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Printed at Statistical Publishing House - Publishing Licence: 487/GP-BTTTT date 28/10/2016
Prints and deposits completed in August, 2022.

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Nguyễn Thị Quỳnh Châu

In tại Nhà xuất bản Thống kê - Giấy phép số: 487/GP-BTTTT ngày 28/10/2016
In xong và nộp lưu chiểu tháng 8 năm 2022.

TAX POLICY FOR SCIENCE AND TECHNOLOGY DEVELOPMENT IN VIETNAM

Assoc.Prof.PhD. Vuong Thi Thu Hien* - PhD. Nguyen Thi Minh Hang*

Abstract: *The Communist Party and State always consider science and technology as the most important factors affecting the economic development process in the long term and have issued guidelines and policies on scientific development and technology application to aid the process of industrialization modernization, and economic development of the country. Tax policies to promote scientific and technological development have been created and promoted effectively; step by step remove difficulties as well as contribute to promoting research, development, and innovation. In order to study the current state of tax policies to promote science and technology in Vietnam over the past time, the article pointed out the main limitations that need to be overcome. Basic solutions to complete tax policies to promote scientific and technological development in Vietnam in the coming time include: Completing tax incentive policies for enterprises in industrial, economic and high-tech zones; encouraging and supporting the development of the hi-tech product manufacturing industry; encouraging the cooperation between businesses and scientific research institutions... Solutions to improve policies implemented synchronously along with reforms in administrative procedures and reforms in the field of tax administration will create a premise to promote scientific and technological development in Vietnam.*

• Keywords: tax policy; science and technology.

Date of receipt: 25th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 30th September, 2022

Date of approval: 15th November, 2022

Tóm tắt: Đảng và Nhà nước luôn coi khoa học và công nghệ là yếu tố quan trọng nhất ảnh hưởng đến quá trình phát triển kinh tế trong dài hạn, đồng thời đã ban hành những chủ trương, chính sách phát triển khoa học và ứng dụng công nghệ nhằm phục vụ sự nghiệp công nghiệp hoá - hiện đại hoá, phát triển kinh tế đất nước. Chính sách thuế thúc đẩy phát triển khoa học và công nghệ đã được tạo lập và phát huy hiệu quả; tháo gỡ từng bước những khó khăn, góp phần thúc đẩy nghiên cứu phát triển và đổi mới sáng tạo. Trên cơ sở nghiên cứu thực trạng chính sách thuế thúc đẩy khoa học và công nghệ ở Việt Nam thời gian qua, bài viết đã chỉ ra các hạn chế chủ yếu cần khắc phục. Các giải pháp cơ bản hoàn thiện chính sách thuế thúc đẩy phát triển khoa học và công nghệ ở Việt Nam trong thời gian tới bao gồm: Hoàn thiện chính sách ưu đãi thuế đối với doanh nghiệp trong các khu công nghiệp, khu kinh tế, khu công nghệ cao; hướng đến mục tiêu khuyến khích, hỗ trợ sự phát triển của ngành sản xuất sản phẩm công nghệ cao; khuyến khích sự liên kết giữa doanh nghiệp và các cơ sở nghiên cứu khoa học.... Các giải pháp hoàn thiện chính sách được thực hiện đồng bộ cùng với cải cách về thủ tục hành chính, cải cách trong lĩnh vực quản lý thuế sẽ tạo tiền đề thúc đẩy phát triển khoa học và công nghệ ở Việt Nam phát triển.

• Từ khóa: chính sách thuế; khoa học và công nghệ.

1. Current situation of tax policies for scientific and technological development in Vietnam over the past time

Results achieved

Tax incentives and fees related to science and technology enterprises have been significantly

promulgated and incentives have been at the highest level in the preferential framework of tax law. Thanks to tax exemptions and reductions, enterprises have been able to concentrate capital to continue investing in science and technology, facilities and human resources, and constantly creating new products with quality

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and competitiveness. Tax incentives have gradually become more suitable to the actual situation of science and technology enterprises, partly implementing the State's policies in the fields of science and technology that need to be encouraged for investment, thus positively affecting the development of scientific and technological research activities in enterprises, encouraging businesses and organizations to innovate technology, improving labor quality and productivity, and promoting facilities to invest in expanding production scale towards high-tech production.

Shortcomings

Firstly, there is a lack of detailed and interdisciplinary guidance documents, so it is still difficult to put these preferential policies into practice.

Many enterprises are interested in developing into science and technology enterprises, but registering as science and technology enterprises is not easy when the regulations on revenue conditions reach at least 30% of the total revenue applicable to enterprises over 5 years. The procedure for recognition as a science and technology enterprise is complicated, while the determination of science and technology revenue in the total revenue of the enterprise lacks a basis. The lack of regulations on expenditures from the Science and Technology Development Fund makes it difficult for enterprises to make use of science and technology funds.

Secondly, the awareness of enterprises about tax incentives for science and technology enterprises is still limited. Many businesses have not been interested in setting up the fund as well as activities in science and technology. The number of funds set aside by small and medium-sized enterprises is very low, not enough to carry out science and technology activities. Tax incentives for new science and technology enterprises stop at the stage of creating scientific and technological results without focusing on supporting enterprises to develop a stable market for that new product. There are no preferential policies on income tax rates calculated according to product lines produced by science and technology activities and innovation. Duty-free goods only refer to "hardware" (machinery,

equipment, components...), not "software" (such as computer software...) ...

Thirdly, there is no unified tax policy applied to the field of science and technology.

Scientific and technological services in public non-business establishments shall comply with the mechanism of revenue-earning non-business units; while organizations specializing in science and technology activities established with business registration according to regulations shall comply with other financial mechanisms. The parallel existence of provisions in the tax policy for the field of science and technology in the above 2 groups will cause inconsistencies and difficulties in the application process. Moreover, the impact of tax incentives for the science and technology sector is not comprehensive and as desired.

Fourthly, the provisions in each tax policy are still limited, so they have not effectively impacted science and technology activities in Vietnam.

- According to the value-added tax policy, "scientific research and development" services are subject to value-added tax, while "technology transfer" is not taxable. Moreover, there is a lack of value-added tax exemption and reduction for science and technology products stated on certificates of science and technology enterprises.

- For some goods, machinery, and equipment, when imported completely, the tax rate specified in the export and import tax policy is 0%, while other types of goods such as components and spare parts of machinery and equipment have a tax rate of 5% or 10%. Thus, it does not encourage the initiative and creativity in manufacturing and producing domestic machinery but encourages the import of complete machinery and equipment...

- Only newly established scientific and technological organizations or enterprises operating in areas with difficult socio-economic conditions are entitled to corporate income tax incentives in accordance with the provisions of the corporate income tax policy. Science and technology projects or activities from other establishments are not entitled to tax incentives. Science and technology projects of the same basis but implemented by different establishments will enjoy different corporate income tax incentives.

2. Solutions to complete the tax policy for science and technology development in Vietnam in the coming time

Firstly, it is necessary to refine tax incentive policies for enterprises in industrial, economic, and high-tech zones.

- *For corporate income tax policies*: Preferential policies 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 fields of agriculture and fisheries with hi-tech applications or new scientific and technological measures for production and processing; (iii) investment projects in extremely difficult fields in remote areas, borders and islands in order to promote effective investment restructuring.

- *For personal income tax policy*: reduce 50% personal income tax on wages from individuals who are hi-tech human resources working in the field of information technology, agriculture, agricultural product processing belonging to: hi-tech application projects, projects producing hi-tech products on the list of high technologies prioritized for development investment, and the list of high-tech products encouraged for development.

Secondly, complete tax policies aimed at encouraging and supporting the development of the high-tech product manufacturing industry.

For corporate income tax policy:

Micro enterprises can choose the method of paying value-added tax and corporate income in accordance with revenue to simplify. Expand exemption from corporate income tax for science and technology contracts: (1) Contracts for scientific research and technological development; (2) Technology transfer contracts; (3) Science and technology service contracts.

Value-added tax policy

Science and technology activities should be subject to value-added tax with the lowest tax rate. Value-added tax policy for products formed from scientific and technological results; products as a result of innovation and technological development activities of enterprises; products that are components, spare parts, machinery, equipment,

and software that cannot be domestically produced or imported for use in scientific research, technology development, technology decoding, and technology transfer are all subject to value-added tax.

Export and import tax policies

Import and export tax policies for imported components, spare parts, machinery, equipment, and software for the purpose of assembling into complete equipment and machinery to serve scientific research and technological development, technology decoding, and technology transfer should be duty-free.

Personal income tax policy

Exemption from personal tax on income from science, technology, and innovation activities, from intellectual property copyrights, and from investments of angel investors.

Thirdly, applying tax policies to encourage enterprises to cooperate with scientific and technological research institutions

Regarding value-added tax policies: Input value-added tax on the construction of facilities, procurement of machinery and equipment as fixed assets, goods and services used to organize vocational training and education activities for employees of enterprises, for students of educational institutions training in internships and professional practices are entitled to a value-added tax deduction.

Regarding corporate income tax policy: Addition of deducted expenses, specifically: Expenses for training centers, training activities, vocational education for employees of the enterprise; Corporate funding expenditures for students, lecturers and training institutions in the research and implementation of innovative start-ups. Separate the payment for training to improve qualifications and skills for employees from the total welfare expenditure and include it in the deducted expenses. The revenue of enterprises received from educational and training institutions to pay for coordinated activities related to the practice and internship of learners is exempt from corporate income tax. Apply a preferential tax

rate of 10% to the income of enterprises investing in start-up projects when transferring capital or transferring shares. Reduce corporate income tax on income received from training cooperated activities between enterprises and scientific research institutions. Exemption or reduction of corporate income tax on corporate income received due to investment in scientific and technological research facilities, due to the implementation of applied scientific research contracts.

About PIT policy

Adding income from capital transfers or share transfers of individual investors from start-up projects to income groups that are not subject to personal income tax. Reduce 50% personal income tax on salaries and wages of individuals who are experts, lecturers, foreign lecturers, and researchers participating in teaching, research contracts, and training cooperated activities between scientific research institutions and domestic and foreign enterprises.

Fourthly, apply tax policies to support and facilitate infrastructure for scientific and technological research institutions

The State should create favorable conditions for land funds for long-term and stable leases of scientific research establishments in accordance with the law. These facilities are leased land at preferential prices to have more favorable conditions for investment in the development of scientific and technological research facilities. Reduction or exemption of non-agricultural land use tax, land rent... will contribute to supporting scientific and technological research facilities in the development process.

Fifthly, apply tax policies to encourage enterprises to link start-ups with scientific and technological research establishments

- Tax exemption for the first 5 years of operation of start-up enterprises and apply corporate income tax rate of 10% for the next 15 years. Allow unlimited loss transfer to ensure maximum support for startups. Apply a tax deferral mechanism in whole or in part to income from capital transfers if the investor continues to use the money to invest in another eligible start-up.

- Exemption from import duty on goods that are machinery, equipment, spare parts, supplies, and means of transport which cannot be produced by domestic enterprises and which directly serve technology incubation activities at the incubator.

- Enterprises implementing new high-tech incubation investment projects in the fields at the incubator or from the implementation of new investment projects applying high technology are exempt from corporate income tax for the first 4 years, apply a corporate income tax rate of 10% for a period of 15 years and reduce 50% of the amount of corporate income tax payable in 9 the following year.

- Tax exemption for sponsors for universities, research institutes, legal consultants, business support, infrastructure construction objects, setting up co-working areas for startups, for promotion and communication activities...

- Replace the time-limited tax exemption and reduction with the form of investment tax deduction. This form of incentive has the same effect as the State directly supporting part of the capital for enterprises.

- Apply investment discounts to enterprises that are not eligible for tax incentives and investment tax deductions but incur costs for science and technology instead of setting up science and technology development funds. Apply the form of investment discount - allowing deduction of double or a certain percentage of the investment value that the enterprise spends on scientific and technological research and development activities when determining deductible expenses to calculate income subject to corporate income tax.

- Personal income tax relief for professionals working at incubators as for individuals working in economic zones today.

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MEDIUM-TERM PUBLIC INVESTMENT IN 2016-2020: SITUATION AND RECOMMENDATIONS

MA. Bui Ha Hanh Quyen* - MA. Vu Thi Thu Huong*

Abstract: .

• **Keywords:** .

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 5th November, 2022

Tóm tắt:

• Từ khóa:

have mixed advantages and disadvantages, with more complicated developments than forecast, including the recovery trend and development of the world economy; the mainstream trend of linkage and trade liberalization, intertwined protectionist factors, strong development of science and technology, challenges from tensions trade and investment among a number of major economies, political, ethnic and border conflicts causing instability, etc. All of these factors have impacted on economic growth and development globally as well as domestically, strongly affecting strongly to all aspects of economy, culture and society. Especially, in the last year of the 2016-2020 period, the Covid-19 pandemic caused the world economy to fall into a serious recession.

Domestically, the macro-economy is more stable, the major balances of the economy are ensured, the business environment is improved, and the economic restructuring associated with the growth model innovation towards positive results, right direction, and more substantive, and so on. However, the domestic economy continues to face difficulties and risks intertwined from the impact of the shift of investment capital flows and international integration together with the pressure

1. Some shortcomings in the implementation of the medium-term public investment plan for the period 2016-2020

The medium-term public investment plan for the period 2016-2020 has been implemented in the context that the region and the world

* *Academy of Finance*

on economic infrastructure, social security, and abnormal changes in respect to weather and climate change, especially the Covid-19 pandemic, etc.

In the context of organizing the development and implementation of a 5-year medium-term public investment plan for the first time in accordance with the new regulations of the law on public investment, although there are still some difficulties and obstacles, with the participation of the whole political system, the efforts of all levels and branches, under the leadership of the Party, supervision of the National Assembly, the direction and drastic and synchronous administration of the Government. The medium-term public investment in the 2016-2020 period has achieved many positive results, and many valuable lessons have been drawn to develop and better implement the Medium-term Public Investment Plan for the next period.

Although the achieved results are basically positive, and public investment has been gradually restructured in accordance with the guidelines of the Party and the National Assembly, there are still some shortcomings in the medium-term public investment plan for the 2016-2020 period, including those that have been prolonged but have been slowly overcome:

a) The adjusted institutions and policies on public investment have not kept pace with practical requirements. A number of legal provisions are still not synchronized, consistent, feasible, are slow to be amended and supplemented, and the competence is unclear leading to pushback, avoidance of responsibility, and embarrassment. In fact, the issue of decentralization and decentralization associated with individual responsibility is not clear; Although the order and procedures have been improved, they are still complicated, with too many branches, levels and agencies participating in accordance with regulations.

Apparently, institutions and regulations on public investment management (including investment management, planning, project selection, project implementation, construction management, project evaluation and supervision) are still inconsistent with the information on public investment management, international

standards¹ and do not meet practical requirements, such as incomplete decentralization which is not associated with responsibilities and capacities of subordinates, leading to a situation of extrusion, fear of responsibility. In reality, the preparation and appraisal procedures, project decisions are still complicated, leading to many key and important national projects in the middle of the planning period to complete investment procedures to allocate capital. Moreover, a number of documents regulating ODA and concessional loans of foreign donors have just been issued, but many problems have arisen which are not suitable with reality, and require early amendment. Some regulations on public investment and regulations on state budget, construction and environment are still inconsistent or inappropriate, causing difficulties in implementation and affecting the disbursement progress of the project. This has been remedied in the Law on Public Investment No. 39/2019/QH14 of the National Assembly.

Statistically, regulations on allocation of capital to ministries, central agencies and localities increasing by an average of 10% per year in comparison 2015 plan are still flat, lacking focus, and low efficiency, especially in the context of limitation in State budget resources.

The monitoring and evaluation of projects using public investment capital has not been synchronized and has not been evaluated importantly. In addition, the criteria for assessing the socio-economic efficiency of public investment projects have not been developed, leading to many difficulties in monitoring and evaluating public investment plans and projects; and failures of drawing lessons from the implementation of completed projects for the selection of new projects. In reality, the project implementation reporting process has not been standardized. Transparency and accountability related to public investment are still low. The

¹ Judging by 15 indicators of institutional quality for public investment management assessment (PIMA) released by the International Monetary Fund (IMF). In reality, the quality score of Vietnam's public investment management system is significantly lower in comparison with the averages of developing countries, and transition economies - countries with similarities in public investment management. In particular, Vietnam is worse at the appraisal and prioritization of public investment projects (criteria 6 to 10) and the stage of public investment project implementation (criteria 11-15).

supervisory and critical role of socio-political organizations and the people towards the State is still weak and has not been fully promoted.

b) The implementation of the plan lacks initiative and flexibility; the allocation of capital is not focused, and the disbursement of public investment capital is slow, etc

In the 2016-2020 period, according to the provisions of Resolution No. 26/2016/QH14 of the National Assembly, the Government shall report to the National Assembly Standing Committee for comments on the list of projects, the specific amount of capital allocated for each project using public investment capital before handing over details of medium-term public investment capital plans. However, the fact that some places have not actively implemented the necessary procedures to prepare, approve, adjust, supplement the project and plan should take a long time and delay in the reporting process. The National Assembly Standing Committee considers and gives opinions for the Government to assign medium-term public investment plans for each project. Actually, there are a number of projects using foreign capital, projects that signed agreements with foreign donors after the National Assembly approved the medium-term public investment plan for the 2016-2020 period. Nevertheless, project preparation was not good, has not met the requirements, has not been proactive and flexible in recommending the transfer of medium-term investment capital, thus in some cases, reducing the efficiency of capital use.

Disbursement rate of public investment capital in the first years of the plan period is slow, especially foreign capital. A number of projects have been assigned state budget investment plans in 2017, 2018 but so far, for many objective and subjective reasons, the allocated capital has not been fully disbursed, creating great pressure on the state budget balance in the 2021 -2025 period.

c) Balancing the central budget for investment does not meet the set target, in implementation, the leading role of the central budget has not been attached to the economy.

The proportion of development investment spending in the 2016-2020 period will reach about 28% of the total state budget expenditure, 2-3% higher than the target set out in Resolution

No. 25/2016/QH14 of the National Assembly (25-26%). The total state budget allocated for development investment is about VND 2,200 trillion², about VND 200 trillion higher than the plan for state budget investment decided by the National Assembly in Resolution No. 26/2016/QH14 of the National Assembly. However, in terms of state budget structure, investment capital from the central budget reached VND 977.6 trillion³, a decrease of VND 142.4 trillion in comparison with the plan decided by the National Assembly. This missing capital will continue to be implemented in the medium-term public investment plan for the 2021-2025 period in accordance with the Law on Public Investment, Resolution No. 973/2020/UBTVQH14 dated July 8, 2020 of the National Assembly Standing Committee and Decision No. 26/2020/QD-TTg dated September 14, 2020 and issued by the Prime Minister.

The structure of expenditure according to budget decentralization is still inadequate. The proportion of spending on capital investment from the central budget and local budget according to the annual plan for the period 2016-2020 is 47.82% and 52.18%, not ensuring the leading role of the central budget. Moreover, the ratio of direct expenditures of the central budget tends to decrease, and the proportion of the central budget allocated to ministries and central agencies after targeted additions to localities is only 24.1% of total state budget expenditures (compared to 24.1% of total state budget expenditures) with an average rate of 26.8% in the 2011-2015 period and 34.5% in the 2006-2010 period. In addition, out of the total medium-term investment capital allocated, ministries, central agencies and localities can balance about 53% of the demand for central budget capital for projects under 21 target programs decided by the Government. They determined the Investment policy in Resolution No. 73/NQ-CP dated August 26, 2016. This is the reason leading to scattered investment, low efficiency, limiting the ability to completely invest in key projects.

² Including state budget reserve, revenue increases, additional state budget balance for development investment

³ According to the number of estimates decided annually by the National Assembly and supplemented from sources of revenue increase, savings and expenditures of the central budget in 2018, 2019

Additionally, budget accumulation for development investment tends to decrease and stays at a low level. In the 2016-2020 period, debt sources (overspending), land use sources, and equitization sources accounted for 88% of total investment expenditures from the state budget, while on average in the five years 2011-2015, debt sources (overspending) and land use made up 73% of total state budget investment expenditure.

Although the capital allocated to the transport sector accounted for the highest proportion (42.9%) of the total investment capital from the central budget in the 2016-2020 period, the development of synchronous and modern infrastructure has not yet met the requirements. In reality, newly started traffic work projects using state budget capital in the period 2016-2020 were very few compared to the requirements and development planning⁴. Furthermore, many important highway and road projects are still behind schedule, such as: Ben Luc - Long Thanh, Trung Luong - My Thuan. Domestic freight transport is mainly by road, and logistics costs are still high. New investment mainly focuses on the road sector, not paying attention to railways and waterways, and lack of modern seaports and river ports for economic development and tourism. In terms of aviation infrastructure, it has been upgraded, expanded and newly built but has not yet met the requirements of economic development and tourism. Some major international airports such as Noi Bai, Tan Son Nhat, Da Nang... have all been overload. In addition, industry (4.2% of total central budget expenditures), agriculture, forestry and irrigation (20% of total central budget expenditures) have not received adequate attention and investment.

d) The quality of project planning and preparation is still inadequate, in some places it is still formal, subjective, not associated with reality and legal regulations. Moreover, it has to be adjusted many times, implementation time is prolonged, and capital allocation is still spread, etc

Apparently, planning work has not been paid

⁴ The completion of 2,000 km of expressway is about 2 years behind the set target; no foreign investors have invested in developing Van Phong international transshipment port. Moreover, railway development has not been paid attention to allocate capital, and urban railway projects have been implemented slowly

attention; and the principles and criteria for capital allocation in the investment plan have not been strictly observed. Moreover, there is the state of handing over plans many times, in some years not being able to deliver all the plans, return the capital, even some ministries have proposed to reduce the foreign capital investment plan right after the time the plan has just been assigned. As for ODA capital, the planning stage has not covered all the signed agreements. The number of projects needing capital allocation has not yet been fully aggregated. In fact, there is no reasonable balance between loan demand and debt repayment capacity, causing many projects to be short of capital and unable to be disbursed, due to the arising of agreements signed after the Resolution on the medium-term public investment plan was adopted.

In reality, land clearance faced many difficulties and took time, which slowed down the progress of various projects. Many projects have to increase the total investment amount due to the increased cost of site clearance, making it difficult to balance capital and complete the project on schedule.

In reality, the quality of project preparation is not in good condition, and the status of project approval has not fully met current regulations, especially regulations on capital sources and the ability to balance capital. When the project is decided and capital is allocated, the investment preparation is actually completed. Therefore, a number of important national and urgent projects did not fully disburse the capital plan assigned in 2017 and 2018 causing great pressure on the state budget balance in the 2021-2025 period.

Although the number of target programs in the 2016-2020 period decreased by 2.9 times compared to the 2011-2015 period, many programs still overlapped in tasks, resulting in a large number of projects, not balancing enough resources to allocate funding for projects⁵. Simultaneously, the approval of investment decisions for 21 Target Programs has been made while the Medium-Term Public Investment Plan for the period 2016-2020 has been assigned, resulting in many transitional

⁵ The number of projects arranged in the 2016-2020 period must extend the time of capital allocation compared to the regulation of about 1,300 projects

projects from the 2011-2015 period being assigned the plan but not suitable to the target program's target audience and scope, etc⁶.

d) The progress of projects, especially important national projects, large and key projects that have not yet met the requirements, are wasteful and behind schedule; There are still various problems with land policy, site clearance, PPP projects, and so on.

During the whole period, basically no key new projects were accelerated, completed within the term due to the time of submission, approval and commencement of major projects at the end of the planning period. The North-South Expressway Project in the East was not approved by the National Assembly until the end of 2017⁷; Only at the end of 2018 was the investment decision approved by the Prime Minister, then some sections must be reported to the National Assembly for permission to convert investment methods from PPP to public investment. In the third quarter of 2019, a number of component projects have just been constructed and up to now, various component projects are continuing to be implemented and have not been completed; The project of land acquisition, compensation, support and resettlement at Long Thanh International Airport was approved by the National Assembly at the end of 2017 and the investment decision was approved by the Prime Minister at the end of 2018⁸. Furthermore, 14 road and railway projects of the Ministry of Transport were approved by the Standing Committee of the National Assembly in Resolution No. 556/NQ-UBTVQH14 dated July 31, 2018, and would not complete investment procedures until 2019.

Implement the orientation "to make the most of and effectively use capital resources of other

⁶ The Government has reported to the National Assembly to allow the final settlement in 2018 of some projects that are not suitable for the subjects of the Programs but have been assigned medium-term public investment plans.

⁷ Resolution No. 52/2017/QH4 dated November 22, 2017 of the National Assembly approving the investment policy of the project to build a number of expressway sections on the East North-South route in the period 2017-2020.

⁸ Resolution No. 53/2017/QH14 dated November 24, 2017 of the National Assembly and Decision No. 1487/QĐ-TTg dated November 6, 2018 of the Prime Minister.

economic sectors. Failing to allocate investment capital to develop the state budget into fields and projects that other economic sectors can invest" has not been really successful. For the transport sector, in the period 2016-2020, the number of PPP projects was very small and only investors were selected for BOT and BT projects. Road BOT and BT projects were mostly upgrading and renovation projects; and socio-economic efficiency and pervasiveness were not high. Moreover, project preparation, investor selection, project appraisal and supervision methods by state management agencies were not strict, lack of publicity and transparency. Investment experience, investment management, operation management and financial and technical capacity of investors are still limited. In terms of PPP projects in the energy sector (heat, hydroelectricity), most of them are in the final stage of contract negotiation and granting investment registration certificates to investors. In reality, no projects have been implemented under the new regulations.

In addition, the mechanism to attract PPP investment has not yet met the practical requirement. Some PPP projects on transportation such as the investment in the North-South Expressway in the East have to be converted to investment with state budget, increasing the budget balance pressure.

Many infrastructure projects implemented in the form of BT (construction transfer contract) revealing some shortcomings and limitations. What is more? Most of the BT projects are allocated land before the completion of the works. The unit price of land at the time of land allocation is much lower than the unit price of land at the time of handing over the works. This makes the payment not ensure the principle of parity, benefiting investors and causing damage to the state budget. In addition, some BT investment projects failed to pay due debts, had to extend debt, freeze debts, switched to state capital investment or used sources from the Accumulation Fund to pay debts.

e) The management, monitoring, supervision, inspection and examination are sometimes not strict; The work of acceptance, payment and settlement still has many shortcomings, prolonged difficulties, lack of strong sanctions to handle.

2. Causes

The shortcomings and limitations in the process of implementing the medium-term public investment plan for the 2016-2020 period have objective causes but mainly direct and decisive causes due to subjective reasons.

a) Objective reasons

- Due to the first time implementing the medium-term public investment plan for the period 2016-2020, it is inevitable that there will be limitations in practical experience. The formation of many new processes and procedures leads to difficulties for ministries, central and local agencies to grasp and uniformly implement the provisions of the Law. In reality, many agencies and localities are still confused and take a long time. It takes time to complete procedures because project documents have to go through many levels, agencies from central to local levels, complicated administrative procedures, and incomplete decentralization of responsibilities.

- The central budget allocated for investment expenditure is limited, not meeting the investment requirements for socio-economic infrastructure construction, because the proportion of central budget revenue tends to decrease, especially crude oil revenue, and import and export balance.

- Some demerits in public investment in the past time that cannot be completely resolved immediately (large capital construction debt, large amount of advance capital) with old backlogged projects and programs still need to be processed.

The complicated developments of the Covid-19 epidemic have had a significant impact on the disbursement progress of projects using ODA loans and concessional loans from foreign donors because most of the activities are associated with foreign factors from importing machinery and equipment to mobilizing experts, foreign workers, contractors, supervision consultants, reaching agreement with sponsors for each project's activities and plans, etc.

b) Subjective causes are still the main cause, with the following 03 reasons:

Awareness: The sense of law observance, the sense of respect for discipline and discipline in

public investment is not high, not proactive and serious in complying with regulations, criteria and principles in public investment. Actually, it is easy to compromise when approving projects that do not meet the legal and efficiency requirements. The development mindset in public investment is sometimes slow. In some places, it is slow to be renewed. Moreover, there are still a "terminal mindset", "group interests", "ask - give mechanism", expectation and dependence on the central government; and lack of initiative and creativity. The projects have not taken full advantage of the merits in decentralization and authorization. Additionally, the project decision is still not linked with socio-economic tasks and goals, and is only interested in short-term benefits.

Regarding policies and laws: Some legal provisions are still not synchronized, unified, feasible, not meeting practical requirements. Furthermore, some inadequacies in mechanisms and policies have been discovered, but they are still slow to be amended and supplemented, with unclear authority, leading to extrusion and avoidance of responsibility. The coordination mechanism between ministries, branches, central and local governments in handling public investment problems is not effective, confusing. In fact, many problems have existed for a long time, but there is still no radical and definitive solution like site clearance. Especially in the first stage of implementing the medium-term public investment plan, there are still many shortcomings in the legal system. However, it is undeniable that the Law on Public Investment 2019 has overcome and corrected many of the above shortcomings.

Regarding the implementation:

Capacity in implementation is still weak, not drastic and ineffective. Moreover, roles and responsibilities of the head have not been clearly shown; public investment capital allocation is average, lacks focus; not closely followed, lack of urging and inspection. In addition, responsibility in coordinating work handling and organizing the implementation of mechanisms and policies is still not tight. There is still the situation of pushing and avoiding responsibility; loose management, leading to a situation of "hot above and cold below". With the same legal ground, but there

are places that work well, and there are places that work badly. In addition, the capacity to plan, organize the implementation is still inadequate, especially the capacity of appraisal, inspection, supervision and construction, etc, leading to the situation of many projects being behind schedule with slow disbursement, and late settlement, etc.

As for the disbursement of capital, all levels and branches have not really participated. The roles and responsibilities of the head have not been promoted and are not clear. Furthermore, the propaganda to the people about the policy of compensation, support for site clearance is still incomplete, lack of transparency, lack of fairness. Some investors have not actively implemented payment and settlement procedures. The professional capacity of a number of project managers, supervision consultants, contractors, etc, still has many demerits and cannot meet the requirements. The work of urging contractors to implement construction has not been drastic and effective. Particularly for ODA, the disbursement is slow because many projects have to adjust the loan agreement. Although the project has a completed volume but cannot be disbursed. In reality, many projects encountered problems with procedures for controlling expenditures, disbursement and withdrawal of capital. There is still the status of incorrect capital withdrawal dossiers, lack of procedures, prolonged application processing time; and transfer of sources, accounting of revenue and expenditure, and advances are still slow, and so on.

3. Suggestions

From the results achieved, limitations, shortcomings, causes mentioned above, some recommendations are given as follows:

Firstly, investment must be focused, not scattered, spread, and fragmented. It must be right, must hit the set goals, orientations and tasks of socio-economic development⁹, and need highly concentrated resources to speed up the implementation progress.

Secondly, the government should strictly implement the legal provisions on public investment, in accordance with the authority, order and procedures as prescribed, not to evade or push

⁹ Especially the objectives, orientations and tasks identified in documents, strategies, master plans, plans... of the Party and Government at all levels from central to local levels, branches and fields.

the responsibility¹⁰. It is suggested that they should promote decentralization of power along with strengthening inspection, inspection and control of power.

Thirdly, the government should improve implementation capacity associated with unified direction and administration from the central to local levels, clearly define and strengthen the roles and responsibilities of all levels of Party committees, authorities, agencies and organizations positions, especially the responsibility of the head; boost up inspection, examination and supervision; reward and discipline in a timely and strict manner.

Fourthly, the government should continue to promote the effectiveness of the decentralization mechanism, pilot the breakthrough mechanisms, organize the evaluation and replication to institutionalize into legal regulations; promote the spirit of self-reliance, not expecting or relying on; and stimulate protection of those who dare to think, dare to do, dare to take responsibility for the common benefits¹¹.

Fifthly, the government should promote the restructuring of public investment, promote the role of leading, spreading, as "prime capital" to mobilize investment from the non-state sector, creating new space and driving force for economic development and social sustainability

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Báo cáo số 243/BC-CP: Tình hình, kết quả thực hiện kế hoạch đầu tư công trung hạn giai đoạn 2016-2020 và dự kiến kế hoạch đầu tư công trung hạn giai đoạn 2021-2025
Chỉ thị số 23/CT-TTg ngày 5/8/2014 của Thủ tướng Chính phủ
Nghị quyết số 52/2017/QH4 ngày 22/11/2017 của Quốc hội
Nghị quyết số 53/2017/QH14 ngày 24/11/2017 của Quốc hội
Quyết định số 1487/QĐ-TTg ngày 6/11/2018 của Thủ tướng Chính phủ.

¹⁰ In all stages of the investment process, from formulating, assigning and allocating plans, to implementing plans, especially compensation and support for resettlement

¹¹ A good lesson from the National Assembly's promulgation of Resolution No. 122/2020/QH14, which authorizes the Government to proactively adjust the public investment plan in 2020 within the scope of the assigned estimate, creating initiative, flexibility in implementation, promoting capital efficiency when quickly adjusting and reconciling capital from less efficient places to more efficient ones, allowing the Government to report results at the nearest meeting, and still ensuring parliamentary oversight.

ATTRACTING FOREIGN DIRECT INVESTMENT (FDI) IN VIETNAMESE AGRICULTURE SECTOR IN THE CONTEXT OF THE FOURTH INDUSTRIAL REVOLUTION

MSc. Pham Thi Kim Len* - Tran Thi Thanh Loan**

Abstract: *The agriculture is known as a traditional industry in Vietnam. Recently it has been gradually adjusting itself to meet the demand of the reality in terms of integration and development. Therefore, attracting foreign direct investment on agriculture in Vietnam is absolutely an urgent issue nowadays, especially in the context of the 4th industrial revolution. Vietnam's land and climate conditions as well as its stable and attractive business investment environment is a huge advantage of attracting foreign direct investment on agriculture. However, the amount of FDI flowed in this sector has been still small so far. So it is necessary to find out the limitations and the causes of them in attracting FDI on this field and promote solutions to cope with the reality.*

• Keywords: *foreign direct investment, agriculture, the fourth industrial revolution.*

Date of receipt: 10th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 15th September, 2022

Date of approval: 5th November, 2022

Tóm tắt: Nông nghiệp được biết đến là ngành truyền thống của Việt Nam. Thời gian gần đây đã và đang từng bước tự điều chỉnh để đáp ứng nhu cầu của thực tế trong điều kiện hội nhập và phát triển. Vì vậy, thu hút đầu tư trực tiếp nước ngoài vào nông nghiệp ở Việt Nam là vấn đề hết sức cấp thiết hiện nay, nhất là trong bối cảnh cuộc cách mạng công nghiệp lần thứ 4. Điều kiện đất đai, khí hậu cũng như môi trường đầu tư kinh doanh ổn định, năng động của Việt Nam là lợi thế rất lớn để thu hút đầu tư trực tiếp nước ngoài vào nông nghiệp. Tuy nhiên, lượng vốn FDI chảy vào lĩnh vực này cho đến nay vẫn còn ít, vì vậy cần tìm ra những hạn chế và nguyên nhân của chúng trong việc thu hút vốn FDI vào lĩnh vực này và đẩy mạnh các giải pháp ứng phó với thực tế

• Từ khóa: *đầu tư trực tiếp nước ngoài, nông nghiệp, cách mạng công nghiệp lần thứ tư.*

1. Introduction

In the context of the fourth industrial revolution, many industries as well as sectors in the economy have been changing itself to adapt with the situation including agriculture. As we have known, agriculture has been playing an important role in

the economic development in Vietnam. Besides that, foreign direct investment has been proved as an efficient investment channel to satisfy the need of capital demand and the technology as well as management experience transmitted. That is why it is essential to boost the attraction of FDI in agriculture sector.

2. Literature review

There have been some FDI research studies such as Fabienne Fortanier (2007) “*Foreign direct investment and host country economic growth: Does the investor's country of origin play a role?*”; Pravakar Sahoo, Geethanjali Nataraj, Ranjan Kumar Dash (2014) with the title “*Foreign Direct Investment South Asia, Policy, Impact, Determinants and Challenges*” which were focused on the pros and cons of FDI, therefore, proposed some policies to attract more FDI to develop the economy. But in these studies, attracting FDI in agriculture was not mentioned in particular. Some other studies related to FDI attraction in agriculture such as: the book “*Foreign investment in Agriculture in Cambodia*”, Chan Hang Saing, Socheth Hem, Chandarany Ouch, Dalis Phann, Dorina Pon, 2012; The article

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** *Thanh Binh - HN Pharmaceutical and Medical supplies Co., Ltd*

“Analysis of International Investments in the Agricultural Sector of Thailand”, Nipawan Thirawat and Waleerat Suphannachart, Economics Faculty, Kasetsart University in 2010; The article “The empirical Analysis on the Import and Export Technology Effect of Agricultural FDI in China” Global Economic Review (Perspectives on East Asian Economies and Industries), 2020, Zhihui Wen, Linjuan Zhuang & Rixin Zhang... In Vietnam, there have been some studies on attracting FDI in agriculture such as the study of MSc Duong Thi Trang, “Attracting FDI in high-tech agriculture sector in Vietnam” posted in Finance Journal (tapchitaichinh.vn) in August 2018; Organic Agriculture Association with the same study title in 2020...

3. Research methodology

Data collection method: collecting data through official information sources of the government as well as gather information from reliable website and references.

Researching method: Based on collected data start analyzing the fluctuation according to the requirements and purposes of the topic.

Comparison method: Based on processed data, make comparisons between years, thereby assessing the achieved and unsatisfactory results, mainly concentrating on the drawbacks of attracting FDI in agriculture sector in Vietnam.

Time range: 2017-2021

4. Research Results:

4.1. The need of attracting foreign direct investment in Vietnamese agriculture sector

Firstly, regarding to the survey of Agriculture Science Technology Index (ASTI 2020), with the development level of Vietnam, the investment proportion of agriculture science technology should be 0,86% GDP in agriculture which means a four times increase in that field. This also means that in the upcoming time, Vietnam needs to raise its investment level of science technology in agriculture sector to meet the demand and domestic reality of production. Therefore, with the advantage of technology transferring capability, FDI completely plays an important role in developing agriculture sector in Vietnam. This type of capital is supposed to bring more opportunities for the Vietnamese agriculture in approaching high

technology in production.

Secondly, The Fourth Industrial Revolution brings both new opportunities and challenges to the whole economy. Smart factories, Internet of Things IoT, Big Data, Artificial Intelligence,... will strongly affect on present producing methods. This revolution leads to the big changes in the market, labor as well as the way of using natural resources. In Vietnam, the progress of restructuring the economy with the aim of high growth rate which show some unstable and less sustainable aspects. Vietnam set the goal of becoming an upper-middle income country in 2035 and a high-income country. That target is very ambitious and needs the huge efforts of the entire mechanism.

Thirdly, the more countries involved in Free Trade Agreement (FTA) and Economic Conventions, the bigger the chance to take the foreign capital such as FDI. In the context of tense trade war between America and China has been occurring, the capital flow of multinational companies and transnational corporations tends to move to ASEAN countries. There are some foreign capital flows that are suitable for the development orientation of Vietnam.

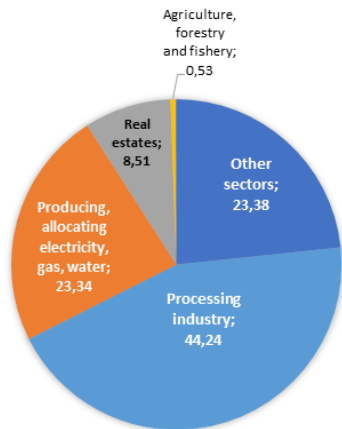
Fourthly, the world has been suffering the negative effects of climate change. The agriculture has also been seriously suffered from these changes. The available natural resources for agriculture has been demolishing. Land resources are limited, water resources are gradually exhausted, the environment pollution is more and more serious. Meanwhile, the world population has been increasing rapidly. If the agriculture industry doesn't make any breakthroughs and the output doesn't increase, the world may get in food crisis. Therefore, it is crucial to increase both quantity and quality in agricultural products.

Because of those reasons above as well as the lack of capital invested in this sector, we can conclude that attracting FDI in this field is absolutely essential.

4.2. The current situation of attracting foreign direct investment in agriculture sector in Vietnam

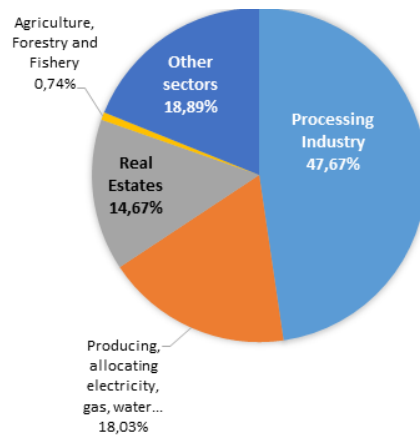
These tables below show the proportion of FDI invested in agriculture sector in the comparison of total FDI invested in Vietnam from 2017-2021:

Chart 1. FDI invested in agriculture sector in comparison with other sectors in Vietnam in 2017 (%)



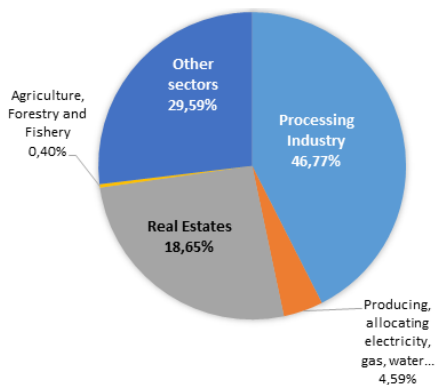
Source: Ministry of Planning and Investment

Chart 4. FDI invested in agriculture sector in comparison with other sectors in Vietnam in 2020



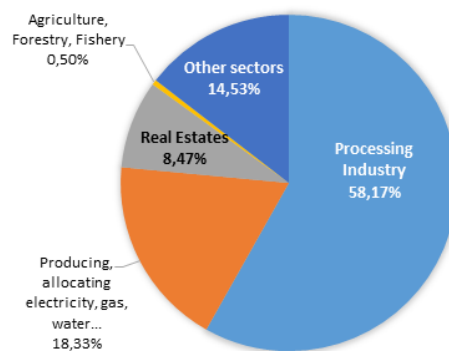
Source: Ministry of Planning and Investment

Chart 2. FDI invested in agriculture sector in comparison with other sectors in Vietnam in 2018



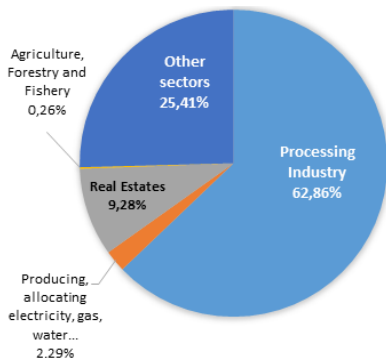
Source: Ministry of Planning and Investment

Chart 5. FDI invested in agriculture sector in comparison with other sectors in Vietnam in 2021



Source: Ministry of Planning and Investment

Chart 3. FDI invested in agriculture sector in comparison with other sectors in Vietnam in 2019



Source: Ministry of Planning and Investment

As we can see from those charts above, there was a small proportion of FDI invested in agriculture, forestry and fishery (In 2017, this ratio was 0.53%, in 2018 it was 0.40%, in 2019 it sunk by 0.26%, in 2020 it raised nearly triple by 0.74%, in 2021 it dropped a bit by 0.5%). In general, the rate of FDI invested in Agriculture, Forestry and Fishery was completely under 1% in the period of 2017-2021. Only in 2020 the rate reached the highest proportion (0.74%) in total FDI invested in Vietnam in 2020 but it was just a humble ratio.

Investment Partners in FDI on Vietnamese agriculture sector

There are more than fifty states and territories investing FDI in agriculture sector in Vietnam.

The leading states and territories investing FDI in this field namely: Japan, South Korea, Taiwan, Hong Kong, Malaysia. Japan ranked the top with the highest quantity of FDI invested in agriculture sector in Vietnam.

4.3. Assessment of attracting FDI in Vietnamese agriculture sector

Achievements

Firstly, in the age of technology with renovation and creativeness, the traditional technology barriers are the big ordeal, every country can thrive and renovate in the 4.0 ground which is determined as a new economic growth motivation in the future. This can be seen as a big chance for Vietnam to enhance its ability of innovation and creativeness in order to improve the labor productivity and competing capability of businesses as well as of the country. And this is the opportunity for Vietnam to shorten the development gap between the country and other developed countries in the world.

Secondly, Attracting FDI in agriculture sector in Vietnam has promoted the technology transmission and competing capability of the country, increased the level of agriculture value chain.

Thirdly, Vietnam has been attracting FDI from multinational corporations and transnational companies which have strong financial capabilities and experiences in management as well as the ability of transferring technology through research and development (R&D) activities. For that reason, FDI invested in agriculture will both affect positively on other industries of the economy and encourage the community involving in this technology revolution creatively.

Limitations

The first, the proportion of FDI invested in high-tech agriculture sector has been still small in total FDI invested in agriculture in Vietnam.

The second, the FDI projects on agriculture mainly focus on some fields such as planting flowers and vegetables, agricultural processing. There are not many FDI high technology projects in other fields, for examples, researching and producing cultivars, producing veterinary medicine, producing organic pesticides...

The third, FDI agriculture projects has still been concentrating on several advantageous areas. For instance, Lam Dong is the leading province with many FDI agriculture projects of the country

in attracting FDI agriculture especially FDI from Japan because of its climate conditions which are suitable for agriculture productions.

The fourth, foreign investors or partners invested in agriculture in Vietnam has not been diversified, mainly investors from Japan. In total countries invested FDI in agriculture in Vietnam, Japan is the top country with many FDI agriculture projects.

Causes of limitations

There are some main reasons for limitations in attracting FDI in agriculture sector in Vietnam nowadays, they are as following:

Firstly, it can be seen that there are still difficulties inland concentration and accumulation activities as well as in the procedure of land use rights transferring from residents to enterprises. Moreover, the preferential mechanism of taxes, land, infrastructure, credit...has been limited. The approaching of preferential loans is still difficult for economic sectors. It is necessary to have special preferences policies for enterprises investing in this field in a certain period of time.

Secondly, the lack of technique standard and certification for agricultural products and the products' certificate of origin should be printed clearly on the labels. Once the regulations of label for agricultural products are clear and sufficient, businesses can make their own competitiveness. So that they are willing to invest their money on producing agricultural products.

Thirdly, the labor forces working in agriculture have not been qualified and sometimes they are in shortage of using technology skill. This is a big disadvantage that makes foreign investors disappointed. If the enterprises wish to train labors, they should support training expenses for the farmers. In fact, if we lack of human developing strategy in agriculture, we will soon face up with higher risks in operating process of the projects.

Fourthly, the market for exporting agricultural products has not been expanding widely although Vietnam has become the members of some Free Trade Agreement (FTA). Along with the satisfying production standards, the businesses always care about the consuming market for their outputs. It is very important to untie this knot for enterprises.

4.4. Solutions to attract foreign direct investment in Vietnamese agriculture sector

In order to attract more FDI in agriculture sector,

Vietnam should take the advantages of methods which were allowed by World Trade Organization (WTO) to enhance absorbing FDI in agriculture. Moreover, the country should continually reduce risks in agriculture and strengthen the implementation of Intellectual Property Rights as well as protect the rights of agricultural products.

The most important issue is that Vietnam needs to build the agricultural value chain in which focuses on the role and position of the farmers, the market and other positively supportive measures.

Firstly, related to land concentration and accumulation in agricultural production

The process of transferring the land use rights from residents to enterprises often faces up with the difficulty in procedure and financial problems and persuading farmers to agree with the land transmission for the projects and businesses. Therefore, in this process, the local authorities need to make efforts to convince residents in order to make them understand the benefits and cooperate proactively. Besides that, the local authorities should play the role of the connector between the citizens and businesses and ensure the rights and benefits of each party in the process of land concentration and accumulation.

Secondly, implementing preferential policies for foreign investors investing in agriculture sector

In order to attract more FDI, Vietnam has been carrying out many supportive and preferential policies for foreign investors, for example, preference in land rent with 20% in the first five-year period in basic construction, preference in taxes for coffee exporting enterprises (free VAT- exporting taxes), giving tax exemptions and tax reductions (maximum in 9 years), allowing transferring losses within five years, free taxes in oversea profit transferring, giving tax refunds for reinvestment profits. These preferences aim to make more attraction in attracting foreign investors. However, due to the joining in WTO, Vietnam will have to cut off and delete some subsidies in agriculture in the future in order to be appropriate with commitments. Besides the policies of land concentration and accumulation, the Government should focus on maximally manipulating methods that are allowed by WTO to boosting the attraction of FDI in agriculture, supporting the farmers to expand the development of domestic materials by giving preferential loans (green light subsidies).

Thirdly, building agricultural value chain concentrating on the role and position of farmers. Building value chain for agriculture is a crucial issue in developing agriculture, especially the market for the outputs of agriculture production, in order to build an efficient agricultural value chain, the Government should resolve some matters: Focus on the market issues, the development of market for agricultural productions accompanied with supportive methods; In the value chain, the role and position of the farmers should be put under careful consideration because when the farmers understand and make changes in their minds about new methods of carrying out agriculture productions, a sustainable agriculture industry can be built successfully.

Fourthly, enhancing investment promotion activities in attracting FDI on agriculture sector. The investment promotion activities should be strengthened in agriculture such as: Boosting the investment promotion conferences in the agriculture sector; Studying experiences from other countries in the world about agriculture sector, especially countries in ASEAN; Motivating Public- Private Partnership (PPP) in agriculture sector in order to produce extra values in agricultural products.

5. Conclusion

The Fourth Industrial Revolution has been creating more and more opportunities and challenges for all economic sectors including agriculture sector. Foreign Direct Investment is considered as the momentum of boosting agriculture in developing countries including Vietnam. Because of that reason, attracting FDI in agriculture sector in Vietnam has been becoming more and more important. Therefore, some solutions for completing this task should be implemented as soon as possible.

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PROMOTING DIGITAL TRANSFORMATION IN VIETNAM'S AGRICULTURE

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Abstract: *Particularly for developing nations like Vietnam, agriculture plays a significant role in the development process by assisting the nation in ensuring food security, generating income through the export of agricultural products, creating jobs making, supplying, and taking the initiative in input factors for production... The best strategy to strongly promote agriculture's role in economic development is to encourage digital transformation in the sector. The paper focuses on examining the achievements as well as limits; the reasons for limitations in digital transformation in Agriculture in Vietnam, based on the broad theoretical issues of digital transformation in agriculture. The essay offers some solutions for how to encourage digital transformation in agriculture in Vietnam during the coming years.*

• Keywords: AI, IoT, IR4.0, digital revolution of agricultural.

Date of receipt: 25th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 30th September, 2022

Date of approval: 15th November, 2022

Tóm tắt: Nông nghiệp đóng vai trò quan trọng trong quá trình phát triển, nhất là đối với những nước đang phát triển như Việt nam, giúp cho đất nước đảm bảo được an ninh lương thực, tạo nguồn thu thông qua xuất khẩu nông sản, tạo việc làm, cung ứng và chủ động các yếu tố đầu vào cho sản xuất... Thúc đẩy chuyển đổi số trong nông nghiệp chính là cách thức để phát huy mạnh mẽ những vai trò của nông nghiệp trong phát triển kinh tế. Dựa trên những vấn đề lý luận chung về chuyển đổi số trong nông nghiệp, bài viết tập trung đánh giá những kết quả đạt được, những hạn chế và nguyên nhân của hạn chế trong chuyển đổi số trong nông nghiệp Việt Nam, đồng thời đề xuất một số giải pháp nhằm thúc đẩy chuyển đổi số trong nông nghiệp Việt Nam trong những năm tiếp theo.

• Từ khóa: AI, IoT, IR4.0, cách mạng số trong nông nghiệp.

The process of implementing and integrating digital technologies, such as artificial intelligence (AI), cloud computing (IClouds), the Internet of Things (IoT), huge databases (Big Data), blockchain,... is known as agricultural digital transformation, creating a synchronous and integrated digital agricultural and rural ecosystem in the direction of ecological agriculture, modern rural areas, and smart farmers; integrating the value of agricultural commodities into the activities of the linked chain in order to create new values, improve added value, and adapt to climate change.

Agriculture is undergoing a digital transformation, which includes a change in management and administrative practices as well as production processes based on digital platforms. This will help agriculture become more efficient. In order to promote the shift from “traditional agricultural production” to “digital agriculture,” which will lead to the development of high-tech agriculture, smart agriculture, precision agriculture, and an increase in the share of digital agriculture in the economy, a digital ecosystem for agriculture must be established.

2. Agriculture in Vietnam is undergoing a digital transition.

1. Agriculture's transition to digital technology

Agriculture in particular, and all other fields in general, is still in the early stages of the digital transition. A variety of aspects of agriculture have undergone digital revolution, including:

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Achievements

Agriculture is one of eight sectors to focus on digital transformation, according to Decision No. 749/QĐ-TTg dated June 3rd, 2020 of the Prime Minister authorizing the National Digital Transformation Program to 2025, with a vision to 2030.

Mechanisms and policies for digital transformation are being released and modified, to take into account trends in the field as well as the practical requirements of the agricultural production sector. Vietnam's agriculture has made some initial progress toward digital transformation, which has helped to progressively alter the appearance of the country's conventional agriculture. Here are some impressive outcomes:

The firstly, the use of digital technologies, including IoT, greenhouse farming, and use of unmanned aircraft for observation, data collection, or spraying... has gained popularity among farmers and numerous regional agricultural production areas. Most of Vietnam's 63 provinces and cities, including those in the highlands like Bac Ha, Sapa, and Son La, have successfully used digital and IoT technology in agriculture in accordance with local agricultural conditions and characteristics, boosting productivity, improving product quality, and reducing risks brought on by diseases and natural disasters. Additionally, farmers in many areas have steadily altered their farming practices, creating the perception of a farmer with an industrial, professional, and exact working style.

Secondly, e-commerce has been heavily incorporated into the consumption of agricultural products in recent years, gradually altering the traditional method and extending the market for agricultural product consumption to all domestic and international regions with no geographic restrictions. In most provinces and towns around the nation, Departments of Agriculture and Rural Development have actively aided farmers in gaining access to electronic consumption channels through new methods, regulations, and information.

Thirdly, has developed brands for numerous agricultural products using traceability technology, including CheViet, Vietnamese rice (national level); ThanhHa lychee (Hai Duong); LucNgan lychee

(Bac Giang); ChoLach rambutan; green-skinned pomelo (Ben Tre); HoaLoc mango; CatChu mango (DongThap); and tangerine (TraVinh) (local and corporate level). The application of digital technology has contributed to building brands for agricultural products and linking production and consumption closely and conveniently, meeting not only domestic demand but also standards and requirements in exporting agricultural products to countries around the world gradually.

Fourthly, start gathering data sets on local agricultural productivity building and updating them. The Ministry of Agriculture and Rural Development is gradually creating a digital database to support the agricultural industry's digital transformation with 113 different types of databases already established. Big Data technology is used by localities to enhance the organization and management of regional agricultural activities in addition to being used at the ministerial level. Along with that, a number of management software programs for forestry, aquaculture, and agriculture have been developed.

Fifthly, large businesses and farms actively pioneer the application of digital technology to the production and consumption of agricultural goods, guiding and directing farmers in the area to gradually participate in the production and consumption of agricultural goods based on digital technology. Even though when the National and Industry Digital Transformation Strategy has not been released, numerous agricultural businesses and corporations have aggressively adopted, used, and transformed digital technology. This demonstrates the initiative of agricultural businesses and reaffirms the inevitable trend of agricultural digital transformation.

Last but not least, in order to support and promote the development of the agricultural sector as well as lay a foundation for the digital transformation process in Vietnam's agriculture, the Government of Vietnam, agencies and departments have issued or amended, supplemented regulations, guidelines and policies for the sector.

These achievements would not have been possible without the prompt engagement of functional agencies and management at all levels.

The Government, Ministries, and Agencies have swiftly released action plans to promote the national digital transformation in general, and the digital transformation in agriculture in particular. These plans affirm that the digital transformation in agriculture is an inevitable and significant step, the key to the formation of the “agricultural economy.” A number of action programs have been actively carried out since the Prime Minister’s Decision No. 749/QĐ-TTg dated June 3, 2020 approving the National Digital Transformation Program to 2025, with orientation to 2030 was issued, which defined Agriculture as one of eight priority areas for digital transformation:

- Create a steering committee for digital transformation in the local governments’ and the Ministry of Agriculture and Rural Development’s agricultural sector, and designate August 19th as Digital Technology Day in Agriculture every year.

- Decide whether to constitute the Assistant team to assist the Steering Committee for Digital Transformation in the ag industry.

- Execute the digital transformation project for agricultural and rural development between 2021 and 2025 with a focus on 2030.

- Establishing the Digital Agriculture Association, which will serve as a platform for sharing resources to carry out practical tasks like finishing agricultural technology infrastructure, expanding markets internationally, consolidating collective strength, and gathering resources to spread and advance Vietnam’s agriculture in the direction of digitization with the aim of “Prosperity by Agriculture”.

Shortcomings

In addition to the achievements, the digital revolution of Vietnamese agriculture has significant limits. This essay wants to draw attention to three weaknesses:

First of all, despite the fact that there is an Action Program on Digital Transformation in the Agricultural Sector, the use of Digital Technology and the Implementation of Digital Transformation in Agriculture in Vietnam focuses mainly on some corporations, large enterprises, or some large farms in Agriculture. In truth, small-scale,

dispersed production is still rather prevalent in the agricultural industry. Vietnam’s agricultural output is still mostly organized along household economic lines using outdated production techniques, and many farming households are resource poor (financial, land, knowledge, technology). They find it extremely challenging to change production.

Second, at present, Vietnamese agriculture is still in the early stages of making the switch to digital agriculture, lacking coordination between local implementation efforts and the use of digital technology throughout all phases of agricultural production. Most of Vietnam’s notable agricultural achievements have been in the application of sensor and location systems. The lack of connection and synchronous sharing of information on all stages of production, management, logic, and trade of agricultural products; the lack of a connecting platform for the government to understand the situation and manage the country’s agricultural sector; and many other shortages in digital technology are still present. For examples, there are lack of artificial intelligence software, databases (Big Data) for production, and supporting cloud computing technology; the lack of a connecting platform for the government to understand the condition and manage the country’s agricultural sector; the lack of connection and simultaneous sharing of information on all stages of production, management, logic, and trade agricultural products... Instead than relying on the four key pillars of digital transformation awareness, technology platform, data infrastructure, and human resources synchronously, each locale has technological applications in different stages based on the actual farming conditions.

The third is the agricultural database system’s restrictions. The agricultural database system does not currently meet the criteria for connection and communication for people, businesses, and cooperatives. The Ministry’s data system is still mostly version 1.0 and does not yet adhere to the E-government architecture framework. Due to a lack of data and information, farmers and agricultural businesses are unable to establish a foundation for their production processes or their customers’ ability to know where their food is coming from. Additionally, this restriction has an

impact on how agriculture is organized, managed, and administered.

The causes

First off, because digital technology is still relatively new in Vietnam, few businesses, communities, and farmers in particular are aware of its use in agricultural production and commerce. The majority of them are unaware of the role, significance, and pressure placed on the application of digital technology in agricultural production and business. Farmers are required to adapt their behavior, thinking, way of life, and manner of working in order to succeed in digital agriculture. However, this cannot be completed quickly. This makes it challenging to use and gain access to digital technologies in Vietnam's agriculture.

Second, the infrastructure, particularly the digital infrastructure, in rural and agricultural areas has not been created or coordinated. The infrastructure for telecommunications and information technology is still developing slowly, making it unable to support the development of the Internet of Things and intelligent agricultural production. Agricultural products in remote and isolated locations do not have adequate options to connect directly and at low cost to the e-commerce system. Access to broadband services in rural and mountainous areas is still limited. The physical infrastructure is insufficient to support the use of intelligent management techniques. The national agricultural database that serves as the backbone of the digital economy is still fragmented, deficient, and asynchronous. Additionally, the infrastructure for digital payments has not been synchronized. This makes it very challenging to use digital technology in agricultural production and companies.

Third, Vietnam's agricultural output is still on a small scale, is fragmented, has little added value, operates inefficiently, and lacks value chain connections. Agricultural area planning is still irrational, wilful, and has not accurately predicted the market's demand, and it has not been connected to digital transformation. Only a few significant businesses and farms may be found where there is a connection between agricultural output and the processing industry, between farmers, businesspeople, and scientists.

Fourth, the level of farmers - direct labor force in agriculture is still low. The majority of the laborers in Vietnam's agriculture industry have been handed down experiences from one generation to the next and lack formal training. As a result, there are restrictions on how scientific and technological developments can be received and used. Additionally, it might be challenging to apply technologies and assess their utility.

Fifth, agricultural resources like land and money for technology investments are still scarce. At the moment, agricultural land is still sparse and small, which makes it challenging to implement advanced technology and digital technology. The laws governing land tenure and duration of use are still insufficient, making the process of land acquisition and concentration challenging. Farmers will require a lot of money to access and innovate with digital technologies, yet it is very challenging for them to get bank loans. One of the explanations for why farmers, households, cooperatives, and small companies in rural areas, are unwilling and unable to take part in the digital revolution of agriculture, is provided by this.

Sixth, a system of synchronized solutions to support digital change in agriculture is lacking. At the moment, Vietnam's policies and practices regarding the digital transformation of agriculture are still underdeveloped. Many policies have not been released on time and have not been connected to the real-world needs of digital transformation. If having, access to the topic of digital transformation is quite tough due to lengthy and challenging procedures, especially for farmer households. Management agencies' involvement in the agriculture sector's digital transformation is limited to the dissemination of papers, orientations, implementation guidelines, and broad action plans. The linked digital transformation solutions for planning land use, credit policy, training, and agricultural development are insufficient.

Solutions to promote the digital transformation in Vietnamese agriculture

Today, one of the essential and crucial topics is the agriculture sector's digital transformation, particularly as it helps the government reach the objectives outlined in the National Digital

Transformation Program. Here are a few ideas to encourage digital transformation in agriculture in Vietnam in the future:

Planning for agricultural development in connection with digital transformation is the first step

With a medium- and long-term outlook, it is required to build and finish the agricultural development plans related to digital transformation. Each locality needs to implement agricultural development planning toward two main issues: (1) identifying strategy agricultural products in each local; and (2) forming a large-scale production area, facilitating the application of technology in production, especially automation technology, sensing, remote control and management technology as well as a symbiotic relationship between these technologies. Digital technology-related agricultural development planning must be executed in concert with other plans, such as those for agricultural land use, the growth of allied industries, industrial clusters, and clusters of craft villages.

Agricultural companies, cooperatives, investors, farmers, and other sectors and fields related to agriculture can invest in and establish plans in the field of agriculture on the basis of long-term and synchronized agricultural development planning.

Second, funding the construction of infrastructure in rural areas

It is true that Vietnam's infrastructure, particularly in rural areas, is still highly archaic and asynchronous (including technical and digital infrastructure). Investments must be made in rural areas to update the infrastructure system and support digital transformation. In order to erase the distance between regions and localities, it is important to concentrate investments in the development of rural transportation infrastructure systems that connect production areas with provincial roads and interstates. As a result, it will help to promote both the consumption of agricultural goods and the accessibility of inputs in each region.

On the other hand, investing in digital infrastructure, such as that for telecommunications, information technology, and data centers, should

be proportionate and coordinated. It may be claimed that the success of the country's digital transformation process in general, and the agriculture sector in particular, depends on the strength of its digital infrastructure. The following primary contents should be the focus of future investments in digital infrastructure systems in agricultural and rural areas:

(i) Building Internet of Things (IoT) connectivity infrastructure and broadband telecommunications infrastructure (optical cable infrastructure, new generation mobile network infrastructure). All farmer households in all rural areas are to be able to access to the internet and utilize mobile phones (4G or 5G). This is a crucial foundation for continuing to build the Internet of Things (IoT) infrastructure in new rural buildings connected to smart rural development; prioritizing the hiring of professional services, assuring effective implementation, avoiding overlap, making the most of the infrastructure of organizations and individuals that have invested.

(ii) Create digital platforms to assist rural residents with their basic requirements (in the areas of communication, retail, entertainment, health, and learning), as well as to encourage socioeconomic growth in these areas (such as e-commerce, transportation, electronic payment, electronic contract...).

Third, synchronously developing agricultural database systems

The organization and management of agricultural activities based on digital technology is the main distinction between digital agriculture and high-tech agriculture. As a result, it is essential to expedite the creation of a database system for Vietnam's agriculture that will run on a digital platform. Data on land, information on crops and livestock by region and locality, information on the output and potential of each region and locality, information on service activities in agriculture, information on the agricultural labor force in each region, information on the environment and climate, administrative documents and management agency directives are all included in the agricultural sector database. These data must be created simultaneously, digitalized, and

updated often so that anyone may access them, connect to them, and share them. As a result, farmers, agricultural enterprises, investors... can access to obtain the information they require regarding agriculture production, consumption, or investment, allowing them to then make pertinent decisions. The digital database system is also seen as a link between state laws and regulations and the agriculture industry. At the same time, management organizations will have no trouble making choices that will enable them to run, organize and assist the agricultural sector in an efficient and timely manner.

Developing agricultural human resources to meet the demands of the digital transformation is the fourth solution.

The development of agriculture's digital transformation depends heavily on agricultural human resources, which are a critical element that can either spur innovation or stifle it.

Agricultural human resources should be trained in a clear, precise manner in accordance with their expertise and the requirements of each region and locality, taking into account the benefits of each region and locale. Focusing on intense training and increasing the number of biotechnology technicians in particular disciplines, such as biotechnology laboratory technicians, engineering inspection analysts, and environmental analysis technicians, is required in terms of the digital transition.

In order to develop production skills and technology application skills for farmers in the direction of learning while working on farms, innovative vocational training activities for farmers and rural employees are required advanced technologies. Local cooperatives, farmers' associations, or agricultural businesses may be tasked with this activity. Each locality will actively propose and design training programs and topics appropriate to actual situations. For the management team, enterprises, farm owners, and cooperative directors, training is required to improve negotiation skills, handling skills, market analysis, management skills, etc. for the agricultural industry. This training should cover topics such as production management, human

resources, market analysis, and forecasting. Consequently, assembling a group of qualified agricultural human resources progressively.

To improve training quality and the effective use of human resources, it is also necessary to promote association and cooperation activities with employers, agricultural production and business enterprises, domestic training institutions, and international training institutions. Additionally, it is important to have mechanisms and policies that encourage and create the conditions for enterprises and training institutions to cooperate and support one another in training; Mechanisms and regulations for precise, useful, and acceptable employment and compensation, fostering an environment that will draw high-caliber human resources to the agricultural sector. Contrarily, promote the establishment of institutions for vocational training and the implementation of training cooperation programs in agricultural production areas by local governments and businesses.

Fifth, creating and implementing policies for agriculture's digital transformation

Appropriate policies will provide these conditions while simultaneously promoting and encouraging participants in the agricultural sector to implement the digital transformation. In the current environment, certain policies, such as land policy, financial policy, credit in agriculture, investment policy in agriculture, and tax policy, require the most attention.

Sixth, investing and fostering technology transfer in agriculture

In terms of socioeconomic growth generally and in the fields of agriculture and rural areas specifically, science and technology are becoming more and more significant. Science and technology are thought to be a key role in boosting agricultural output and product quality, creating new development potential for Vietnam's agriculture.

Biotechnology, agricultural machinery and equipment, sensor technology, technology to connect things, technologies to support digital transformation, such as sensor technology and technology to connect things; remote control

technology; machine learning and analytics technology; drones to monitor crops and assist in spraying pesticides; are some major technology fields that are suggested to focus on investing in. Additionally, it's crucial to establish strong relationships between businesses and academic institutions, credit-granting companies, farmers, scientists, and state management groups. This is a prerequisite for fusing the demands of scientific research and production practice. The state contributes to research financing in order to support enterprises, scientists, academic institutions, and research schools. By addressing these issues, Vietnam can develop rapid, robust, and sustainable agriculture.

Strengthen agricultural links as the seventh step

Farmers and households that produce agricultural goods can better access and meet market demands, approach and change technology toward the application of digital technology in agriculture, through strengthening links within the agricultural community. Businesses will also find it simple to manage the production process and trace the origin of agricultural products, lowering transaction costs and assisting in supply and production stabilization.

In order to advance research and technology transfer activities in agriculture, particularly those connected to digital technology, it is important to strengthen the connections between the four houses of the state, scientists, entrepreneurs, and farmers. These activities will then spread widely into agricultural production activities.

Strengthen the support, cooperation, and agreement of all management levels, communities, enterprises, and particularly farmers on the digital transformation of agriculture

The workforce directly involved in agricultural production, i.e., farmers and households, must be the first to embrace digital transformation in agriculture. The process of agriculture's digital transformation will be highly influenced by their participation and company. To create a team of digital farmers with the essential abilities, knowledge, and motivation to adapt, it is therefore

necessary to modify their perceptions, update their thinking, and increase their awareness.

Encourage the creation and involvement of digital agriculture businesses by taking the lead in the use and implementation of technology. Besides, it is necessary to raise a wareness and the role of officials in the government system, as well as bring fully and accurately the guidelines and policies of the State to farmers and agricultural enterprises; and support them to effectively implement policies for digital transformation in rural areas. In order to create a digital government, under take administrative reform, and use information technology to deliver public services to the public, local governments must take the initiative. Additionally, they must promote digital transformation in rural regions by providing education, educating residents about the advantages of this change for agriculture, and encouraging businesses to invest in digital transformation in their community.

Conclusion

All social economy activities and sectors are gradually under going digital transformation, which is seen as an unavoidable development in the industrial revolution 4.0. The successes in the digital transformation of Vietnam's agricultural sector over the past time are remarkable. Despite having some drawbacks, it is anticipated that Vietnam will make significant strides in the digital revolution in the years to come, creating a robust and sustainable agricultural sector./.

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DEVELOPING CULTURAL STRENGTH - A POWER OF SUSTAINABLE ECONOMIC DEVELOPMENT IN VIETNAM

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Abstract: *In our country, ever since its birth and the leading of the revolutionary struggle, the Communist Party has correctly identified the role, position and strength of culture for the revolutionary career. In the current national renewal process, cultural construction and development is determined not only as a goal but also as a driving force and an important endogenous force to ensure the country's sustainable development. Therefore, the 13th Party Congress determined: "Promoting the soft power of Vietnamese culture" (1), "Building and promoting cultural factors to truly be a break through in socio-economic development and international integration" (2). As it is observed, the Communist Party always correctly determines the role, position and strength of culture for the sustainable development of the country, first of all in relation to economic growth and development. This article, on the basis of investigating the relationship between cultural strength and sustainable economic growth, shows that cultural resources are the driving force for sustainable economic development, thus, proposes solutions to promote the power of culture, so that culture is the driving force for growth promotion and sustainable economic development of the country nowadays.*

• Keywords: culture, cultural strength, growth, economic development, sustainable development.

Date of receipt: 01st November, 2022

Date of receipt revision: 10th November, 2022

Date of delivery revision: 03rd November, 2022

Date of approval: 01st December, 2022

Tóm tắt: Ở nước ta, ngay từ khi ra đời và lãnh đạo cuộc đấu tranh cách mạng, Đảng Cộng sản đã xác định đúng đắn vai trò, vị trí và sức mạnh của văn hóa đối với sự nghiệp cách mạng. Trong công cuộc đổi mới đất nước hiện nay, xây dựng và phát triển văn hóa được xác định không chỉ là mục tiêu mà còn là động lực quan trọng bảo đảm cho sự phát triển bền vững của đất nước. Vì vậy, Đại hội Đảng lần thứ 13 đã xác định: "Phát huy sức mạnh của văn hóa Việt Nam" (1), "Xây dựng và phát huy nhân tố văn hóa thực sự là khâu đột phá trong phát triển kinh tế - xã hội và hội nhập quốc tế" (2). Đảng Cộng sản Việt Nam luôn xác định đúng đắn vai trò, vị trí và sức mạnh của văn hóa đối với sự phát triển bền vững của đất nước, trước hết là trong mối quan hệ với tăng trưởng và phát triển kinh tế. Trên cơ sở nghiên cứu mối quan hệ giữa sức mạnh văn hóa và tăng trưởng kinh tế bền vững, đề tài này sẽ chỉ ra tài nguyên văn hóa là động lực thúc đẩy tăng trưởng và phát triển kinh tế bền vững, từ đó đề xuất các giải pháp phát huy sức mạnh của văn hóa, để văn hóa thực sự trở thành động lực thúc đẩy tăng trưởng và phát triển bền vững kinh tế đất nước hiện nay.

• Từ khóa: văn hóa, sức mạnh văn hóa, tăng trưởng, phát triển kinh tế, phát triển bền vững.

1. Cultural strength in relation to sustainable economic development

Economic growth is a concept in economics, used to refer to the actual increase in the total value of goods and services of the economy in a given period. *Economic development* is a process of comprehensive growth in all aspects of the economy, a process of change in both

quantity leading to a change in quality of the economy. That is, the growth or increase in the total value of the economy at a particular time leads to a qualitative change - changes in the internal structure of the economy, forming a new economic structure, contributing positively to increasing the endogenous capacity of the economy, increasing the wealth and prosperity

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of the society, reducing poverty, ensuring social security...

Sustainable economic development is the development that ensures high, continuous, stable and long-term economic growth in association with the transformation of the economic structure and the labor structure towards becoming more modern and progressive; increase the endogenous capacity of the economy and ensure the prosperity of the society associated with poverty reduction, social security and environmental protection. Economically sustainable development is the pillar and backbone of sustainable development.

It can be affirmed that the ultimate goal of sustainable economic development in particular and sustainable development in general is to improve people's quality of life, for human happiness, for prosperity of the nation and the people - towards the realization of cultural goals. Without cultural goals, all efforts for economic development will be meaningless.

In human's life as well as in society, there are both material and spiritual aspects. Economic growth and development are material aspects and satisfying material needs of people and society. Culture also meets the spiritual needs of human life and society. *Culture* - understood in a broad sense - is the totality of material and spiritual values created by humans in the historical process. In the narrow sense, culture is the mental activities of a society, which demonstrate the social development level, including the fields of education, science, literature, art, ethics, lifestyle, ways of behavior between people and people, between people and society; between humans and nature... along with their respective institutions. Cultural development is the development and strengthening of the spiritual foundation of society.

Among resources for development, culture is an element that plays an equally important role. Economic growth and development are the basis, the most important condition for cultural development, and cultural development is the goal and driving force of economic growth and development. Economic growth must aim at

cultural development and human development. Currently, economic globalization and the rapid development of science and technology have created conditions for rapid economic development and changes in economic development have a great impact on culture. On the other hand, it is only when economic development decisions and strategies have a high cultural content that development is truly valuable.

Given in previous centuries, when discussing economic growth and development, people often emphasized the factors of labor, land, and natural resources, but with the 4th industrial revolution, as the world enters the digital era, besides capital, technology and natural resources, cultural resources and human factors with unlimited creative capacity have become increasingly important resources which play as a driving force for economic and social development. The higher the cultural content in the economy, the higher the efficiency and quality of growth. That means that economic growth is increasingly closely linked and has dialectical impact with cultural development. A correct development policy must be one that makes cultural factors permeate all aspects of human creative activities, cultural factors must become an important content of the political system, economic development policies, strategies and plans of the Party and State.

2. Cultural resources are the driving force for sustainable economic development

Culture has great power and is the driving force of sustainable development. Then, what cultural "resources" are the driving forces for sustainable economic growth and development?

Firstly, the cultural value system - the soul of the nation

First of all, the strength of Vietnamese culture is reflected in the typical values, which are built up from generation to generation, creating a sustainable national value system becoming the characteristics and soul of the nation. It is the passionate and indomitable patriotic tradition of the Vietnamese people passed down from generation to generation; it is heroic in combat

but subtle in behavior; it is creative in labor but simple in lifestyle; that is the spirit of community cohesion, the kindness, tolerance, respect for love and morality... of the Vietnamese people. Those cultural values have linked individuals into communities, forming great material and spiritual strength for the Vietnamese people to escape from the perilous moments of history, the harsh challenges of nature; a nation that join hands to build the country, try their best to protect the country's boundary, share the pain in natural disasters, enemy sabotage, and aspire to build a rich and strong country.

The presence and permeation of the above value system manifests itself in all areas of socio-economic life, first of all, in economic activities. As a resource for development, culture has an indirect impact in arousing the country's aspiration for development, fostering patriotism, the will to self-reliance in economic development and regulate economic activities in the direction of humanity. The essence of culture is towards truth, goodness and beauty, which is the unlimited creative capacity of people. Therefore, when culture participates in regulating economic activities, corporate social responsibility is improved, then, not only businesses, but the community, society and people share the benefits. This means that culture creates economics indirectly through motivating, directing, regulating human behavior and activities in the economic field. Culture is the conduit to link economic growth with progress and social justice. This is one of the prerequisites for sustainable socio-economic development.

Secondly, the source of tangible cultural heritage

The role of culture in economic development is not only the position of spiritual resources, participating in regulation, orientation and promotion of economic development, it is also a direct driving force for economic development. With the advantage of being a country with abundant cultural resources, the strength of Vietnamese culture is also crystallized in the rich and varied tangible and intangible cultural

heritages of 54 ethnic groups. Natural heritages, tangible and intangible cultural heritages, artisans, cultural products... are cultural resources capable of creating national cultural soft power.

According to statistics of the Department of Cultural Heritage, by the end of 2020, Vietnam has 28 cultural heritages registered by UNESCO, including 8 cultural and natural heritages, 13 contemporary intangible cultural heritages as representation of humanity and intangible cultural heritage in urgent need of protection, 07 documentary heritages; 3,560 national-ranked monuments (119 special national-level monuments); 215 national treasures; 364 intangible cultural heritages are listed in the National List of Intangible Cultural Heritage.

These cultural heritages have great pervasiveness and appeal to people in many countries around the world, contributing to enriching human culture and civilization. In the current context of globalization and international integration, Vietnamese culture has more opportunities to spread to the world. The beauty in the language, in the music, in the Vietnamese art forms or the humanity in the behavior culture, communication culture... of the Vietnamese people is not only an endogenous strength for the sustainable development of the country, but also spread to many cultures and countries, attracting millions of hearts and minds of people from different countries and ethnicities around the world. Making good use of this cultural heritage system, we will achieve dual goals: both increasing the vitality of the national cultural values and contributing to the promotion of the national image, making Vietnam attractiveness, promoting the development of Vietnam's cultural and tourism industry.

Thirdly, modern cultural products

Not only limited to heritage, but the intelligence and creativity of Vietnamese people are also revealed in modern cultural products. The developments of cultural industries, the expansion of the market for cultural products and services with economic benefits have brought expectations for a direction of rapid, sustainable

development, maximizing endogenous resources which are the culture and people of Vietnam. Although cultural industrial products and cultural services are creative products with the help of science and technology, the value of each of these products is essentially the content of knowledge and culture. With their special value, in the process of international integration, cultural industrial products contribute to the national cultural strength, creating the attractiveness of the country in international relations nowadays.

Over the years, many Vietnamese, especially young people, have made discoveries and breakthroughs, giving birth to many ideas and cultural products that have attracted the attention of the community. Many cultural industrial products of Vietnamese people such as computer software, video games... are highly appreciated by the world, becoming attractive products in the international market. These are signs that if properly aroused, Vietnamese intelligence and Vietnamese people will become strength and an important resource to promote the innovation process, realizing the aspirations of developing a prosperous and happy country.

3. Promoting cultural strength to promote sustainable economic development in the coming time

It has been proven that during the period of implementing the national renovation policy, the Party has passed many important resolutions on the building and development of Vietnamese culture and people to meet the requirements of sustainable development of the country. Therefore, the cause of building and developing Vietnamese culture and people, the promotion of cultural soft power in economic development has had important changes with positive results: (1) Perception on the role and position of culture, promoting cultural soft power for economic development has been more and more complete; (2) The fields, types and cultural products develop more and more diversely, meeting new and multi-faceted needs of social life; (3) Many tangible and intangible cultural heritages are inherited, preserved and

promoted - This is an important resource and strength for the growing cultural industry and cultural market; (4) Especially, the traditional cultural value system of Vietnam has been preserved and fostered - especially patriotism, the desire to escape poverty and build a rich and strong Vietnam has made an important contribution, becoming an endogenous strength, is an important driving force promoting the country's sustainable development.

However, compared with the achievements that we have made in the fields of politics, economy, national defense, security, foreign affairs..., achievements in the field of culture are not commensurate. *"Culture has not been given adequate attention as compared to economy and politics, has not really become an endogenous resource and driving force for the country's sustainable development"*. Many cultural resources are still only in potential form but have not yet transformed into the expected strength. The level of investment in culture only ensures the maintenance of "stable" operations, but does not really have a breakthrough priority. Some mechanisms and policies on economy in culture, culture in economy, on mobilizing and managing resources for culture are still lacking specificity and clarity. The system of cultural institutions and material and technical facilities for cultural activities is generally lacking and weak, in some places degraded, lacking in synchronization, and low in efficiency.

In order for cultural soft power to become a "breakthrough engine" for economic development as in the spirit of the Document of the 13th National Congress of the Party, it is necessary to focus on the following solutions:

Firstly, at the general objective level, Vietnam needs to develop a national overall strategy on promoting the strength of culture in sustainable development in general and economic development in particular

This is to build a mechanism to transform cultural resources into Vietnamese cultural soft power in order to express the national cultural identity and protect national sovereignty over

culture; building a national cultural brand; increasing cultural attractiveness to attract the world to Vietnam; promoting Vietnam's image to the world; enhancing national competitiveness of cultural industries and national synergy and position in the process of international integration.

Secondly, institutionalize views, guidelines, lines and strategies on promoting the power of Vietnamese culture in sustainable economic development

Most of the studies agree that the success or failure of countries is closely related to the institutional problems of that country. Therefore, first and foremost, it is necessary to focus on institutionalizing the Party's views on the role of culture in economic development into laws, strategies, and specific regulations. It is necessary to build sanctions on the relationship between culture and economy, identify the legal responsibilities of economic factors in complying with cultural values and standards as well as exploiting cultural "resources" for economic development. Only in this way will it motivate businesses to explore and innovate operating models in the direction of attaching importance to cultural values in production and business. We need to actively and effectively implement the strategic goal of developing 13 cultural industries into service-based economic sectors that make important contributions to economic growth and sustainable development.

Thirdly, properly solve the dialectical relationship between the development of the market economy and the cultural construction and development

The market economy with its outstanding advantages has contributed to the release of economic potentials, strongly strengthened production forces, dynamizing economic life, accelerating the process of international economic integration. The development of a socialist-oriented market economy with the achievements of more than 35 years of renovation has improved the country's quality

of life, ensured social security - that is, has been well implementing cultural goals, for human development. However, the market economy also leads to deep social division, the phenomenon of moral degradation, the increasing trend of lifestyle, distorting many values, leading to the loss of national cultural identity. That requires us to know how to maximize the positive impact and minimize the negative influence of the market economy, maintain stability and social development.

Fourthly, focus on developing the cultural industry and improving the market for cultural products and services.

Culture is not only an indirect driving force but also a direct driving force for economic development. The development of cultural industries has brought expectations to the direction of fast and sustainable development of many countries, especially for a country possessing rich cultural resources like Vietnam. Instead of exploiting finite natural resources like many other professions, the cultural industry exploits the limitless resource of human creativity. The cultural industry is a concentrated expression of the close connection between culture and economy in development.

However, to turn the potential into reality, it requires a change in both mindset and action. In Vietnam, the task of developing the cultural industry in parallel with building and perfecting the cultural market was officially set out by the Party in the Resolution of the IX Central Conference, term XI (2014). However, in reality, socio-economic statistics do not separate the arts and cultural industries. The statistical yearbook still mainly collects, processes and provides data on 20 economic sectors, of which there are only two branches of the cultural economy, namely "information and communication" and "art and entertainment". Therefore, it is necessary to concretize and effectively implement *the Strategy for the development of cultural industries in Vietnam*, thereby forming a market for cultural products and services operating in accordance with market rules and the general

development trend of the world, while helping us create cultural products and services of Vietnamese people, for Vietnamese people, because Vietnamese people have just spread the message of Vietnamese values around the world with the soft power of culture. The State should also choose to invest and support a number of cultural industries as well as issue policies to attract economic sectors to participate in cultural industry development. Local governments must also be more drastic together with the Government in bringing the Party's Resolution XIII to life, building and developing a cultural industry based on exploiting their local comparative advantages.

Fifthly, actively and positively integrate into the international culture

Actively integrating into the international culture is the trend of our times, which has been attracting many countries and territories to participate in, including Vietnam. The 13th Party Congress emphasized: *“Actively and positively integrate into the world in terms of culture, making Vietnam an attractive destination for international cultural exchanges. Selectively acquire the quintessence of human culture in line with Vietnamese realities, and at the same time actively raise the resistance of people of all classes, especially young people, toward foreign toxic cultural products; gradually bring Vietnamese culture to the world”*.

Accordingly, we need to develop a strategy to promote the promotion and exchange to spread Vietnamese culture to the world, especially the “soft” element of culture; to build a number of Vietnamese cultural centers abroad; actively expand and cooperate with other countries in culture, diversify forms of foreign culture, deepen international relations on culture and achieve practical results; combine cultural development with tourism development and cultural services, turn tourism into a spearhead economic sector, create an interlacing of benefits and credibility so that Vietnamese culture spreads deeper and wider to the world cultural market; thereby, the world knows more and more fully about

the beautiful and rich Vietnamese country and people.

In the process of integration, along with selectively absorbing humanistic, scientific and cultural values of other countries in the world, we also need to have solutions to overcome and neutralize the bad impacts, counter-culture crept into Vietnamese culture, especially the situation of importing, promoting, absorbing easily, and lack of selection of foreign cultural products have negative impacts on the cultural life of a section of the people.

4. Conclusion

Culture, throughout the nation's history, has affirmed its position in the construction and defense of Vietnam. In the current context of innovation and integration, culture continues to promote its role as a spiritual foundation, an important endogenous resource, and a driving force for the development of the country. Accordingly, the dialectical relationship between culture and economy is becoming more and more closely linked, which is related to the entire social life and all social classes. Thus, promoting the power of culture to become a driving force for growth and sustainable economic development is one of the great relationships of the country and of the times, which, if well handled, will contribute to increasing the national synergy, making the country develop quickly and sustainably.

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DISCUSSION SOLUTIONS TO COMPLETE ACCOUNTING INFORMATION DISCLOSURE ON THE STOCK MARKET

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Abstract: Vietnam has known for a relatively high rate of economic growth country, which will both opportunities and challenges for Vietnamese businesses. Listed companies have had the opportunity to increase their capital through investments not only from domestic investors but also from foreign investors. Although, One of the challenges is financial statements, which are required to provide more useful information to users, especially those outside Businesses. In fact, Financial Information from listed companies in Vietnam is still limited, poor, low quality, and unprofessional.

• Keywords: information disclosure, information transparency, stock market.

Date of receipt: 01st November, 2022

Date of receipt revision: 10th November, 2022

Date of delivery revision: 03rd November, 2022

Date of approval: 01st December, 2022

Tóm tắt: Việt Nam được biết đến là một quốc gia có tốc độ tăng trưởng kinh tế khá cao, đây sẽ là cơ hội cũng như thách thức đối với các doanh nghiệp Việt Nam. Các công ty niêm yết đã có cơ hội tăng vốn thông qua các khoản đầu tư không chỉ từ các nhà đầu tư trong nước mà còn từ các nhà đầu tư nước ngoài. Mặc dù, Một trong những thách thức là báo cáo tài chính, được yêu cầu cung cấp nhiều thông tin hữu ích hơn cho người dùng, đặc biệt là những người bên ngoài Doanh nghiệp. Trên thực tế, Thông tin tài chính từ các doanh nghiệp niêm yết tại Việt Nam còn hạn chế, nghèo nàn, chất lượng thấp và thiếu chuyên nghiệp.

• Từ khóa: công bố thông tin, minh bạch thông tin, thị trường chứng khoán.

integration. Moreover, accountants must regularly update new knowledge, update timely changes the accounting law, accounting standards, and guiding circulars, and must accumulate working experience. In addition, accountants must comply strictly with basic professional principles and always keep their ethical principles in mind in all cases.

For listed companies: It is important for listed companies to establish an internal control system to prevent risks from harming accounting ethics. This is a measure that helps accountants and listed companies protect themselves before needing the intervention of outside forces. To take this measure, there must be a contingent of competent, responsible, and objective consultants and supervisors. The head of the accounting apparatus at the company should advise the board of management and the leaders on the establishment of a strict control system to prevent risks. It is necessary to regularly organize training to improve the qualifications of the accounting staff in terms of expertise, information technology, English and soft skills in handling work.

For the State and professional organizations: To help each accountant and auditor practice and improve their professional ethics, it is

Firstly, improve the capacity and professional ethics of related staff

For accountants: Accountants must be aware of the great responsibility for the quality of the information provided by them in financial statements. Therefore, when studying at university, they need to improve their professional qualifications, specialized knowledge, English skills, and computer skills, especially in the era of industrial revolution 4.0 and accounting

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important to have a professional ethics practice program in accounting and to strengthen practice in accounting training programs. In particular, Industrial Revolution 4.0 has many technological threats to accounting; therefore, this program has become more urgent than ever. The professional ethics practice program in accounting should be designed with a general theory of threats, ethical standards, common solutions, and real-life situations. Real-life situations should be obtained from accounting and auditing specialists, placing practitioners in specific situations so that they can handle situations in their own ways.

Secondly, solutions related to the improvement of internal control organization to enhance the information quality of listed companies

Improving the control environment: Through the establishment of responsibility in the preparation of financial statements and internal control activities in listed companies through the role of the Board of Directors. Research results show that the control environment has the greatest impact on the quality of financial accounting information, and the board of management has more influence than other components of the control environment. Listed companies need to clearly state that if confirming wrong information, the Board of Directors must be responsible for compensating the company for damages when it is handled and affects investors. The regulations on responsibilities and interests are detailed in the labor contract between the Board of Management and the Board of Directors and in the financial management regulations of the listed company.

Improving the control environment: Listed companies need to organize and maintain an effective Internal Audit Department. The Internal Audit Department is responsible for periodically reviewing the measures taken by the Board of Directors to manage and control the company. The Internal Audit Department must be completely independent of other departments and under the management of the highest level of the listed company. According to the law, the organization of the Internal Audit Department is a mandatory requirement for the control system of a listed company. Along with the checking

and evaluation of financial, accounting, and management information, the Internal Audit Department checks and evaluates the accounting information system and the effectiveness of the Internal Audit organization in the company. The checking and evaluation of financial, accounting, and management information may include the detailed checking of economic transactions, book values, account balances, and compliance with the procedures and processes. Checking the accounting system and the effectiveness of the Internal Audit organization plays an extremely important role in the operation of the Internal Audit Department. When carrying out such checking, the Internal Audit Department can be considered as part of the overall organization of the Internal Audit activity.

Improving the control procedures: The Internal Control Regulation is a good control tool for companies in general and listed companies with large-scale and complex operations in particular. Not all listed companies participating in the survey have an Internal Control Regulation or for those with an Internal Control Regulation, sometimes it is a formality due to its weak enforcement. When developing internal control regulations, in addition to learning from the experiences of other companies and other countries, it is necessary to invite experts and people who understand the actual situation at the company to participate in the development of such regulations. In the Internal Control regulations, control procedures are detailed and control procedures are applied to each specific control process. For financial accounting information, complete documentation and book keeping procedures require listed companies to design a document system, rotate documents, and regulate how to store and ensure the confidentiality of documents.

Improving the accounting information system: through the promulgation of procedures and organization of accounting work in listed companies: On the basis of internal control regulations, specific regulations and guidelines on accounting work are implemented. These procedures are indicated in specific documents and updated periodically.

Thirdly, strengthen the application of international financial reporting standards

It is necessary for the state to improve some policies, mechanisms, guidelines, and legal frameworks: There is a lack of legal basis for companies to prepare financial statements under IFRS such as the recognition of asset loss, derivative financial instruments, some techniques for the determination of loss of goodwill, etc., causing many difficulties for companies.

Listed companies need to prepare funds to invest in equipment, machinery, information technology, and accounting software: when applying IFRS, companies must have an information connection system and accounting software. Modern accounting meets the requirements of updating information quickly and promptly; therefore, companies need to plan for these large expenses and also have to spend an expense to retrain accounting staff, and not all companies can immediately meet the requirements.

Listed companies need to improve the professional qualifications and foreign language skills of their accountants: many companies have not been able to immediately apply for IAS/IFRS. Especially, when applying IFRS, it is necessary to be flexible and use many accounting estimates, while the accounting workforce in Vietnam is affected by forms, principles, and guidelines. Besides, IFRS is very complicated even for specialists in the field of financial accounting. Therefore, it is necessary to coordinate with professional organizations such as VACPA, VAA of Vietnam, Australia, etc. to train and foster accounting staff.

Fourthly, a group of solutions on accounting regimes and standards

Supplementing and improving the Vietnamese accounting standard system: a basis for preparing financial statements and supplementing guidelines on the accounting regime to ensure consistency with the international accounting standard system: a basis for preparing and presenting financial statements and then providing accounting data and financial

information includes the system of accounting standards and regimes and financial policies.

Adjusting the differences between accounting standards and financial policies: a basis for evaluating the preparation and presentation of financial statements of listed companies: The above facts have demonstrated the handling of the differences between accounting standards and financial mechanisms (in terms of exchange differences, provision for securities investment, etc.) has created loop-holes for companies to turn profits into losses or losses into profits, leading to a lack of transparency in financial accounting information disclosure by listed companies. On the other hand, it is necessary to uniformly regulate the preparation and presentation of financial statements of companies in general and listed companies in particular on the basis of only accounting standards, avoiding the presentation on the basis of both accounting standards and financial mechanisms, which detracts from the comparability of financial statements due to the handling of the differences between financial mechanisms and accounting standards.

Strengthening financial information in the notes to the financial statements: Listed companies often have large-scale, complex operations, and large and diverse users of financial accounting information. Providing more details on financial assets helps investors gain a comprehensive grasp of an economic activity that influences investment decisions. In the notes to the financial statements of the listed companies, more details are needed to add information about the aggregated accounting data on the Balance Sheet and the Income Statement.

Improving the quality of audit of financial statements of listed companies: The above analysis shows the important influence of independent audit on the confirmation of the truthfulness and reasonableness of financial statements of listed companies, creating a trust for investors. The improvement of the quality and reputation of the auditing companies creates conditions to improve the quality of audited financial statements. The quality control of the audits and the control of the audit work are mandatory requirements.

Fifthly, a group of solutions on the organization of the management apparatus and state control procedures

Strengthening the functions of the management apparatus to monitor the quality of financial accounting information of listed companies through the Stock Exchange and the State Securities Commission of Vietnam: The management functions of the Stock Exchange and the State Securities Commission of Vietnam allow the on-site monitoring of the quality of financial accounting information of listed companies.

Strengthening the functions of the management apparatus through the enhancement of the authority to control the enforcement of dealing with information violations of listed companies - establishing an Enforcement Supervision Department: According to the above analysis, the State Securities Commission of Vietnam has the right to supervise but not handle violations of information disclosure on the stock market. According to the experience of developed countries on stock market management, the Enforcement Supervision Department has an important role in supervising the stock market and handling criminal violations. The Enforcement Supervision Department under the State Securities Commission of Vietnam not only inspects but also identifies fraudulent information contained in the financial statements of listed companies.

Strengthening and maintaining sanctions for violations of financial accounting information quality of listed companies: The survey shows that listed companies want the control procedures to be stronger and ensure transparency and timeliness when they provide incorrect information.

Sixthly, improve the quality of independent audit

Auditors need to accumulate experience and intensive professional research: Auditors must have a solid knowledge of accounting and auditing policies, laws and standards. Auditing companies need to build up a contingent of auditors having professional competence and

ethics. When an audit is performed, it is necessary to select auditing staff who have good knowledge of the business areas of the audited company or have experience in auditing similar companies. It is important to strengthen the assessment of the auditors' professional qualifications and ethics and have a plan to foster and update policies, regimes, laws, and standards on accounting and auditing. Auditing companies need to ensure that the auditors' independence in the audit process is not influenced by any factors affecting the quality of the audit process.

Seventhly, strengthen the regulatory role of the State Securities Commission of Vietnam

It is necessary to strengthen the regulatory role of the State Securities Commission of Vietnam: the effective supervision of audit activities is an important factor in creating reliable financial information and creating public confidence in such financial information. Through effective supervision, investors are confident that the financial statements are audited by qualified, impartial, and objective auditors who perform their work according to high professional ethical standards and a strict monitoring system.

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APPLICATION OF VPSAS 17 TO ACCOUNTING FOR TANGIBLE FIXED ASSETS AT HANOI PUBLIC HOSPITALS

PhD. Ly Lan Yen*

Abstract: *To open and transparent public finance, the Ministry of Finance has recently developed and issued the international public accounting standards (VPSAS) 2 standards for the first time, implementing reforms in the field of public financial management at the national level and local level... the adoption of Vietnamese Public Accounting Standards is an important milestone in the Public Financial Management Program's efforts towards improving public expenditure efficiency and strengthening public resource management to guide towards inclusive and sustainable development, including fixed asset accounting at public hospitals. The study applies a qualitative method to analyze and evaluate from actual survey data through "google form" and then offers solutions to apply VPSAS 17 well in accounting for tangible fixed assets in Vietnam. The results of this study will be a resource for students, accountants, and managers at Vietnamese public hospitals to refer to and apply well in their work.*

• Keywords: *Vietnamese public accounting standards; fixed assets; public hospital.*

Date of receipt: 25th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 30th September, 2022

Date of approval: 15th November, 2022

Tóm tắt: *Nhằm công khai và minh bạch nền tài chính công, thời gian vừa qua Bộ Tài chính đã xây dựng và ban hành các chuẩn mực kế toán công quốc tế (VPSAS) 2 đợt đầu tiên được thực hiện các cải cách trong lĩnh vực quản lý tài chính công ở cấp quốc gia và cấp địa phương... việc áp dụng các Chuẩn mực Kế toán công Việt Nam là mốc quan trọng trong các nỗ lực của Chương trình Quản lý Tài chính công hướng tới cải thiện hiệu quả chi tiêu công và tăng cường quản lý nguồn lực công để hướng tới phát triển bao trùm và bền vững, trong đó có kế toán tài sản cố định tại các bệnh viện công. Bài nghiên cứu vận dụng phương pháp định tính thực hiện phân tích đánh giá từ số liệu khảo sát thực trạng qua "google form" và từ đó đưa ra những giải pháp vận dụng tốt VPSAS 17 vào kế toán tài sản cố định hữu hình tại các bệnh viện công lập Hà Nội hiện nay. Kết quả của nghiên cứu này sẽ là nguồn tài liệu giúp sinh viên, kế toán, các nhà quản lý tại các bệnh viện công lập Việt Nam tham khảo và vận dụng tốt vào công việc của mình.*

• Từ khóa: *chuẩn mực kế toán công Việt Nam; tài sản cố định; bệnh viện công.*

1. Introduction

The application of Vietnam's public accounting standards, including the standard on tangible fixed assets, is set out as inevitable and objective, stemming from the need for unified management of the State's finances, the requirement of integration international standards of Vietnam and the inspection and supervision of accounting activities in the field of State accounting. This issue has been interested and studied by many researchers.

Currently, public accounting units at Vietnamese public hospitals, including public

hospitals in Hanoi, are very confused in properly understanding, properly implementing, handling and properly recording arising problems. transactions related to fixed assets when applying according to Circular 107/2017/TT-BTC, the units have not caught up and became more confused when the Ministry of Finance issued VPSAS 17 in the group of accounting standards. Publication was issued in phase 1 on September 1, 2021. The results of this study will be a source of documents to help students, accountants, and managers at hospitals understand the regulations and classifications for the correct recognition of fixed assets in use at the

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unit from which to have an overview. more accurate and processing information more accurately.

2. The system of public hospitals and accounting for fixed assets at public hospitals in Hanoi today

“Public non-business unit in the health sectors” means an organization established and managed by a competent state agency in accordance with law, with legal status, seal, account and organizational structure. accounting according to the provisions of the law on accounting to perform the task of providing public services or serving the state management in the fields of medical expertise such as: Preventive medicine; medical examination and treatment; nursing and rehabilitation; medical assessment, forensic medicine, forensic psychiatry; traditional medicine; testing pharmaceuticals, cosmetics, medical equipment; food safety and hygiene; population - family planning; Reproductive Health; health education communication (hereinafter referred to as medical non-business units).

According to interviews and surveys from staff of the Hanoi Department of Health, there are 57 large and small public hospitals in Hanoi, including hospitals under the Ministry of Health, the Department of Health of Ha Noi and some hospitals under other the management such as: Hospital of Public Security, Army, Postal Service, Transport... The system of public hospitals, the main task is to perform medical examination and treatment and take care of people’s health. To accomplish the above objectives, tools are required, in which tangible fixed assets are indispensable physical tools, means essential material conditions for the operation of public hospitals, means of transport, machinery and equipment for medical examination and treatment, supporting for management and administration. Tangible fixed assets at public hospitals in Hanoi are a part of public property that the State assigns to public hospitals to directly manage, use and exploit to perform their functions as assigned tasks. In addition, because the state’s funding for investment in fixed assets in hospitals is very large, but the state’s resources are limited, tangible fixed assets in established hospitals can be mixed from state budget and mobilize socialization from various sources.

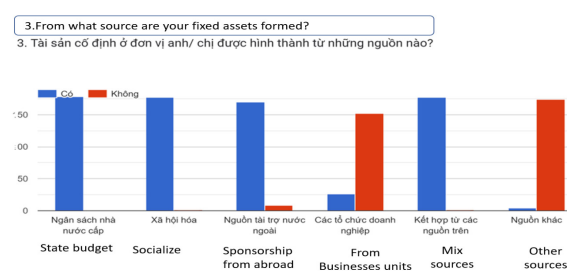
Currently accounting of fixed assets at public hospitals in Hanoi:

According to the author’s survey, sent to the accounting department staff of 57 hospitals in Hanoi and obtained 53 answers on google form (reaching 93%): The author has synthesized on google form to get the results of answers and exchanges of accountants, chief accountants of hospitals who directly perform the accounting records, managing and handling accounting at the hospitals.

Basically, all units comply with the regulations of the Government, issued by the Ministry of Finance... 100% of the units perform accounting according to the provisions of Circular 107/2017/TT-BTC (Circular 107). This is also a new step when public health care units have approached the accrual accounting principle to make financial statements more transparent. (Chart 1)

However, accounting for tangible fixed assets in accordance with Circular 107 is not easy when the assets are formed from many different sources, 28.3% said that it is difficult to do 69.8% of the units. think it’s not easy to do and 1.9% find it easy. The tangible fixed assets of the units are formed from many different sources with the ratio depending on whether the unit is financially self-sufficient or not. For fixed assets formed from many different sources, 43.4% of units recorded their

Chart 1: Source of assets formation



Report from survey.

historical cost separately by each user, 54.7% recorded their historical cost separately from each source and only 1.9% of the units are recorded in common (in this case, it will be difficult to make a correct and sufficient depreciation. It affects the transparency of accounting information. When depreciating fixed assets formed from many

sources. The difference is that 52.8% of the units have deducted from the source to form fixed assets and 47.2% of the units feel that it is too complicated to separate.

At a hospital through survey, there was "A building with 11 floors was built from the government's budget, after using that property for 2 years, the hospital built a project to use the 11th floor for joint ventures, joint to perform services (business), from the 1st to the 10th floor, still follow the original purpose, the unit is having a hard time recording the historical cost and depreciating fixed assets.

Table 1: Funded asset management and granting the right to use the sponsored property

| Managed by authority Sponsorship | Ministry of Health | Health service Dept (City) | Accounting Dept (Hospital) |
|-------------------------------------|--|---|---|
| By cash | -Receive directly into the sponsorship account of hospital | - Receive directly into the sponsorship account of hospital | The unit records an increase in other income, the remaining amount will be used to purchase fixed assets. |
| In kind (fixed assets) | -Establish ownership rights of the whole people - The Ministry of Health issues a decision to assign the receiving unit to directly manage and use the property | - Establish ownership rights of the whole people + The unit receiving fixed assets submits the dossier to the Department of Health, the dossier is transferred to the City People's Committee to issue a decision for the receiving unit to be used. | - After a decision is made to assign and use assets, the accounting unit will record an increase in cost. |

Source of data collected by the author from surveys and interviews

Many assets are formed from direct sponsoring for hospitals but are recorded very differently: For hospitals under the management of the Ministry of Health, the Ministry of Health has decided to establish full ownership rights, owned by the whole people who hand over assets to the hospital are received, and at the same time recorded on the system and transferred to the Ministry of

Finance. For assets sponsoring for hospital under the management of the Department of Health in Ha Noi, the hospital receiving the assets then it will be transferred to the Department of Health for approval and transferred to the Hanoi People's Committee for inspection and decision, establish ownership of the whole people, hand over the property to the hospital receiving the funding for use (Table 1).

Example: Bank X commits to donate 2 billion VND to hospital A under the Department of Health, equivalent to 4 cars. However, the Bank handed over to the hospital 2 cars worth 1 billion, the rest was delivered by wire transfer of 1 billion VND. For this grant, the recipient has to go through a very complicated procedure for 2 cars, which must go through the Department of Health, the People's Committee to establish the new ownership, to record an increase in the original cost of the fixed asset. For the sponsored amount, the unit only needs to carry out procedures to buy cars, medical equipment, organize bidding (the supplier is selected and appointed by the sponsor) according to the purpose of the sponsor. Some units record other income and carry out tax payment procedures, the rest is used to purchase fixed assets, medical equipment, etc.

During the recent anti-epidemic period, medical units received a lot of funding from domestic and foreign organizations and individuals with fixed assets. There are very valuable assets such as the Hospital for Treatment of Covid Patients (under the Medical University Hospital - Hoang Mai Campus). The sponsors hand over all the facilities, know the medical equipment to the Director of the Medical University Hospital to use on the borrowed land. All these assets have not yet been recorded in the financial reporting system of the Hospital as well as of the Ministry of Health.

Especially in the medical industry, there are many assets available in hospitals such as ultrasound machines, electrocardiograms, tomography machines, dialysis machines, etc. are being used to perform medical examination and treatment services that are not owned by the hospital, these assets are lent by 100% of the units selling supplies and are not recorded in the financial accounting books of the unit. at cost and without tracking wear

and tear that half of the hospitals recorded in the management accounting book system of Fixed Assets for custody and protection. After the end of the contract (usually 1 year, the contract is signed once) will return to the partner selling the materials (the unit that lends the machine).

Value after initial recognition: Basically, public accounting units in hospitals in Hanoi area aggregate costs, set up a council to evaluate the value of repair and upgrade according to the provisions of Circular 45 /2018/TT-BTC that can be included in the original value and amortized value if there are insufficient conditions to record the value of repair and upgrade costs, 99% of units offer implementation plans in accordance with regulations.

At the end of the use of tangible fixed assets of the units, it is necessary to assess the current condition of the assets in both physical and asset value, conduct an inventory, determine the current value of the assets, make different treatment options. The issue of valuation for sale and liquidation of assets is a decisive factor in the effectiveness of this process (both by management). Management of the process of ending the use of public property at the hospital is the management of the process of disposing of such assets in different forms such as liquidation, sell or transfer.

When the Ministry of Finance promulgated public accounting standards in the past 2 rounds, some public health care units have not yet approached these standards to prepare a roadmap for the implementation of public accounting standards in the application. taste yourself. The survey on this issue showed that 11.3% of the respondents did not know and 88.7% of the subjects knew about the public accounting standard 17 (VPSAS 17), they knew VPSAS 17 through the channel. information from the Ministry of Finance, online, in the press and during professional learning. Most of them have not been approached and trained by the Ministry of Finance, so out of 100% of respondents who know about VPSAS 17, this standard is difficult to implement because they are not familiar with the implementation of accounting records according to principled regulations, not just hand-held work as before. Regarding the implementation roadmap of VPSAS 17 in particular, VPSAS in general at

the units selected 5.7% to implement the roadmap for the next 1 year and 94.3% of the respondents, the roadmap determines the time greater than 1. financial year. Thus, it is very difficult to follow the objectives of the Ministry of Finance. The surveyed units also basically understand and master the implementation of VPSAS 17, which will make the data on the financial statements more transparent. Because of the habit of holding hands, the subjects only used to follow the old regulations of Decision 19/2006/QD.- BTC

The roadmap to implement VPSAS 17 in particular VPSAS in general is currently not interested in implementing by accounting units, also due to many reasons due to the process of studying from the university as well as the untrained working process. The basic principles of international public accounting standards are difficult to read and understand, and in addition, the cost of implementing the accounting standards is high, making it difficult to estimate the total costs for the implementation. implementation (for example, changing accounting software systems, staff training costs, etc.), although employees are all qualified to use information technology, it is necessary to apply for the State budget to implement the implementation. . Leaders of the units are not fully aware of the importance of applying VPSAS to their units, so they are not interested, so they do not know, so they have no opinion on how to implement this roadmap.

According to current regulations of the Law on Management and Use of Public Assets, public hospitals now have the right to use public assets managed by the unit itself for business, leasing, joint ventures, joint ventures and joint ventures. without having to take the step of receiving assets like the State handing over assets to enterprises. Hospitals that use public property for business purposes, lease, joint venture or association are responsible for making a plan on using public property for business, leasing, joint venture or association purposes to report to the hospital. authorities or persons competent to decide; organize the implementation of the approved project; update information on the use of public property for business purposes, lease, joint venture, and link to the National Database on Public Property; fulfill

the requirements of taxes, fees, charges and other obligations to the State.

In use, fixed assets are gradually depreciated. Part of the depreciation value of fixed assets is the cost factor of public consumption and the other part is the cost factor of the cost of medical examination and treatment products and services.

Management at the end of use: Public assets of public hospitals that are put into use after a certain period of time have the process of ending to be replaced with other assets (except for land, works under the infrastructure and some other durable works). In addition to the used assets that have been depreciated and cannot be used, there are also assets that are still usable but the hospital has no need to use them due to a change in functions, duties, or because the assets are invested. When public property has reached the end of its useful life, has been completely worn out or is damaged beyond use, it must be liquidated to recover its possible value. recovered for the state budget, and at the same time as a basis for preparation for investment and purchase of new assets.

3. Applying VPSAS 17 to accounting for tangible fixed assets at hospitals in Hanoi.

VPSAS 17 with “Real Estate, Plant and Equipment” regulates the accounting method of real estate, plant and equipment so that users of financial statements can capture information about the investment situation. of the entity in real estate, plant, and equipment and changes to those investments. The basics for property, plant, and equipment accounting are: recognition of assets, determination of the value of assets, and the recognition of depreciation expenses. This Standard applies to both specialized military equipment and infrastructure but does not apply to attribution to forests, natural resources, mineral rights, oil, and natural gas. However, in order to be suitable for each public unit, it is necessary to consider the characteristics of each industry and each public sector in order to be able to implement and apply these regulations well.

From the provisions of VPSAS 17, combining the characteristics of fixed assets in public hospitals in Vietnam can be applied to the recognition of fixed assets in public hospitals in Vietnam as follows:

Recorded as tangible fixed assets (equipment, plant):

Subject to paragraph 11 VPSAS 17 The cost of an item of real property, plant and equipment must be recognized as an asset if and only if: (a) It is probable that the economic benefits associated with it will flow to the entity. potential futures or services from that asset; and /(b) The historical cost or fair value of the assets can be measured reliably. Thus: For assets that meet the above two conditions, they are recorded as tangible fixed assets (classified as real estate, plant and equipment).

Infrastructure assets:

In the hospital, it is the VS sewer, clean water line, telephone network, surveillance camera system that satisfy enough or nearly all of the recorded characteristics: “(a) These assets are part of a system. system or a network;/(b) These assets are specialized in nature and have no alternative uses; /(c) These properties cannot be moved; and /(d) These assets may be subject to restrictions on resale.”

Initial costs: are costs incurred before that asset is formed and put into a ready-to-use state, including costs incurred that do not directly create products or services for the purpose of the company. A medical facility: For example: A hospital building a building for the treatment of infectious patients, in order for that building to work, it must have a fire prevention system, must have a garbage treatment system. Such separate medical waste is not only recognized as a tangible fixed asset, but the qualified fire prevention and waste treatment system is also recognized as a tangible fixed asset

Post-initial recognition costs: These costs are recognized after the asset is put into a ready-to-use state. On a case-by-case basis, these costs will be divided into:

Routine expenses not recognized under paragraph 12 such as: electricity, water, elevator maintenance, waste treatment chemicals, repair and maintenance fees, operating staff, etc. for building services and fire systems, will not be recognized in the value of the building.

Expenses for periodic replacement of a part of the factory or equipment, but not monthly.

Example: Replacing an ultrasound machine part or an ultrasound machine transducer that qualifies will recognize a tangible fixed asset (debit to the cost account for the replacement part) and the replaced part. The replacement part will be reduced (credit to the account Cost of that reduced part), the value of the replacement parts that do not meet the recognition criteria will be recorded as an expense in the period for that part. (refer to paragraphs 59-65 of VPSAS 17).

Because the assets of hospitals are very large and active due to the high demand for medical examination and treatment services, which greatly affects medical examination and treatment, saving lives, it is necessary to monitor and check regularly if damage is detected at any time, consideration should be given to whether replacement is required (as specified in paragraph 19)? In addition to the fact that replacement devices are recognized as described in paragraph 19, the costs of major inspection of these medical devices if they are sufficiently large and meet and satisfy the recognition criteria (Debit "Accounting costs of arising inspection"/ Relevant account) - recorded separately from the cost of equipment). At the same time, for the value already recorded in the historical cost of the previous period, it will be reduced when receiving new expenses (Debit Depreciation of inspection expenses/Account "original cost of previous inspection expenses").

Determining the value when recognizing tangible fixed assets (factory equipment)

Under the provisions of paragraphs 21 and 22 of VPSAS 17, fixed assets that meet the recognition criteria must be measured at cost of fixed assets (paragraph 21 VPSAS 17) and, for assets acquired through In a non-exchange transaction, the cost of the asset is measured at its fair value at the date of receipt. (paragraph 22 VPSAS 17).

Example: Hospital A buys a 5D Sonoscape P15 ultrasound machine for VND 350 million from HA medical equipment company. The cost of transportation and installation was 15 million VND, paid by bank transfer. This ultrasound machine is used for the imaging department, so this ultrasound machine is eligible for recognition of fixed assets because it meets the above conditions.

Components of the original cost:

For equipment and buildings due to procurement: is the purchase price (if purchased), non-refundable tax (import tax, excise tax, value-added tax (if any), minus any discounts price, trade discount).

Direct costs related to bringing the asset to a ready-to-use state, such as: Labor costs, site preparation, initial transportation and handling costs, installation and commissioning costs (types). except for recalled products)

For example: the hospital receives (purchases) X-ray machines during the trial run for 1 week: Eliminate the costs of operating staff, chemicals, and supplies for 100 million...the obtained product is X-ray film- The cost of receiving the service is 150 million, so the cost added to the original price (original cost) of the X-ray machine is 50 million.

Example 2: For ambulances to operate, they must register and pay fees such as registration fee, registration fee (if any) ...)

For equipment and buildings, the estimated initial costs of dismantling, moving and restoring the premises when preparing to acquire such fixed assets are included in the historical cost of such equipment.

If tangible fixed assets are created by the entity itself: determine the value as the full cost of creating the asset, including interest (if capitalized) and excluding excess costs when create that property. Example: The hospital built a voluntary medical examination and treatment building by itself with borrowed funds. All costs of materials, labor, etc. are included in the historical cost (according to the approved final settlement price, excluding excess costs), interest expense for capital construction is included in the original cost, although However, if the project has a downtime, the interest expense is not allowed to be capitalized into the work (for example, due to the covid epidemic, it takes 6 months to stop, then the interest will not be included in the original cost but will be included in the expenses in the period).

Determine the original value: it is the total initial value incurred to bring the asset to a ready-to-use state.

- For purchased assets: According to the principle of historical cost for recognition, if

purchased in the form of deferred payment, the original value is determined according to the one-time payment price (at sight), excluding interest expense on deferred payment.

- If the property is exchanged: Is the fair value of the property to be exchanged, or the residual value of the property taken away (depending on whether there is a trade or not in each case).

4. Determine value after initial recognition

Once recognized as an asset, a property, plant and equipment is stated at cost less accumulated depreciation. (paragraph 37).

Depreciation: Depreciation of fixed assets according to this standard is calculated separately for each large-valued part, but the useful life may be different. For equipment and buildings of great value, it is necessary to allocate raw cost and amortization for each of those parts, if there are parts similar in useful life that can be aggregated, the depreciation expense is included in the surplus or deficit of that period, unless it is included in the value of other assets according to the original cost principle.

Depreciation value and depreciation period: Depreciation value must be allocated systematically over the useful life of the asset. The estimated liquidation value and useful life of the asset should be considered at least each fiscal year and recorded treating changes (if any) and as an estimated change using the retrospective method. prosecution or non-retrospective. Assets are not regularly maintained, so the useful life may have to be considered shortened due to natural wear and tear, the need to adjust the use time, wear value, etc. Equipment or machinery is idled, unless such equipment or machinery allocates wear and tear to output, the useful life of the asset can be considered over the life of the lease agreement.

For the 11-storey building mentioned in the current situation: After allocating the original cost of the property (used from the budget) used for 2 different purposes: from the 1st floor to the 10th floor for medical examination and treatment. For diseases, from the 11th floor and above used for joint venture activities, the original cost must be determined by each department (buildings, structures and elevators). Specifically handled as follows:

Table 2: Determination of original value and useful life for fixed asset

| Principle Place to use | Original value is determined According to VPSAS 17 | Useful time of use | According to the specific guidance circular |
|---|---|-----------------------|--|
| 1st floor to 10th floor using for medical service | - Buildings and structures are allocated to 10 floors - Elevators are allocated to 10 floors | 80 years 10 years | According to circular TT 45/2018 |
| 10 floor joint venture, association (other services) 25 years association contract | - Buildings and structures are allocated to the 11th floor - Elevator is allocated to floor 11 | 25 years 10 years | According to circular TT 45/2013 |

Source: Self-gathering by author

Depreciation method: Must be reviewed at least each reporting period in accordance with the expected period of depreciation that needs to be adjusted. If there is a significant change, adjustments must also be made retrospectively or non-retroactively, according to the Accounting Policy Change Standard. The depreciation method needs to be consistent across accounting periods.

Record reduction of tangible fixed assets: In cases of liquidation or transfer of assets, when no longer economic benefits can be obtained (for example, the old transducer of an ultrasound machine is replaced by a new transducer). Gain or loss on disposal of plant equipment is the difference between the recoverable value and the remaining value of the asset.

Some general inadequacies about fixed assets that need to be handled:

Thus, to process medical equipment, hospitals borrow from partners providing supplies (without charge) to perform medical examination and treatment services such as: Magnetic resonance imaging machines, CT scanners, etc. , ultrasound machine, hemodialysis machine.... Hospitals must commit to purchasing supplies from suppliers. According to this regulation, these assets do not meet the criteria for recognition of fixed assets in paragraph 12 VPSAS 17. According to the provisions of the standard on leasing, they are not eligible to be identified as leased assets because they do not incurred to pay the rental fees for that

property, the two units only made a fee-free loan contract. One disadvantage is that for medical products and services created from these assets, there are not enough factors to pay for health insurance. Should the leaders of the hospitals be able to allocate the cost of the supplies and equipment used (because of the nature of the cost of those supplies, the cost of the amortization has already been allocated to it?).

Therefore, when performing a fixed asset lease contract in the form of an operating lease, the equipment rental cost is separated and allocated to the service price, then the entire medical service fee will be covered by the insurance agency. Hospital accounting units still need to record in management accounting books to keep track of this asset.

For assets that are directly funded by tangible fixed assets, which are medical equipment given to hospitals under the Department of Health, is a decision from the Committee or Department of Finance necessary? It is only necessary to go to the donation record of the donor of the fixed asset as the basis for determining the original price of the property. Since for the assets that are funded, the sponsors usually directly give the assets to the hospital that the hospital is entitled to, so the increase in assets should be allowed at the time of receipt from the donor, while the procedure The process of transferring the right to establish the owner can be completed later, if the dossier for such property cannot be completed, the retroactive method to adjust it shall be carried out (in fact, all of those assets are licensed. After that, the procedure is cumbersome, so it can take up to several years, affecting the recognition of fees, service revenue and the payment of health insurance.

A number of large assets are funded to serve the fight against the covid epidemic. Anti-epidemic purposes, but the epidemic has been controlled. The remaining assets are many but have not been assigned and the ownership rights established, so that property has not been put into service for general purposes, leading to waste.

If the state budget is provided by self-purchasing money. But if other sources of funding are accepted into the hospital's medical examination and treatment fund for the purpose of not making a

profit, tax will not be deducted before purchasing property. If the property is purchased for funding but is for profit-generating activities (voluntary medical examination and treatment), it will have to deduct and calculate tax on this donation.

5. Conclusion

In order to have useful, public and transparent information, it is necessary to soon agree on the application of public accounting standards to public entities. Previously, public hospitals only made revenues and expenditures according to government estimates. All revenues and expenditures for services, especially voluntary medical examination and treatment activities, are often self-disbursed outside of hospitals, while assets formed from the state budget are not compensated. In addition, due to limited budget, there are many joint ventures, associations, and contracts to borrow assets from external partners to serve medical examination and treatment, which causes difficulties for management, monitoring and treatment of patients. assets as well as the output of health services from the government. Understanding and properly implementing the regulations from VPSAS 17 will make the information on the reports of public hospitals in Hanoi more transparent./.

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THEORY OF CONSUMPTION VALUES AND CONSUMER ETHNOCENTRISM IN GENERATION Z'S TOURISM CONSUMER BEHAVIOUR RESEARCH: A STUDY OF DOMESTIC TRAVEL DESTINATION CHOICE IN CONTEXT OF VIETNAM

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Abstract: Domestic tourism delivers economic benefits to Vietnam economy as well as to local enterprises in tourism industry, also becoming a trendy topic recently due to its severe damages and rapid recovery after the Covid-19 pandemic. In this study, the authors examine the antecedents influencing domestic tourism destination choice in Vietnam, particularly in investigating generation Z's behaviour by using Theory of consumption value and tourism ethnocentrism. In 1st phase, the authors propose a conceptual framework intergrating theory of consumption value with five values: Functional value; Social value; Emotional value; Epistemic value; Conditional value and tourism ethnocentrism with the quantitative methodology. In 2nd phase, this research also presents the antecedents affecting the intention to choose a domestic tourist destination of the generation Z (gene Z) by Pearson correlation analysis và Multiple regression analysis results.

• Keywords: tourism ethnocentrism, home country bias, tourism behavior, tourist psychology, theory of consumption value, conditional value, generation Z.

Date of receipt: 25th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 30th September, 2022

Date of approval: 15th November, 2022

Tóm tắt: Du lịch nội địa mang lại lợi ích kinh tế cho nền kinh tế Việt Nam cũng như các doanh nghiệp địa phương trong ngành du lịch, đồng thời trở thành một chủ đề đáng chú ý gần đây do sự thiệt hại nặng nề và phục hồi nhanh chóng sau đại dịch Covid-19. Trong nghiên cứu này, các tác giả sẽ xem xét các nhân tố ảnh hưởng đến lựa chọn điểm đến du lịch nội địa tại Việt Nam, đặc biệt là điều tra hành vi của thế hệ Z bằng cách sử dụng Lý thuyết giá trị tiêu dùng và thuyết vị chủng người tiêu dùng. Giai đoạn 1, nhóm tác giả đề xuất khung khái niệm tích hợp lý thuyết về giá trị tiêu dùng với 5 giá trị: Giá trị chức năng; Giá trị xã hội; Giá trị tình cảm; Giá trị tri thức; Giá trị có điều kiện và chủ nghĩa dân tộc trong du lịch. Phương pháp luận được sử dụng là định lượng. Ở giai đoạn 2, nghiên cứu này cũng trình bày các yếu tố tiền đề ảnh hưởng đến ý định lựa chọn điểm đến du lịch nội địa của thế hệ Z (gen Z) bằng kết quả phân tích hệ số tương quan và kết quả phân tích hồi quy.

• Từ khóa: du lịch vị chủng, xu hướng quê hương, hành vi du lịch, tâm lý du khách, lý thuyết giá trị tiêu dùng, giá trị có điều kiện, thế hệ Z.

1. Introduction

In facts, after the Covid-19 pandemic lasted for more than 2 years in Vietnam, the severe and prolonged impacts of the Covid-19 pandemic have changed consumer behaviors, including consuming in tourism industry. The trend of protected tourism, touch-free services, domestic tourism, open space...

is gradually raising. Currently, domestic travel with the close-distance destinations remains the priority for a large number of travelers, despite the well-tested Covid-19 outbreak. According to a survey by Visa (an electronic payment company), 76% of Vietnamese people plan to travel domestically for leisure this year, which is relatively higher than the

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rate of 34% who plan to travel abroad. Also, 30% of respondents said they would choose to visit and prioritize local tourist attractions on national holidays without going out of the city/province they are resident, in order to avoid crowds. Among young consumers, gene Z is a generation to pose the biggest challenge for future marketing research (Morgan, 2016). The expression "Generation Z" refers to a new sociological category, nourished by the information technologies, the internet and the social networks (Haddouche and Salomone, 2018). When comparing the expense spending between oversea tourism and domestic tourism, it is obvious that domestic tourism is more affordable for young tourists, especially gene Z. Although many tours to Southeast Asian countries such as Thailand are currently offered for sale at very low prices in order to stimulate international tourism, gen Z still tends to choose domestic tourism and specially prefers local foodtour as tourism experience. Therefore, the research of gene Z's consumer behavior in choosing domestic tourism, by using Theory of consumption value (TCV) and tourism ethnocentrism (TE), is one of the potential suggestions for the tourism service enterprises in Vietnam.

Tourist behavior as a field of study is the application of Consumer Behavior concepts, theories, and models to investigate the processes involved when tourist select, purchase, use, or dispose of goods, services, ideas, or experiences for the satisfaction of their needs. (Engel, Blackwell, and Miniard 1995). To explain consumer behavior, there are many theories are applied like *theory of planned behavior* (TPB) and *technology accepted model* (TAM), but current marketing philosophy is value-oriented, but marketing theory explaining value from the consumer perspective is limited. The *theory of consumption value* (TCV) is a marketing theory that provides insight into the motivation for consumers' consumption behavior through consumption values. Research using the TCV has been conducted in various countries like USA, Taiwan, China, South Korea but there are insufficient studies in the context of a transitional economy like Vietnam.

Recently, In 2019, F. Kock et al. 2019 developed the concept of tourism ethnocentrism (TE) and it signs a potential to influence tourism destination choice. TE reflects prescriptive

beliefs to support the domestic tourism economy, it is likely that individuals endorse these beliefs in their roles both as tourists and as residents. Importantly, TE reflects a focus on the interests of the own country and does not necessarily extend to explicit negative attitudes and behaviors toward other countries.

The main objective of the article is to propose the conceptual framework to explain the consumer behavior of Generation Z in Vietnam when choosing a domestic travel destination by intergrating theory of consumption value and tourism ethnocentrism.

2. Theoretical background and propositions

2.1. Characteristics of Generation Z

Generation Z was born between 1995 and 2012, and is also known as "Digital Natives," "Me Generation," and "Generation N" (Feiertag & Berge, 2008), with Generation X as their primary predecessor. They were born into a challenging era, with issues ranging from terrorism to global political instability to environmental concerns. They are the first generation to have experienced digital technology on a large scale and up close, such as social networking sites and the wealth of information available online. (Turner, 2015). These key characteristics of Generation Z can be summed up as follows:

- *Hypertext frame of mind*

Gene Z is generally noted for having low face-to-face interactions and being less likely to reason logically using their brain. Merriman (2015) stated that their heavy reliance on the internet has enabled them to obtain any information quickly and easily. Despite a lack of physical social interaction, they are highly multi-tasking and heavily reliant on social media (Cowan, 2014). The ability stems from their routine of performing multiple tasks at the same time.

- *Overprotected*

According to Cowan (2014), Generation Z is nicknamed "the curling generation" in Denmark because their parents diligently sweep away the obstacles in their path as they march effortlessly towards their future. On the other hand, their parents are spoon-feeding them (Jaleniauskiene & Juceviciene, 2015), which indirectly create enjoyment preferences such as travelling.

- *Lack of communication*

Generation Z is described as more individualistic, self-absorbed, but less team-oriented than other generations (Turner, 2015). The “Google” generation believes that knowledge is always accessible to them, instantaneous, immediate, and free. As a result of their upbringing, they are impatient, rebellious, and expect immediate results (Turner, 2015). They are a generation that can form huge communities and maintain a constant communication loop with people they have never met and will never meet in real; ironically, this generation is collaborative, chatty, and sociable on the internet, but in “the real world” they tend to be less well able to develop personal relationships (Riva, et. al., 2012).

- *Immediate gratification*

According to Prelude Consulting Limited (2016), extensive internet exposure has made Generation Z impatient and require instant gratification, as well as introvert and disengaged with society. Due to young age, they also have shorter attention spans.

2.2. Theory of consumption value

Theory of consumption value (TCV) is a pivotal view in the second proclivity which has been preferred for investigating perceived value by consumers in a number of studies (mentioned in other sections of the paper) due to focusing on both the utilitarian and hedonic senses of perceived value with multi-dimensional approaches (Sheth et al., 1991). The TCV, as a multi-dimensional approach, examines consumption value from a behavioral perspective and provides perceived-value typologies (Boksberger & Melsen, 2011). TCV was introduced by Sheth et al. (1991) in the article titled Why we buy what we buy: A theory of consumption values” published in the Journal of Business Research. It has received 4,741 citations in Google Scholar and 1,279 citations in the Web of Science (as of March 2021). This theory clarifies the motivation for consumption behavior - predicting, describing, and explaining choice behavior by focusing on consumption values. Sheth et al. (1991) have used a wide range of disciplines such as economics, marketing, consumer behavior, sociology, and psychology to develop the theory and its values; thus, the TCV provides a multidisciplinary view for studies examining consumer choice behavior. The authors

of the theory indicated that the practical context of the theory is limited to individual, systematic, and voluntary decision-making. Five values of the TCV are: Functional value; Social value; Emotional value; Epistemic value; Conditional value.

Recently, the TCV is widely scattered through various journals in a variety of scientific fields such as marketing, psychology, information technology, tourism, environment, food science, management, and education. This diversity demonstrates that the TCV is a multidisciplinary subject that applies in numerous fields beyond consumer behavior, including psychology, information technology, tourism, environment, food science, management, and education.

2.3. Consumer ethnocentrism

Nature of Consumer Ethnocentrism: Shimp and Sharma (1987, p. 280) first defined consumer ethnocentrism, an offshoot of Adorno et al.’s (1950) view of ethnocentrism as a personality trait, as the “appropriateness, indeed morality, of purchasing foreign-made products.” According to them, to an ethnocentric consumer, purchasing imported products is immoral and unpatriotic, hurts the domestic economy, and causes job losses. Ethnocentric consumers tend to perceive domestic products as superior to foreign alternatives. Consumer ethnocentrism acts to provide people with a sense of belonging to a group as well as direction regarding what is appropriate or inappropriate purchasing behavior. Parallel to Smith’s (1992) view that ethnocentric sentiments are deeply rooted in human values, consumer decision making also includes strong moral and social considerations. The reason for this association with morality lies in the principles of moral values, or actions that are likely to be helpful or harmful to humans in the long run (McGregor 2006). Shimp and Sharma (1987) use the general term “tendency,” rather than “attitude,” to describe consumer ethnocentrism. According to them, “tendency” captures the more general notion of a disposition to act in a consistent manner toward foreign products in to. Sharma, Shimp, and Shin (1995, p. 27) later defined consumer ethnocentrism as “a trait-like property of individuals’ personalities,” emphasizing the enduring nature of ethnocentrism. Unlike attitudes, personality traits are not evaluative and descriptive response tendencies in a given

domain (Ajzen 2005). These recent developments reflect the deep resonance of ethnocentrism in public consciousness, and people's need to orient themselves in a globalized world. If ethnocentrism can lead to political upheaval and divisions in society, it is feasible that it may also impact tourist intent to spend the holiday in their home country rather than in a foreign country.

2.4. Factors influencing on domestic travel destination choice of generation Z

2.4.1. Theory of consumption value

In tourism marketing context, the TCV had several applications, such as local foods (Choe & Kim, 2018, 2019; Roustia & Jamshidi, 2020), scale development (Choe & Kim, 2019; Li & Lin, 2016), tourists' environmental (Abdullah et al., 2019) and destination selection behavior (Tapachai & Waryszak, 2000), choosing of a destination by young tourists (Phau et al., 2014), self-services experiences of hospitality consumers (Wei et al., 2017), return for street food by young tourists (Yeap et al., 2020), value preferences of consumers (Parvin et al., 2016), perceived value in medical tourism (Hallem & Barth, 2011), in halal holiday by Muslim tourists (Rodrigo & Turnbull, 2019). For local foods, taste, quality, and emotional values (Roustia & Jamshidi, 2020); epistemic value (Choe & Kim, 2018); and prestige value (Roustia & Jamshidi, 2020, also clearly stated as synonyms of social value) were revealed to have significant positive effects on attitudes towards these products. More concern is focused on functional (price/quality), social, and emotional values for restaurant dining, and these values can also be used to segment the consumers (Parvin et al., 2016). The TCV has been applied to investigate the behavior of young tourists. Taste (considered as functional value) and emotional values were found to significantly affect attitude towards street foods (Yeap et al., 2020). Conditional and social values were investigated as significant antecedents of the destination choice intention of these tourists (Phau et al., 2014).

Functional value: The perceived utility acquired from an alternative's capacity for functional, utilitarian, or physical performance. An alternative acquires functional value through the possession of salient functional, utilitarian, or physical attributes. Functional value is measured on a profile of choice attributes. We present the

following hypotheses:

Proposition 1: *functional value effects on tourists' domestic travel destination choice*

Social value: The perceived utility acquired from an alternative's association with one or more specific social groups. An alternative acquires social value through association with positively or negatively stereotyped demographic, socioeconomic, and cultural-ethnic groups. Social value is measured on a profile of choice imagery.

Proposition 2: *Social value effects on tourists' domestic travel destination choice*

Emotional value: The perceived utility acquired from an alternative's capacity to arouse feelings or affective states. An alternative acquires emotional value when associated with specific feelings or when precipitating or perpetuating those feelings. Emotional value is measured on a profile of feelings associated with the alternative.

Proposition 3: *Emotional value effects on tourists' domestic travel destination choice*

Epistemic value: The perceived utility acquired from an alternative's capacity to arouse curiosity, provide novelty, and/or satisfy a desire for knowledge. An alternative acquires epistemic value by questionnaire items referring to curiosity, novelty, and knowledge.

Proposition 4: *Epistemic value effects on tourists' domestic travel destination choice*

Conditional value: The perceived utility acquired by an alternative as the result of the specific situation or set of circumstances facing the choice maker. An alternative acquires conditional value in the presence of antecedent physical or social contingencies that enhance its functional or social value. Conditional value is measured on a profile of choice contingencies.

Proposition 5: *Conditional value effects on tourists' domestic travel destination choice*

2.4.2. Tourism ethnocentrism

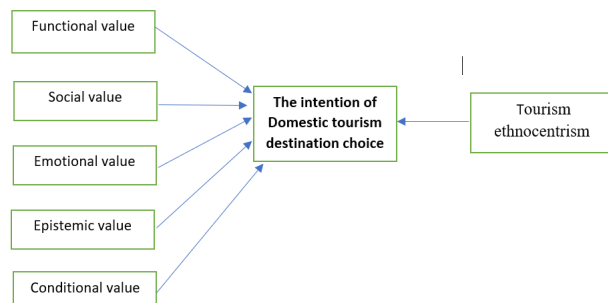
TE is conceptually and empirically different from destination image; while destination image captures tourists' beliefs about the quality and features of a destination, the home country bias TE reflects individuals' prescriptive beliefs related to supporting the domestic tourism industry. The label 'bias' implies that the predisposition is unjustifiable in the sense that it goes beyond objective quality criteria. In this way, the present study contributes

to the literature on tourist behavior and mental destination representations (e.g. destination image and destination imagery: Baloglu et al. 1999; Josiassen, Assaf, Woo and Kock 2016; Kock, Josiassen and Assaf 2016) by outlining a second important pathway through which a destination cue can affect tourists' preferences. Implicit to an instrumental bias is that its effectiveness depends on the mutual cooperation and solidarity of fellow in-group members. Thus, whether TE proves to be effective also depends on whether it is visible and motivational to other in-group members (Scheepers et al. 2006). Accordingly, ethnocentric tourists are interested in convincing others, leading us to suggest that TE has consequences in an intra-group communication context. This communication may manifest in tourists' inclination to provide positive word-of-mouth (WOM) about taking a domestic holiday. WOM is an important variable both for tourism and marketing researchers, and consumers engage in it for functional benefits (Lovett, Peres and Shachar 2013). In the case of TE, WOM sheds light on the process by which TE can spill over to other, non ethnocentric individuals, thus increasing its effect on tourist behavior. We present the following proposition:

Proposition 6: TE has a positive effect on tourists' willingness to engage in domestic tourism

In this study, the authors selected the domestic travel destination choice of generation Z as a behavioral outcome, so the conceptual framework is proposed integrating the theory of consumption value (TCV) with five values and tourism ethnocentrism (TE). The conceptual framework as follow:

Figure: Theoretical conceptual framework



3. Methodology

In this study, the authors intend to use the quantitative research method to test the proposed

conceptual framework. Expected sample size $n = 400$, collected by direct questionnaire distribution method, and using Likert scale of 5 (1 is strongly disagree; 2 disagree; 3 normal; 4 agree; 5 strongly agree).

It is expected that the interviewees are people in 04 provinces and cities: Hanoi, Ho Chi Minh City, Da Nang and Hai Phong. The collected questionnaire will be coded and conducted on SPSS software. The main analytical techniques in the study include: Cronbach's alpha analysis, Exploratory factor analysis, Pearson correlation analysis và Multiple regression analysis.

The authors will present the research results in the next publication.

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FACTORS AFFECTING NET INTEREST MARGIN OF STATE CAPITAL COMMERCIAL BANK OF VIETNAM

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Abstract: *This paper studies the impact of internal and external factors on the interest margin ratio of commercial banks with state capital in Vietnam in the period 2015-2020. The author used regression methods according to fixed effects and random effects based on balanced panel data. The research results have shown that the marginal interest rate and operating expenses have a statistically significant positive influence on the rate of marginal interest income of Vietnamese state-owned commercial banks. commercial banks with state-owned capital). In addition, loan-to-deposit ratio and bad debt ratio have a negative relationship with the marginal interest income ratio of commercial banks with state-owned capital in this period.*

• Keywords: *marginal interest income ratio; commercial bank.*

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 05th November, 2022

Tóm tắt: Bài báo này nghiên cứu tác động của các yếu tố bên trong và bên ngoài đến tỷ lệ biên lãi suất của các ngân hàng thương mại có vốn nhà nước tại Việt Nam giai đoạn 2015-2020. Tác giả đã sử dụng phương pháp hồi quy theo hiệu ứng cố định và hiệu ứng ngẫu nhiên dựa trên dữ liệu bảng cân bằng. Kết quả nghiên cứu đã chỉ ra rằng biên lãi suất và chi phí hoạt động có ảnh hưởng tích cực có ý nghĩa thống kê đến tỷ lệ thu nhập lãi cận biên của các ngân hàng thương mại nhà nước Việt Nam. ngân hàng thương mại có vốn nhà nước). Ngoài ra, tỷ lệ cho vay trên tiền gửi và tỷ lệ nợ xấu có mối quan hệ ngược chiều với tỷ lệ thu nhập lãi cận biên của các ngân hàng thương mại có vốn nhà nước trong giai đoạn này.

• Từ khóa: *tỷ lệ thu nhập lãi cận biên; ngân hàng thương mại.*

1. Introduction

Each commercial bank is a business organization, so their ultimate goal is still profit. If there is any failure of one bank, it will affect the entire financial system. Therefore, the analysis of factors affecting the rate of profit margin of commercial banks, measuring the influence of each factor, thereby making recommendations for the managers of commercial banks is real. needed in the current period.

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2. Research Methods

2.1 Variables in the research model

The variables used in the study are described in Table 1 below:

Table 1: Variables in the research model

| Variable | Sign | Measure | Expectations of the sign | Source |
|--|--------|---|--------------------------|-------------------------------|
| Maximum value | | | | |
| Marginal interest income | NIM | net interest income/total assets | | |
| Independent variables | | | | |
| Bank size | LNSIZE | Natural logarithm of total wealth | + | From the financial statements |
| Hidden costs | IP | (non-interest expenses – non-interest income)/ Total Assets | + | From the financial statements |
| Operating costs | OP | Operating expenses/Total assets | + | From the financial statements |
| Ratio of outstanding loans to total deposits | LDR | Loan size/ mobilized capital | - | From the financial statements |
| Equity size | CAP | Equity/total assets | + | From the financial statements |

| Variable | Sign | Measure | Expectations of the sign | Source |
|----------------|------|---|--------------------------|-------------------------------|
| Bad debt ratio | TLNX | Bad debt/total loan balance | - | From the financial statements |
| Growth of GDP | GDP | The increase of GDP in quarter t compared to t-1 | + | World Bank |
| Inflation rate | INF | The increase of consumer price index in quarter t compared to t-1 | - | World Bank |

Source: Compiled by the author's team

2.2. Methods of data collection and analysis

In this study, the financial statements of commercial banks with state-owned capital in the period 2015-2020 were collected to calculate the marginal interest income and other financial factors of the model. In addition, the author uses regression models OLS, FEM (fixed effects model) and REM (random effects model) to find out the relationship between internal and external factors to the ratio. return on total assets. At the same time, Hausman test (1978) was used to select the appropriate model. In addition, the author also tested the phenomenon of variance, autocorrelation, multicollinearity for the model.

3. Research results

3.1. Descriptive statistical analysis

The data of the study is collected from 4 commercial banks with Vietnamese capital in the period 2015-2020 with the statistical parameters shown in the following table:

Table 2: Descriptive statistics among the variables in the model on the influence of factors on NIM of commercial banks with Vietnamese capital in the period 2015-2020

| Variable name | Number of observations | Mean value | Standard deviation | Minimum value | Maximum value |
|---------------|------------------------|------------|--------------------|---------------|---------------|
| Nim | 96 | 0,70791675 | 0,06810983 | 0,5175 | 0,8575 |
| SIZE | 96 | 5,2079725 | 0,0569334 | 5,0823325 | 5,2932875 |
| LDR | 96 | 22,248555 | 2,26393775 | 18,6944025 | 26,18035 |
| CAP | 96 | 1,36088325 | 0,24370998 | 1,0154425 | 1,79959375 |
| TLNX | 96 | 0,3762065 | 0,12600968 | 0,15568118 | 0,682861 |

| Variable name | Number of observations | Mean value | Standard deviation | Minimum value | Maximum value |
|---------------|------------------------|------------|--------------------|---------------|---------------|
| OP | 96 | 0,34671275 | 0,05900003 | 0,2865455 | 0,46938025 |
| IP | 96 | 0,19082138 | 0,0447247 | 0,10691685 | 0,28669175 |
| GDP | 96 | 1,52939875 | 0,3733405 | 0,7275 | 1,768945 |
| INFLATION | 96 | 0,682715 | 0,25416325 | 0,15780023 | 0,884907 |

Source: Calculation results from Stata 15 . software

Table 2 presents descriptive statistics of the variables in the model on the influence of factors on the NIM of Vietnamese state-owned commercial banks in the period from 2015 to 2020. The data is collected on a quarterly basis. That's a total of 96 observations.

NIM: This is a dependent variable that represents the rate of marginal interest income of banks. This variable has a mean value of 0.7079%, a fairly high standard deviation of 0.068%. The minimum and maximum values of the marginal interest income ratio are 0.52% and 0.86%, respectively. This figure shows the disparity in interest income between the years of the bank. In general, the marginal income of Vietnamese state-owned commercial banks during this period was relatively low.

TLNX: This is the independent variable of the regression model with the dependent variable NIM, representing the bad debt ratio of commercial banks with state capital in Vietnam. The bad debt ratio of commercial banks with state capital in Vietnam averaged at 0.3762%. The standard deviation of this variable is high at 0.126%. The difference between the minimum value and the maximum value is very large. While the smallest value is 0.1559%, the maximum value is up to 0.6829%. From there, it can be seen that there are big differences in credit risk between banks.

LDR: This is the independent variable that shows the percentage of credit outstanding compared to mobilized capital. This index assesses the safety level of the bank. LDR has an average value of 22.25%. The standard deviation is 2.2639%. The smallest value is 18.6944% while the largest value is 26.18%.

SIZE: This is an independent variable reflecting the size of the bank. This indicator has an average value of 5.2080%, the minimum value is 5.0823%, the maximum value is 5.2933 and the standard deviation is at 0.0569.

CAP: This is an independent variable reflecting the ratio of equity to total assets of the bank. CAP has an average value of 1.13609%. The standard deviation of CAP is also relatively high at 0.2437%. The minimum and maximum values of CAP are 1.0154% and 1.7996%, respectively.

OP: This is an independent variable that reflects the percentage of operating expenses compared to the total assets of the bank. The mean value of OP variable is 0.3467%. The standard deviation of the variable is 0.059%. The OP's minimum and maximum values are 0.2865% and 0.4694%, respectively.

IP: The independent variable IP represents the ratio of implicit interest expense or implicit interest expense of the bank to total assets. The mean value of the IP variable is 0.1908%. The standard deviation of the variable is 0.045%. The minimum and maximum values of IP are 0.1069% and 0.2867%, respectively.

GDP: This is an independent variable reflecting the growth rate of Vietnam's gross domestic product with the average value quarterly in 5 years reaching 1,5294%/year. The very high standard deviation is 0.3733%. Thus, it can be seen that the GDP growth rate in Vietnam during this period was quite volatile. The minimum value of this variable is 0.7275% and the maximum value is 1.7689%.

INFLATION: This is an independent variable reflecting the inflation rate of Vietnam over the years. This indicator reached the average value of 0.683%. This indicator has a large fluctuation with standard deviation of 0.2542%. The minimum and maximum values are 0.1578% and 0.8849%, respectively.

3.2. Correlation matrix between variables in the model

The correlation coefficient matrix is used to see the correlation relationship between the variables in the model. Two variables are correlated when

the level of statistical significance is less than 5%. The coefficient r ranges from -1 to 1. The closer the coefficient is to ± 1 , the more closely the two variables are correlated. The closer r is to 0, the weaker the correlation between the variables.

Table 3: Correlation matrix between variables in the model of factors affecting NIM of commercial banks with Vietnamese capital in the period 2015-2020

| | Nim | LNSIZE | LDR | CAP | TLNX | OP | IP | GDP | Inflation |
|-----------|----------|---------|----------|---------|---------|---------|---------|--------|-----------|
| Nim | 1.00 | | | | | | | | |
| LNSIZE | 0.1317 | 1.0000 | | | | | | | |
| LDR | -0.2612* | 0.1576 | 1.0000 | | | | | | |
| CAP | -0.3062 | -0.3012 | 0.0220 | 1.0000 | | | | | |
| TLNX | 0.0673 | -0.1054 | -0.0693 | -0.7165 | 1.0000 | | | | |
| OP | 0.6773 | *0.0143 | 0.1365 | -0.4640 | 0.5034* | *1.0000 | | | |
| IP | 0.2591 | 0.8228 | *-0.2456 | -0.2304 | -0.0366 | 0.1349 | 1.0000 | | |
| GDP | 0.1263 | -0.3942 | 0.00331 | -0.1908 | 0.1708 | 0.1237 | -0.3911 | 1.0000 | |
| Inflation | 0.0438 | 0.7033* | -0.0065 | -0.2849 | -0.2521 | -0.1067 | 0.4628* | -0.160 | 1.0000 |

Source: Calculation results from Stata 15 . software

Based on the Pearson correlation coefficient on the correlation coefficient matrix table, it shows that NIM has a statistically significant positive relationship with SIZE, TLNX, OP and IP 0.1317, 0.0673, 0.6773 and 0.2591. However, NIM has a negative relationship with LDR, CAP with correlation coefficients of 0.2612 and 0.3062.

3.3. Regression results and tests of regression hypotheses

3.3.1. Checking for multicollinearity

To ensure the accuracy of the estimates in the model, the multicollinearity test was performed using the variance exaggeration factor VIF. Below are the results of the model's VIF calculation.

Table 4: Results of testing for multicollinearity

| Variable name | VIF | 1/VIF |
|---------------|-------------|-----------|
| IP | 3.86 | 0.1259392 |
| SIZE | 5.73 | 0.174381 |
| CAP | 4.66 | 0.214464 |
| OP | 1.46 | 0.685266 |
| LDR | 3.28 | 0.685266 |

| Variable name | VIF | 1/VIF |
|---------------|------|----------|
| INFLATION | 3.56 | 0.280530 |
| TLNX | 4.07 | 0.245911 |
| GDP | 1.51 | 0.663877 |

Source: Calculation results from Stata 15 . software

Calculation results of coefficient of variance exaggeration show that all variables in the model are satisfied with VIF less than 10. Therefore, these variables will be used to run the regression model.

3.3.2. Model selection test results

Table 5: Regression results on factors affecting profit margin of Vietnamese state-owned commercial banks in the period 2015-2020

| VARIABLES | Pool OLS | FEM | REM | Robust |
|--------------------------------------|--|--|--|--|
| SIZE | 0.153 | 0.27 | 0.153 | 0.153 |
| | 0.400 | (0.621) | (0.400) | (0.155) |
| LDR | -0.005 | -0.014 | -0.005 | -0.005*** |
| | (0.008) | (0.026) | (0.008) | (0.003) |
| CAP | -0.165*** | -0.046 | -0.165*** | -0.165 |
| | (0.084) | (0.200) | (0.084) | (0.1099) |
| TLNX | -0.447*** | -0.394** | -0.447*** | -0.447*** |
| | (0.152) | (0.198) | (0.152) | (0.209) |
| OP | 0.844*** | 1.648** | 0.844*** | 0.844*** |
| | (0.195) | (0.856) | (0.195) | (0.112) |
| IP | 0.125 | -0.033 | 0.125 | 0.125 |
| | (0.418) | (0.543) | (0.418) | (0.304) |
| GDP | 0.015 | 0.021 | 0.015 | 0.015 |
| | (0.031) | (0.040) | (0.031) | (0.035) |
| INFLATION | -0.094 | -0.047 | -0.094 | -0.094 |
| | (0.071) | (0.121) | (0.071) | (0.071) |
| Constant | -0.595 | 3.782 | 0.595 | 0.595 |
| | (7.799) | (13.844) | (7.799) | (3.360) |
| Observations | 96 | 96 | 96 | |
| R-squared | 0.7073 within = 0.5321 between = 0.9838 overall = 0.4760 | within = 0.5953 between = 0.9031 overall = 0.6360 | within = 0.5321 between = 0.9838 overall = 0.7073 | within = 0.5321 between = 0.9838 overall = 0.7073 |
| Number of name | | 15 | 15 | |
| Prob>F/Prob>Wald Chi ² | 0.000 | 0.1047 | 0.000 | |

| VARIABLES | Pool OLS | FEM | REM | Robust |
|-------------------------------|----------|--------|-----|--------|
| Hausman test (Prob>chi2) | | 0.9672 | | |
| Wald test (Prob>F) | | 0.000 | | |
| Wooldridge test (Prob > F) | | 0.1541 | | |

Standard errors in parentheses (*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$)

Source: Calculation results from Stata 15 . software

The OLS, FEM and REM Estimation results give different variables as well as different degrees of influence of the variables on the marginal interest income of commercial banks.

OLS regression results show:

The model's R-squared coefficient reached 70.73%, showing that the relevance of the variables in the model is relatively high. The F-statistic is significant at the 1% level, indicating that the REM estimate may be a good one.

The regression results using the fixed effects model show that:

To check the phenomenon of variable variance, Cameron & Trivedi's test was used, the chi-squared results with a P-value at 0.0000 less than 0.05 showed that the equation exists the phenomenon of variable.

To check the autocorrelation in the model, the Breusch-Godfrey test was used, the chi-squared results have a P-value of 0.1542, greater than 0.05, showing that the equation does not exist autocorrelation.

To solve the phenomenon of variable variance, the Robust correction method was used, we have a corrected model with the results as Table 5.

Therefore, the regression results by the selected random effects model show that:

LDR has a statistically significant negative relationship with profit margin in Vietnamese commercial banks in the period 2015-2020. This shows that the higher the LDR, the lower the bank's profit margin and vice versa. This result is consistent with the results of previous studies by Brock and Suarez (2006); Manurung and Anugrah (2013). This shows that when the loan-to-deposit ratio increases, the marginal interest rate of commercial banks will decrease.

This result shows that during the research period, commercial banks with state capital in Vietnam increasingly increased the ratio of outstanding loans to customers on deposits. This does not increase lending efficiency, but on the contrary, reduces lending efficiency. Thus, it is suggested that the solution for Vietnamese state-owned commercial banks should focus on reducing the loan-to-deposit ratio in order to increase the rate of marginal interest income.

OP has a statistically significant positive effect on the marginal interest rate of Vietnamese state-owned commercial banks in the period 2015 to 2020. This shows that the higher the OP, the higher the bank's profit margin will be higher. Specifically, the ratio of operating expenses to total assets increased by 1%, the ratio of profit margin increased by 0.844%. This result is consistent with previous studies of authors Barajas, Steiner and Salazar (1999); Kwan (2003); Carbo and Rodriguez (2007); Maria and Agoraki (2010); Maudos and Fernandez (2004); Mathuva (2009); Athanasoglou (2005); Sufian & Chong (2008); Pham Hoang An (2013); Hoang Trung Khanh (2015).

NPL ratio has a statistically significant negative effect on profit margin in commercial banks with Vietnamese capital in the period 2015-2020. This shows that the higher the NPL ratio, the lower the bank's profit margin will be. This result is consistent with previous studies of Angbazo (1997); Demirgüç-Kunt and Huizinga (1999); Rodriguez (2007); Drakos, 2002; Maudos and Fernández de Guevara, 2004, Pham Minh Dien et al (2017); Pham Hoang An (2013); Nguyen Kim Thu; Hoang Trung Khanh (2015). Banks that lend a lot may have high risk, bad debt increases and they have to make a lot of provisions. Interest income was also affected due to large bad debt leading to a sharp decrease in lending efficiency

4. Conclusion and some recommendations

From the results of the regression, it is shown that the rate of profit margin is positively correlated with the operating costs of banks. Meanwhile, the bank's marginal interest income ratio has a negative correlation with the size of loans on deposits, the bad debt ratio

of banks. From the results of this study, the author suggests that Vietnamese state-owned commercial banks need to enhance operational efficiency by promoting operational efficiency by using existing operating costs, reducing the scale lending on deposit while reducing bad debt ratio and controlling credit risk.

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DETERMINANTS OF CASH CONVERSION CYCLE OF LISTED FOOD MANUFACTURING COMPANIES IN VIETNAM

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Abstract: *In this paper, we investigate on identifying the main forces that affect a cash conversion cycle in listed food manufacturing companies. Using a sample of 320 firm-year observations of Vietnamese firms from 2014 to 2021. The investigation approach is designed with Ordinary Least Square (OLS) regression with fixed effects and random effects models. We find that ROC has a statistically significant positive relationship with CCC while cash flow, leverage, and inflation have a statistically significant negative relationship with CCC. The findings provide important insights to managers in working capital management.*

• Keywords: cash conversion cycle, listed food manufacturing companies, working capital management.

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 15th November, 2022

Tóm tắt: Trong bài báo này, chúng tôi nghiên cứu về các yếu tố tác động đến chu kỳ luân chuyển tiền trong các công ty chế biến thực phẩm niêm yết trên thị trường chứng khoán Việt Nam với dữ liệu từ 320 quan sát trong giai đoạn 2014-2021. Phương pháp hồi quy bình phương nhỏ nhất (OLS), mô hình tác động cố định (FEM) và mô hình tác động ngẫu nhiên (REM) đã được sử dụng trong phân tích dữ liệu. Kết quả nghiên cứu cho thấy ROC có mối quan hệ thuận chiều có ý nghĩa thống kê với chu kỳ luân chuyển tiền trong khi dòng tiền, đòn bẩy tài chính và lạm phát có mối quan hệ ngược chiều có ý nghĩa thống kê với chu kỳ luân chuyển tiền. Kết quả nghiên cứu này đề xuất các gợi ý hữu ích cho các nhà quản trị trong công tác quản trị vốn lưu động.

• Từ khóa: chu kỳ luân chuyển tiền, doanh nghiệp chế biến thực phẩm niêm yết, quản trị vốn lưu động.

criteria such as: CCC, operating cycle, the net cycle of transactions, or even weighted CCC. However, CCC is the most common method of measuring the efficiency of working capital (Elbadry, 2018; Azeem et al., 2015; Onaolapo et al., 2015).

The food industry is Vietnam's spearhead economic sector with an increasing number of businesses participating in the industry. In food processing enterprises, working capital accounts for a large proportion, so working capital management is an important management activity. However, there have been no studies assessing the factors affecting CCC in this industry. For this reason, our research was carried out to understand the factors affecting the CCC of the food industry enterprises and from there to make some suggestions to help financial managers in this field to properly manage working capital with the aim of enhancing their company's performance.

1. Introduction

Working capital management plays important role in the success of every company, especially manufacturing enterprises. Therefore, research on working capital and factors affecting working capital provides many useful suggestions for managers in their decisions. Working capital management is measured by many different

2. Literature review

2.1.1. Theories of Cash conversion cycle

The cash conversion cycle (CCC) is a metric that expresses the time it takes for a company to convert its investments in inventory and other resources into cash flows from sales. Also called the Net Operating Cycle or simply Cash

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Cycle, CCC attempts to measure how long each net input dollar is tied up in the production and sales process before it gets converted into cash received. This metric takes into account how much time the company needs to sell its inventory, how much time it takes to collect receivables, and how much time it has to pay its bills. The mathematical formula for CCC is represented as:

$$CCC = DIO + DSO - DPO$$

Where:

DIO = Days of inventory outstanding;

DSO = Days sales outstanding;

DPO = Days payables outstanding

DIO and DSO are associated with the company's cash inflows, while DPO is linked to cash outflow. Hence, DPO is the only negative figure in the calculation. Cash conversion cycle (CCC) is considered in the literature as the most important measure of WCM (Deloof (2003), Padachi (2006)).

2.2. Determinants of Cash conversion cycle

* **Firm size:** The size of the business has an effect on the CCC of the enterprise because large enterprises often have a better reputation, so it is easier to raise capital than small enterprises, so large enterprises can pursue an aggressive working capital policy. In particular, large firms can take advantage of their better ability to raise capital to maintain low cash balances (Chiou et al., 2006). On the other hand, large firms can rely on economies of scale to negotiate with suppliers so that they can maintain a low level of current assets (Baños Caballero et al., 2010, Nwankwo and Osho, 2010). Hence, the CCC will be shorter.

* **Financial leverage:** Chiou et al. (2006) argue that when a firm's internal and short-term capital is exhausted, it will increase its debt level. As debt levels increase, the company will focus more on working capital management to avoid overinvesting in accounts receivable and inventory. Nazir and Afza (2008), Wasiuzzaman and Arumugam (2013) also suggested that using external funding would be more costly than using equity. Therefore, companies with high leverage

often have to closely monitor the level of current assets to minimize costs and utilize those resources to invest in other valuable projects.

* **Operating cash flows:** According to pecking order theory, cash flow from operating activities has a positive relationship with CCC because it is the primary source of financing for a company's operations, including working capital. Firms with high operating cash flows can pursue a flexible current asset investment policy because they have more resources to finance working capital investments (Hill et al., 2010, Fazzari and Petersen, 1993). In contrast, businesses with low and negative cash flow from operating activities need financing from additional sources to invest in working capital. As a result, these companies face difficulties in working capital, therefore CCC is shorter (Mathuva, 2013).

* **Level of investment in fixed assets:** For a business with financial constraints, it has to consider and trade-off between investment in fixed assets and investment in current assets (Fazzari and Petersen, 1993). In addition, the increase in inventory can result from the firm's additional investment in tangible and intangible fixed assets such as warehouses and technological innovation in production (Mathuva, 2013). On the other hand, an increase in investment in inventory can also lead to a decrease in investment in fixed assets. Therefore, the level of investment in fixed assets has a negative relationship with CCC.

* **Revenue growth:** According to the operating cycle theory, Revenue growth means an increase in inventory and accounts receivable, hence an increase in CCC. Kieschnick et al. (2006). However, according to the pecking order theory, fast-growing firms lengthen the repayment period, shorten the CCC, and reduce liquidity. Deloof (2003), Gill (2010).

* **The number of years of operation of the business (Age):** Companies with a long operating time often have more management experience, and better relationships with customers and suppliers, which helps businesses to maintain less current assets but still ensure efficient operations (Chiou et al., 2006). Therefore, there exists a significant positive relationship between firm age

and CCC.

* **Profitability:** Chiou et al. (2006), Wu (2001), Uyar (2009) and Baños-Caballero et al. (2010) found that a firm's profitability significantly affects its working capital management. However, the direction of the impact of profitability on CCC can be in two directions. While Wu (2001), Chiou et al. (2006) suggested that there exists a positive relationship between profitability and CCC, Baños-Caballero et al. (2010) suggested that there exists a negative relationship between profitability and CCC. In view of Wu (2001), Chiou et al. (2006), firms with better profitability tend to adopt conservative working capital policies, resulting in more receivables and inventories. In view of Baños-Caballero et al. (2010), better business firms are more favorable in bargaining with suppliers, so the CCC is smaller.

The profitability of a business is expressed through many different indicators. In this study, we use the ROC indicator to assess the profitability of the business for the following reasons: ROC can reflect relatively accurately the profitability of the capital that has to incur costs (including interest expense and cost of equity). This is a financial indicator that many people are interested in and used when evaluating the business performance of enterprises. For business owners, the ROC can give them initial conclusions about the efficiency of using capital that is subject to costs. For investors or creditors, this is one of the indicators to help them assess the overall business situation of an enterprise, from which they can make a decision on whether to provide capital to that enterprise or not. ROC is completely focused on reflecting the business performance of enterprises, which creates an advantage of ROC over other financial ratios. In recent studies, ROC is the preferred financial indicator used by analysts to assess the business performance of enterprises. (Tim Koller et al., 2010).

* **Inflation:** This is one of the important macro factors affecting the working capital management policy of enterprises. When inflation is high, businesses will limit their cash holdings and instead will hold more inventory or securities

instead of holding cash (Sedat Yenice, 2015; Emmanuel Oseifuah, 2016); Olayinka Olufisayo Akinlo, 2012). Besides, firms reduce cost of working capital during the inflation period T. Unayama (2004), A. C. Arize, J. Malindretos, and S. Nippani (2004). Therefore, when inflation occurs, CCC tends to decrease.

3. Methodology

3.1. Variables measurement

The variables used in the study are described in the Table 1 below:

Table 1: Variable measurement

| Variables | Measurement | Expectation |
|-----------------------|---|-------------|
| Dependent variable | | |
| CCC | $\frac{(\text{Accounts receivable})/\text{Sales} \times 365 + \text{Inventories}/(\text{Cost of sales}) \times 365 - (\text{Account payable})/(\text{Cost of sales}) \times 365}{}$ | |
| Independent variables | | |
| ROC | $\frac{\text{EBIT}(1 - \text{Tax rate})}{(\text{Interest-bearing debt} + \text{Equity})}$ | Positive |
| CASHFLOW | $\frac{(\text{Net profit after taxes} + \text{Depreciation})}{(\text{Total assets})}$ | Positive |
| CAPEX | $\frac{(\text{Tangible fixed assets})}{(\text{Total assets})}$ | Positive |
| Firm Size | Natural logarithm of total assets | Positive |
| Growth opportunities | The change in sales (ΔSales_{it}) scaled by last year's sales (Sales_{it}). | Positive |
| Leverage | $\frac{(\text{Total debt})}{(\text{Total assets})}$ | Negative |
| Age | The natural logarithm of the number of years since incorporation. | Positive |
| Inflation | Consumer price index | Negative |

3.2. Hypotheses and Panel Data Model

Based on the experimental research results, the author proposes the hypothesis about the relationship between the management of current assets and the profitability of enterprises as follows:

Hypothesis 1: Return on capital positively impacts the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 2: The capacity to generate internal resources has a positive impact on the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 3: A firm's investment in tangible fixed assets has a positive impact on

the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 4: Firm size has a positive impact on the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 5: Growth opportunities have a positive impact on the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 6: Leverage has a positive impact on the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 7: Firm age has a positive impact on the cash conversion cycle of Vietnamese food manufacturing enterprises.

Hypothesis 8: Inflation has a positive impact on the cash conversion cycle of Vietnamese food manufacturing enterprises.

Model specification

The model was used to test the hypotheses as follows:

$$CCC_{i,t} = \beta_0 + \beta_1 ROC_{i,t} + \beta_2 CASHFLOW_{i,t} + \beta_3 CAPEX_{i,t} + \beta_4 Size_{i,t} + \beta_5 Growth_{i,t} + \beta_6 LEV_{i,t} + \beta_7 Age_{i,t} + \beta_8 INF_{i,t} + \alpha_i + \varepsilon_{i,t}$$

Where:

β_0 : a constant; CCC: Cash conversion cycle; ROC: return on capital; CASHFLOW: the capacity to generate an internal resource of a company; CAPEX: A firm's investment in tangible fixed assets; LEV: Leverage; Growth: Growth in sales; Size: Firm size; Age: Firm age; INF: Inflation; $\varepsilon_{i,t}$: Error term.

3.3. Data

To research factors impacting the cash conversion cycle, the information of 40 listed Vietnamese food-producing companies is used. The dataset has to meet some requirements including 40 selected companies must be listed at least from 2014; There is no disruption in their business operation; Their data need to be published by 2021.

3.4. Research method

The data processing technique including calculating the data analysis model is assisted by STATA version 14. In this research, the

regression analytical technique is used to figure out determinants of the cash conversion cycle of a company. Firstly, we tested the stationariness of the data based on carrying out a panel unit root test and the Levin-Chin-Chu test was chosen to examine whether our series contains a unit root. Then, the issue of multicollinearity is also in check. Next, we determine the fit model (Chow test, Breusch and Pagan Lagrangian multiplier test, and Hausman test are used to help us to choose the appropriate model for the research sample). Secondly, the Wald test and Wooldridge test are used to check the existence of heteroskedasticity and the autocorrelation problem, if they both exist, the Cluster regression will be carried out. On the other hand, if only heteroskedasticity exists, robust standard error estimation will be used.

4. Empirical results

4.1. Panel unit root test and checking for Multicollinearity

Table 2: Levin, Lin and Chu panel unit root test results

| Variable | P-value | Status |
|----------|---------|--------|
| CCC | 0.0000 | Level |
| ROC | 0.0000 | Level |
| CASHFLOW | 0.0000 | Level |
| CAPEX | 0.0000 | Level |
| Size | 0.0000 | Level |
| GROWTH | 0.0000 | Level |
| LEV | 0.0000 | Level |
| Age | 0.0000 | Level |
| INF | 0.0000 | Level |

Data source: Stata output

The null hypothesis is that the series contains a unit root and the alternative is that the series is stationary.

As can be seen from Table 2, nine variables including Cash conversion cycle (CCC), return on capital (ROC), the capacity to generate an internal resource of a company (CASHFLOW), A firm's investment in tangible fixed assets (CAPEX), Firm size (Size), Growth opportunities (GROWTH), Leverage (LEV), Firm age (Age), Inflation (INF) are stationary at level hence have

no unit roots. Thus, we obtain all our series to be stationary as we reject the null hypothesis that the series are non-stationary.

The checking for multicollinearity shows that this problem does not exist in the model in this study.

Table 3: VIF result

| Variable | VIF | 1/VIF |
|----------|------|----------|
| CASHFLOW | 4.12 | 0.242718 |
| ROC | 3.98 | 0.251256 |
| LEV | 1.49 | 0.671141 |
| CAPEX | 1.3 | 0.769231 |
| Size | 1.14 | 0.877193 |
| Age | 1.05 | 0.952381 |
| GROWTH | 1.04 | 0.961538 |
| INF | 1.02 | 0.980392 |
| Mean VIF | 1.89 | |

Data source: Stata output

4.2. Descriptive statistics

Table 4: Descriptive statistics

| Variable | Obs | Mean | Std. Dev. | Min | Max |
|----------|-----|-----------|-----------|------------|-----------|
| CCC | 320 | 141.6937 | 121.143 | 14.91779 | 511.6556 |
| ROC | 320 | 0.0620995 | 0.0683564 | -0.1175988 | 0.1893213 |
| CASHFLOW | 320 | 0.0610119 | 0.0752049 | -0.13365 | 0.2003 |
| CAPEX | 320 | 0.2314087 | 0.1243562 | 0.0524695 | 0.5061957 |
| Size | 320 | 27.45732 | 1.331628 | 25.38559 | 30.01181 |
| GROWTH | 320 | 0.0583681 | 0.2595395 | -0.4021967 | 0.6569975 |
| LEV | 320 | 0.5519956 | 0.2490004 | 0.133545 | 1.140842 |
| Age | 320 | 3.115328 | 0.4291984 | 2.397895 | 3.89182 |
| INF | 320 | 0.030425 | 0.0122642 | 0.006 | 0.0474 |

Data source: Stata output

The data of descriptive statistics partly shows the real business operations of listed food-producing companies in Vietnam between 2014 and 2021.

On the one hand, the inflation in Vietnam in this period experienced a slight fluctuation between 0.6% and 4.74%. The figure for the consumer product index reflected economic stability. In the two last years, this number tended to decrease, and it was only 1.83% in 2021. The reason for this trend came from the strong rise in demand for food because of the fear of the

epidemic and the policy of lockdown.

On the other hand, regarding the real situation of food manufacturing companies, which can be described to an extent by their profitability, their growth in sales, and their capacity to generate internal resources, the mean values of ROC, GROWTH, and CASHFLOW were around 6.2%, 5.8%, and 6.1% respectively. Those numbers were not high because of the outbreak of the epidemic of Covid-19, leading to a decrease in business results for some companies in 2020 and 2021. Moreover, a range of food manufacturing companies relied on debt, which could be proved by their high proportion of debt in this period. In the food area, some businesses even had equity lower than 0 because of their very bad business result of previous fiscal years, and currently, all their operations have to depend on borrowing. That unreasonable capital structure forced them to suffer from the burden of interest and the pressure of bankruptcy when detrimental situations occurred. In addition, there was a difference in the firm performance, which was expressed through the min and max values of ROC, GROWTH, and CASHFLOW. This phenomenon could be explained by the difference in the age and size of businesses in the food industry. In reality, there is a big gap of 54 years between the youngest and oldest firms, because of the economic history of Vietnam. Since 1986, Vietnam started to change from a centrally planned economy to a “Socialist-oriented market economy”, therefore, State-owned enterprises often operate for a longer time. Moreover, one of the characteristics of the food sector is that the size of companies is diverse. As a result, their large gap in age and size led to the fact that the response of each business to opportunities and risks is different.

In the period from 2014 to 2021, the food-producing companies poured more than 23% of total assets into fixed assets on average, and the level of this investment of businesses in the food sector is different. The figure for CAPEX partly shows the attention of food producers to improving their productivity and catching business chances, especially when the economy was becoming increasingly unstable and risky. However, this strategy needs to be carefully

researched, because the food market these days in Vietnam in particular, and in the world at large has lots of challenges, such as the lower speed of goods circulation, more difficulties in exporting and importing food products... In this circumstance, equipping expensive modern machines and other fixed assets could become ineffective and money-consuming for companies.

About the cash conversion cycle of listed food-producing companies, Table... shows that the 8-year period saw a significant fluctuation in this ratio. Between 2014 and 2017, although CCC experienced a strong climb, this trend was a positive sign for business activities. During four years, both external and internal economic conditions were favorable to the development of the food sector, including the increase in the income per capita, the stability of the macro economy, the strong expansion in international trade... To catch that opportunity, food manufacturing companies boosted their productivity and sales, entailing a rise in inventories, accounts receivable, and accounts payable. In the next two years, this ratio decreased due to the modification of business strategy to become adaptable to real circumstances with some challenging like increasing competition, difficulties in raw materials, need for improving the management of current assets and current liabilities... However, in 2020 and 2021, CCC climbed significantly to around 200 days. Different from the case in the period between 2014 and 2017, this rise in CCC was seen as a negative sign because this increase resulted from the disruption in export and import activities and the fall in the income of consumers.

Table 5: Summary of descriptive statistics of CCC

| | | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|-----|-----------|----------|----------|----------|----------|----------|----------|----------|----------|
| CCC | Obs | 40 | 40 | 40 | 40 | 40 | 40 | 40 | 40 |
| | Mean | 129.0162 | 165.4672 | 151.8343 | 216.526 | 104.5362 | 122.8764 | 200.5955 | 194.4466 |
| | Std. Dev. | 136.0057 | 244.6806 | 161.9505 | 558.6111 | 138.4779 | 178.2826 | 219.341 | 297.7764 |
| | Min | 18.26019 | 17.79392 | 4.82278 | 0.67872 | -516.663 | -673.705 | -11.986 | -453.351 |
| | Max | 794.5596 | 1437.48 | 778.7829 | 3580.838 | 489.9871 | 653.9089 | 1068.245 | 1315.925 |

Data source: Stata output

4.3. Correlation analysis

Table 6: Correlation matrix

| | CCC | ROC | Cash flow | CAPEX | Size | Growth | LEV | Age | INF |
|-----------|---------|---------|-----------|---------|---------|---------|---------|---------|--------|
| CCC | 1.0000 | | | | | | | | |
| ROC | -0.6202 | 1.0000 | | | | | | | |
| Cash flow | 0.0000 | | 1.0000 | | | | | | |
| CAPEX | -0.1447 | -0.0086 | 0.0294 | 1.0000 | | | | | |
| Size | 0.0095 | 0.8786 | 0.6008 | | 1.0000 | | | | |
| GROWTH | -0.1455 | 0.1870 | 0.2039 | 0.0311 | 0.0092 | 1.0000 | | | |
| LEV | 0.0092 | 0.0008 | 0.0002 | 0.5789 | | | 1.0000 | | |
| Age | -0.1933 | 0.1367 | 0.1345 | 0.0701 | 0.1101 | 0.0000 | | 1.0000 | |
| INF | 0.0005 | 0.0144 | 0.0161 | 0.2111 | 0.0492 | | | | 1.0000 |
| | 0.1275 | -0.3052 | -0.3276 | 0.3988 | -0.2770 | -0.0733 | 0.0000 | | |
| | 0.0226 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.1907 | | | |
| | 0.0372 | 0.0310 | 0.0057 | -0.1749 | -0.1158 | -0.0692 | -0.0499 | 1.0000 | |
| | 0.5068 | 0.5804 | 0.9196 | 0.0017 | 0.0385 | 0.2168 | 0.3732 | | |
| | -0.0316 | 0.0607 | 0.0133 | 0.0142 | -0.0158 | -0.0117 | -0.0161 | -0.0425 | 1.0000 |
| | 0.5730 | 0.2789 | 0.8126 | 0.8003 | 0.7784 | 0.8353 | 0.7740 | 0.4491 | |

Data source: Stata output

The table 6 shows that there are significant correlations between the dependent variable of the cash conversion cycle and six independent variables, including ROC, CASHFLOW, CAPEX, Size, GROWTH, and LEV.

4.6. Discussion of regression results

Table 7: Regression result

| | FE | | | |
|----------|-------------|-----------|--------------|-----------|
| | | | Robust | |
| | Coef. | Std. Err. | Coef. | Std. Err. |
| CCC | | | | |
| ROC | 301.5655*** | 43.58702 | 301.5655*** | 34.06555 |
| CASHFLOW | -959.222*** | 55.82349 | -959.222*** | 99.81849 |
| CAPEX | -107.5903 | 105.2814 | -107.5903 | 129.1752 |
| Size | -7.215586 | 23.40828 | -7.215586 | 26.89715 |
| GROWTH | -29.08092** | 12.99033 | -29.08092 | 18.97416 |
| LEV | -45.11931 | 7.698934 | -45.11931*** | 5.93451 |
| Age | 68.22409 | 66.93955 | 68.22409 | 67.08044 |
| INF | -1047.278* | 611.5912 | -1047.278** | 415.7134 |
| _cons | 272.6249 | 599.3104 | 272.6249 | 616.7853 |

Data source: Stata output

The result of the Chow test, Breusch and Pagan Lagrangian multiplier test, and Hausman test show that fixed effect panel data regression

is suitable for this model. The Wald test indicates the existence of a heteroskedasticity problem and the Wooldridge test shows that there is no autocorrelation issue, so robust standard error estimation is used.

The regression results indicate that the variable ROC significantly positively affects the cash conversion cycle of food manufacturing companies at the 0.1 level. Theoretically, this impact could be explained by the business strategy of companies. Specifically, if a company sees a potential increase in return on capital, it will tend to consider this sign as a chance for development, and it will try to improve its productivity and sales, leading to a rise in inventories, accounts receivable, and accounts payable. The result is consistent with the results of Chiou et al. (2006), Wu (2001), Uyar (2009) and Baños-Caballero et al. (2010).

By contrast, the explanatory variables CASHFLOW significantly negatively impact the response variable CCC of food-producing companies at the 0.1 level. This research result is different from our expectations about the impact of this variable. CASHFLOW is a ratio revealing the ability to generate internal resources. In some cases, when a company saw its potential increase in internal resources, it might have an intention to invest in large-sized projects. This trend could lead to a rise in the need for capital, and the company had to decrease CCC to ensure the resource of its short-term capital. This result is consistent with the results of Hill et al., 2010, Fazzari and Petersen (1993)

Similarly, the ratio of leverage has a significant negative impact on CCC. In reality, a business with a high level of debt tends to limit accounts receivable and inventories to decrease the risk of solvency. It means that when the leverage increases, CCC is often decreased to protect the security of firm operations. The result is consistent with the results of Chiou et al. (2006), Nazir and Afza (2009), Wasiuzzaman and Arumugam (2013).

Meanwhile, CCC is negatively affected by the consumer price index at the 0.5 level. This impact indicates that when the CPI increased,

many food manufacturing companies tried to cut down CCC to avoid some risks, such as the loss of money value, the risk of the solvency of customers... This policy resulted from the characteristics of the food industry in which companies have to suffer from the pressure of a large amount of inventory and the high level of accounts receivable. This result is consistent with the opinions of T. Unayama (2004), A. C. Arize, J. Malindretos, and S. Nippani (2004)

5. Discussion and conclusions

In conclusion, the analysis of the real situation of the food-producing industry shows that the period from 2014 to 2021 noticed a range of events, which could lead to some changes in CCC. The empirical study indicates the positive influence of profitability in CCC. Meanwhile, this ratio is negatively impacted by three other variables, consisting of the capacity to generate internal resources, Leverage, and Inflation. These research results suggest some ways for a company in the food sector when it wants to change its cash conversion cycle.

Although this study has some meaningful conclusions for listed food manufacturing enterprises, there are limitations, for example, the sample is still small and the post-Covid-19 period is still short to give an accurate evaluation of its impacts. It is these limitations that are our next research orientation relating to this issue.

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THE RELATIONSHIP BETWEEN SUSTAINABLE DEVELOPMENT INVESTMENT AND FINANCIAL PERFORMANCE UNDER THE CONTROL OF FINANCIAL REPORTING INFORMATION QUALITY

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Abstract: Under the recent movement toward mutual benefits between companies and society, managers and investors are becoming more aware of the importance of investments into sustainable development instead of profit maximization as usual. In response to this movement, many boards of directors perceive investment into sustainable development to be their professionalism, integrity and responsibility in their business, hoping for a positive financial result. This paper is therefore to certify, under the control of financial reporting quality, the relationship between investments in sustainable development and its financial performance through quantitative research with data collected from annual reports and reports on sustainable development in stock market, together with websites of 160 companies, in the period from 2017 to 2021. The paper concludes that positive investments into sustainable development will increase market value for the enterprise. However, beneficial investments into sustainable development requires that top executives manage enterprise's financial activities in proper manner to collect true financial data for appropriate decision making during sustainable project management.

• Keywords: sustainable development, financial reporting quality, tobinq, managerial accounting, enterprise market value.

Date of receipt: 10th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 15th September, 2022

Date of approval: 15th November, 2022

Tóm tắt: Trong xu thế các doanh nghiệp quan tâm nhiều hơn đến sự cân bằng lợi ích giữa doanh nghiệp và xã hội, nhà đầu tư và nhà quản lý ngày càng nhận thức được tầm quan trọng của việc đầu tư vào các hoạt động hướng đến mục tiêu phát triển bền vững thay vì mục tiêu tối đa hóa lợi nhuận trước đây. Chính vì vậy, nhà quản lý xem việc đầu tư vào hoạt động phát triển bền vững thể hiện sự chuyên nghiệp, tính chính trực và tinh thần trách nhiệm của họ, mong đợi mang lại những biểu hiện tích cực về kết quả tài chính của doanh nghiệp. Để kiểm chứng mối quan hệ giữa việc đầu tư phát triển bền vững và kết quả tài chính trong tương lai của doanh nghiệp, tác giả đã thực hiện nghiên cứu định lượng với dữ liệu thu thập trên thị trường chứng khoán từ báo cáo thường niên, báo cáo phát triển bền vững và trang web của 160 công ty trong thời gian 5 năm từ 2017 đến 2021. Bài viết đã khẳng định được mối quan hệ tích cực là khi đầu tư vào hoạt động phát triển bền vững sẽ mang lại giá trị thị trường tăng thêm cho doanh nghiệp. Quan trọng hơn, để đầu tư phát triển bền vững hiệu quả, nhà quản trị cần làm tốt trách nhiệm giám sát hoạt động tài chính tại doanh nghiệp nhằm đảm bảo có được những thông tin tài chính có chất lượng giúp nhà quản trị ra quyết định thích hợp, kiểm soát các dự án đầu tư phát triển bền vững.

• Từ khóa: phát triển bền vững, chất lượng thông tin báo cáo tài chính, tobinq, kế toán quản trị, giá trị thị trường doanh nghiệp.

1. Introduction

Under technology development, many different countries have become more prosperous. Unluckily, these countries have to suffer negative effects from *simultaneous* social and environmental problems. Indeed, the

relationship among environment, society, and enterprises in the past was not intentionally set into an overall mutual interaction. Since 1970s, awareness of corporate social responsibility referred to making profits for the company (Friedman, 1970). Currently, this awareness has

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changed, in ways that enterprises have to be more responsible for the impact that they have had on the economy, society, and the environment during their operation (Pyo & Lee, 2013). This new perception indicates new concept of sustainable development.

The essence of sustainable development is to address the relationship between economic growth and prosperity, social justice and protecting the natural environment, ensuring a sustainable planet, an easy-to-live world, a fair society for today's and future generations. This idea is based on the concept of social justice, which means that future generations can use the same resources used by the previous generation (Commission, 1987). Therefore, Elkington (1994) defined "sustainable development as maintaining a balance between social, environmental and economic goals". Sustainable development and corporate social responsibility is similar in goals but different in scale and scope. Sustainable development is the matter of macro economy and society (Ebner & Baumgartner, 2006).

At the time being, executives tend to manipulate sustainability activities as a scheme to polish their reputations and brand names. They invest excessively and ineffectively into a variety of activities that they believed to be oriented towards goals of sustainable development, in the main purpose of improving their images. This creates conflicts of interests between the executives and the shareholders, increasing agency costs higher. According to the theory of information usefulness, investors can use financial statements as a tool to monitor their investing activities. That is, if the investor monitors the quality of the financial statement information, will this course of action ensure effective control of the sustainable development investment activities.

The question is whether investing in sustainable development will bring about positive effect on the financial results of businesses? This is why the quality of financial statement, sustainable investment, and enterprise market value are inter-related and can draw great attention from investors. Business owners investing into

sustainable development expect value added to their business so that their enterprise market value will accordingly increase. In order to realize this, there is a need for effective investment in sustainable development. How do managers invest in sustainable development projects with high efficiency? In order to invest effectively in sustainability, administrators need to perform a good job of supervising the financial activities of the business to ensure that there is good financial information to help the administrators make appropriate decisions and control projects in effectiveness. Creating an effective financial monitoring mechanism will bring quality financial information, both serving the management's work and helping investors better supervise the activities of the administrator. Starting from this practical situation, the researcher approached and researched "*The relationship between sustainable development investment and financial reporting information quality - Evidence from the listed companies in Vietnam*" with the strategic goal of focusing on how financial information and sustainable development investment will affect the market value of businesses.

2. Hypothesis development

In terms of sustainable development activities, there are many studies related to the elements of sustainable development. Those are three main groups of activities relating to society, environment, and economy, according to studies of Klassen and McLaughlin (1996); Sarkis and Cordeiro (2001); Filbeck and Gorman (2004). Most of the sustainable development studies in the field of accounting focus on accounting methods, measurement methods, and how to report sustainability information as in the research of Fowler and Hope (2007) or enter into the relationship between sustainability and financial performance of firms (Cortez & Cudia, 2011; Filbeck & Gorman, 2004; Martínez-Ferrero & Frias-Aceituno, 2015). During research, the researcher of this paper has yet to find any studies analyzing the quality monitoring of financial reporting information that has the effect of controlling effective investment in sustainable development projects.

So far, no research related to the relationship between the quality of financial reporting information and sustainable development investment has been conducted in Vietnam. Studies in Vietnam are mainly focused on understanding the factors that affect the quality of financial statement information or the factors that influence income-driven behavior. In terms of sustainable development, research in Vietnam seeks solutions to complete the sustainability report for the public, leaving unattended the close relationship between financial reporting and sustainable development. These two types of information are correlated with each other to support investor's decision making.

The intrinsic value of a company depends on many factors, in which only a few can be measured by financial measures. In today's competitive market, companies hold a myriad of resources that contribute significantly to its intrinsic value but fall outside financial ratios: human resources (employee qualifications), financial intangible assets (data, intellectual property, copyrights) and customer resources (brands, customer database), etc. to differentiate yourself from competitors. These are important competitive advantages that enterprises need to survive and develop, which non-financial information can fully reflect. Fama and French (1992) argue that there are two schools of financial research on determining a company's stock price.

According to profit motive theory, investing in sustainable development will change the future financial results of businesses in a positive direction. For example, investing in sustainable development will strengthen the image of the business with the community, thereby increasing sales, market share, or even attracting many ethical and professional employees who desire to join such working environment, or at least being able to resolve unwanted conflicts with stakeholders, or avoid legal troubles. Therefore, the researcher predicts that investing in sustainable development this year will bring better financial results in the following year. This means that the financial results of the following year have a positive relationship with the quality of sustainable development information in the

previous year under the control of high quality of financial reporting information. There have been many studies investigating the relationship between financial results and corporate social performance such as the study of Cho, Freedman, and Patten (2012), or the relationship between enterprise value and sustainable development activities such as that of Galdeano-Gómez, Céspedes-Lorente, and Martínez-del-Río (2008), He and Loftus (2014). Therefore, the researcher formulated the hypothesis H_1 :

H_1 : Financial results of the following year will have a positive relationship with sustainable development investment made in previous year under the control of the quality of financial reporting information.

3. Research method

3.1. Data

The samples in the official study were collected by convenient sampling, collecting data from 160 companies out of approximately 900 companies listed on the Ho Chi Minh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX) with data within 5 years from 2017 to 2021. Financial information of the companies on the list is obtained from the website <http://finance.vietstock.vn>. Information about sustainability is gathered from annual reports, reports on sustainability and on the websites of the companies surveyed.

The main data analysis method used for this study is FEM (Fixed Effects Model) and REM (Panel data model). Therefore, in order to obtain a reliable estimate for this method, the sample usually has to be $n > 200$ according to Tauchen (1986). Based on the experience of Hair, Black, Babin, Anderson, and Tatham (2006), with 15-20 observations for a variable to be estimated, the minimum sample size needed for this study is $140 = 20 \times 7$. Combining these principles, the minimum sample size chosen by the researcher for the official study is $n \geq 200$. Thus, with 160 companies surveyed in 5 years, the researcher has a balanced data set with 800 observations = 160 companies x 5 years.

3.2. Measurement of research variables

Measuring the variable of quality information

on sustainable development

Due to the limitations of statistics on the value of sustainable development investment activities in enterprises, investment activities in sustainable development will be measured through measurement of information quality variables of sustainable development according to the zero-weighting method based on reporting standards under the “Guidelines - Reporting principles and standard disclosures”. This practice is accepted by many studies in the world such as Holbrook (2010); McDermott (2012); He and Loftus (2014). To calculate the quality of sustainable development information, the researcher uses content analysis method. This analytical technique is applied to assess the quality of sustainability information presented in annual reports, sustainability reports, and corporate websites. In this paper, the researcher uses the categories and areas in the Sustainable Development Report Guidelines version 4 published by the Global Reporting Initiative (GRI) as a basis for assessing the quality of information.

Regarding the technical process of implementation, the researcher must first read the reports and search for information related to the criteria in the evaluation criteria table. If no relevant information is found, the indicator will have a score of 0. If relevant information is found, the researchers will note the extent to which the company’s sustainable development information is disclosed. The basis for calculating the quality level of sustainable development information

| Information disclosure level | Scores |
|---|--------|
| Quantitative and Qualitative Disclosures | 4 |
| Qualitative Disclosures only, no Quantitative Disclosure | 3 |
| Quantitative information available (in form of currency, sizes, quantity, scale,...) but no qualitative information available | 2 |
| Quantitative information available in form of currency, but no quantitative information available | 1 |
| Information concealment | 0 |

Once every criterion is scored, the researcher will count the total scores of each company report. However, after the data is tested for its stationary properties, the total number of points can be either stationary or non-stationary; with non-stationary variables, the researcher will

not apply regression measurement on them. Therefore, for the regression method to be used, researchers must take the natural logarithm of the total score into consideration to make the variable stationary and this is the value of a firm’s sustainable quality information variable in the survey year.

Measure the variable of financial statement information quality

To measure the variable of financial statement information quality, the author used the calculation according to the study of Juan Pedro Sánchez and Gomariz (2012). Accordingly, the authors calculated three values representing the quality of financial statement information based on the three regression equations proposed by the three researchers, then took the average of the three values. That representation is the value of the FRQ variable.

The first regression equation was formulated by McNichols and Stubben (2008), the two researchers considered the relationship between revenue fluctuations and receivables in the period as a proxy for profit management, as follows:

$$DELAR_{i,t} = \beta_0 + \beta_1 DELREV_{i,t} + \varepsilon_{i,t} \quad (1)$$

In which:

- $DELAR_{i,t}$ is the increase ratio in receivables of company i in year t . If the company’s cash flow statement is compiled using the indirect method, then divide the receivables under “Increase or decrease receivables” of the statement by the company’s total assets year t . In case the company’s cash flow statement is made by the direct method, then divide receivables of year t minus receivables of year $t-1$ by the company’s total assets of year t .

- $DELREV_{i,t}$ is the difference between sales revenue of year t and sales revenue of year $t-1$ of company i divided by total assets of company i in year t .

The difference between the revenue fluctuation and the receivables in equation (1) is the standardized residual ($\varepsilon_{i,t}$). This standardized residual represents the quality of financial statement information because if the company’s financial situation is well managed,

the rate of increase in revenue is approximately the proportion of receivables increase, the standardized residual ε_{it} will be very low. The author uses all three methods: OLS, FEM and REM to regress equation (1), then, based on the relevant tests to select the best regression method and find the standardized residuals (ε_{it}). The standardized residual (ε_{it}) represents the change in receivables, not generated by sales. Thus, the first representative value for the financial statement information quality variable (FRQ_McS) will be the absolute value of the residual (ε_{it}) multiplied by -1 ($FRQ_McS_{it} = -|\varepsilon_{it}|$), accordingly, the greater this value is, the higher is the quality of financial statement information.

The second method to calculate the value of the FRQ variable is constructed according to the method of analyzing the behavior that governs profits concentrating on the adjusted accrual developed by Kasznik (1996), based on Jones' research background (1991) as follows:

$$TA_{it} = \beta_0 + \beta_1 DELREV_{it} + \beta_2 PPE_{it} + \beta_3 CFO_{it} + \varepsilon_{it} \quad (2)$$

In which:

- TA_{it} = (Profit after tax of year t - Net cash flow from business activities of year t) divided by the company's total assets of year t, called the adjusted cumulative variable of firm i in year t.

- PPE_{it} : is the remaining value of tangible fixed assets of company i in year t, this value is taken from the balance sheet at the end of year t then divided by the total asset value of company i in year t.

- CFO_{it} : is net cash flow value from business activities in year t, this value is taken from cash flow statement at the end of year t and then divided by the total asset value of company i in year t.

In this model, the authors also continue to use all three-regression methods OLS, FEM and REM to conduct regression, then based on relevant tests to choose the best regression method and find standardized residuals (ε_{it}). Now the value representing FRQ will be calculated as the absolute value of the remainder (ε_{it}) multiplied by -1 ($FRQ_KASZ_{it} = -|\varepsilon_{it}|$) whereby, the larger

this value is, the higher is the quality of financial statement information.

The third method of calculating the value for the FRQ variable is based on the abnormal cash flow model developed by Dechow and Dichev (2002). In this method, accrued operating capital is regressed with the cash flow of the enterprise in the previous year, this year and the next year to find out the anomaly between operating capital and business cash flow.

$$WCA_{it} = \beta_0 + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \varepsilon_{i,t} \quad (3)$$

In which:

- WCA_{it} is an accrued operating capital, calculated as a change in short-term assets without charge and cash equivalents, minus changes in short-term debt, plus changes in short-term bank debt, then divided by the total assets of company i by year t.

- $CFO_{i,t-1}$, $CFO_{i,t}$ and $CFO_{i,t+1}$ are calculated by dividing the net cash flow from the company's business activities in years t-1, t and t + 1 by total assets of year t.

In this model, the author still uses all three methods of OLS, FEM and REM to regress, then based on the relevant tests to choose the best regression method and find the standard residuals (ε_{it}). According to the research of Dechow and Dichev (2002), this surplus is explained as the change in working capital but not due to the net cash flow from operating activities, and that is also the value used to calculate the representative value of the variable FRQ. Now the value representing FRQ will be calculated as the absolute value of the remainder (ε_{it}) multiplied by -1 ($FRQ_DD_{it} = -|\varepsilon_{it}|$). Accordingly, the greater this value is, the higher is the quality of financial statement information.

After calculating the values of all three variables representing the FRQ variable, the authors calculated the financial statement information quality (FRQ) variables by taking the average of these three representative variables:

$$FRQ_{it} = \frac{FRQ_McS_{it} + FRQ_KASZ_{it} + FRQ_DD_{it}}{3}$$

Measurement the variable of financial performance

TobinQ is a ratio of market value of total assets to book value of total assets Tobin (1969). This index was introduced by James Tobin in 1971. The value of an enterprise is calculated as the total market value of liabilities (L) and the market value of its equity (V).

From there, the formula for determining TobinQ is as follows:

$$\text{TobinQ} = \frac{\text{Total liabilities} + \text{Market value of total assets}}{\text{Book value of total assets}}$$

This ratio represents the expected value the company generates for its assets according to a market assessment. TobinQ also represents how much the asset's growth compared to its past value, showing the attractiveness of stocks in the market. The greater the difference between market value and book value indicates that the company has created value for major shareholders through the expectation of high future profits.

Measure control variables

| Code | Description | Formula |
|------------------|--|---|
| SIZE | Company size | SIZE = Log(Total assets) |
| LEV | Financial leverage of the business | Total long-term debt divided by total assets |
| GRW | Sales growth rate | (Turnover of year t – turnover of year t-1) / turnover of year t-1 |
| ROA | Return on total assets | Profit after tax divided by total assets |
| CFO _t | Cash flow of the business for the current year | CFO _t = (Net cash flow from operating activities of year t) / (Total assets of year t) |

3.3. Methodology

To test whether next year's financial results will have a positive relationship with the quality of sustainable development investment activities of the previous year under the control of the quality of financial statement information, the authors used the regression equation between the dependent variable, also as the market value of the company in the following year (TOBINQ) and the variable of the sustainable development information (SUS), as follows:

$$(H_1): \text{TOBINQ}_{i,t+1} = \beta_0 + \beta_1 \text{SUS}_{i,t} + \beta_2 \text{SIZE}_{i,t} + \beta_3 \text{LEV}_{i,t} + \beta_4 \text{GRW}_{i,t} + \beta_5 \text{ROA}_{i,t} + \beta_6 \text{CFO}_{i,t} + \varepsilon_{i,t}$$

The authors will divide the entire sample into two subgroups: group 1 is a collection of companies with high quality financial reporting information, and group 2 is a collection of companies with low financial reporting quality. This relationship will be regression tested for unbalanced table data on each sample set.

According to previous studies, the authors identified control variables for H₁ regression equation, including variables SIZE_{i,t}; LEV_{i,t}; GRW_{i,t}; ROA_{i,t}; CFO_{i,t}.

The control variable of company size (SIZE) is one of the first factors mentioned when evaluating the performance of an enterprise. For example, research by Bai and Perron (2003) on corporate governance and market value in China has shown that firm size is one of the very important variables to evaluate the impact of corporate governance, and corporate value. In the model of Bai and Perron (2003), the scale variable is determined to be inversely related to firm value (as determined by TobinQ), meaning that smaller firms will have higher values.

The variable of financial leverage control is a very important variable that is negatively related to firm value Bai and Perron (2003). However, similar to the size variable, the authors' study acknowledges but cannot explain why operating leverage is negatively related to corporate value. Similarly, the study of King and Santor (2008) also provides the opposite result between leverage and TobinQ. In addition, the research of Zeitun and Tian (2007) also has the opposite conclusion about the relationship between operating leverage and performance. Thereby it can be seen that financial leverage has certain effects on corporate value.

The control variable of sales growth rate (GRW) in the research of Zeitun and Tian (2007) on capital structure and performance of companies in Jordan, shows that revenue growth has a very strong impact. Positively up the performance of the business. Therefore, in this paper, the GRW variable is included in the research model to examine the relationship between revenue growth and firm value.

The ratio of profit to total assets (ROA) and control variable of cash flow (CFO) reflects the

financial power that will affect the market value of the business.

4. Results and discussion

To examine how the financial results of the following year will relate to the sustainable development investment activities of the previous year under the control of the quality of financial reporting information, the authors firstly implement between TOBINQ and SUS variables for the entire sample including 800 observations. Regression results are shown in Figure 4.1.

Figure 4.1: H₁ hypothesis test results for the whole sample

```
Fixed-effects (within) regression      Number of obs =      800
Group variable: i                    Number of groups =   160

R-sq:  within =  0.1259                Obs per group: min =    5
      between =  0.0485                avg =                  5.0
      overall  =  0.0533                max =                  5

corr(u i, Xb) = -0.3426                F(6, 634) =           15.22
                                      Prob > F =           0.0000
```

| Tobinq | Coef. | Std. Err. | t | P> t | [95% Conf. Interval] |
|---------|-----------|-----------|-------|-------|-----------------------------------|
| SUS | 68.43128 | 27.64593 | 2.48 | 0.014 | 14.14262 122.7199 |
| SIZE | -202.0759 | 72.16568 | -2.80 | 0.005 | -343.7885 -60.36318 |
| LEV | -252.6116 | 81.31121 | -3.11 | 0.002 | -412.2834 -92.93972 |
| GRW | 21.64616 | 14.06815 | 1.54 | 0.124 | -5.97965 49.27198 |
| ROA | 654.4114 | 107.6966 | 6.08 | 0.000 | 442.9263 865.8965 |
| CFOT | -78.18494 | 43.10451 | -1.81 | 0.070 | -162.8298 6.459936 |
| cons | 1342.424 | 405.4526 | 3.31 | 0.001 | 546.2316 2138.616 |
| sigma_u | 354.45658 | | | | |
| sigma_e | 152.44281 | | | | |
| rho | .84390731 | | | | (fraction of variance due to u i) |

Source: Authors' calculations using STATA 12

The regression results show that the financial results of an enterprise, namely the market value of an enterprise, have a positive relationship with investment in sustainable development, as expressed by the coefficient $\beta_1 = 68.43128$ and $\text{sig.} = 0.014$, statistically significant at 5%. This means that that businesses invest in sustainable development activities this year will contribute to improving the market value of the company in the next year. This result helps managers to be aware of the positive impact of investing in sustainable development activities on business value.

For the purpose of confirming the relationship: "The financial results of the next year have a positive relationship with the quality of sustainable development information in the previous year under the control of high quality of financial reporting information.", the authors will divide the entire sample into two small groups: group 1 is a collection of companies with high quality financial reporting information, and group 2 is a collection of companies with low

financial reporting quality. This relationship will be regression tested for unbalanced table data on each sample set. The testing results are shown in Figures 4.2 and 4.3.

Figure 4.2: H₁ hypothesis test results for the group of companies with high quality of financial reporting information

```
xtreg Tobinq SUS SIZE LEV GRW ROA CFOT, fe

Fixed-effects (within) regression      Number of obs =      400
Group variable: i                    Number of groups =   133

R-sq:  within =  0.2310                Obs per group: min =    1
      between =  0.0163                avg =                  3.0
      overall  =  0.0122                max =                  5

corr(u i, Xb) = -0.6418                F(6, 261) =           13.07
                                      Prob > F =           0.0000
```

| Tobinq | Coef. | Std. Err. | t | P> t | [95% Conf. Interval] |
|---------|-----------|-----------|-------|-------|-----------------------------------|
| SUS | 106.9118 | 47.11499 | 2.27 | 0.024 | 14.13798 199.6857 |
| SIZE | -434.9223 | 109.577 | -3.97 | 0.000 | -650.6898 -219.1549 |
| LEV | -180.9761 | 110.6072 | -1.64 | 0.103 | -398.7722 36.81995 |
| GRW | 32.78012 | 18.81281 | 1.74 | 0.083 | -4.264086 69.82452 |
| ROA | 650.9516 | 125.4904 | 5.19 | 0.000 | 403.849 898.0542 |
| CFOT | -144.1073 | 65.99138 | -2.18 | 0.030 | -274.0505 -14.16398 |
| cons | 2586.036 | 609.9723 | 4.24 | 0.000 | 1384.942 3787.129 |
| sigma_u | 476.68257 | | | | |
| sigma_e | 165.74818 | | | | |
| rho | .89213743 | | | | (fraction of variance due to u i) |

F test that all u_i=0: F(132, 261) = 12.00 Prob > F = 0.0000

Source: Authors' calculations using STATA 12

Figure 4.3: H₁ hypothesis test results for the group of companies with low financial reporting information quality

```
xtreg Tobinq SUS SIZE LEV GRW ROA CFOT, fe

Fixed-effects (within) regression      Number of obs =      400
Group variable: i                    Number of groups =   132

R-sq:  within =  0.0705                Obs per group: min =    1
      between =  0.0348                avg =                  3.0
      overall  =  0.0752                max =                  5

corr(u i, Xb) = -0.1312                F(6, 262) =           3.31
                                      Prob > F =           0.0037
```

| Tobinq | Coef. | Std. Err. | t | P> t | [95% Conf. Interval] |
|---------|-----------|-----------|-------|-------|-----------------------------------|
| SUS | 5.657407 | 35.75249 | 0.16 | 0.874 | -64.74137 76.05619 |
| SIZE | 117.6303 | 118.0547 | 1.00 | 0.320 | -114.8264 350.087 |
| LEV | -318.2437 | 147.7907 | -2.15 | 0.032 | -609.2524 -27.23505 |
| GRW | -40.29659 | 32.1321 | -1.25 | 0.211 | -103.5666 22.97343 |
| ROA | 1508.101 | 399.9933 | 3.77 | 0.000 | 720.4898 2295.711 |
| CFOT | -42.94866 | 69.94661 | -0.61 | 0.540 | -180.6777 94.78039 |
| cons | -484.5181 | 686.212 | -0.71 | 0.481 | -1835.71 866.6743 |
| sigma_u | 334.87707 | | | | |
| sigma_e | 127.27675 | | | | |
| rho | .87377969 | | | | (fraction of variance due to u i) |

F test that all u_i=0: F(131, 262) = 16.72 Prob > F = 0.0000

Source: Authors' calculations using STATA 12

The authors divided the 800-sample set into two smaller groups based on the fact that observations with FRQ value higher than the average FRQ will belong to a group with a high quality of financial reporting information. Conversely, any observations with FRQ value lower than the average FRQ value will belong to a group with low quality of financial reporting information. In the sample group with high quality of financial statements information, enterprises tend to invest in sustainable development activities, and sustainable development investment activities that could bring added market value to enterprises

in the following year. (See Figure 4.2). This result is reflected by the beta between (TOBINQ and SUS) high $\beta_1 = 106.9118$ and statistically significant at the 95% confidence level. However, in the sample group, the quality of financial reporting information is lower, although there is also a positive relationship between TOBINQ and SUS, the relationship is not high, shown at $\beta_1 = 5.657407$ and not statistics (See Figure 4.3). This shows that in companies that do not control financial information quality well, investment in development activities is unlikely to bring high efficiency to improve the market value of the business in the years after the investment period.

In summary, the quality of financial statements information, sustainable development investment and business value are the factors that have a close relationship with each other. Enterprises want to invest in sustainable development activities to bring added value to businesses. To do this, effective investment in sustainable development is required. In order to invest in sustainable sustainability effectively, managers need to do a good job of monitoring their financial activities at the business to ensure true financial information, to help managers make appropriate decisions, and control sustainable development investment projects. The project has proved that the positive value of sustainable development investment will increase the market value for businesses. At the same time, the thesis also demonstrates that the quality control of financial information and sustainable development investment are two categories that have a close relationship with each other, demonstrating the sense of responsibility of businesses for stakeholders. Once the administrator controls the quality of financial information well, it will simultaneously increase the effectiveness of monitoring for sustainable development investment. On the other hand, when sustainable development activities are invested effectively, it will contribute to improving the financial situation of the unit, bringing positive financial information of businesses to the market and investors.

5. Conclusion

The results of this study bring about a number of implications for improving the quality of information on financial statements and the quality of sustainability information provided externally.

The issue of corporate sustainable development is of concern to business executives, researchers, consultants, international organizations and nations. The reality proves that businesses that commit and implement sustainable development will contribute to increase enterprise value, improve business results and efficiency through social reputation, increase attractiveness and retaining workers, increase attractiveness and loyalty to consumers, improve relationships with investors, donors, local communities and the governments, thereby promote the development of businesses, nationally and globally. Accounting for sustainable development is a part of the corporate accounting system. Accounting for sustainable development reflects and quantifies information on economy, society and environment of the enterprise to provide managers and other subjects related to the business with a view to achieving and achieving sustainable development goals and strategies. In Vietnam today, the issue of corporate sustainability, accounting for sustainable development, integrated reports has not been paid enough attention by businesses, and the government. In terms of education and training, accounting and sustainability reporting are not included in the accounting training program of all universities in Vietnam. Therefore, the authors recommend:

- The Government needs to develop a legal framework for integrated reporting in the Vietnamese legal system, as a mandatory responsibility, providing mechanisms to create close coordination and management between the policy makers, supervisory agencies and businesses in the reporting of financial information and sustainable development information.
- The Government needs to develop and publish a roadmap for applying sustainability reports in Vietnamese businesses in two stages: the voluntary stage and the mandatory stage.
- The Government needs to develop a set of indicators of enterprises on sustainable development and rank them on an annual basis.
- The Government needs to strengthen the propaganda on sustainable development of businesses, accounting for sustainable development, integrated reports so that businesses can see the benefits of implementing sustainable development.

• Economic universities need to include the sustainable development content of enterprises, sustainable development accounting, and integrated reports into the training programs at all levels: undergraduate, graduate and postgraduate. This helps us to train human resources, thereby managing and fulfilling the obligations of sustainable development of businesses, promoting the sustainable development of businesses in Vietnam.

There have been many studies about the impact of disclosing sustainability information on businesses. The studies used different measurement methods, and the results were not consistent. There are many reasons for this situation because it is not easy to measure sustainability information because it is a multidirectional concept, covering many contents in different fields. The author measures the sustainable development activities with the content analysis technique of the sustainability report. If the level of investment in sustainable development in terms of monetary terms is measured, it will open another research direction, contributing to re-testing the research results of this topic.

Finally, the authors wish to conduct research on the current sustainability issues of the business and the relevant non-financial information disclosures. Sustainable development is one of the specific elements of non-financial information and an increasing concern in the context of climate change and the impact of strong globalization on all countries and sectors. Research on sustainable development will help to increase the persuasion of the current research paper that the author is doing.

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TESTING FOR BUBBLES IN VIETNAMESE STOCK MARKET: AN APPLICATION OF AUGMENTED DICKEY-FULLER TEST

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Abstract: *In financial markets, bubbles can cause some stocks or even entire market indexes to deviate from their actual valuations. This causes the market value of an asset or assets to not reflect its true value. The fact that the assets do not reflect the true value will make the market riskier and less attractive to investors, especially individual investors, thereby limiting the capital pass-through in a market economy. The detection and warning of possible bubbles will help investors to prepare and react appropriately, avoiding risks caused by bubbles. In addition, the bubble warning also helps market participants to make appropriate adjustments to avoid severe consequences from the bubble growing too large. This study uses the Augmented Dickey-Fuller (ADF) time series test to test for bubbles in the Vietnamese stock market with the VNIndex. Through testing, the years 2006, 2007 and 2018 are warning years for bubbles to appear.*

• Keywords: *bubbles, stock market, augmented dickey-fuller (ADF).*

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 15th November, 2022

Tóm tắt: Trên thị trường tài chính, hiện tượng bong bóng có thể khiến một số cổ phiếu hoặc thậm chí toàn bộ chỉ số trên thị trường xa rời định giá thực tế. Điều này khiến cho giá trị của một tài sản hoặc các tài sản trên thị trường không phản ánh đúng giá trị thật. Việc các tài sản không phản ánh đúng giá trị thật sẽ khiến cho thị trường rủi ro hơn, kém hấp dẫn đối với các nhà đầu tư, đặc biệt là các nhà đầu tư nhỏ lẻ, từ đó sẽ làm hạn chế khả năng dẫn truyền vốn trong nền kinh tế của thị trường. Việc phát hiện và cảnh báo các bong bóng có thể sẽ giúp cho các nhà đầu tư có sự chuẩn bị và phản ứng phù hợp, tránh các rủi ro do bong bóng gây ra. Ngoài ra việc cảnh báo bong bóng cũng giúp các bên tham gia thị trường có thể có những điều chỉnh phù hợp để tránh gây ra các hậu quả nặng nề từ việc bong bóng phát triển quá lớn. Nghiên cứu này sử dụng kiểm định chuỗi thời gian Augmented Dickey-Fuller (ADF) để kiểm tra bong bóng trên thị trường chứng khoán Việt Nam với bộ chỉ số VNIndex. Thông qua kiểm tra, các năm 2006, 2007 và 2018 là các năm được cảnh báo có bong bóng xuất hiện.

• Từ khóa: *bong bóng, chứng khoán, augmented dickey-fuller (ADF).*

1. Introduction

Along with the development of financial markets, the term “bubble” has been mentioned for a long time. Economic bubbles are often blamed for causing crises in the financial markets and thus have devastating consequences for the economy as a whole. Therefore, being able to warn of a bubble is very important and highly practical. According to Korkos (2016), a bubble is a period in which the price of an asset has a significant difference from its underlying value. Jarrow (2016) defined a bubble as a reflection of the concept that the buying and selling value of an asset is higher than the price it would pay if it were held forever. In general, the concepts indicate that bubbles will occur when the price of an asset or assets exceeds a reasonable level. However, when applied in practice, it is often difficult for investors to recognize bubbles. The reason is because investors all want to get more profit by buying at a higher price and expecting that someone will accept to buy back at an even higher price or holding and waiting for the price to continue to go up, which leads to losses when the bubble collapses. When the bubble collapsed, the consequences for the market were very heavy.

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Based on the preceding theories about bubbles as well as detecting and warning bubbles in the markets in general and the stock market in particular, this paper examines the bubbles in the Vietnamese stock market for the period from 2000 to 2022 using the daily data of the stock index on the Ho Chi Minh City Stock Exchange and testing the stationarity of the Augmented Dickey-Fuller time series.

2. Literature review

Many previous studies have discovered the usual signs of bubbles in the stock market. Although the efficient market hypothesis states that bubbles cannot exist in the market too many times, this has been proven to be incorrect over the past four decades. Keynes (1936) predicted and provided a theoretical basis for the bubble in the market with the irrationality of investors while trading in the stock market. In addition, Evans (1991) proposed the theory of cyclical bubbles. Abreu & Brunnermeier (2003) argued that bubbles appear, not due to irrationality, but due to asset mispricing. However, they did not investigate the reason for the bubble formation nor determine when the bubble might form. According to Jarrow et al. (2007) bubbles can be detected with derivatives. However, this study has limitations and empirical evidence to support the argument is also lacking.

Shiller (1981) and LeRoy & Porter (1981) both developed the bubble test "Variance Bounds Test". In this method, the fair value of the stock is calculated according to the present value of the dividends paid. If the actual price is higher than the fair price, the bubble is happening. Flavin (1983) pointed out certain arguments such as small sample bias, bias in the terminal value used in valuation. Diba & Grossman (1988) used stationarity as a powerful tool for bubble detection. The model is based on future dividends, expected future stock prices, and a number of unobserved variables.

Funke et al. (1994) applied the stationarity test (DF) and extended the Augmented Dickey Fuller test (ADF) to check whether the stock price series is stationary or show signs of a bubble. In detecting bubbles in the past, this method shows effective results. In addition, Phillips et al. (2011) introduced the SADF test to identify bubbles quite effectively. These tests were then applied by researchers to

find bubbles in the market securities. Through application, the authors have drawn the conclusion that the SADF test of Phillips et al. (2011) is a good method to detect bubbles in the market. Phillips et al. (2015) applied the generalized GSADF for efficient bubble prediction.

Taipalus (2012) used unit test (ADF) and applied rolling data (RADF) technique through Monte Carlo simulation on US stock market data. The study has shown the signal of the bubble about to appear 12 months in advance. This method has also shown its ability to predict bubbles in the market. Sornette et al. (2010) combined behavioral theory with rationality theory in finance to examine the fall of Chinese stock market index between 2005 and 2009 by performing a "log-periodic power law" (LPPL) model. Prior to this study, this method was modified in 2006 by Zhou and Sornette to include economic factors (such as interest rates, spreads, historical fluctuations and exchange rates) as evidence of rumors. Caspi (2016) extended both the model used by Taipalus (2012) and Funke et al. (1994) and showed effectiveness on a new model. In the study, the author used ADF, RADF, SADF and RSADF models to test bubbles in the market. If the null hypothesis is rejected, it will prove the existence of asset price bubbles. Korkos (2014) used RADF and GSADF models to detect signs of bubbles in the US capital markets.

3. Data and methodology

The data collected in this paper is the stock price index on the Ho Chi Minh City Exchange (HOSE) from July 2000 to October 2022. The data source is the website cophieu68.com. The stock market index is then preprocessed using the log function.

The paper uses the Augmented Dickey-Fuller test with rolling data (RADF) to test bubbles for stocks traded on the Ho Chi Minh City Stock Exchange. RADF test is performed on time series regression as follows:

$$\Delta y_t = \mu + \delta y_{t-1} + \sum_{i=1}^p \phi_i \Delta y_{t-1} + e_t$$

Where:

y_t : stock price

μ : intercept factor

δ : regression coefficient for time series lag 1

p : maximum lag
 ϕ_i with $i = 1 \dots p$: regression coefficient for different lags
 e : regression error

Rolling windows used for testing include 3, 4 and 5 years (756, 1008 and 1260 trading days, respectively). Selecting the rolling window will greatly affect the test results. In some other studies, long windows have been used. However, this causes information interference and no update, thus the reaction of the test with bubbles will be slower. In this study, the rolling windows 3, 4 and 5 years were applied and compared to find the most appropriate rolling window for testing.

The hypotheses are as follows:

H_0 : non-stationary series

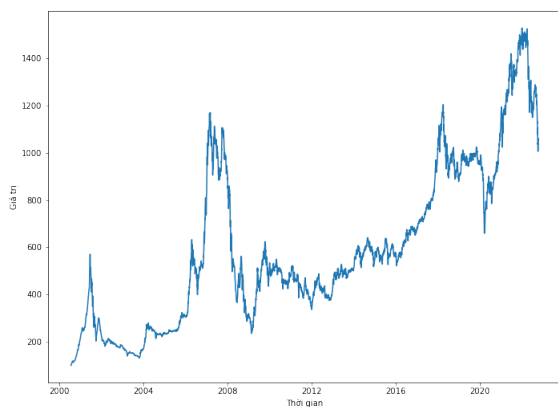
H_a : stationary series

The tests are run using the Python programming language. If the null hypothesis is rejected, there is evidence of stationary series, showing signs of bubbles appearing in the market. Conversely, if the null hypothesis is not rejected, it proves that the series is not stationary, and there is no sign of bubbles in the market. At a significance level of 5%, if the test value is greater than the critical value of 2.86, the null hypothesis will not be rejected, which therefore shows signs of bubbles.

4. Results

4.1. Descriptive statistics

Figure 1. VNIndex from 2000 to 2022

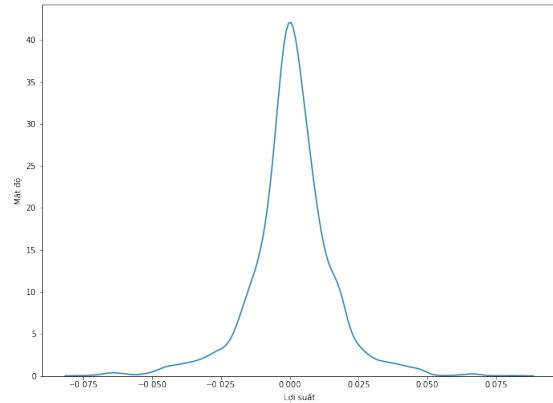


Source: Authors' own compilation

Figure 1 shows the trend of the VNIndex over the period from July 2000 to October 2022. In general, this is an uptrend, but there are many periods when this index has strong fluctuations.

In 2001, 2008, 2018 and 2021, the VNIndex had a strong increase and right after those strong increases, the market witnessed sharp declines.

Figure 2. Distribution of VNIndex returns



Source: Authors' own compilation

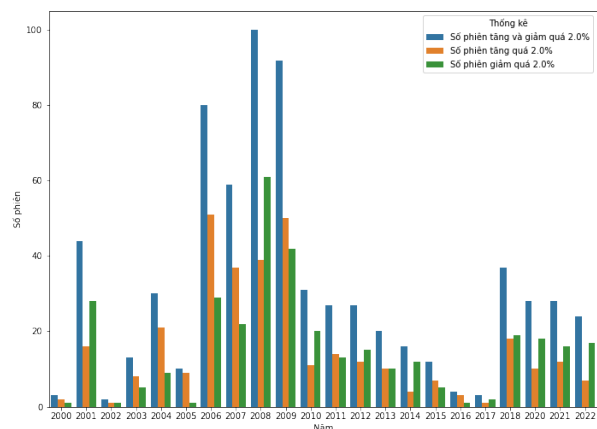
Table 1. Statistics of VNIndex

| Number of observations | Mean | Standard Deviation | Min | 25% | 50% | 75% | Max |
|------------------------|-------|--------------------|--------|--------|-------|-------|-------|
| 5386 | 0.05% | 1.47% | -7.37% | -0.56% | 0.06% | 0.75% | 8.05% |

Source: Authors' own compilation

From Figure 2 and Table 1, it can be seen that the VNIndex returns have a pointed distribution with long left and right tails. This shows that returns are concentrated on average of 0.05% and very large or very small values are very far from the mean but are relatively rare when the areas of both the left and right tails are quite small.

Figure 3. The number of days the returns on the VNIndex increased/decreased by more than 2%



Source: Authors' own compilation

Figure 3 shows the number of sessions in which

the VNIndex increased/decreased by more than 2%. Looking at the figure, it can be seen that the sessions with large returns on the VNIndex (above 2% or below -2%) were mainly concentrated in the years 2006-2009. It can be seen that in the years from 2006 to 2009, the number of trading sessions where the VNIndex increased/decreased by more than 2% was relatively large compared to other years. In which, in 2006 and 2007, the number of sessions that the VNIndex increased by more than 2% was larger than the number of sessions that the VNIndex decreased by more than 2%. By 2008, the number of sessions that the VNIndex decreased by more than 2% was greater than the number of sessions that the VNIndex increased by more than 2%, and by 2009 the number of sessions that the VNIndex increased by 2% was greater than the number of sessions that the VNIndex decreased by 2%. In addition, the years 2001 and 2018 also had a relatively large number of sessions where the returns was greater than 2% or less than 2%.

According to these statistics, it can be seen that in the Vietnamese stock market, there are a few periods of relatively strong volatility such as the years from 2006 to 2009 and 2018, leading to the possibility of bubbles appearing at those times of high volatility.

4.2. Regression results

Figure 4. Test results with 3-year window



Source: Authors' own compilation

From Figure 4, it can be seen that the years 2006, 2007 and 2018 are the years that the test gave results with bubbles appearing. In 2006, from March through May there were 41 days that the test results showed a bubble warning. In 2007,

there were up to 50 days between January and March of bubble warnings. In 2018, there were 35 scattered days from January to April that showed a bubble warning.

Figure 5. Test results with 4-year window



Source: Authors' own compilation

From Figure 5, it can be seen that the years 2006, 2007 and 2018 are the years that the test gave results with bubbles appearing. In 2006, from March to June there were 63 days that the test results showed the bubble warning and in December there were 8 more days of warnings. In 2007, there were up to 60 days of bubble alerts between January and April. In 2018, there were 34 scattered days from January to April that indicated bubble warnings.

Figure 6. Test results with 5-year window



Source: Authors' own compilation

From Figure 6, it can be seen that the years 2006, 2007 and 2018 are the years that the test gave results with bubbles appearing. In 2006, there were 13 days in December that the test results showed

the bubble warning and in December there were 8 more days when the warning appeared. In 2007, there were 85 days of bubble alerts that occurred between January and June. In 2018, there were 14 days in January, February and April that indicated bubble warnings.

Looking at the reality, it can be seen that in 2017, the stock market reached a historic peak in March and then witnessed a sharp decline of the VNIndex until 2009. Thus, it can be seen that when testing with longer windows (i.e. 4 years and 5 years) the signals usually last longer until April or June, when the bubble has collapsed. With the 2018 bubble, the test results with 3, 4 and 5 year windows all show that the bubble occurred from January to April. In fact, the Vietnamese stock market on the Ho Chi Minh City stock exchange in 2018 peaked in April and then fell sharply.

Conclusion

The paper uses data on the daily closing price of the VN-Index from July 2000 to October 2022. This index represents securities traded on the largest stock exchange in Vietnam, i.e. HOSE. When applying the ADF test to the index data set on HOSE, it showed the appearance of bubbles in the years 2006-2007 and 2018. This result is relatively compatible with the descriptive statistics on returns on the Ho Chi Minh City Stock Exchange, when 2006-2007 and 2018 were the years when there were quite a few outliers of returns on the VNIndex, especially high-value positive returns.

Since its establishment until now, the Vietnamese stock market has experienced many fluctuations, which is partly reflected in the rather long left- and right-tailed returns distribution. Positive information or challenges, difficulties or even information gaps continuously appear during the formation and development of the market. Investors have thereby become more cautious when investing as well as being able to draw lessons for themselves through bubble events that caused the collapse and heavy consequences of the world stock market in general as well as the Vietnamese stock market in particular. However, experience is not enough to help investors detect bubbles. Qualitative and quantitative tools are needed to assess whether the market is falling into a bubble. Through testing, the bubbles in the Vietnamese stock market in the past showed the possibility

of detection. Investors can apply this time series stationary testing method to have a warning tool about the appearance of bubbles in the market, so that investors as well as the market can react better, reduce risks and consequences of bubbles, and help the market operate more efficiently.

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- (Cuối bài Anh chị cho em đồng chữ: Bài báo là sản phẩm của đề tài cấp Bộ "Nghiên cứu mối quan hệ giữa bong bóng chứng khoán và bong bóng bất động sản tại Việt Nam" - Mã số B2022 - NTH -03

THE IMPACT OF MARKETING ON CUSTOMERS' CHOICE OF FAST-FOOD STORES OVER THE INTERNET IN HO CHI MINH CITY

MA. Ruby Lieu*

Abstract: *The objective of the study is to evaluate and measure the impact of marketing activities on the decision of customers to choose an online fast-food restaurant in Ho Chi Minh City. The study surveyed 250 consumers, the research sample was distributed among districts in Ho Chi Minh City. In the research model, the author has proposed 6 factors affecting the choice decision of customers. The survey results show that 4 variables: "Price", "Quality", "Marketing activities" and "Interface" have an influence on customers' choice decisions. Through the research results, some policy implications on marketing are suggested to help companies grow and further improve service quality in order to increase customer satisfaction.*

• Keywords: fast food, marketing, customers.

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 15th November, 2022

Tóm tắt: Mục tiêu của nghiên cứu là đánh giá và đo lường tác động của hoạt động marketing đến quyết định lựa chọn nhà hàng thức ăn nhanh trực tuyến của khách hàng tại Thành phố Hồ Chí Minh. Nghiên cứu đã khảo sát 250 người tiêu dùng, mẫu nghiên cứu được phân bố giữa các quận, huyện tại Thành phố Hồ Chí Minh. Trong mô hình nghiên cứu, tác giả đã đề xuất 6 nhân tố ảnh hưởng đến quyết định lựa chọn của khách hàng. Kết quả khảo sát cho thấy 4 biến số: "Giá cả", "Chất lượng", "Hoạt động marketing" và "Giao diện" có ảnh hưởng đến quyết định lựa chọn của khách hàng. Thông qua kết quả nghiên cứu, một số hàm ý chính sách về marketing được đưa ra nhằm giúp các công ty phát triển và nâng cao hơn nữa chất lượng dịch vụ nhằm tăng sự hài lòng của khách hàng.

• Từ khóa: thức ăn nhanh, tiếp thị, khách hàng.

1. Introduction

Vietnam is a country with a large population, the young population accounts for a high rate, which is a very favorable environment for the development of fast food. Grasping this need and opportunity, many fast-food companies have penetrated the Vietnamese market and quickly found here many potentials and prospects for the introduction and development of fast

food, especially through the Internet channel.

According to the General Statistics Office (2019), the population of Ho Chi Minh City is 8,933,000 people. However, if unregistered residents are counted, the actual population of the city would exceed 14 million people (results of the 2019 population and housing census).

Therefore, Ho Chi Minh City is a market with a huge consumption capacity, and a potential market for the development of the retail trade of goods, including the fast-food industry. Measuring and evaluating the impact of marketing activities is one of the important factors that help businesses build more effective marketing strategies to attract customers, and meet their needs and tastes.

2. Theoretical assumptions and research model

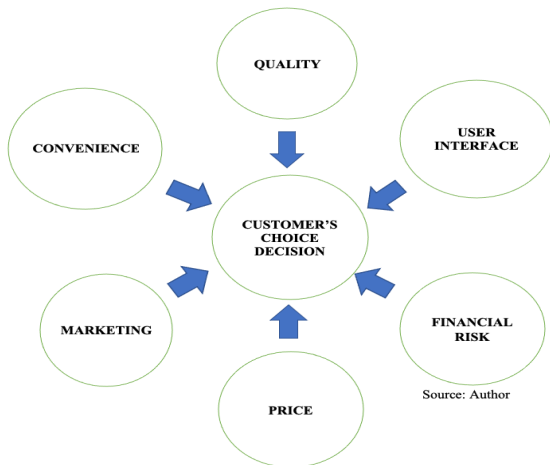
Fast-Food is food that has been prepared, packaged, and can be served quickly (Merriam Webster, 1952). Online shopping is the behavior of consumers shopping through online stores or websites using online purchases (Monuwe et al., 2004). Online shopping is a transaction made by a consumer through a computer-based interface by connecting and possibly interacting with the consumer's computer with the retailer's digitized stores through computer networks (Haubl and Trifts, 2000).

In today's world, there have been many studies on fast-food consumption behavior. Pattaraporn and

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Chitraporn (2011), Elif and Handa (2014), Deepak (2016), etc. In Vietnam, there are also many studies such as Nguyen Minh Hue (2017), Nguyen Huy Tuan and Mai Thi Hong (2019), Phan Thi Hoang Dung (2021), etc. From the above studies, it shows that there are many factors affecting fast food consumption behavior, such as geographical features and research's time frame could yield different results. Although most of the factors have a positive correlation within-store fast-food consumption behavior, there have not been many studies done on ordering fast food via the Internet. Through the process of selection, review of previous studies, the author has built the assessment of customer's choice decision which is composed of 6 main factors as shown in Figure 1.

Figure. Suggested research model



3. Research results and discussion

The data of the evaluation research is collected by sending an online survey to consumers in Ho Chi Minh City via Google Docs, Facebook, and email. The survey model proposed by the author has 33 observed variables. Therefore, the required number of samples is at least 165 samples (33*5). In fact, the survey was conducted with 258 questionnaires, of which 250 were valid.

Thus, with the requirements set for the sample size, the number of observations of 250 questionnaires is sufficient to form the research model. The author uses SPSS 20.0 software to support the analysis, the results of the research model are as follows:

3.1. Assess the reliability of the scale using Cronbach's Alpha

Testing the reliability of Cronbach's Alpha scale is a test that reflects the level of close correlation

between observed variables in the same factor. It shows which of the observed variables of a factor has consistently measured the same characteristic. The Cronbach's Alpha results of the good factor show that the observed variables measuring the factor are reasonable, showing the characteristics of the parent factor.

The results of the Cronbach Alpha for the good factor will show that the variable we listed form a good scale. In other words, Cronbach's alpha test has the function of removing unreliable variables before performing EFA exploratory factor analysis. Through the results in Table 1, we see that all Cronbach's Alpha values of the concepts are > 0.6 (ranging from 0.723 to 0.858), the correlation coefficient of all variables is greater than 0.3. Therefore, all scales have the necessary reliability as suggested by Hair et al (2010).

Table: Cronbach's Alpha analysis

| Factor | Observed variables | Reliability | Satisfactory Level |
|--------------------------|--------------------|-------------|--------------------|
| Food quality | 5 | 0.788 | Satisfied |
| Web-App Interface | 5 | 0.855 | |
| Financial, shipment risk | 4 | 0.768 | |
| Price | 4 | 0.832 | |
| Marketing | 6 | 0.858 | |
| Level of convenience | 4 | 0.723 | |
| Choices' decision | 5 | 0.812 | |

Source: SPSS analysis results

3.2. Exploratory Analysis EFA

Exploratory Factor Analysis (EFA) is a particularly popular technique for determining the basic general structure of a group of observed variables in quantitative research (Hair et al. 2014). EFA is used to reduce a set of many observed variables that are correlated with each other into a smaller set of composite variables (also called factors) that are more meaningful but still ensure the information content of the original data set.

KMO coefficient equals to 0.942 (>0.5), so the data is suitable to perform a factor analysis. Barlett's test result is 3284,793 with significance level Sig.= 0.000 < 0.05, which proves that the observed variables are correlated with each other and satisfy the conditions for factor analysis. At Eigenvalues values greater than 1, factor analysis extracted 5 factors from 28 observed variables and with extracted variance of 70.846% > 50% => satisfactory.

The results of EFA satisfy the test conditions proposed by Hair et al. (2010), obtaining the convergence model with the best explanatory and analytical ability. All the factors satisfy the requirements for multiple regression analysis.

3.3. Linear regression analysis

The correlation phenomenon by Durbin - Watson coefficient shows that $(1 < 1.893 < 3)$ so the regression model fits the collected data. The adjusted coefficient of determination R^2 shows that the model's compatibility is 72.9%, suggesting that the independent variables explain 72.9% of the variance of the dependent variable.

The remaining two variables including TT, RR, both have sig t-test less than 0.05, so these variables are not statistically significant and have no effect on the dependent variable QD. The VIF coefficients are all below 2, showing that there is no multicollinearity. The regression model is below.

$$QD = 0.480*MA + 0.377*CL + 0.311*GB + 0.219*GD + \varepsilon$$

From the results of the regression model, it is possible to evaluate the level of impact of 4 independent variables on customers' decision to choose fast food, including Marketing activities, food quality, product price, and Website and Application's user interface, in which Marketing activities are the factors that are valued and appreciated by customers, followed by the quality of the food, the selling price of the products and finally the Web - App interface. This result is completely consistent with the reality when customers decide to choose a fast-food restaurant.

4. Conclusions and solutions

From the research results, there are 4 factors affecting customers' decision to choose fast food restaurants in Ho Chi Minh City through the internet, including Marketing activities, food quality, product selling price, delivery and Web - App interface. Specifically, the author proposes a number of solutions to promote businesses to further improve service quality to attract customers, further increase customer satisfaction and preference.

- *Web-App interface*: Businesses need to build a Web-App website with a beautiful interface, easy to see, easy to use and convenient for users, the content must contain all information about the store (Address, number, etc.) Hotline, Fanpage,...) and about the food (price, ingredients, flavor, etc). In addition, there must be a system to record customers' reviews and

comments, similar channels. Cooperate with online sales staff to quickly and satisfactorily solve customer requests in the shortest time.

- *Marketing activities*: Through the website, promote advertising, promote images, products as well as brands to customers. The use of social networking sites such as facebook, instagram, zalo... or e-commerce platforms is the best and most used advertising channels today. Advertising through Facebook Ads, Google Ads, etc will also increase brand awareness and reach potential customers most effectively. Utilizing the advantage of promotions, gifts, vouchers for customers, interest in birthdays, phone number information, and address to create many attractive gratitude programs.

- *Food quality*: The store must always ensure food safety and hygiene, with beautiful and attractive packaging, continuously improved food quality, delicious and attractive food taste, and eliminate expired products.

- *Product selling price*: Setting a reasonable price for the product, not too high, and at the same time it is necessary to create a variety with different prices so that consumers have more choices, always aiming to bring the best products for consumers at an affordable price to increase the perceived value of the product by consumers. An appropriate pricing policy will help attract and increase the number of customers. However, it is necessary to ensure a balance of costs and reasonable calculations to have the best price policy for customers and also ensure revenue. Creating discounts to stimulate more purchases and retain loyal customers is also an effective form of brand promotion as customers can remember the company and store more.

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HOW ETHICAL IDEOLOGIES IMPACT ON PURCHASE INTENTION OF INCONSPICUOUS LUXURY PRODUCTS: A CONCEPTUAL FRAMEWORK

Msc. Nguyen Bao Ngoc*

Abstract: *The link between consumer ethics and inconspicuous luxury consumption has been mainly unexamined in literature. This paper conceptualizes an integrated model to examine the influence of the theory of planned behavior and ethical ideologies on the purchase intention of inconspicuous luxury consumption. This study advances the understanding of inconspicuous luxury consumption in Vietnam and extends the TPB model with the combination of ethical ideologies in the luxury context. This research contributes to the luxury consumption literature and offers important insights for luxury marketers.*

• Keywords: *inconspicuous luxury consumption, ethical ideologies, TPB, consumer behavior, luxury fashion.*

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 15th November, 2022

Tóm tắt: *Mối quan hệ giữa đạo đức người tiêu dùng và thói quen tiêu dùng kín đáo vẫn chưa được nghiên cứu nhiều trong tổng quan. Bài báo này xây dựng mô hình tích hợp để kiểm tra ảnh hưởng của lý thuyết Hành vi có kế hoạch và các tư tưởng đạo đức tới ý định mua các sản phẩm xa xỉ kín đáo. Nghiên cứu này nâng cao sự hiểu biết về tiêu dùng xa xỉ kín đáo ở Việt Nam và mở rộng mô hình hành vi hợp lý với sự kết hợp của hệ tư tưởng đạo đức trong bối cảnh tiêu dùng xa xỉ. Bài báo này mang lại những đóng góp cả về mặt lý thuyết và thực tiễn ngành công nghiệp xa xỉ.*

• Từ khóa: *tiêu dùng xa xỉ kín đáo, hệ tư tưởng đạo đức, lý thuyết hành vi có kế hoạch, hành vi tiêu dùng, thời trang xa xỉ.*

1. Introduction

Prior research highlighted that conspicuous consumption is a primary practice of luxury consumption (Gurzki and Woisetschläger, 2017). Luxury consumers focused on loud logos and iconic designs for years, including Louis Vuitton's monograms, Versace's Medusa Head, and the Burberry plaid (Makkar and Yap, 2018b). Recently, the shift from conspicuous consumption to inconspicuous consumption has

made a significant comprehensive change in the luxury consumption landscape. As a result, inconspicuous consumption has gained much attention from academic researchers to explore the concept of inconspicuous luxury consumption (Berger and Ward, 2010) and its antecedents (Jiang et al., 2021). However, the relationship between inconspicuous luxury consumption and consumer ethics has largely unexamined in luxury consumption literature. This conceptual paper aims to address this issue.

In addition to this emerging and potentially promising research direction, this study draws on the theory of planned behavior (TPB) to explain consumer decision making to examine why luxury consumers select inconspicuous luxury products. In luxury consumption context, prior research uses TPB to understand luxury consumer's behavioral intentions through subjective norms, perceived behavioral control, and attitudes (Ting et al., 2018). Ethical considerations are crucial to customers when making buying decisions (Vitell et al., 2016). Despite this theoretical evidence, there is a need for a more novel model that fully integrates consumer ethics and behavioral theories toward investigating factors affecting luxury consumers in inconspicuous consumption.

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In luxury context, ethical ideologies are associated with fashion counterfeit products (Ha and Lennon, 2006). Building on this foundation of TPB and the taxonomy of ethical ideologies, the current paper provides new insight into how ethical ideologies influence on purchase intention of inconspicuous luxury consumption based on the theory of planned behavior.

This research contributes to the literature in several ways. First, as opposed to prior studies, which have predominately examined consumers' luxury consumption behaviors from the general socio-psychological perspective, this research draws on ethical concepts to examine purchase intention of inconspicuous luxury consumers. Secondly, this conceptual paper enhances the TPB model by proposing the antecedent role of ethical ideology in purchase intention. The following sections provide a literature review of the key concepts and the hypotheses development. The methodology presented to tentatively test these hypotheses.

2. Theoretical background and propositions

2.1. *Luxury consumption and inconspicuous consumption*

In luxury consumption literature, the traditional meaning of luxury is a signal of prestige and social status (Eckhardt *et al.*, 2015). Previous studies highlighted that luxury consumption is tied to conspicuous consumption and status consumption (O'cass and McEwen, 2004). Luxury products can display the wealth publicly to impress others and purchase luxury goods as a status differentiator and social identification (Dubois and Duquesne, 1993). However, previous studies argued that status and conspicuous consumption are two distinguished constructs and uninterchangeable (O'Cass & McEwen, 2004). While conspicuous consumption emphasizes the public display of luxury goods in the presence of others, status consumption is primarily concerned with consumers' ambitions to achieve prestige by acquiring status-laden products and brands (O'cass and McEwen, 2004).

The comprehensive view of luxury consumption is extended due to the rise of inconspicuous consumption (Gurzki & Woisetschläger, 2017). The shifting from loud prominent brands to subtle signals on brand strategies reconceptualizes

the meaning of luxury (Eckhardt *et al.*, 2015). Inconspicuous consumption refers to "the use of subtle signals that are only observable to people with the requisite knowledge to decode their meaning" (Berger and Ward, 2010). To counter the rising of "masstige," luxury consumers prefer less visible brand marks during luxury consumption (Truong *et al.*, 2008). Luxury consumers are more likely to be seeking inwardly hedonistic pleasure rather than taking pleasure in flaunting their wealth (Han *et al.*, 2010; Berger and Ward, 2010).

In the inconspicuous luxury consumption domain, most existing research explored luxury consumers' self-concept and brand relationship (Gurzki and Woisetschläger, 2017). Berger and Ward (2010) defined the concept of subtle signals and their relationship with cultural capital. "Patrician" refers to a group of luxury consumers who are wealthy, low in desire for status, and prefer subtly marked luxury products in order to associate (or disassociate) with chosen consumer groups (Han *et al.*, 2010). Eckhardt *et al.* (2015) explained the dilution of traditional luxury brands and conceptualized subtle designs and unique consumer needs. A typology of inconspicuous consumers based on signal desire and fashion cultural capital (Makkar and Yap, 2018a). The underline motivations which drive luxury consumers to consume inconspicuously are also concerned. The study of Wu *et al.* (2017) focused on the motives of inconspicuous Chinese consumers based on identity theory. Emotions are key drivers of inconspicuous consumption motivations to express their self-identity (Makkar and Yap, 2018b). An empirical study by Kauppinen-Räsänen *et al.* (2018) emphasized the impact of personality and social traits on inconspicuous luxury products. Luxury consumers engage in inconspicuous consumption based on their intrinsic motivations (Shao *et al.*, 2019). Although existing research pays much effort into exploring the motivations driving inconspicuous consumption, the link between consumer ethics and inconspicuous consumption has been neglected.

2.2. *Factors influence purchase intention of inconspicuous luxury products*

2.2.1. *Theory of planned behavior*

In consumer behavior research, the theory of planned behavior (TPB) has been found to play an

important role in explaining both personal value and social value (e.g. (Jain and Khan, 2017). This theory is an extension of the TRA and was created to address the shortcomings of the TRA (Ajzen, 1980; Fishbein and Ajzen, 1975). This theory proposed that attitude toward behavior, subjective norms (SNs), and perceived behavior control (PBC) influence on individual's behavioral intention and behavior (Ajzen, 1991). The behavioral intention construct is the core of the model that plays as a powerful predictor of the behavior. In this study, we focus on examining the consumers' PI, rather than the behavior.

Based on TPB, on this study, attitude (ATT) refers to the consumer's positive or negative evaluation of buying inconspicuous luxury products. SN can be defined as the perceived social pressure that encourages one to engage in purchase of inconspicuous luxury products; and, finally, PBC refers to the difficulty or ease perceived by an individual to perform the purchase of inconspicuous luxury products.

Several studies have explored purchase intention of luxury products and inconspicuous luxury products. Attitude, subjective norm, and perceived behavioral control are positively associated with Chinese consumers' intention to purchase luxury products (Gao, 2009). In the United Kingdom and the United States, social influence plays a key part in luxury consumer purchase intentions (Loureiro and de Araújo, 2014). In Malaysia, the social-adjustive function of attitude, the hedonic function of attitude, subjective norm, and perceived behavioural control positively influence luxury consumer's purchase intention towards inconspicuous luxury fashion products (Ting et al., 2018). In this study, we propose to re-test the relationships between three important factors of the TPB and PI toward inconspicuous luxury products among consumers in the context Vietnam, an emerging economy in Asia. Therefore, the following set of hypotheses is presented:

Proposition 1. The consumer attitude toward inconspicuous luxury products is related to inconspicuous luxury products PI.

Proposition 2. The consumer SN inconspicuous luxury products is related to inconspicuous luxury products PI.

Proposition 3. The consumer PBC toward inconspicuous luxury products is related to inconspicuous luxury products PI.

2.2.2. Ethical ideologies

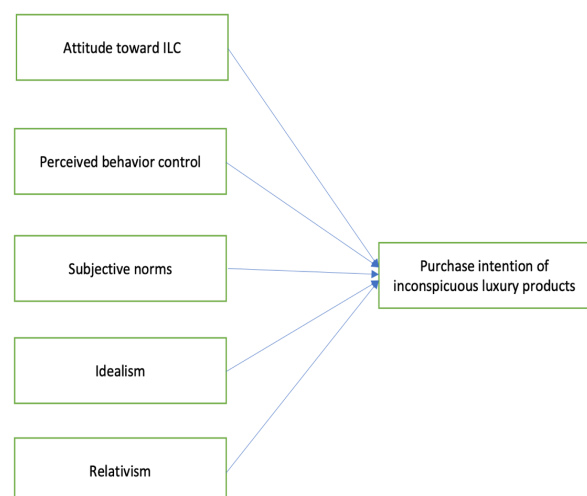
Ethical ideology instructs individuals' behaviors when confronted with an ethical problem and focuses on the reasons for engaging in unethical acts (Andersch et al., 2018). According to Forsyth (1980), ethical ideologies include idealism and relativism.

Idealism is defined as the extent to which an individual believes that desirable outcomes can be achieved by following universal moral rules. Relativism is defined as the extent to which an individual believes moral rules should be interpreted relative to the context (Forsyth, 1980). Idealists assume that who believe that people can always achieve desired outcomes by performing the correct behaviors, therefore, avoiding harm to others is always possible while relativists argue that absolute or universal moral principles should be tempered by a consideration of their consequences (Forsyth, 1980). In luxury fashion context, ethical ideologies relate to purchase intent for fashion counterfeit products (Ha and Lennon, 2006). Thus, we propose that:

Proposition 4: Idealism is related to inconspicuous luxury products PI.

Proposition 5: Relativism is related to inconspicuous luxury products PI.

Figure: Theoretical conceptual framework



3. Discussion and implications of the study

The key objective of this study is to understand the factors affecting inconspicuous luxury consumption purchase intention. The TPB (Ajzen, 1991) and the taxonomy of ethical ideologies (Forsyth, 1980) serves as the conceptual basis for the study. This framework tries to further expand the work of Ting et al., (2018) by providing a deeper view on determinants of inconspicuous luxury consumption.

This study has both theoretical and managerial implications. From the theoretical perspective, this study first provides a different point of view on inconspicuous luxury purchase intention. It provides a detailed explanation of how luxury consumers may have ethical reasons behind inconspicuous luxury goods consumption. Secondly, the integrated conceptual model depicts the influence of ethical issues on purchasing inconspicuous luxury products. This study makes a sincere attempt to integrate ethical ideologies into Ajzen's TPB and tries to present a behavioral framework that can help better understand, analyze and explain consumer purchasing behavior for inconspicuous luxury fashion goods.

Managerially, this study will enable luxury brand managers to comprehend the drivers behind inconspicuous luxury fashion consumption and redesign their strategies to increase the perceived value of their luxury brands. This study will also enable marketers to understand how consumer ethics may have a strong impact on individual's purchase intention of inconspicuous luxury consumption. It will enable luxury managers to know how they can attract and retain their targeted consumers by building suitable strategies based upon consumers' values and motivations of inconspicuous luxury consumption.

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THE IMPACT OF BANK COMPETITION ON BANK LOAN SUPPLY OF MONETARY POLICY TRANSMISSION: THE CASE OF VIETNAM

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Abstract: *This research aims to examine the role of competition in the potency of monetary policy transmission through bank loan supply for a comprehensive sample of Vietnamese commercial banks covering the period of 2007–2020. Employing a two-step system generalized method of moments (S-GMM) to address the dynamics of the regression model and endogeneity, the finding statistically shows the presence of the bank lending mechanism that monetary policy could pass-through. Moreover, monetary policy ineffectively transmits via bank loan supply for banks with more competitive ability, represented by a high level of bank-specific Lerner index, while controlling other significant factors. These findings are consistent with the use of diverse instruments of monetary policy and the inclusion approach of bank competition variables one by one into the model. Some policy implications are provided by considering the role of bank-specific competition in driving the bank lending monetary policy transmission.*

• Keywords: *bank competition, monetary policy transmission, bank lending channel, Vietnam.*

Date of receipt: 10th September, 2022

Date of receipt revision: 30th October, 2022

Date of delivery revision: 15th September, 2022

Date of approval: 15th November, 2022

Tóm tắt: Nghiên cứu này xem xét vai trò của cạnh tranh đối với hiệu quả của việc truyền dẫn chính sách tiền tệ thông qua kênh cho vay ngân hàng cho một mẫu gồm các ngân hàng thương mại Việt Nam trong giai đoạn 2007–2020. Sử dụng phương pháp tổng quát hóa thời điểm có hệ thống (S-GMM) để kiểm soát tính động của mô hình hồi quy và giải quyết vấn đề nội sinh, nghiên cứu cho thấy sự tồn tại kênh cho vay ngân hàng mà chính sách tiền tệ có thể truyền dẫn. Hơn nữa, kênh truyền dẫn này tỏ ra kém hiệu quả đối với các ngân hàng có khả năng cạnh tranh mạnh, thể hiện bằng chỉ số Lerner của ngân hàng cụ thể ở mức cao khi đã đồng thời kiểm soát các yếu tố quan trọng khác. Kết quả này nhất quán đối với việc sử dụng các công cụ khác nhau của chính sách tiền tệ và cách tiếp cận đưa từng biến số cạnh tranh của ngân hàng vào mô hình. Một số hàm ý chính sách được đưa ra bằng cách xem xét vai trò của cạnh tranh cụ thể của từng ngân hàng trong việc thúc đẩy việc truyền dẫn chính sách tiền tệ qua kênh cho vay của ngân hàng.

• Từ khóa: *cạnh tranh ngân hàng, truyền dẫn chính sách tiền tệ, kênh cho vay ngân hàng, Việt Nam.*

1. Introduction

Competition has the potential to impact the expansion of the credit supply directly or indirectly via the pass-through of monetary policy (Yang & Shao, 2016). There is widespread agreement that bank competition as a result of financial sector reforms and changes (i.e., financial deregulation, privatization, and innovation) results in changes in credit and bank markets, thereby impairing the potency of monetary policy transmission via the bank lending channel (Boivin et al., 2010). From an empirical standpoint, several studies show the impact of bank competition on monetary policy transmission via the bank lending mechanism (Adams & Amel, 2005; Amidu & Wolfe, 2013; Gunji et al., 2009; Leroy, 2014; Olivero et al., 2011). Notably, while the literature examines this topic in industrialized and selected emerging economies, there is almost no research on this topic in the Vietnamese banking context, especially using the Lerner index and its normalized form to measure bank-specific competition, which evaluates the level of competition directly from a firm's conduct.

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2. Literature review

The lending channel literature has been well-established that the impact of monetary policy shocks is worsened by banks' tendency to reduce their loan supply following the occurrence of those shocks. The majority of the available research on monetary policy transmission via the bank lending mechanism focuses on the existence, relevance, and potential of this channel, as well as on recognizing fluctuations in loan supply and demand. The banks' responses to monetary policy shocks may be associated with other factors within the banks (i.e., bank-specific characteristics), financial industry (i.e., financial development) or the entire economy. However, there is relatively a lack of examination of the banking market structure function in the transmission of monetary policy.

There are relative number of study addressing the role of bank competition. For example, Adams and Amel (2005) are the first to examine the effect of a local banking market structure on the pass-through of monetary policy, using data on business small loan origination for US banks from 1996 to 2002. They discover that as market concentration increases, lending channels deteriorate. However, this study is limited to the local banking industry in the United States as a developed market. Gunji et al. (2009) conducted a cross-country study to assess banks' responses to monetary policy shocks in a competitive market. They generate a monetary policy indicator from an interest rate equation and quantify bank competitiveness using Panzar–Rosse H statistics (PRH), discovering that competitive markets mitigate the impact of monetary shocks on bank lending.

Olivero et al. (2011) examine the effect of banking market structure (measured by the PRH and the concentration ratio) on the pass-through of monetary policy via the bank lending mechanism using bank level data from a sample of Latin American and Asian economies from 1996 to 2006. Both excessive concentration and competition dampen banks' lending reactions to monetary policy shocks. Their analysis, however, is limited to the period 1996–2006 and may be differ from a context of Asian economies experiencing different significant changes in competitive conditions.

Amidu and Wolfe (2013) conducted recent research in which they examined the influence of banking competition (as defined by the Lerner Index) on monetary policy pass-through via the bank lending conduit, utilizing data from 978 banks in 55 countries. They corroborate the existence of a lending channel and demonstrate that competition in the banking sector mitigates the impact of monetary policy shocks on bank lending. Their study could not include the context of Vietnam, and their data is confined to the pre-crisis period of 2000–2007. In this specific context, Yang and Shao (2016) analyze how competition affects the sensitivity of bank loan supply to monetary policy shocks via the bank lending mechanism and whether this response varies among bank types. Findings demonstrate that rising competition in China's banking industry affects the potency of monetary policy transmission through the bank lending channel, with the strong effect on city-commercial, highly liquid, and well-capitalized banks.

In sum, empirical evidence on the influence of bank competition on the bank lending mechanism remains scarce, which gives rise to test the role of bank-specific competition on the bank lending monetary policy pass-through.

3. Methodology

3.1. Research data

The study's sample includes 30 Vietnamese commercial joint stock banks for the 2007–2020 period, capturing the substantial diversity in business operational activities and the adaptive execution of SBV's monetary policy. The final sample contains 409 observations, representing about 90% of the total assets of the Vietnamese banking system. Prior to regression treatment, the winsorizing procedure described in Dang (2020) is used to insulate possibly detrimental effects of extreme values at 2.5 percent of both tails of distribution.

3.2. Research model

Based on earlier research (Amidu & Wolfe, 2013; Leroy, 2014), we build model to test the role of bank competition on monetary policy transmission via the bank lending mechanism as follows:

$$\Delta \ln(\text{loans})_{i,t} = \beta_0 + \beta_1 \Delta \ln(\text{loans})_{i,t-1} + \beta_2 \Delta i_t + \beta_3 \text{Competition}_{i,t} + \beta_4 (\Delta i_t * \text{Competition}_{i,t}) + \beta_5 \text{CAP}_{i,t-1} + \beta_6 \text{SIZE}_{i,t-1} + \beta_7 \text{LIQ}_{i,t-1} + \beta_8 \text{LLP}_{i,t-1} + \beta_9 \text{STATE}_{i,t} + \beta_{10} \text{CRISIS}_t + \beta_{11} \text{VIX}_t + \beta_{12} \text{GDPG}_t + \varepsilon_{i,t} \quad (1)$$

Where $\Delta \ln(\text{loans})$ is the annual growth rate of bank loan supply as a dependent variable, while the Lerner index refers to the market power or competitive ability of a given bank, which represents for Competition. Bank-specific characteristics are included, such as CAP, SIZE, LIQ and LLP. The detailed calculations are reported in Table 1. Because a number of issues in estimating the determinants of bank loan supply, such as endogeneity, unobserved heterogeneity, autocorrelation, and the persistence of bank loans, cannot be addressed by fixed-effect estimation, the present research employs a dynamic panel two-step system GMM-based estimator (S-GMM) to capture these issues and produce more precise results (Bond, 2002).

Table 1: Variable descriptions

| Variable | Description | Source |
|------------------------|---|---|
| LG | The growth rate of bank loan supply | Bank's audited financial reports and author's calculation |
| ΔREFI | Refinance interest rate | State of Bank Vietnam |
| ΔREDIS | Rediscount interest rate | |
| ΔVNIBOR | Vietnam interbank interest rate | |
| Lerner | The ratio of the difference between output price and marginal cost to the price $\text{Lerner}_{i,t} = \frac{\text{Price}_{i,t} - \text{MC}_{i,t}}{\text{Price}_{i,t}}$ where $\text{Lerner}_{i,t}$ refers to the market power of bank i at time t . Lerner has a value between 0 and 1. When Price equals MC , the Lerner index equals zero, indicating perfect competition. While MC is equal to zero, the Lerner indicator suggests monopoly. | Author's calculation |
| Lerner_Nor | The normalized form of Lerner index | |
| HHI | Sum of squared bank loan supply of all banks in the sample based on Hirschman-Herfindahl style $\text{HHI} = \sum_{i=1}^N \text{MS}_i^2$ Where MS_i stand for the market share with regard to total loan supply of bank i and N denotes the total number of banks in the sample. HHI has a value between 0 and 1; larger values indicate greater concentration and market dominance, as well as reduced competition. | |

| Variable | Description | Source |
|----------|--|---|
| CAP | The ratio of bank capital to total assets | Bank's audited financial reports and author's calculation |
| SIZE | The natural logarithm of total assets | |
| LIQ | The ratio of cash and deposits to total assets | |
| LLP | The ratio of loan loss provision to gross loan | |
| VIX | Average annual volatility index | The Federal Reserve Bank of St. Louis's FRED database. |
| GDPG | The growth rate of gross domestic product | World Development Indicators (WDI) |
| STATE | Dummy variable for banks with state ownership, taken value of 1 in case of state-owned banks and 0 otherwise. | Author's calculation |
| CRISIS | Dummy variable representing the Vietnamese banking crisis with a value of 1 for the period of 2011-2014 and 0 for the remaining years. | |

Source: Author's compilation

4. Results

4.1. Descriptive statistics and pairwise correlation matrix

Table 2 displays the descriptive statistics for the studied variables. There is a significant difference across banks in terms of the examined variables (displayed by the wide range of extreme values and the large fluctuations in their standard deviations). As a result, our sample is sufficiently varied among banks to allow us to draw accurate conclusions. Table 3 reports the matrix of correlation between studied variables. All pair correlations among monetary policy instruments are higher than the threshold of 0.8, showing the simultaneous use of monetary tools implemented by the State Bank of Vietnam (SBV) to navigate the macro objectives and economic growth. In addition, all remaining correlations show a value of less than 0.8, implying no serious multicollinearity among variables.

Table 2: Descriptive statistics

| Variable | Mean | Std. Dev. | Min | Max | p25 | p75 |
|------------------------|--------|-----------|---------|---------|---------|---------|
| LG | 33.618 | 58.855 | -49.160 | 295.140 | 8.744 | 35.998 |
| ΔVNIBOR | -0.333 | 2.898 | -5.340 | 6.140 | -1.823 | 0.710 |
| ΔREFI | -0.209 | 2.576 | -4.000 | 5.330 | -2.000 | 0.000 |
| ΔREDIS | -0.179 | 2.761 | -4.430 | 5.750 | -1.500 | 0.000 |
| Lerner | 2.155 | 14.735 | -49.160 | 132.68 | -36.856 | 109.088 |

| Variable | Mean | Std. Dev. | Min | Max | p25 | p75 |
|----------|--------|-----------|--------|--------|--------|--------|
| HHI | 6.967 | 0.870 | 5.694 | 8.649 | 5.694 | 8.649 |
| CAP | 10.219 | 5.049 | 4.275 | 26.621 | 6.684 | 12.150 |
| SIZE | 11.240 | 1.263 | 8.681 | 13.887 | 10.221 | 12.102 |
| LIQ | 20.041 | 10.328 | 5.798 | 50.587 | 12.516 | 26.922 |
| LLP | 0.658 | 0.713 | 0.000 | 3.900 | 0.224 | 0.825 |
| VIX | 19.846 | 6.622 | 11.090 | 32.696 | 15.388 | 24.203 |
| GDPG | 6.012 | 1.058 | 2.910 | 7.130 | 5.422 | 6.812 |

Table 3: Pairwise correlation matrix among variables

| | LG | ΔREFI | ΔREDIS | ΔVNIBOR | Lerner | Lerner_Nor | HHI | CAP |
|------------|-----------|-----------|----------|-----------|-----------|------------|----------|-----------|
| LG | 1.000 | | | | | | | |
| ΔREFI | -0.073 | 1.000 | | | | | | |
| ΔREDIS | -0.077 | 0.998*** | 1.000 | | | | | |
| ΔVNIBOR | -0.052 | 0.895*** | 0.908*** | 1.000 | | | | |
| Lerner | 0.185*** | -0.029 | -0.028 | -0.029 | 1.000 | | | |
| Lerner_Nor | -0.077 | 0.244*** | 0.235*** | 0.145** | -0.217*** | 1.000 | | |
| HHI | 0.145** | 0.016 | 0.011 | 0.016 | -0.143** | 0.182*** | 1.000 | |
| CAP | 0.040 | 0.013 | 0.017 | 0.040 | 0.039 | -0.175*** | 0.031 | 1.000 |
| SIZE | -0.242*** | -0.011 | -0.010 | -0.030 | -0.051 | 0.164*** | -0.101* | -0.696*** |
| LIQ | 0.269*** | -0.018 | -0.018 | -0.010 | 0.031 | -0.104* | 0.041 | 0.250*** |
| LLP | -0.185*** | -0.031 | -0.032 | -0.035 | 0.008 | 0.006 | -0.029 | -0.032 |
| STATE | -0.094 | 0.001 | 0.000 | -0.000 | -0.015 | -0.092 | 0.011 | -0.262*** |
| VIX | -0.134** | 0.166*** | 0.174*** | 0.121* | -0.049 | 0.289*** | 0.107* | -0.115* |
| CRISIS | -0.018 | -0.057 | -0.058 | -0.162*** | -0.057 | 0.328*** | 0.198*** | -0.161** |
| GDPG | 0.157** | 0.112* | 0.099* | 0.091 | -0.002 | 0.132** | 0.346*** | -0.044 |
| | SIZE | LIQ | LLP | STATE | VIX | CRISIS | GDPG | |
| SIZE | 1.000 | | | | | | | |
| LIQ | -0.372*** | 1.000 | | | | | | |
| LLP | 0.238*** | -0.349*** | 1.000 | | | | | |
| STATE | 0.529*** | -0.057 | 0.118* | 1.000 | | | | |
| VIX | 0.108* | -0.222*** | 0.036 | -0.047 | 1.000 | | | |
| CRISIS | 0.136** | -0.036 | 0.010 | -0.006 | -0.219*** | 1.000 | | |
| GDPG | -0.055 | 0.006 | -0.035 | 0.001 | 0.098* | -0.058 | 1.000 | |

Source: Author's calculation

4.2. Empirical findings

As noted in Table 4, all instruments of monetary policy has a negative impact on bank loan supply for all models, suggesting the existence of monetary policy transmission via bank lending activities in Vietnamese commercial banks. One possible explanation is that implementing a contractionary monetary policy generates a funding shock, reducing banks' willingness to lend and thus the availability of loans.

Bank competition has a positive impact on bank loan supply, which is confirmed by significantly positive coefficients on the Lerner index. This finding is consistent with theories asserting that banks with greater market power charge higher loan rates, which may affect financial intermediation operations. Additionally, according to the "franchise value" concept, the decreased competitive ability of banks erodes their market power and hence diminishes the banks' charter value, which acts as a self-discipline factor that deters banks from acting imprudently.

Besides the stand-alone impact of bank competition, the finding shows the positive coefficients on the interaction terms (Lerner*Δi) of monetary policy instruments and bank competition (Lerner index) for all models. This means that banks with a high degree of competition could better insulate against monetary policy shocks, which is in agreement with prior research (Khan et al., 2016). This could be explained by the fact that, due to increased access to and favourable circumstances in the financial markets, a bank with greater market power will have a greater ability to hedge against a monetary shock. Additionally, a bank with market power would have a cushion to absorb shocks by temporarily cutting its profit (Leroy, 2014).

Among bank individual characteristics, capitalization appears to be a significant factor in predicting bank loan supply behavior, particularly during periods of relative financial stability: better capitalized banks are less likely to reduce their lending (all else equal). In addition, due to the fact that banks with comparatively more liquid assets on their balance sheets are better

able to insulate their lending activities (De Santis & Surico, 2013), liquidity displays a positive coefficient in our findings.

Tables 5-6 provide more robust evidence on the presence of bank lending channel of monetary policy pass-through and the attenuating impact of bank competition on this transmission when considering refinance rate and rediscount rate as other critical instruments of monetary policy. The results' statistical and economic significance remain reasonable.

Table 4: The role of bank competition on bank loan supply with the use of three indicators of monetary policy

| | ΔREFI | ΔREDIS | ΔVNIBOR |
|-------------|----------------------|----------------------|----------------------|
| Lag.LG | 0.0464 (1.48) | 0.0344 (1.09) | 0.0185 (0.48) |
| Δi | -7.495*** (-3.32) | -5.872** (-2.39) | -4.267** (-2.40) |
| Lerner | 114.8*** (3.48) | 49.29 (1.66) | 77.85*** (3.09) |
| Lerner *Δi | 15.29*** (3.21) | 12.05** (2.37) | 8.733** (2.11) |
| CAP | 3.668*** (5.71) | 3.208*** (4.69) | 3.329*** (4.91) |
| SIZE | 2.292 (1.04) | 2.215 (0.96) | 0.117 (0.05) |
| LIQ | 0.536* (1.82) | 0.498* (1.78) | 0.588** (2.06) |
| LLP | 7.458* (1.86) | 4.614 (1.07) | -0.688 (-0.16) |
| CRISIS | -7.123* (-1.90) | -9.112** (-2.63) | -5.741* (-1.74) |
| STATE | -17.28** (-2.66) | -4.647 (-0.68) | -12.35* (-1.76) |
| VIX | -1.363*** (-4.02) | -0.905*** (-3.12) | -1.135*** (-4.39) |
| GDPG | 1.073 (1.08) | 1.988** (2.24) | 1.486 (1.69) |
| CONS | 16.28* (2.00) | 22.40** (2.75) | 21.40** (2.61) |
| AR(1) | 0.001 | 0.002 | 0.002 |
| AR(2) | 0.272 | 0.136 | 0.157 |
| Sargan test | 0.797 | 0.629 | 0.753 |
| Hansen test | 0.194 | 0.140 | 0.306 |

Note: Standard errors are in parentheses and *, **, and *** denote the 10%, 5%, and 1% significance levels, respectively. To preserve space, these notes are applied to the below results.

Source: Author's calculation

4.3. Robustness test

In this section, we revisit the aforementioned model by replacing the Lerner index with the Hirschman Herfindahl index (HHI), calculated as the sum of squared market shares (MS) with regard to the loan supply of all the banks in the sample, and Lerner_Nor (Normalized Lerner index), defined as the subtraction of the Lerner index from its mean. The former is based on the work of Khan et al. (2016), while the latter stems from Fungáčová et al. (2014). The detailed computation of both indicators is as follows:

$$HHI = \sum_{i=1}^N MS_i^2 \tag{6}$$

$$Lerner_Nor_{i,t} = Lerner_{i,t} - \frac{1}{T} \sum \left(\frac{1}{N} \sum Lerner_{i,t} \right) \tag{7}$$

By doing so, we aim to investigate the sensitivity of the main results to different proxies of bank competition. As reported in Table 5, several findings are qualitatively similar to those displayed previously.

Table 5: Robustness test with alternative proxies for bank competition

| | HHI index | | | Lerner_Nor | | |
|----------------------|---------------------|---------------------|--------------------|---------------------|---------------------|----------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Lag.LG | 0.371*** (4.95) | 0.375*** (5.23) | 0.515*** (8.54) | 0.062 (0.60) | 0.038 (0.77) | 0.120*** (3.35) |
| ΔREFI | -6.314** (-2.73) | | | -2.057** (-2.56) | | |
| ΔREDIS | | -5.512** (-2.65) | | | -1.829** (-2.53) | |
| ΔVNIBOR | | | -8.254* (-1.86) | | | -3.499*** (-3.67) |
| Competition *ΔREFI | 0.708* (2.02) | | | 8.253* (1.77) | | |
| Competition *ΔREDIS | | 0.602* (1.92) | | | 8.673* (1.96) | |
| Competition *ΔVNIBOR | | | 1.043* (1.74) | | | 16.985*** (2.82) |

| | HHI index | | | Lerner_Nor | | |
|-------------------|------------------------|------------------------|------------------------|--------------------|--------------------|---------------------|
| | (1) | (2) | (3) | (4) | (5) | (6) |
| Competition | 22.176*** (3.91) | 22.123*** (3.82) | 24.262*** (3.22) | 46.053* (1.76) | 48.754* (1.88) | 58.858** (2.59) |
| CONS | -112.792*** (-3.71) | -112.460*** (-3.69) | -126.092*** (-3.18) | 47.115** (2.10) | 51.367** (2.68) | 60.851*** (3.94) |
| Control variables | Yes | Yes | Yes | Yes | Yes | Yes |
| AR(1) | 0.002 | 0.002 | 0.001 | 0.003 | 0.000 | 0.000 |
| AR(2) | 0.253 | 0.262 | 0.391 | 0.126 | 0.103 | 0.127 |
| Sargan test | 0.121 | 0.137 | 0.100 | 0.340 | 0.325 | 0.417 |
| Hansen test | 0.215 | 0.234 | 0.395 | 0.315 | 0.300 | 0.416 |

Note: Standard errors are in parentheses and *, **, and *** denote the 10%, 5%, and 1% significance levels, respectively. The table separate into two parts for HHI index (Columns 1-3) and Lerner_Nor (Columns 4-6).

Source: Author's calculation

5. Conclusion

This research examines the influence of a bank's market strength on credit supply and the responsiveness of bank loan supply to a monetary policy shock under competitive conditions for individual commercial banks covering the 2007–2020 period. The S-GMM is used to address the model's dynamic characteristics and a variety of econometric problems, including heterogeneity, endogeneity, and autocorrelation. The conclusion demonstrates the presence of monetary policy transmission via the bank lending channel, irrespective of monetary vehicles. In addition to the significant effect of bank competition on bank loan supply, the response of bank loan supply to monetary policy shocks depends on banks' competitive abilities.

Our findings have significant policy recommendations. For more details, our findings indicate that bank competition could improve available loans and foster more solid and long-term partnerships between banks and lenders. Thus, a reform and deregulation policy for the commercial banking system could help borrowers in the long run. Besides, our findings suggest that bank rivalry might restrict the efficiency of monetary policy instruments such as interbank

interest rates, refinance rates, and rediscount rates. As the Vietnamese banking industry grows more competitive, the government might be forced to control the business cycle using fiscal policy or alternative monetary policy instruments.

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EXPERIENCE IN DEVELOPING E-BANKING SERVICES AT SEVERAL COMMERCIAL BANKS AND LESSONS LEARNED FOR LIEN VIET POST BANK

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Abstract: *Developing e-banking services is an inevitable and objective trend in the modern economy. The benefits of e-banking are huge for customers, banks and the economy, thanks to utility, convenience, speed, accuracy and security. Lien Viet Post Joint Stock Commercial Bank (LienVietPostBank) is a bank with an extensive network covering 63/63 provinces and cities of Vietnam. With the characteristics of customers mainly in rural areas, e-banking services, if well implemented, will help repel the “black” credit situation through which customers access official forms of credit and help deploy financial inclusion in residential areas. From this situation, it is required to have practical summary studies as well as survey experiences from domestic and foreign commercial banks to draw lessons to promote the development of e-banking services at LienVietPostBank in the coming time.*

• Keywords: *commercial banking, e-banking services, e-banking service development, LienVietPostBank.*

Date of receipt: 10th September, 2022

Date of delivery revision: 15th September, 2022

Date of receipt revision: 30th October, 2022

Date of approval: 15th November, 2022

Tóm tắt: *Phát triển dịch vụ ngân hàng điện tử là xu hướng tất yếu và khách quan trong nền kinh tế hiện đại. Lợi ích của ngân hàng điện tử là rất lớn đối với khách hàng, ngân hàng và nền kinh tế nhờ tính tiện ích, thuận tiện, nhanh chóng, chính xác và bảo mật. Ngân hàng TMCP Bưu điện Liên Việt (LienVietPostBank) là ngân hàng có mạng lưới hoạt động rộng khắp 63/63 tỉnh thành Việt Nam. Với đặc điểm khách hàng chủ yếu ở khu vực nông thôn, dịch vụ ngân hàng điện tử nếu được triển khai tốt sẽ góp phần đẩy lùi tình trạng tín dụng “đen”, qua đó khách hàng tiếp cận được các hình thức tín dụng chính thức và giúp triển khai tài chính toàn diện tại khu vực dân cư. Từ thực trạng đó, đòi hỏi cần có những nghiên cứu tổng kết thực tiễn cũng như khảo sát kinh nghiệm từ các ngân hàng thương mại trong và ngoài nước để rút ra bài học kinh nghiệm nhằm đẩy mạnh phát triển dịch vụ ngân hàng điện tử tại LienVietPostBank trong thời gian tới.*

• Từ khóa: *ngân hàng thương mại, dịch vụ ngân hàng điện tử, phát triển dịch vụ ngân hàng điện tử, LienVietPostBank.*

1. Experience in developing e-banking services at some domestic and foreign banks

1.1. Developing e-banking services in Malaysia

Malaysia has many similarities with Vietnam regarding natural, cultural and historical conditions. Malaysia has the most developed e-banking system in Southeast Asia; researching Malaysia's e-banking services draws experience in developing Vietnam's e-banking services.

Legal basis: Legal documents directly related to e-banking transactions, such as Law on digital signatures (1997), the Banking and Financial Institutions Law (1989), and E-Commerce Act (2006).

Modern technologies such as 3G (Third Generation) broadband networks, wireless application protocol (WAP), and Bluetooth are all deployed in Malaysia. Fast transmission speed and guaranteed quality are the basis for people in Malaysia to use e-banking easily.

Types of e-banking services offered in Malaysia:

In Malaysia, Kanwaku was the first ATM distribution channel offered by Maybank Berhad in 1981.

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E-banking services via landlines and mobile phones: This service has been around in Malaysia since the early 1990s and has the full features of ATMs, except for withdrawal and deposit services.

Home Banking: The constant increase in demand for personal computers formed and developed personal computer banking, also known as home banking services, in Malaysia in the late 1980s. This service allows the formation of virtual bank branches at customers' homes and provides home banking services 24 hours a day and seven days a week.

Automated banking service centre: treated as a bank branch except that all services are provided automatically. Hong Leong Bank Berhad was the first bank to offer an automated banking service centre at the Bangsar Baru branch in 1999. Phileo Allied Bank is a leader in innovation at virtual multimedia banking counters with the addition of touchscreen devices.

Internet Banking: In June 2001, the Central Bank of Malaysia allowed domestic and commercial banks to provide Internet banking services; in January 2002 foreign banks were allowed to provide this service.

Malaysia has a developed information technology infrastructure system, complete laws on electronic Payment, an excellent electronic payment system, high number of internet and phone users. However, e-banking users have not met the expectations of banks providing e-banking services.

1.2. Developing e-banking services in Singapore

Similar to Malaysia, Singapore aims to become a reliable international e-commerce hub. Singapore has made efforts to build a regulatory environment and technical and technological base to facilitate banks to develop e-banking services to promote e-commerce.

In 1997, all agencies and offices in Singapore were linked to the internet. As for electronic payments, Singapore is one of the first countries to adopt it in the world. In December 1996, on the occasion of the WTO ministerial meeting held in Singapore, the country officially launched the comprehensive application of internet cash cards, smart cards, electronic purchase cards, and electronic money bags. The international secure transaction system was established in 4/1997 and put into full use at the end of 1998.

Types of e-banking services offered in Singapore:

Electronic banking services via automated teller machines (ATMs): In Singapore, the first ATM was installed in 1979 by Chartered Bank. In 2000, the number of ATMs in Singapore was 1,787, equivalent to 445 ATMs per 1 million people.

Telebanking: Landline banking was introduced in Singapore in 1982. Over the years, the utility of this service has become more and more complete.

Home Banking service: PC Banking service was introduced in 1991 as part of the Tele view system (this system includes other services such as email, computer games, financial market information, weather forecast,...)

Internet Banking service: In March 1997, 5 banks in Singapore built their websites and put information about products and services on the web. In 2003, Singapore was ranked as the third largest internet banking provider among Asia-Pacific countries, after South Korea and Australia.

Singapore is considered a technologically advanced country, the first country in the world to have a fully digital phone system and the centre of the undersea cable network in the Asia-Pacific region.

1.3. Developing e-banking services at ING Direct Bank of America

ING Direct Bank is an excellent example of success in developing an online banking model in the US. ING Direct approaches customers based on three fundamental principles: do not attack traditional banks; there are no target customer groups; and build a corporate culture so everyone can participate.

Today, ING competes with many other competitors in the e-banking market share. When opening an online account, customers also receive a small amount of money in the account, which is a way to improve customer attraction on their side. If customers have any questions, go to the bank's website, fill in their phone number and name, can ask the operator to call them directly to provide the information they are interested in.

1.4. Developing e-banking services at Commercial and Industrial Bank of China (ICBC)

The Commercial and Industrial Bank of China (ICBC) and several other banks in China began implementing e-banking services in 2000.

ICBC, China's largest commercial bank, is a leader in providing online landline and mobile phone payment services in the domestic market through e-banking services and combining the online banking system with the launch of an advertising campaign about the convenience of e-banking services. At the same time, ICBC has expanded its operations in e-banking services with secure security to cope with the competition of foreign banks.

ICBC's top point of interest is trying to attract hundreds of millions of customers for e-banking services and other banking and financial services. The bank began keeping records and analyzing customer transactions through a database that was completed in 2004.

Despite the advantages of technology, services and management, foreign banks still need more time and perseverance to convince Chinese people that using their e-banking services is a better and safer option than conducting online transactions at banks. Chinese people have always felt safer depositing their hard-earned money at domestic banks across the country.

1.5. Developing e-banking services at Asia Commercial Joint Stock Bank(ACB)

Born when the economy was still facing many difficulties and fluctuations, macroeconomic and financial policies were incomplete, inconsistent and still contained many risks for banking activities, Asia Commercial Joint Stock Bank (established in 1993) has had to make great efforts. Aware of the convenience, usefulness, and trend of developing e-banking services, Asia Bank (ACB) introduced e-banking services with many benefits and convenience for customers early (in 2003). ACB provides a variety of Home banking, Internet banking, Mobile banking, and payment cards ...

In order to ensure convenient and reasonable quality transactions, both safe for the bank's operations and able to process electronic banking transactions, ACB has arranged two link servers running parallel to each other. Transactions on the web will be processed at thee-banking server, periodically updated to the core banking server and vice versa. Core software technology for multi-service processing with centralized data bases. Core-Banking application is currently deployed very well, serving the transaction, managing customer databases, and operating e-banking products and gold exchanges.

ACB has officially signed a contract "applying digital certificates in e-banking transactions" with ASC Software and Communications Company - a certification authority (CA) to ensure three fundamental issues: data origin authentication, anti-peeping, and data integrity.

Home-Banking service at ACB is the most substantial development compared to banks that deploy e-banking services. In addition, ACB's e-banking services are also very diverse and rich compared to other commercial banks. However, there are still some limited feature services (Mobile-Banking, Internet- Banking).

1.6. Developing e-banking services at Vietnam Commercial Joint Stock Bank (VCB)

Before 2000, the application of information technology in Vietnam was low and not synchronous. However, from this point, VCB built a core banking system and put it into the system in 2001. When there was a centralized processing system connected to the entire branch, VCB launched the e-banking system(2002). It can be said that VCB is the first bank to offer e-banking services.

Bank for Foreign Trade of Vietnam is currently the first Vietnamese bank to participate in the global ATM system. In addition, the development of e-banking products and Internet banking services is a breakthrough in the technological development of the Bank for Foreign Trade of Vietnam compared to other commercial banks in Vietnam. The Automated Teller Machine(ATM) has brought a new level of banking technology applied at VCB, and it also gives customers utilities when all transactions are carried out instantly without any intermediaries.

VCB invests in technology and has a highly secure system. VCB also has a policy of free registration and using IB services to implement a long-term strategy for the development of e-banking. By switching to e-banking services, VCB can cut paper costs and hire staff and office space compared to transactions at the counter.

1.7. Developing e-banking services at Vietnam Joint Stock Commercial Bank for Industry and Trade (Vietinbank)

After more than ten years of developing e-banking services, VietinBank is considered one of the banks with the best and most typical e-banking services in the Vietnamese market. Based on advanced technology, especially after the successful implementation of the new Core system, VietinBank is a pioneer in providing e-banking services, bringing significant benefits and many incentives to customers when making payments and transactions without having to use cash such as SMS Banking, BankPlus, VietinBankiPay, VietinBankiPay Mobile.

VietinBank is one of the earliest banks in Vietnam to launch a QR Pay payment feature using a QR Code on the VietinBankiPay Mobile application in early 2015. With this feature, customers can buy goods online and shop at shopping centres and convenience stores without needing cash or cards. This simple form of Payment helps units and organizations supply goods and products that do not need to invest much in infrastructure and can be easily deployed widely and

quickly at low cost. QR Pay can be applied in various life, such as Payment at the counter, Payment on invoices, Payment on a Website, Facebook, leaflets, and billboards... All advertising channels can become effective sales channels. Besides, for customers, this service allows easy payment transactions without using cash or bank cards. Instead, use the phone camera to scan the QR Code on sales websites or at locations such as shops, supermarkets, restaurants, cafes, and taxis ... and make payments. The payment time is less than 10 seconds, and the box is easy and secure, helping customers feel secure when using it.

VietinBank has been recognized with many awards, such as the Top 5 banks with the most popular Mobile Banking service, the Top 3 banks with the most significant vote for VietinBankiPay; The bank has the best security system, Sao Khue Award for VietinBankiPay Mobile application on smart mobile devices; The Best Mobile Banking Project award by The Asian Banker magazine and the Best e-Banking Award in 2017 by IDG Data Group and the Banking Association.

2. Lessons learned for Lien Viet Post Joint Stock Commercial Bank

Through the experience of developing e-banking services of some commercial banks in the world and some banks in Vietnam, some lessons learned for Lien Viet Post Joint Stock Commercial Bank can be drawn as follows:

Firstly, developing information technology, constantly improving the level of modernization of banking technology, applying new technologies to increase competitiveness, and focusing on security and network security. Through ICBC's experience, we can see that they pay great attention to investing, researching and applying the most advanced security technologies in their e-banking services to create trust for customers when using the service.

Secondly, infrastructure, material and technical facilities need to be upgraded to make the deployment of e-banking services more feasible in regions, incredibly remote areas... even expanding its reach to international markets.

Thirdly, e-banking services that want to develop must harmoniously combine three factors: users (customers) - especially appreciating the decision to use e-banking services of customers, service providers (banks) and environmental factors.

Fourthly, diversify products, and make tremendous differences in products. When offering new services, banks must aim at customer engagement, placing customers at the centre of every service. At the same

time, continuously innovate and diversify e-banking products and services to attract customers, constantly improve the quality of products and services to maximize the needs of customers, and ensure the implementation of commitments on products and services provided.

Fifthly, pay special attention to customer care policies. Set up an online customer service department to advise and answer customer questions 24 hours a day, and collect feedback from customers. Timely assessment of customer information and opinions contributes to improving service quality and meeting customers' increasing needs.

Sixthly, banks need to invest in research and development, human resources, and specific and precise marketing strategies to promote the image and enhance the brand of banks.

Seventhly, simplification, i.e. making everything easy to use, is the most basic way of banking to win the hearts of customers saving online. The products themselves must be simple, and the registration process for a product must also be simple but still ensure the necessary security and security.

3. Conclusions

Developing e-banking services has been a trend in recent years and thereby helps commercial banks diversify business services to expand customers and increase income. This is also a type of utility service that customers should widely accept. However, this type of service has a high level of potential risk, and its implementation requires meeting specific requirements, especially security requirements when trading. This article examines the experiences of developing e-banking services in foreign commercial banks (Malaysia, Singapore, ING Direct, ICBC) as well as at some domestic banks (ACB, Vietcombank, Vietinbank) there by drawing some valuable lessons that LienVietPostBANK can research and apply to develop e-banking services.

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THE EFFICIENCY OF CREDIT POLICY PROMOTES RETAIL ACTIVITIES AT VIETNAMESE COMMERCIAL BANKS

Nguyen Thi Quynh Chau*

Abstract: *As the economic integration of the banking industry becomes stronger, the issue of expanding and improving the effectiveness of credit policies is an important innovation in the business activities of the current Vietnamese banking system. Retail credit activities of commercial banks are always associated with risk factors. The competition between banks is also increasing, requiring each bank to have specific policies and plans to attract customers as well as avoid risks in operation. Therefore, it is necessary to have solutions to limit risks and boost retail credit in order to improve the bank's operational efficiency.*

• Keywords: *credit policy, banking operational efficiency, bank performance, retail banking.*

Date of receipt: 10th May, 2022

Date of delivery revision: 15th May, 2022

Date of receipt revision: 30th Jun, 2022

Date of approval: 1st July, 2022

Tóm tắt: Khi hội nhập kinh tế của ngành ngân hàng ngày càng mạnh mẽ, vấn đề mở rộng và nâng cao hiệu quả của chính sách tín dụng là một đổi mới quan trọng trong hoạt động kinh doanh của hệ thống ngân hàng Việt Nam hiện nay. Hoạt động tín dụng bán lẻ của các ngân hàng thương mại luôn gắn liền với các yếu tố rủi ro. Sự cạnh tranh giữa các ngân hàng cũng rất lớn, đòi hỏi mỗi ngân hàng phải có những chính sách, kế hoạch cụ thể để thu hút khách hàng cũng như tránh rủi ro trong quá trình hoạt động. Vì vậy, cần có những giải pháp hạn chế rủi ro và đẩy mạnh tín dụng bán lẻ nhằm nâng cao hiệu quả hoạt động của ngân hàng.

• Từ khóa: *chính sách tín dụng, hiệu quả hoạt động ngân hàng, hiệu quả hoạt động ngân hàng, ngân hàng bán lẻ.*

deposits, cover expenses and generate profits for the bank. However, credit activities also have many potential risks. If there are no measures to implement and manage well, it is also very easy to cause great losses to customers, banks or the whole economy.

Retail credit is a form of bank credit provision to individual, household, and small and medium-sized enterprises. Retail credit is important to banks, customers and the economy. First, retail credit is a component of bank credit. This is the basic operation of all commercial banks. Because the audience of retail credit is very diverse and widespread, banks focus on these customers. Retail credit helps to generate income for banks through lending rates, thereby enhancing the bank's operations. In addition, through retail credit, the bank can develop its other activities, expand its market share, and be known by many customers. All of these factors contribute to improving the bank's business performance (Nguyen Thi Thuy Quynh and Vu Bich Van, 2020).

For customers, retail credit offers significant benefits. Thanks to the bank's retail credit, customers can get timely loans to meet their investment, consumption, and business needs.

1. Introduction

Credit activity is one of the main activities of a bank. The transfer of capital from deposits to loans to fill the need for capital shortage in the economy is not only meaningful to the economy but also important to banks. Because lending is the main source of income for the bank, from which it can spend on customer

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Retail credit of banks is a quick and convenient source of capital mobilization for people.

2. Current situation of retail credit activities at Vietnamese commercial banks

The world economy has many unpredictable and unprecedented developments when after 2 years of being affected by the Covid-19 epidemic, governments and central banks around the world have implemented many fiscal support packages and loosened currency. But when the Covid-19 epidemic is basically under control, countries face the risk of inflation. The trend of increasing inflation is taking place globally, especially in major economies such as the US, UK, euro area countries, etc., which are facing the highest inflation rate in many decades. In response to inflation, central banks around the world have been rapidly and sharply increasing their operating interest rates. The US Federal Reserve (FED) has continuously adjusted interest rates at a high rate, recently the Fed increased interest rates by 0.75 percentage points and was the 3rd time in a row (Nguyen Van Tien and Do Phu Dong, 2021).

Since the beginning of the year, the State Bank has oriented credit growth of 14% for the whole year, with actual adjustments. Credit management is a very important tool to both focus on controlling inflation this year and next year. This year can completely control average inflation below 4%, but now core inflation has increased sharply, core inflation in August is more than 3% over the same period, September may be 3.6% compared to the same period last year. Since the beginning of the year, inflation is assessed to be mainly caused by demand-pull and cost-push reasons, but now inflation expectations are at a very high level.

Retail credit development is the process by which the Bank grows the retail credit scale, diversifying the retail credit structure in line with the market context, increasing the profitability from retail credit and improving the bank's competitiveness in the field of retail credit, and at the same time improving the quality of retail

credit service provision, meeting the needs and satisfaction of customers better and better.

According to the latest updated data of the Banking Association, the proportion of retail lending of medium and large-sized banks accounts for 40-50%, some banks are up to nearly 90%... These positive results show that retail service growth is being promoted by banks.

According to the State Bank of Vietnam (SBV), from the beginning of the year to the end of March 31, 2022, credit growth was 5.04%. Compared to the increase of 2.16% in the first quarter of 2021, the above figure is a positive signal. The credit growth rate is 2-3 times higher than the previous year, showing that the economy is recovering positively, and the Government's measures to prevent and control the epidemic and restore the economy are effective. Previously, the State Bank said that credit as of the end of February 2022 increased by 1.82% compared to the end of 2021. By the end of 2021, credit balance reached VND 10.44 million billion. In the first 2 months of the year, the banking system net injected more than 190 trillion dong of credit into the economy.

The objectives of retail credit development include: Scale growth, through outstanding loan growth; retail credit to improve service quality; Retail credit diversifying the retail credit structure; Increase profitability from retail credit; Well control credit risk in retail credit activities.

In 2021, Circular 16/2021/TT-NHNN was issued, which has greatly supported banks in terms of customer identification through digital channels. The number of new customers of the bank on digital increased rapidly, about 40 - 90% (depending on the bank) of the total number of new customers of the bank in 2021; the number of online payment transactions in 2021 to 1.5 billion transactions - accounting for 71 million billion VND... To increase the scale of retail credit, banks can implement many methods, of which two methods are available. Basically:

Increase the number of retail credit customers: Increase the average outstanding balance per individual customer and household through different measures.

3. Obstacles to the development of retail banking activities

In the context of the Covid-19 epidemic, retail banking activities have appeared bottlenecks in the legal corridor, requiring regulatory agencies to take action to promote non-cash payments. The retail segment in Vietnam is at an early stage of development, so there is still a lot of room for growth. On the other hand, the shift to retail will also improve profit margins and provide a more stable source of income for the bank (Nguyen Thi Hang, 2022).

Legal issues related to customer authentication in electronic transactions; exploit and connect customer database of Vietnam National Credit Information Center (CIC); prevention of money laundering for transactions of individuals and legal issues of information security in cooperation between credit institutions and fintech companies.

4. Suggestions for the development of retail credit activities

To overcome the limitations and promote the development of retail credit, banks need to focus on the following solutions:

Firstly, banks need to promulgate important mechanisms and policies in credit granting activities and provide professional guidance so that branches/transaction offices have a basis to perform and serve business activities. Credit programs are focused on development and implementation in order to effectively grow outstanding loans, promote credit growth in the retail customer segment, prioritize customers with growth potential, develop diversified services and cross-sell products and services, especially in big cities.

Secondly, promoting the deployment of new products and services with high technology content, non-cash payment services, opening

online accounts on E-Mobile Banking application, creating favorable conditions for customer convenient transactions in the condition of limiting direct contact for epidemic prevention and control.

Thirdly, credit institutions need to strengthen the connection between banks and businesses, organize conferences to explain clearly to businesses, if the macroeconomics, money market, interest rates, exchange rates are not stable. prices, businesses will be the ones having difficulty when the market fluctuates. At the same time, banks need to well implement credit policies for the economy, contributing to stabilizing the macro-economy, creating a business environment and especially 'retaining' foreign investment flows.

Fourthly, banks need to effectively and thoroughly classify debts and make provisions for retail credit risks. The process of setting up and provisioning for retail credit risks needs to comply with regulations of the State Bank. In order to limit bad debts, banks need to focus on doing well all stages in the process of granting retail credit to customers, especially paying attention to the appraisal stage; It is necessary to clearly identify the needs, potentials and conditions of customers to minimize possible risks.

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