paper, we have tested the relationship marketing and relationship quality extended model. The study examines relationships among relationship marketing, relationship quality, emotion, loyalty and opportunism in the Vietnam banking context. The research results show that the relationship marketing and relationship quality scales are adjusted to suit the customer's perception in the banking sector in Vietnam, and the remaining scales have high reliability.

This study further emphasizes the emotion's role in affecting customer loyalty as well as the relationship quality's role in affecting customer opportunism negatively in the banking industry. Research also shows the importance of developing and maintaining the relationship marketing to enhance relationship quality as well as customer emotions, thereby developing customer loyalty as well as minimize customer opportunism in commercial banks. Commercial banks should understand the need to increase the benefits derived from relationship marketing because customers are aware of the benefits that other competitors offer. If the bank does not care about this, they will not easily build good customers relationships and loyalty, so they will not be able to retain them. This is of prime importance because the many studies results have confirmed that when customers feel a high relationship quality level with a bank, they are more likely to be loyal.

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FACTORS AFFECTING THE DEVELOPMENT OF SMALL AND MEDIUM ENTERPRISES IN VIETNAM

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Abstract: *This study aims to identify and evaluate the impact of factors on the development of small and medium enterprises (SMEs) in Vietnam by collecting data from 630 SMEs in 25 provinces in Vietnam. The study uses descriptive statistics and regression techniques to identify important factors affecting SMEs in Vietnam. Regression results show that Government support, managerial skills, science and technology level, marketing strategies, access to finance and human resource training are important factors contributing to the promotion of development of SMEs in Vietnam. Based on the research results, a number of recommendations are proposed to make it easier for SMEs to develop policies to create a viable business environment for their business development.*

Keywords: *Small and medium enterprises, factors, development, Vietnam.*

1. INTRODUCTION

In 2020, Vietnamese businesses had to face unprecedented negative impacts in their production and business activities before the outbreak of the Covid-19 pandemic. In particular, SMEs are more heavily affected than large enterprises. SMEs often do not have enough resources in terms of both finance and managerial skills; simultaneously, they rarely prepare scenarios to deal with interruptions in production and business activities if it lasts longer than expected. Therefore, building a system of solutions to develop SMEs is essential to minimize the damage caused by the negative impact of the Covid-19 pandemic as well as help SMEs adapt to new normal era.

In terms of enterprise size, up to December 31, 2019, the whole country had 179,319 small-sized enterprises, accounting for 26.8% of the number of enterprises in the country, up 8.6% over the same period in 2018; there were 22,788 medium-sized enterprises, accounting for 3.4%, up 10% (White Book on Vietnamese Enterprises, 2021).

In response to the spread and negative impacts of the Covid-19 pandemic, the Government of Vietnam has implemented flexible and diverse containment measures such as isolation, partial blockade, total blockade, etc., and supporting policies on taxes, fees, interest rates, credit, etc. At the same time, businesses themselves also have coping strategies to survive such as digital technology application to business models. However, according to the report "The impact of Covid-19 on businesses in Vietnam: a quick survey on businesses and Covid-19" of the World Bank (2020), about 50% of small businesses and more than 40% of businesses had to close temporarily or permanently due to the impact of the Covid-19 pandemic. In particular, the service industry is affected more seriously. This data shows that the Government's policies and the ability of businesses to respond are not really effective, whether there are other factors affecting the development of SMEs.

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Consequently, this study was conducted to clarify the factors affecting the development of SMEs in Vietnam, thereby forming a basis for proposing policy recommendations in the next period, helping SMEs in Vietnam to develop especially after the Covid-19 pandemic.

The study focuses on addressing four main parts. Part 1 presents an overview of the research and related theoretical background; part 2 describes the research methodology; part 3 presents research results and discussions; part 4 provides conclusions and suggests some recommendations for the policymakers.

2. LITERATURE REVIEW

2.1. The definition of small and medium enterprises

The concept of SMEs is not uniform across countries and organizations. The most commonly used way to determine is based on the number of employees, revenue and capital of the business. According to Leopoulos (2006), depending on the geographical location and laws of each country, the definition of SMEs is also different.

The World Bank defines SMEs as enterprises with a maximum of 300 employees, 15 million dollars in annual revenue and 15 million dollars in assets. In Vietnam, the criteria for classifying SMEs according to Decree No. 80/2021/ND-CP in 2021 of the Government, specifically:

Table 1. The definition of small and medium enterprises according to Vietnam

Business areas	Small Enterprise		Medium Enterprise	
	Revenue (R) and Capital (C) (Billion VND)	Number of employees (E) (Person)	Revenue (R) and Capital (C) (Billion VND)	Number of employees (E) (Person)
Agriculture, forestry and fisheries	$3 < R \leq 50$ or $3 < C \leq 20$	$10 < E \leq 100$	$R \leq 200$ or $C \leq 100$	$E \leq 200$
Industry and construction	$3 < R \leq 50$ or $3 < C \leq 20$	$10 < E \leq 100$	$R \leq 200$ or $C \leq 100$	$E \leq 200$
Trade and services	$10 < R \leq 100$ or $3 < C \leq 50$	$10 < E \leq 50$	$R \leq 300$ or $C \leq 100$	$E \leq 100$

Source: Decree No. 80/2021/ND-CP in 2021

2.2. The concept of small and medium enterprises development

Although the concept of enterprises development has been used in many different studies, until now, there is still no uniform concept of enterprises development in general and SMEs development in particular. According to Jahangir H. Khan (2012), enterprise development is an approach from a combination of elements including: business, financial support, appropriate policies and institutions, linkages, appropriate technologies and relationships market/demand for the product. Muhammad Abrar-ul-haq et al (2015) said that the development of an enterprise is not only measured by financial performance indicators such as revenue growth, profit margin, labor productivity, etc. but also through non-financial indicators such as the assessment of business owners and managers on the development of the business. According to Ngo Thi Huong Thao (2021), SME development is a process of growth in quantity, associated with qualitative changes in the internal structure of each SME and an increase in the contribution of the SME sector to the socio-economic appropriate to the current level of economic development.

Thus, from the point of view of enterprises development mentioned above, according to the author's angle, "SMEs development is the growth in number, revenue and profit margin of an enterprise, associated with the increasingly improved income of workers".

2.3. Factors affecting the development of small and medium enterprises

Government Support

In some recent years, the Government has implemented many programs to support SMEs, especially when the Covid-19 pandemic broke out. Government support policies are diverse such as tax exemption and reduction (value added tax, corporate income tax); implementing job retention programs; digital support;... OECD (2021). Even in new normal era, SMEs also need specific support policies from the Government. Research by Shah et al (2011) emphasized that SMEs in Pakistan can only achieve strong development if the Government follows the fair rules of the market economy, introduces tax policies, credit policy for businesses. Muhammad Abrar-ul-haq et al (2015) pointed out that Government support is one of the important factors contributing to the development of SMEs in Pakistan. In Vietnam, the results of Le Hoang Ba Huyen et al (2020) showed that tax supporting policy and capital support packages of Government have an impact on the survival and development of SMEs in Thanh Hoa province. Thus, the receipt of the Government's support packages or the Government's policies on taxes, interest rates and social security plays an important role in the existence and development of businesses, especially the SMEs in new normal era.

In the context of the complicated development of the Covid-19 epidemic which greatly affects the production and business activities of enterprises, many mechanisms and policies, especially supportive policies on taxes, fees, charges and land rent, electricity, water, telecommunications, interest rates and capital have been issued by competent authorities to support businesses to overcome the pandemic. SMEs have been maximally supported to recover and develop with the introduction of Decree No. 80/2021/ND-CP which focuses on supporting contents for innovative SMEs; SMEs participate in industry clusters, production and processing value chains; and support digital transformation in enterprises. It can be seen that the policies and solutions have been very proactive, flexible and timely, helping the trend of recovering production and business activities of enterprises to be increasingly consolidated and actively developed. From previous studies and reality in Vietnam in the context of the Covid-19 epidemic, the authors believe that government support has an impact on the development of SMEs.

Managerial skills

Managerial skills are understood as the knowledge and ability of each manager in performing specific jobs of the company. It can be managerial activities of work or people. Muhammad Abrar-ul-haq et al (2015) indicated that managerial skills are one of the important factors contributing to the development of SMEs in Pakistan. In Vietnam, the research results of Nguyen Hong Ha and Tran Thi Thanh Liem (2018) showed that education level of business owners has the strongest impact on the development of SMEs in Soc Trang province. Thanh Kim Hue et al (2019) concluded that managerial capacity is a factor that directly affects the development of SMEs. Tran Thu Ha (2021) believed that the production and business performance of SMEs is due to the continuous improvement of management and administration capacity of business managers.

Based on the results of previous studies, it can be seen that the managerial skills of enterprises affect their development. Enterprises with good managerial knowledge and skills will create opportunities and favorable conditions to constantly develop and expand the scope of production and business.

Science and Technology level

The level of science and technology of SMEs greatly affects productivity, product quality, and the level of material savings; thus, affecting the production and business efficiency and the development of enterprises. Moreover, today technology changes rapidly, so businesses also need to approach, research and apply it to their business fields to improve business efficiency and develop themselves. Jamali et al (2010) argued that proper technology transfer and use in SMEs will contribute to business development in Pakistan. The research by Siriram (2022) also emphasized the role of technology in businesses, especially its ability to create new technology products and platforms that can help businesses grow and develop. In Vietnam, the results of Thanh Kim Hue et al (2019) showed that the development of science and technology level is a factor that indirectly affects the development of SMEs.

Currently, in the context of safe, flexible adaptation and effective control of the Covid-19 epidemic, scientific, technological development and innovation are urgent requirements in order to recover and develop the economy. Science and technology level at each enterprise will have a great impact on the business strategy and operation form of the enterprise, therefore, the authors believe that science and technology level has an impact on the development of SMEs.

Marketing Strategy

A marketing strategy is the overall plan a business uses to reach potential consumers and turn them into customers of a product or service. Marketing strategy promotes the combination of resources and capabilities within an organization to gain competitive advantage and thus improve the performance of the business (Cacciolatti and Lee, 2016). Therefore, marketing strategies have also been considered by scholars as a key factor for businesses to develop. Lussier and Halabi (2010) argued that businesses with good marketing activities are more likely to succeed and develop. Research by Shah et al (2011) showed that marketing challenges are one of the main issues affecting the development of SMEs in Pakistan.

Marketing strategy is increasingly occupying an important position for the development of every business. Enterprises not only create value for customers but also communicate clearly, accurately and convincingly the value to customers. Therefore, almost all businesses use a marketing strategy to influence the market to achieve their marketing goals. In the post-Covid-19 period, capturing consumer behavior is considered the most unpredictable challenge, forcing businesses to take action to adapt, survive and grow. From previous studies and reality in Vietnam in the post-Covid-19 context, the authors believe that marketing strategies have an impact on the development of SMEs.

Access to finance

Access to finance is a factor that reflects the total synergy of enterprises through the volume of capital that enterprises mobilize into business activities as well as the ability to effectively distribute investment capital sources. The ability of the business to raise capital makes it easier to carry out business activities. When assessing the ability of enterprises to raise capital, it is necessary to take into account capital mobilization from different sources such as credit loans, mortgages, and unsecured loans. In addition, the difficulty in accessing external capital is the main obstacle to the development of SMEs. Research by Arbiana Govori (2013) focuses mainly on external factors such as access to finance affecting the development of SMEs in Kosovo. Muhammad Abrar-ul-haq et al (2015) point out that access to finance is also one of the important factors contributing to the development of SMEs in Pakistan.

SMEs in developing countries face difficulties in accessing bank loans due to the high risk of failed loans, low profitability and lack of collateral required by banks (Harvie and Lee, 2005). In the context of the Covid-19 pandemic, SMEs have difficulty accessing financial resources to restore production, so the bank's policy incentives on interest rates have a positive impact on survival and development of SMEs. Financing for SMEs and access to finance play an important role in growth and development of businesses (World Bank, 2012).

Vietnamese businesses, especially SMEs, are facing great difficulties in the recovery process after the Covid-19 pandemic. In that context, access to capital is the prerequisite for businesses to cope with new challenges, recover, expand production and business and enhance competitive advantages. Among the support policies, SMEs highly appreciate credit policies such as debt extension, interest rate reduction, etc. From the above fact, it shows that financial access has an impact on the development of SMEs in new normal era.

Human resource Training

Chowdhury, M.S. (2007) studied the factors affecting SMEs in Bangladesh, showing that education and training is one of the factors affecting the development of SMEs. Lee (2012) emphasized that human resource is one of the important factors for the success of SMEs. Robert Galan Mashenece et al (2014) assess the factors hindering the growth potential of SMEs in Tanzania. The authors show that variables affecting the development potential of SMEs include knowledge training for employees. In Vietnam, the results of Vo Thanh Danh et al (2013) found that labor skill was the main factor that influence the revenue and profit growth of the SMEs. Thanh Kim Hue et al (2019) believe that the quality of human resources is a factor that directly affects the development of SMEs.

It is very necessary to train human resources, ensure the quality of labor in enterprises in order to restore production and business, and minimize damage caused by the Covid-19 epidemic. Based on the results of previous studies, it can be seen that human resource training affects the development of enterprises. Businesses with high quality human resources are better able to adapt to new normal era.

3. METHODOLOGY

This research method is mainly based on quantitative research method. To measure the impact of different factors on the development of SMEs in Vietnam, this study uses the exploratory factor method combined with multivariable linear regression. The proposed research model has the following form:

$$\mathbf{SMED = \beta_0 + \beta_1 GOVS + \beta_2 MANS + \beta_3 SCTE + \beta_4 MAKT + \beta_5 FIAC + \beta_6 TRAI + \mu i} \quad (1)$$

In there,

GOVS = Government Support, MANS = Managerial Skills, SCTE = Science and Technology level, MAKT = Marketing Strategy, FIAC = Access to finance, TRAI = Human resource Training

β_0: Intercept coefficient; $\beta_{1,}$ $\beta_{2,}$ $\beta_{3,}$ $\beta_{4,}$ β_5: Coefficients of variables.

According to Hair et al (1998), for exploratory factor analysis (EFA), the minimum sample size is $N \geq 5 \times x$ (x: total number of observed variables). The study includes 30 observed variables; therefore, the minimum sample size needed is $30 \times 5 = 150$ observations. For multiple regressions, according to Tabachnick and Fidell, the minimum sample size is given by the formula: $50 + m \times 3 = 50 + 6 \times 3 = 68$ (m is the independent variable). Therefore, to satisfy these two requirements, the minimum sample size for this study is 150 observations.

First, the authors built a questionnaire to collect data. The questionnaire consists of two parts. The first section covers the demographics, characteristics, and profile information of the respondents. Part 2 includes 30 questions to measure factors affecting the development of SMEs, using a 5-level Likert scale: (1) Strongly disagree; (2) Disagree; (3) Confused/Neutral; (4) Agree; (5) Strongly agree. This survey was conducted from August 6 to August 20, 2022. Using random sampling technique, we used a rapid survey of 630 SMEs in 25/63 provinces/cities, where have had the highest total number of Covid-19 infections in Vietnam since the first outbreak. On average, each province we surveyed 25 businesses. These SMEs were questioned about the factors affecting the development of their companies. With this choice, the authors expect to accurately assess the impact of factors on the development of these enterprises.

Before conducting a broad survey, the authors sent preliminary questionnaires to 20 experts, including experts and managers in business, to assess the reliability of the scales. From the list of SMEs in Vietnam, we verified their phone numbers and email addresses (we make a list of SMEs from National Business Registration Portal, available at: dangkydoanhnghiep.gov.vn). To improve the response rate, we both sent questionnaires via email and made contact by phone. As a result, out of 1,025 questionnaires sent out, the research team received 630 valid responses. By using SPSS 22.0, these questionnaires are processed by filtering, encoding the necessary information and then analyzing. Those 30 questions are adapted from previous research and phone interview shown in table 2.

Table 2. Construct and items included in the questionnaire

Constructs	Item Code	Items	References
Government Support	GOVS1	Tax supporting policy	Le Hoang Ba Huyen (2020)
	GOVS2	Capital support packages of the Government for SMEs	
	GOVS3	Government policies affect businesses positively	Muhammad Abrar-ul-haq et al (2015)
	GOVS4	Government policy changes flexibly to adapt to the pandemic situation	Interview
Managerial Skills	MANS1	Managerial skills are important for running a successful business	Muhammad Abrar-ul-haq et al (2015)
	MANS2	Businesses have good leadership skills	
	MANS3	Businesses have good communication skills	
	MANS4	Decision making skills are very important for the success of business.	
Science and Technology level	SCTE1	Existing technology suffices to support all production processes	Muhammad Abrar-ul-haq et al (2015)
	SCTE2	Existing technology supports innovation in the business	
	SCTE3	Existing technologies easily maintainable	
	SCTE4	Adoption of new technology increases output	
Marketing Strategy	MAKT1	Businesses have well-planned marketing	Muhammad Abrar-ul-haq et al (2015)
	MAKT2	Businesses have good distribution channel	
	MAKT3	Businesses have good market potential	
	MAKT4	Businesses have the ability to search new market	
	MAKT5	Businesses have good differentiation strategy against competitors	Interview
Access to finance	FIAC1	Existing capital is sufficient to maintain and expand the business	Muhammad Abrar-ul-haq et al (2015)
	FIAC2	Businesses can additional capital easy to get	
	FIAC3	Businesses have accessible alternatives of capital sources	
	FIAC4	Accessing external finance is the optimal solution for business activities of enterprises	Interview
Human resource Training	TRAI1	Human resource training is essential for development of business	Muhammad Abrar-ul-haq et al (2015)
	TRAI2	Human resource training helps in taking good decisions	
	TRAI3	Human resource training improves understanding of business	

Constructs	Item Code	Items	References
Human resource Training	TRAI4	Employees in the enterprise have the opportunity to be sent for annual training to improve their qualifications	Interview
	TRAI5	Employees are more productive after being trained	
Small and medium business development	SMED1	The income of employees has been gradually improved over the years	Muhammad Abrar-ul-haq và cộng sự (2015)
	SMED2	The business of the enterprise is growing	
	SMED3	Business revenue is increasing	Interview
	SMED4	The profit margin of the business is increasing	

The study aims to examine the relationship between Government support, managerial skills, science and technology level, marketing strategy, access to finance, and human resource training with the development of SMEs. From the theoretical framework on the hypothesis is given as follows:

H1: Government support positively affects the development of SMEs.

H2: Managerial skills positively affect the development of SMEs.

H3: Science and technology level positively affects the development of SMEs.

H4: Marketing strategy positively affects the development of SMEs.

H5: Access to finance positively affects the development of SMEs.

H6: Human resource training positively affects the development of SMEs.

4. RESULTS AND DISCUSSIONS

Research results are summarized in tables 3, 4, 5, 6 and 7. Descriptive analysis in Table 3 shows that among 630 respondents, there are more men than women, specifically 74.3% of respondents were male and 25.7% were female. On the other hand, 39.4% of enterprises surveyed operate in the field of Trade and Services; 27.3% of enterprises operate in the field Industry and construction; 33.3% of enterprises operate in the fields of Agriculture, Forestry and Fisheries.

Table 3. Descriptive statistics

Variable Name	Variables	Mean	Standard Deviation
Government Support	GOVS	3.1302	0.9023
Managerial Skills	MANS	4.0481	0.7083
Science and Technology level	SCTE	3.2972	0.8294
Marketing Strategy	MAKT	3.8753	0.7306
Access to finance	FIAC	3.0398	0.8602
Human resource Training	MALE	3.4953	0.8185
Small and medium business development	SMED	3.5408	0.5380

Source: Results after data processing via SPSS software

The correlations between the variables are presented in Table 4 and the results show no multicollinearity because the correlations between the independent variables are relatively low. The correlation results for the dependent variable SMED showed a significant positive coefficient with the independent variable GOVS ($r = 0.689$, $p < 0.01$), MANS ($r = 0.727$, $p < 0.01$), SCTE ($r = 0.530$, $p < 0.01$), MAKT ($r = 0.576$, $p < 0.01$), FIAC ($r = 0.878$, $p < 0.01$), TRAI ($r = 0.662$, $p < 0.01$). Although the results of the estimated correlation coefficient show a positive correlation, some factors are still considered low, so it is not large enough to warrant any effect in the regression model.

Table 4. Correlation of variables

	GOVS	MANS	SCTE	MAKT	FIAC	TRAI	SMED
GOVS	1	-	-	-	-	-	-
MANS	0.011	1	-	-	-	-	-
SCTE	0.173	0.236**	1	-	-	-	-
MAKT	0.074	0.187*	0.137	1	-	-	-
FIAC	0.439**	0.108	0.238**	0.184*	1	-	-
TRAI	0.201*	0.174	0.271**	0.113	0.236**	1	-
SMED	0.689**	0.727**	0.530**	0.576**	0.878**	0.662**	1

** correlation is significant at the 0.05 level (2-tailed); ** Correlation is significant at the 0.01 level (2-tailed).*

Source: Results after data processing via SPSS software

Before proceeding to further statistical analysis of the research data, Cronbach's Alpha values were used to determine the consistency of the variables. Table 5 shows that all coefficients are above 0.7 and the total correlation coefficient is greater than 0.3; therefore, the variables are reasonable and reliable to perform the subsequent analysis (Tabachnick & Fidell, 2013).

Table 5. Results of Reliability Analysis

No.	Variables	Number of Items	Cronbach's Alpha	The lowest Corrected Item-Total Correlation
1	Government Support (GOVS)	4	0.879	0.635
2	Managerial Skills (MANS)	4	0.813	0.575
3	Science and Technology level (SCTE)	4	0.881	0.608
4	Marketing Strategy (MAKT)	5	0.915	0.694
5	Financial Access (FIAC)	4	0.817	0.662
6	Human resource Training (TRAI)	5	0.765	0.631
7	Small and medium enterprise development (SMED)	4	0.703	0.512

Source: Results after data processing via SPSS software

The authors performed exploratory factor analysis (EFA) for 30 measured variables after analyzing Cronbach's Alpha. With Principal components extraction method and varimax rotation, Table 6 shows the results of the KMO coefficient > 0.5 and the significance level sig. = 0.000 < 0.05, so factor analysis is appropriate (Hair et al, 2006). From 26 measured variables belonging to 6 factors in the research model, 6 factors have been extracted at eigen-value > 1 and extracted variance > 50%. All measurement variables have factor load coefficients greater than 0.5, so they meet the requirements of EFA analysis (Gerbing & Anderson, 1988). Therefore, the measured variables are further included in the multiple regression analysis.

Table 6. Results of Exploratory Factor Analysis

Variables	**KMO**	**Eigenvalue**	**Cumulative (%)**	**Decision**
GOVS	0.641	2.643	65.980	Accept
MANS	0.765	3.014	76.564	Accept
SCTE	0.713	2.376	78.906	Accept
MAKT	0.856	2.856	72.234	Accept
FIAC	0.765	2.478	60.567	Accept
MALE	0.773	3.045	75.450	Accept
SMED	0.743	2.618	64.703	Accept

Source: Results after data processing via SPSS software

Table 7 presents the level of impact of factors on the development of SMEs. Regression results by Stepwise method show that adjusted R^2 = 87.3% which means the model explains 87.3% of the variation of SME development variables and the remaining percentage is explained by other factors that have not been studied in the model. The significance level in the F-test is 0.000 < 0.05, so the newly built regression model is suitable. The Durbin-Watson coefficient of the model is 1.978 (nearly equal to 2), showing that the model does not have autocorrelation (Hoang Trong & Chu Nguyen Mong Ngoc, 2008). Besides, the magnification of variance (VIF) of the variables in the model is much smaller than 10, so we conclude that the variables included in the model do not have multicollinearity (Mai Van Nam, 2008). Thus, the regression model does not violate the multiple regression assumptions.

Table 7. Impact of factors on the development of small and medium enterprises

Constructs	**Standardized Coefficients (β)**	**T-value**	**Sig.**	**VIF**
Constant		1.173	0.175	
GOVS	0.215*	9.197	0.003	1.533
MANS	0.326*	13.868	0.001	1.514
SCTE	0.105**	10.995	0.034	1.556
MAKT	0.208**	2.082	0.021	1.049
FIAC	0.456*	11.302	0.002	1.742
MALE	0.211**	1.965	0.038	1.348
Adjusted R Square = 0.873			Sig. = 0.000	D-W = 1.978

** significant at the 0.01 level; ** significant at the 0.05 level*

Source: Results after data processing via SPSS software

Besides, by observing the dispersion of the observed points around the expected line, we find that the residual distribution perfectly coincides with a normal distribution. Therefore, it can be concluded that the residual distribution is approximately normal, assuming the normal distribution of the residuals is not violated (Figure 1).

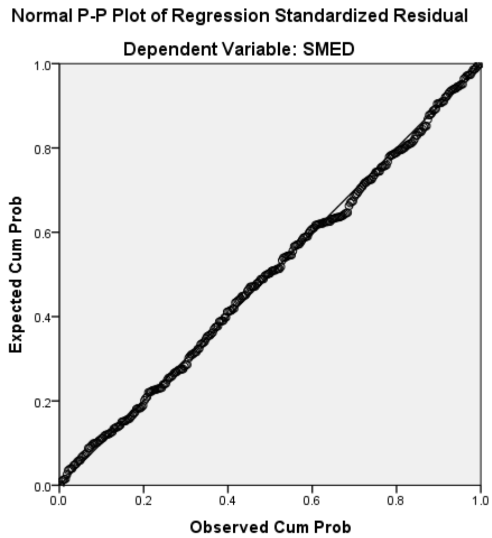

Figure 1. Histogram of Standardized residual

Source: Results after data processing via SPSS software

From the above results, it shows that the model that the authors are studying meets the requirements. Thus, the linear regression equation showing the relationship between the development of SMEs and the influencing factors is written as follow:

SMED = 0.215 GOVS + 0.326 MANS + 0.105 SCTE + 0.208 MAKT + 0.456 FIAC + 0.211 TRAI (2)

The linear regression equation (2) shows that factors affecting the development of SMEs (from strong to weak effects) include: access to finance, managerial skills, Government support, human resource training, marketing strategy, science and technology level. These factors all have significant positive impacts on the development of SMEs in Vietnam.

Access to finance Factor: This study shows that access to finance is the most important factor affecting the development of SMEs and has a positive effect. This means that the greater the access to finance of SMEs is, the stronger businesses grow and develop. This result is consistent with the study of Arbiana Govori, 2013; Muhammad Abrar-ul-haq et al, 2015. Financing is the key factor on which the whole business depends. However, SMEs often face difficulties in obtaining loans due to lack of collateral, high transaction costs and inability to deal with financial institutions with complicated procedures. Therefore, it is more difficult for SMEs to access finance in comparison with large enterprises (Nichter and Goldmark, 2009). When surveying over the phone, the authors also received feedback from businesses about the difficulty in accessing credit capital at banks today.

Managerial skills Factor: Research results show that managerial skills are the second most important factor affecting the development of SMEs and have a positive effect. This is consistent with reality because a manager is someone who plans, organizes, leads, and controls people, finance, material, and information to help a business achieve its goals. Therefore, SMEs need to improve their competitiveness based on their capacity and management level. This research result is also consistent with the study of Muhammad Abrar-ul-haq et al (2015), Nguyen Hong Ha and Tran Thi Thanh Liem (2018), Thanh Kim Hue et al (2019), Tran Thu Ha (2021).

Government support Factor: According to the statistical results, the Government support measures have a positive impact on the development of SMEs, especially in new normal era. Determining the importance of SMEs for the development of the country, the Government of Vietnam has issued many policies to support the development of SMEs such as tax exemption, tax deferral, loans with preferential interest rates, salary subsidies, etc. We have found that SMEs with timely access to support packages from Government will be more favorable in the process of production and business. However, when conducting phone interviews, 21% of surveyed SMEs said that they do not know about support policies. In addition, in Vietnam, although the Government has taken initiatives to promote and support SMEs to develop, there is still a lack of laws and administrative procedures that make it difficult for SMEs to access support from the Government. 24% of surveyed SMEs said that they do not access the support due to difficult procedures. This result is similar to the study of Shah et al (2011), Muhammad Abrar-ul-haq et al (2015), Le Hoàng Ba Huyen (2020).

Human resource training Factor: The survey results show that human resource training factor has a positive influence on the development of SMEs. This means that trained workers with high professional qualifications often create higher value for the business and vice versa. Obviously, the professional expertise of employees plays a very important role in the working process to create products and services for businesses. The factor of human resource training, especially high quality human resources is getting more and more attention in SMEs. They have realized that high quality human resources are the core factor to help their business grow. This result is consistent with the study of Bullock et al (2004), Vo Thanh Danh et al (2013), Thanh Kim Hue et al (2019).

Marketing strategy Factor: According to the results from the model, the development of SMEs is positively influenced by marketing strategies. Specifically, businesses with good marketing strategies will have an advantage in growth and development. Marketing strategy includes implementation of market research, marketing planning, identification of the target market, selection of its sales strategy and positioning in that market, knowledge on competitors, analysis and development strategies to outpace the competition. This result is consistent with research by Morgan (2009) which suggests that marketing strategy contributes to business performance.

Scientific and technological level Factor: Research results show that the level of science and technology has a positive impact on the development of SMEs. According to the International Labor Organization (ILO), science and technology is changing rapidly day by day, Vietnam is one of the countries which are mostly affected by the Technological Revolution. Accordingly, industries that use a lot of unskilled workers will be greatly affected, the risk of unemployment is high due to the development of automatic technology and artificial intelligence. The ongoing technological revolution has created great challenges for Vietnamese SMEs. To cope with the Covid-19 pandemic, many businesses in Vietnam have turned to apply digital platforms. However, when surveying by phone, the number of businesses applying digital platforms is still low. 47% of surveyed SMEs said that they have increased their use of digital platforms. 7% of surveyed SMEs said that they have invested in digital solutions. 5% of surveyed SMEs said that they have upgraded their product portfolio. This result is consistent with the study of Jamali et al (2010), Thanh Kim Hue et al (2019).

5. CONCLUSION AND RECOMMENDATIONS

The aim of this study is to identify and measure the impact of Government support, managerial skills, science and technology level, marketing strategy, access to finance and human resource train on the development of SMEs in Vietnam. A survey was conducted with 630 valid questionnaires collected from 25/63 provinces/cities. The results show that all factors have a significant impact on the development of SMEs. Based on the research results, the authors make some recommendations to help SMEs in Vietnam grow stronger especially in new normal era.

5.1. For Small and Medium Enterprises

5.1.1. Improve management capacity and qualifications of employees

Capturing the needs and psychology of customers or customer groups in accordance with the type and business lines of each enterprise is also a possible solution to help SMEs develop. To do so, SMEs need to have a strategy and build a vision, future orientation, prospects of the business, etc. The above problems will be effectively solved when SMEs have a team of qualified managers and employees to have full knowledge to participate in regulating the activities of enterprises. Therefore, SMEs must strengthen training and fostering to promote existing human resources, while creating a favorable environment to attract high-quality human resources from the outside.

5.1.2. Strengthen enterprises' marketing strategy

To be able to compete in the market, SMEs need to equip themselves with a reasonable marketing strategy. The enterprises combine multiple tool instead of relying on a single tool. Multiple channels to market products/brands have a synergistic effect that increases both conversion efficiency and accessibility to target customers… However, SMEs are limited in budget and implementation resources, so it is necessary to choose appropriate channels.

5.2. For relevant parties

5.2.1. Increasing access to finance

It is necessary to diversify capital access channels for SMEs. In fact, SMEs access capital from many different sources, but accessing capital from credit institutions is still the main and important channel for this business sector. Therefore, in order to remove difficulties, the Government needs to strengthen support for the provision of information, operation status and ability of enterprises to pay. At the same time, there is an incentive mechanism for credit institutions to effectively implement credit support for SMEs.

5.2.2. Strengthening government support policies

It is essential to continue implementing economic stimulus measures such as: tax exemption, reduction and extension; increase disbursement of public investment capital; increase investment promotion... The State needs to strengthen the reform of business registration procedures to establish enterprises and well implementation of the "one-stop shop" mechanism in business registration. Besides, the State also needs to continue to expand business registration forms such as online business registration to facilitate early entry into the market and reduce unnecessary costs for businesses. Other methods such as administrative reform in tax payment procedures, processes and operations of credit institutions, etc. also need attention.

5.2.3. Completing policies on science and technology

In new normal era, Government should continue to play a leading role, create a mechanism and environment to promote digital transformation activities of the whole society in general and SMEs in particular. The Government needs to issue policies to encourage SMEs to organize their development to invest in science and technology in production and business activities. Reviewing and amending regulations on approving science and technology tasks in the direction of simplifying administrative procedures, creating favorable conditions for enterprises to participate in research and application of science and technology in production and business are required to execute as soon as possible.

In summary, the research results recommend that leaders and managers should pay more attention to Government support policies, managerial skills, science and technology level, marketing strategy, access to finance and human resource train to maximize the development of SMEs. However, other above examined factors need to be considered since the model's explanation level is only 87.3%. Therefore, it is also the next generation of this study.

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HUMAN CAPITAL, LIQUIDITY AND BUSINESS PERFORMANCE – A CASE STUDY IN THE STOCK EXCHANGE

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Abstract: *The quality of human resources is a factor that can affect the efficiency of the enterprise. An enterprise with high quality human resources often has the ability to choose an effective board of directors, liquidity, and development ability. The objective of this study is to evaluate the impact of human resource quality and liquidity on business performance. Researching at 100 companies listed on HOSE in the period from 2014 to 2021, the research results confirm that liquidity has a negative impact on ROA, and has no impact on ROE or ROS. Firm size has a positive effect on ROA and ROS, but no effect on ROE. Furthermore, firm growth has a positive effect on ROA, but no effect on ROE and ROS. Finally, leverage has a negative effect on ROA, but no effect on ROE and ROS.*

Keywords: *Human resources, liquidity, HOSE, efficiency, board of directors.*

1. INTRODUCTION

A financially efficient business contributes to socio-economic development. The effectiveness of an enterprise can be considered from many angles: From the perspective of business operations such as revenue, cost, human resource quality, marketing or business management. Or from the perspective of strategic management such as future development judgments, investment decisions, sponsorship. In which, the quality of human resources is an important factor in the implementation of business development strategies, an enterprise with high quality of human resources means the ability to be run by a Board of Directors' abilities. In fact, all activities of enterprises are influenced by factors such as personality, age, education level, work experience, and gender of the Board of Directors (BODs). In terms of gender, specifically, a male manager and a female manager, if they have the same education level, the same number of years of work experience, the same age, but in front of a problem, they will be able to give completely different views and solutions, which can affect the ability to manage liquidity, choose a capital structure or maintain growth in the business.

Empirical studies in the world and in Vietnam mainly support the active role of women in corporate governance, typically the study of Carter et al (2010), Mínguez-Vera and Martin (2011), Liu et al (2014), or domestic studies such as Anh and Trang (2019), Le Thi Phuong Vy (2020). Most studies suggested that high human resource quality is likely to be associated with high board capacity, and then is likely to have a positive impact on financial performance in enterprises.

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To re-test this relationship, the authors evaluate the impact of human resource quality and management ability of BODs on on corporate performance. Through the study, the authors will analyze empirically at enterprises on the Vietnamese stock exchange, the research results are a re-examination of previous studies.

2. LITERATURE REVIEW

Research on the influence of human resource quality and liquidity on business performance has been carried out through a number of studies. Previous studies have all suggested that an enterprise with high quality human resources means that an enterprise has high governance ability, which is associated with the capacity of the board of directors and the professional qualifications of leaders and officers, staffs. Research by Carter et al (2010) using 3-stage least squares regression (3SLS) based on S&P 500 enterprises in the period 1998-2002 suggests that human resource quality has no correlation with business performance. business. While Mínguez-Vera and Martin (2011) analyzed the gender diversity of a sample of Spanish SMEs and found that the presence of women on the board of directors is negatively related to firm performance, and this result can be attributed to the less risky strategies employed by female directors. This finding sheds light on how women can influence board performance. It implies that women tend to be cautious and risk averse and suggests that family firms and companies with financial institutions as the main shareholders tend to have more women on the board. However, Liu et al (2014) looked at 2,000 listed companies in China in the period 1999-2011 and explained that gender diversity in the board is likely to improve the quality of the board. thereby helping to improve the performance of Chinese enterprises.

Domestic research also gave similar results, as Hoang Cam Trang & Vo Van Nhi (2015) investigated the relationship between human resource quality, reflected in the ability to diversify gender in corporate governance and company performance. The authors use panel data collected from audited financial statements of 699 non-financial companies listed on Ho Chi Minh City Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX) in the period 2007-2013. Research results show that: (1) female CEOs tend to accept lower risks than male CEOs, but produce higher profitability; (2) The proportion of women on the board of directors has no effect on improving corporate performance; and (3) State ownership plays an important role in the relationship between gender diversification and firm performance. Similarly, the positive impact on human resource quality and corporate efficiency is confirmed by Anh and Trang (2019) through a study of 170 non-financial enterprises listed on the Vietnam Stock Exchange in the period from 2010-2015; or through research by Le Thi Phuong Vy (2020) in 175 non-financial companies, collected in the period from 2008 to 2016.

When the quality of human resources is improved, meaning that the company is likely to improve the quality of its operations, including its liquidity. According to Li et al (2020) indicate that net working capital to total assets is the best indicator to simulate liquidity in a business. Previous studies have shown a significant positive relationship between liquidity and performance (Li et al, 2020). That is, businesses with high liquidity ratios are more likely to pay their financial obligations and can send positive signals to the outside that their businesses are performing well.

3. DATA AND METHODOLOGY

3.1. Data collection

In this study, secondary data is obtained from financial information provided on the stock market through financial statements. The companies selected in the research sample are those listed on HOSE before 2014 and are still active in stock trading at the present time.

3.2. Methodology

Through a review of related studies, the regression model is inherited with adjustments from Liu et al (2014), Li et al (2020), Le Thi Phuong Vy (2020). In this study, the authors use ROA, ROE, or ROS indicators to measure the performance of enterprises. The model used is:

ROAit = β0 + β1 BoardSize Tit + β2 BoardChar it + β3 Women it + β4 Sizeit + β5 Lev + β6 Liq + β7 Growth + *εit*

ROE it = β0 + β1 BoardSize Tit + β2 BoardChar it + β3 Women it + β4 Sizeit + β5 Lev + β6 Liq + β7 Growth + *εit*

ROS it = β0 + β1 BoardSize Tit + β2 BoardChar it + β3 Women it + β4 Sizeit + β5 Lev + β6 Liq + β7 Growth + *εit*

In which:

Firm performance, in this study is taken by one of three proxies, such as: ROA, ROE, ROS.

BoardSize: Board size is measured by the total number of members on the Board

BoardChar: Proportion of independent BOD members

Women: Percentage of female members in the Board of Directors

Size: Company size

Lev: Leverage, is measured by the quotient of total debts to total assets.

Liq: Liquidity, is measured by the quotient of short-term assets to short-term debts.

Growth: The growth of total assets

β: estimation coefficient

ε: error term

The panel data estimation method is done through Pool regression (OLS), Fixed Effects Model (FEM) and Random Effects Model (REM). The study conducts tests to select the most appropriate model. In addition, the FGLS Method used to overcome the phenomenon of variable variance and autocorrelation in the research model.

4. RESULTS

4.1. Characteristics of businesses

The final sample includes 100 companies listed on HOSE. Companies that are not in the financial, banking, insurance and investment sectors, from 2014 to 2021. This sample is presented as follows:

Table 1. Descriptive statistics of the variables

Variable	Obs	Mean	Std.Dev	Max	Min
ROA	800	.0626262	.1076566	-.9936	.8983
ROE	800	.1273851	.1394396	-.5844	.9032
ROS	800	.0851768	.1518504	-.8819	.8056
BoardSize	800	6.12	1.56482	3	11
BoardChar	800	.7134443	.172434	0	1
Women	800	.0238088	.0601398	0	.25
Size	800	11.83072	.6258833	9.848	13.4705
Lev	800	.4638485	.226736	.0006	.9669
Liq	800	.5589229	.2828367	.027	3.3095
Growth	800	.0392156	.7934051	-6.7865	6.8861

Source: Authors' analysis

Descriptive statistics for the dependent variable ROA, indicating that ROA has a mean of 6.26% and a standard deviation of 10.76%. In which the smallest value is -99.36% and the largest is 89.83%. ROE has a mean of 12.73% and a standard deviation of 13.94%. In which the smallest value is -58.44% and the maximum value is 90.32 %. ROS for the overall study, the average of ROS was 8.51%. In which the smallest value is -88.19% and the maximum is 80.56%. Accordingly, the sample includes high-margin companies and low-margin firms.

Regarding the quality of human resources, shown through the parameters of the Board of Directors. Firstly, the size of the Board of Directors, the average number of members of the Board of Directors is 6.12 members, the highest is 11 members and the lowest is 3 members. In the structure of the Board of Directors, the proportion of independent non-executive members of the Board of Directors is 71.36%, the lowest is 0% and the highest is 100%. Second, the average percentage of female members on the Board of Directors is 2.38% with the maximum value being 25%. It shows that women are playing a significant role in corporate governance.

Liquidity (Liq) has an average value of 0.5589229, with a minimum value of 0.027 and a maximum value of 3.3095. This shows that the sample includes the majority of firms with low liquidity.

Finally, the firm size (Size) has a mean value of 11,83072 and a standard deviation of 0.6258833 which is quite small, showing that the surveyed enterprises are relatively uniform in size. Leverage (Lev) has a value from 0.0006 to 0.9669 with an average value of 0.4638485. This shows that besides companies with low debt-financed assets, there are also companies with relatively high debt-financed assets. Although there is a big difference, in general, the average debt ratio of companies is still at an acceptable level. Growth in total assets (Growth) has an average value of 3.92%, the lowest value is -678.65% and the highest value is 688.61%. This shows that enterprises in this period are quite different in terms of total asset growth.

4.2. Correlation coefficient matrix and VIF coefficient

The correlation coefficient statistically measures the strength of the linear relationship between pairs of data:

Table 2. Matrix of correlation coefficients

	BoardSize	BoardChar	Women	Size	Lev	Liq	Growth
BoardSize	1.0000						
BoardChar	0.1483	1.0000					
Women	0.1283	-0.0524	1.0000				
Size	0.5164	0.0396	0.0883	1.0000			
Lev	0.1218	-0.1557	0.0888	0.2052	1.0000		
Liq	-0.1281	0.0828	-0.0596	-0.3172	-0.7257	1.0000	
Growth	0.1304	-0.0097	0.0099	0.1430	-0.0256	-0.0228	1.0000

Source: Authors' analysis

The results of the correlation analysis show that most of the correlation coefficients between the variables in the research model are less than 0.8, less likely to have multicollinearity or there may be multicollinearity, but the impact trivial.

Multicollinearity test results for the model through the VIF criterion. When the coefficient of variance exaggerates the dependent variable (VIF) < 10, the model is less likely to have multicollinearity. The multicollinearity test results show that the variance exaggeration factor (VIF) of the dependent variables (VIF) ranging from 1.04 to 1.78 are all less than 10, so there is little possibility of multicollinearity.

Table 3. VIF analysis

Variable	ROA		ROE		ROS	
	VIF	1/VIF	VIF	1/VIF	VIF	1/VIF
Liq	2.27	0.439652	2.27	0.439652	2.27	0.439652
Lev	2.19	0.456477	2.19	0.456477	2.19	0.456477
Size	1.51	0.660504	1.51	0.660504	1.51	0.660504
BoardSize	1.43	0.698627	1.43	0.698627	1.43	0.698627
BoardChar	1.06	0.940868	1.06	0.940868	1.06	0.940868
Growth	1.03	0.969654	1.03	0.969654	1.03	0.969654
Women	1.03	0.974032	1.03	0.974032	1.03	0.974032
Mean VIF	1.50		1.50		1.50	

Source: Authors' analysis

4.3. Regression results

Carrying out the regression by least squares method (OLS), random effects model (REM) and fixed effects model (FEM), we get the following regression results:

Table 4. Regression results – dependent variable ROA

Variable	**Pooled OLS**	**REM**	**FEM**
Constant	-0.2102	-0.2102	-0.198
BoardSize	0.086*	0.086*	0.088**
BoardChar	0.075**	0.075**	0.074**
Women	0.155**	0.155**	0.156**
Size	0.0286**	0.0286**	0.027**
Lev	-0.033***	-0.033***	-0.032***
Liq	-0.057**	-0.057**	-0.053**
Growth	0.031***	0.031***	0.033***
Adj R^2	0.2868	0.2930	0.2031
F/Wald test	F = 11.85	Wald =82.98	F = 21.51

(***), (**), (*) statistically significant at the level α = 1%, 5% and 10%.

Source: Authors' analysis

Table 5. Regression results – dependent variable ROE

Variable	**Pooled OLS**	**REM**	**FEM**
Constant	0.969	0.969	0.706
BoardSize	0.022*	0.022*	0.016*
BoardChar	0.226**	0.226**	0.230**
Women	0.475*	0.475*	0.484**
Size	-0.074	-0.074	-0.046
Lev	0.006	0.006	-0.002
Liq	0.192	0.192	0.159
Growth	0.021	0.021	0.018
Adj R^2	0.2010	0.2073	0.2075
F/Wald test	F = 31.11	Wald =47.76	F = 80.85

(***), (**), (*) statistically significant at the level α = 1%, 5% and 10%.

Source: Authors' analysis

Table 6. Regression results – dependent variable ROS

Variable	**Pooled OLS**	**REM**	**FEM**
Constant	-3.453**	-3.453**	-3.376**
BoardSize	0.033*	0.033*	0.035*
BoardChar	0.344**	0.344**	0.340**
Women	1.727**	1.727**	1.728**
Size	0.313**	0.313**	0.303**
Lev	-0.071	-0.071	-0.063
Liq	-0.013	-0.013	0.013
Growth	-0.015	-0.015	-0.016
Adj R^2	0.2090	0.2167	0.2167
F/Wald test	F =22.03	Wald =64.22	F =111.90

(***), (**), (*) statistically significant at the level α = 1%, 5% and 10%

Source: Authors' analysis

Table 7. Summaries of model selection tests

Test	Pooled OLS và FEM	Pooled OLS và REM
Dependent variable ROA		
F - test	F(7, 785) = 0.71 và Prob > F = 0.6676	
Breusch – Pagan test		chibar2(01) = 0.00 và Prob > chibar2 = 1.0000
Dependent variable ROE		
F - test	F(7, 785) = 1.05 và Prob > F = 0.3938	
Breusch – Pagan test		chibar2(01) = 0.00 và Prob > chibar2 = 1.0000
Dependent variable ROS		
F - test	F(7, 785) = 0.75 và Prob > F = 0.6316	
Breusch – Pagan test		chibar2(01) = 0.00 và Prob > chibar2 = 1.0000

Source: Authors' analysis

Dependent variable ROA

Comparing Pooled OLS with REM, according to the results of Breusch and Pagan's test, the Chibar2 and Prob > chibar2 values of both models are not statistically significant at 10%, showing that we can accept the hypothesis H0. Assuming that all coefficients ui = 0. In this case, the Pooled OLS estimator is more suitable than the REM.

Comparing Pooled OLS with FEM, according to the analysis results, the F test - the result test with F statistic and Prob > F of the model with the dependent variable ROA is not significant at the 10% statistical significance level. We can accept the hypothesis H0 that all coefficients ui = 0. This means there is no difference between subjects (enterprises). In this case, the Pooled OLS model is more suitable than the FEM for the model with the dependent variable ROA.

Dependent variable ROE

Comparing Pooled OLS with REM, according to the results of Breusch and Pagan test, the Chibar2 and Prob > chibar2 values of the model are not statistically significant at 10%, showing that we can accept the hypothesis H0 that all coefficients ui = 0. In this case, the Pooled OLS estimate is more suitable than the REM.

Comparing Pooled OLS with FEM, according to the analysis results, the F test - the result test with the F statistic and Prob > F of the model with the dependent variable ROE is not significant at the 10% statistical significance level. We can accept the hypothesis H0 that all coefficients ui = 0. This means there is no difference between subjects (enterprises). In this case, the Pooled OLS model is more suitable than the FEM for the model with the dependent variable ROE.

Dependent variable ROS

Comparing Pooled OLS with REM, according to the results of Breusch and Pagan test, the Chibar2 and Prob > chibar2 values of the model are not statistically significant at 10%, showing that we can accept the hypothesis H0 that all coefficients ui = 0. In this case, the Pooled OLS estimate is more suitable than the REM.

Comparing Pooled OLS with FEM, according to the analysis results, the F test - the resulting test with F statistics and Prob > F of the model with the ROS dependent variable are not significant at the 10% statistical significance level for We can see that we can accept the hypothesis H0 that all coefficients ui = 0. This means that there is no difference between subjects (enterprises). In this case, the Pooled OLS model is more suitable than the FEM for the model with the dependent variable ROS.

Thus, according to the combined results of the comparative tests of 3 models Pooled OLS, FEM and REM, it can be concluded that the Pooled OLS estimate is the most suitable for the models.

Table 8. Autocorrelation test

Dependent variable ROA	
Durbin's alternative test	Prob > chi2= 0.0000
Dependent variable ROE	
Durbin's alternative test	Prob > chi2= 0.1858
Dependent variable ROS	
Durbin's alternative test	Prob > chi2= 0.0000

Source: Authors' analysis

Checking the model for autocorrelation through Durbin's test shows that the model with the dependent variable ROA, ROS has p-value <0.05, so at the 5% level of significance, it is concluded that both models have the phenomenon of autocorrelation.

Then with the test of heteroskedasticity with the Breusch-Pagan / Cook-Weisberg test, the results are as follows:

Table 9. Heteroskedasticity test

Dependent variable ROA	
chi^2	2168.19
Prob > chi2	0.0000
Dependent variable ROE	
chi^2	1152.26
Prob > chi2	0.0878
Dependent variable ROS	
chi^2	2553.35
Prob > chi2	0.0000

Source: Authors' analysis

The test results for all three models show that Prob > chi2 < 1%, so at 1% significance level, there is a basis for rejecting H0 (variance is constant). Thus, it is concluded that the model has variable variance.

Table 10. Regression results according to FGLS

Variable	FGLS		
	ROA	ROE	ROS
Constant	-0.210	0.969	-3.453**
BoardSize	0.086*	0.022*	0.033*
BoardChar	0.075**	0.226**	0.344*
Women	0.155**	0.475*	1.727**
Size	0.028**	-0.074	0.313**
Lev	-0.033***	0.006	-0.071
Liq	-0.057**	0.192	-0.013
Growth	0.031***	0.021	-0.015
Wald chi2	83.82	77.84	299.24
Prob > chi2	0.0000	0.0066	0.0000

(***), (**), (*) statistically significant at the level α = 1%, 5% and 10%.

Source: Authors' analysis

With the dependent variable ROA: Lev, Growth variables are significant at α = 1%, BoardChar, Women, Size, Liq are significant at α = 5%, BoardSize alone is significant at α = 10% .

With the dependent variable ROE: the variables BoardChar are significant at α = 5%, BoardSize, Women are significant at α = 10%; Only the variables Size, Lev, Liq, Growth have no statistical significance.

With the dependent variable ROS: variables Women, Size is significant at α = 5%; BoardSize, BoardChar are significant at α = 10%, only Lev, Liq, Growth variables are not statistically significant.

5. DISCUSSIONS

According to the research results, the research model is completely suitable for the purpose of analyzing and interpreting the economic results as follows:

Board size is positively related to the performance of enterprises listed on the Ho Chi Minh Stock Exchange is statistically significant at the α = 10% level. This result is in line with the authors' expectation. This case can be explained by the fact that enterprises with larger or more diversified BODs will have more advantages to enjoy and maintain important resources such as human capital, social capital and increased legal knowledge. business performance.

The percentage of independent BOD members has a positive relationship with the performance of enterprises listed on the Ho Chi Minh Stock Exchange in the period 2014 -2021, this result is consistent with the initial assumption of the study and with the results of previous research. In particular, the active presence of many independent external directors will not be affected by those with relationships within the company and with a high degree of independence they will work for the interests of shareholders. and reduce conflicts of interest between the principal and the manager. On that basis, enterprises with a high degree of independence will have better control over the management of the Board of Directors, contributing to increasing the operational efficiency of the business.

The positive effect of the proportion of female members in the Board of Directors (Women) on the performance of the business, that is, the presence of female members in the Board of Directors will improve the performance of the company. Specifically, with the results P value in all 3 models is 10%, 5% and 1%, respectively. The study concludes that there is a positive correlation between the percentage of female members in the Board of Directors and performance at the 10% statistical significance level.

According to the theory of representing gender diversity, it will help improve oversight of the Board of Directors because hiring members with different backgrounds will help to add "diversity in many aspects to supervision". This can be explained that women tend to take their roles on the Board of Directors seriously, it can lead to more civilized behavior and thereby improve the quality of corporate governance. Or, female members tend to be more active in supervisory activities, and the more gender diversity the Board of Directors has, the more efforts are required to control and manage and improve corporate performance.

The results of the study show that liquidity has a negative impact on firm performance at the 5% significance level for the ROA model. Thus, there exists a significant negative relationship between liquidity and corporate performance, that is, the more liquid firms, the more opportunities to invest in projects. The research period is an unstable period of the economy, the epidemic situation that has lasted since the end of 2019 has made the ability of enterprises to operate worse and less effective. This result is contrary to the initial sign expectation and previous experimental results.

The results of the study show that firm size (SIZE) has a positive effect in all three models, meaning that an increase in firm size will make the company's performance better, which is completely reasonable. Because the larger the enterprise, the more growth opportunities and performance results of the Company are in the same direction. With the P value results in ROA models, ROS has statistical significance at 5%.

The variable financial leverage is measured by the ratio of total debt to total assets, which reflects how much of the firm's assets are financed by debt. The coefficient of the variable Lev has a negative effect and is statistically significant at the 1% level for the dependent variable ROA. The positive regression coefficient shows that the more debt-financed the enterprise, the higher the risk of the enterprise encountering financial difficulties. Excessive use of debt creates a burden on businesses to meet their due financial obligations and relatively large interest payments. In addition to causing financial difficulties for businesses, a high debt-to-total assets ratio makes it difficult for businesses to borrow or supplement capital from debt because of fears that businesses will not be able to pay. debts with existing assets. In summary, this study supports previous findings on the role of leverage in predicting firm performance.

Based on the regression results, it shows that the variable growth rate has a positive effect and has statistical significance at the 1% significance level for the ROA model, that is, growth rate has a positive impact on business performance. enterprise action. The results of this study coincide with initial expectations and compared with previous studies.

6. CONCLUSIONS

The quality of human resources is a factor that affects the efficiency of an enterprise. High-quality enterprises often have an influence on the quality of the board of directors, the board's decisions and the company's development direction. High quality of human resources is also reflected in the ability of enterprises to manage liquidity, which helps enterprises to survive in the short term and create growth momentum in the long term. Researching at 100 companies listed on HOSE in the period from 2014 to 2021, the research results confirm that liquidity has a negative impact on corporate performance (ROA). However, human resource quality has a positive effect on firm performance. In addition, firm size has a positive impact on ROA or ROS, leverage has a negative impact on ROA, but no impact on ROE and ROS. Further, firm growth has a positive impact on ROA, but no impact on ROE and ROS.

The study has some limitations. Firstly, this study is only conducted for 100 listed companies, and cannot represent all listed companies on the stock exchange. Second, this study was conducted in 2020 and 2021, which is the period during which the Covid-19 pandemic occurred, however, the study did not assess the impact of the Covid-19 pandemic on the financial performance of the company, and will be conducted in the future research.

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