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KỶ YẾU

HỘI THẢO KHOA HỌC QUỐC TẾ

PHÁT TRIỂN KINH TẾ XANH Ở VIỆT NAM

INTERNATIONAL CONFERENCE PROCEEDINGS
GREEN ECONOMIC DEVELOPMENT IN VIETNAM

Tập 2



NHÀ XUẤT BẢN HÀ NỘI



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Tháng 5 - 2023



CHỦ ĐỀ
PHÁT TRIỂN KINH TẾ XANH THEO LĨNH VỰC VÀ TỔ CHỨC, DOANH NGHIỆP
Ở VIỆT NAM

TOPIC
GREEN ECONOMIC DEVELOPMENT BY SECTORS AND ORGANIZATIONS
IN VIETNAM

SOCIAL RESPONSIBILITY TO LABORERS IN VIETNAM'S INFORMATION AND COMMUNICATIONS TECHNOLOGY ENTERPRISES FROM SUSTAINABLE DEVELOPMENT APPROACH

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Abstract: *Information and communications technology (ICT) has become a platform technology with comprehensive impacts on the economy. Accordingly, ICT enterprises play a crucial role in sustainable economic development of the countries. It is therefore essential that ICT enterprises conduct their social responsibilities (SR) to stakeholders, among which social responsibility to laborers is highly emphasized as an important factor determining the enterprises' sustainable development. Many ICT enterprises have well implemented their SR to laborers while others have not yet fulfilled their responsibility. This paper aims to identify successes and limitations of ICT enterprises in the process of implementing SR to laborers from sustainable development approach, then propose some solutions to help these enterprises better carry out their SR to laborers, contributing to their sustainable development.*

Key words: *Social responsibility to laborers, sustainable development, Information and communications technology enterprises.*

TRÁCH NHIỆM XÃ HỘI ĐỐI VỚI NGƯỜI LAO ĐỘNG TẠI DOANH NGHIỆP CÔNG NGHỆ THÔNG TIN VÀ TRUYỀN THÔNG VIỆT NAM THEO CÁCH TIẾP CẬN PHÁT TRIỂN BỀN VỮNG

Tóm tắt: *Công nghệ thông tin và truyền thông (ICT) đã trở thành công nghệ nền tảng có ảnh hưởng tới nền kinh tế một cách toàn diện. Theo đó, trách nhiệm xã hội (TNXH) đối với người lao động (NLĐ) trong doanh nghiệp ICT mang lại một cách tiếp cận tích hợp để phát triển bền vững. Người lao động là bên liên quan quan trọng hàng đầu của doanh nghiệp ITC. Đã có một bộ phận doanh nghiệp ITC dành sự đầu tư cho TNXH đối với NLĐ nhưng vẫn còn đáng kể doanh nghiệp ITC gặp khó trong việc đảm bảo quyền cơ bản tại nơi làm việc - đây chính là những TNXH theo cách tiếp cận phát triển bền vững. Mục đích của bài viết này là nhận diện những thành công, hạn chế và những nguyên nhân chủ yếu trong thực hiện TNXH đối với NLĐ ở các doanh nghiệp ITC Việt Nam, từ đó đề xuất những giải pháp, kiến nghị để các doanh nghiệp này phát triển bền vững.*

Từ khóa: *Trách nhiệm xã hội đối với người lao động; phát triển bền vững; Doanh nghiệp công nghệ thông tin và truyền thông.*

1. Introduction

Social responsibility (SR) is the commitments of enterprises to stakeholders, including laborers. Implementing SR in enterprises has become an integral part in the cause of realizing the sustainable development goals of the national economy.

Amid the current context of globalization and the 4th Industrial Revolution, information and communications technology has been invested in to become the spearhead sector in the economy. According to the statistics of Authority of Information Technology and Communications Industry, in Vietnam at present there are 32,163 enterprises operating in ICT sector with 1,081,268 laborers. The revenue of ICT sector was estimated at USD 148 billion in 2022, increasing by 8.7% from 2021. Laborers in ICT sector have gained better care in recent time but social insurance debts and labor conflicts still happen in many ICT enterprises. Particularly, the number of laborers in ICT enterprises suffering from stress and becoming unemployed after 35 years old has increased recently, which raises a warning of SR to laborers in ICT enterprises.

Vietnam has recently joined in new-generation free trade agreements with higher labor commitments based on the fundamental regulations and rights in the workplaces proposed by International Labor Organization (ILO). The intensive and comprehensive international integration of Vietnam has brought great opportunities but at the same time caused not a few challenges. One of them is the challenge in implementing SR to laborers under the commitments to sustainable trade development. ICT enterprises therefore need to transform their philosophy and activities so that they can benefit from their compliance with SR to laborers.

2. Theoretical grounds

2.1. Fundamental concepts

Social responsibility to laborers: Social responsibility to laborers is the commitments of enterprises to laborers that contribute to implementing sustainable development goals. The commitments usually cover employment, labor contracts, salaries, benefits, working hours, health and safety at the workplaces, freedom of association and collective bargaining, etc. That enterprises implement SR to laborers is the way they implement their sustainable development goals as laborers are one stakeholder in SR implementation. When implementing SR to laborers effectively, enterprises can fulfill their social goals, which are one of the three important goals of sustainable development: Economy - Society - Environment.

Information & Communications Technology Enterprises: Information & Communications Technology (ICT) is the combination of information technology and communications technology, including all technologies that allow users to create, access and operate information by using hardware, software, network, facilities and other communications devices. Accordingly, ICT enterprises are the shorthand expressions of enterprises operating in the information and communications technology sector, including those in software, electronics, software, digital content, information technology services (MIC, 2021).

In recent decades, ICT has become a fundamental technology. The theory of General Purpose Technology proposed by some neo-classical economists has illustrated the impacts of ICT on the economy in terms of quantity and quality, techno-economic system and socio-institutional system based on three main features of pervasiveness, improvement and (innovation spawning) (Helpman, 1998; Bresnahan and Trajtenberg, 1992). Besides, ICT also contributes greatly to protecting the environment as the application of technology has helped to reduce carbon dioxide, save water and energy in production processes. Therefore, implementing SR to laborers in ICT enterprises presents an appropriate approach to sustainable development.

2.2. Research approach

Research on corporate social responsibility has been conducted from different approaches under the following fundamental theories: (1) Social Responsibility Implementation Degree theory by A. Carroll including economic, legal responsibility, commitments and option; (2) Stakeholder theory originating from R.Edward Freeman (1984); (3) Triple bottom line theory (TBL) by Elkington et al. (1999) (Michel Capron, Françoise Quairel-Lanoizelée, 2012).

Combining the Stakeholder theory of R.Edward Freeman and Triple bottom line theory of Elkington et al. (1999) on SR to laborers, the researchers come up with the following definition:

Social responsibility to laborers in ICT enterprises is commitments to laborers on their basic principles and rights in the workplaces as well as acceptable working conditions that contribute to implementing sustainable development goals.

Among them, the basic principles and rights in the workplaces as stipulated in Declaration 1998 by International Labor Organization include: (1) practicing freedom of association and collective bargaining; (2) limiting the use of child labor; (3) prohibiting forced labor; (4) prohibiting labor discrimination (see Table 1). Efforts by ICT enterprises in implementing SR to laborers under sustainable approach are affected by internal factors (including competence of stakeholders, strategic goals, corporate culture, application of science and technology, etc.) and external factors (including state laws, national surveillance system, etc.)

Table 1: Measurement scales of SR to laborers under ILO approach

No.	SR to laborers	Indicators
1	Practicing freedom of association and collective bargaining	Ensuring that laborers can participate in trade unions and association at their wills
		Ensuring to facilitate the establishment of trade unions at unit level
		Ensuring to organize periodical dialogues with laborers
		Ensuring to organize dialogues when one party requests
		Ensuring that dialogue contents are as stipulated by labor law
2	Limiting the use of child labor	Ensuring not to use laborers under 15
		Ensuring not to use laborers under 18 for overwork

		Ensuring not to use laborers under 18 to do hazardous work
		Ensuring not to use laborers under 18 to work in bad working conditions
		Ensuring the system to verify laborers' ages before recruiting
		Ensuring to record profiles of laborers under 18
3	Prohibiting forced labor	Ensuring not to use violence to force laborers to stay to work
		Ensuring not to use threats to force laborers to stay to work
		Ensuring not to use penalties to force laborers to stay to work
		Ensuring not to retain salary to force laborers to stay to work
		Ensuring not to keep personal documents to force laborers to stay to work
		Ensuring not to force laborers to work overtime
4	Prohibiting labor discrimination	Ensuring not to discriminate against marital status, races, nationalities, politics, religion, political wills, disability, HIV/AIDS, ages in recruitment and pay
		Ensuring not to dismiss laborers for reasons related to pregnancy, maternity leave and raising of children under 12 months old
		Ensuring not to relocate and alter laborers' positions, salaries, bonus or seniority during maternity leave

Source: ILO (1998)

3. Research data and methods

3.1. Research data

The researchers used both primary and secondary data in order to gain an objective and comprehensive reflection on the situation of SR to laborers in Vietnam's ICT enterprises under sustainable development approach. *Secondary data* was collected from reports published by Ministry of Labors, Invalids and Social Affair (MOLISA), International Labor Organization (ILO), Vietnam General Confederation of Labor (VGCL), Ministry of Information and Communications (MIC), Vietnam Chamber of Commerce and Industry, General Statistics Office (GSO) and ideas raised by experts in forums and conferences. *Primary data* was collected by researchers by questionnaires, in-depth interviews with stakeholders in Vietnam's ICT enterprises.

3.2. Research methods

The research used a combination of methods including:

Questionnaires: Convenient sampling method was used as it is suitable with the scale, time and resources. Based on proposals by Bollen (1998) and Hair et al. (1998), the expected sampling scale is higher than 100 and the minimum scale has ratio $n = 5 \cdot k$ (where k is the number of indicators in the research). This research has 37 indicators, therefore the minimum scale is $35 \cdot 5 = 175$. The research was conducted in 26 ICT enterprises based in Hanoi, Bac Ninh and Hai Phong. Questionnaire subjects include laborers, trade union executives, labor users (with the rate of 10-15 questionnaires/ 1 enterprise). The collected number of questionnaires was 207, ensuring the statistical significance.

In-depth interviews: In-depth interviews were used with laborers and trade union

executives in ICT enterprises that participated in the survey to add detailed description of the situation of SR to laborers in these enterprises.

Descriptive statistics method: the questionnaire includes questions designed in the form of statements, measured by 5-point Likert scale (from 1 as totally disagree to 5 as totally agree) with Mean. With 5-point Likert scale, (Maximum - Minimum)/n = (5-1)/5 = 0.8. The significance levels are: 1.00 - 1.80: totally disagree; 1.81 - 2.60: disagree; 2.61 - 3.40: no opinion; 3.41 - 4.20: agree; 4.21 - 5.00: totally agree.

4. Research findings

4.1. Overview of Vietnam's ICT enterprises

About quantity and operational fields of ICT enterprises: By December 2022, there were 33,783 ICT enterprises in operation, increasing by 1.26 times from 2018. The number of Vietnam's ICT enterprises has increased sharply in recent years in all forms, of which software enterprises account for the highest proportion (over 53.6%), followed by IT service enterprises (approximately 29%), hardware and digital content production enterprises (15% and 2.3% respectively) (MIC, 2023). ICT enterprises are present in all 63 provinces of Vietnam.

About business results: In 2018, the revenue of ICT enterprises totaled VND 967,580 billion, increasing by 2.36 times in 2021, of which the revenue from hardware and electronics production enterprises accounts for 93.68% (in 2021). However, the revenue growth rate of ICT enterprises tended to decrease (MOF, 2020).

Table 2: Business scales of Vietnam's ICT enterprises

No.	Kind of ICT	Year				
		2018	2019	2020	2021	2022
1	<i>Hardware and electronics production</i>					
	Number of enterprises	4,179	4,573	4,705	4,950	5,091
	Revenue (in billion dong)	868,305	979,441	2,083,240	2,114,961	-
2	<i>Software production</i>					
	Number of enterprises	14,351	15,096	15,467	17,180	18,134
	Revenue (in billion dong)	48,205	55,537	91,904	99,601	-
3	<i>Digital content</i>					
	Number of enterprises	633	678	702	739	762
	Revenue (in billion dong)	2,683	2,695	2,022	2,840	-
4	<i>IT services</i>					
	Number of enterprises	7,731	8,294	8,553	9,294	9,796
	Revenue (in billion dong)	38,385	41,879	36,787	40,247	-
	Total number	26,894	28,641	29,427	32,163	33,783
	Total revenue (in billion dong)	957,580	1,079,554	2,213,955	2,257,651	
	Growth rate from previous year		1.23	2.05	1.9	

Source: MIC, 2023

About laborers: The total number of laborers in ICT enterprises was very big, up to 1,081,268 in 2020. On average, an ICT enterprise employed 34.62 laborers (by 31 December 2020) and the number tended to remain stable (see Table 3).

Table 3: Laborers in Vietnam’s ICT enterprises

No.	Kind of enterprises	Year				
		2016	2017	2018	2019	2020
1	Hardware and electronics production	568,288	678,917	717,955	760,097	842,458
2	Software production	97,387	112,004	127,366	143,149	149,072
3	Digital content	46,647	55,908	51,952	42,479	34,377
4	IT services	68,605	75,692	76,419	59,481	55,361
5	Total	780,926	922,521	973,692	1,005,206	1,081,268

Source: MIC, 2021

4.2. Reality of social responsibility to laborers in Vietnam’s information and communications technology enterprises

In recent years, Vietnam’s ICT enterprises have paid due attention to SR to laborers as this is the condition to ensure the commitments that enterprises have made when exporting products to foreign markets. SR to laborers has been implemented in ICT enterprises in various forms, including: re-signing/ supplementing appendix to labor contracts with terms beneficial to laborers, having terms that allow laborers to take breaks in work shift to reduce stress; providing labor incentives in weekly and monthly basis; providing vitamin to female pregnant workers; paying in advance 6-month salaries to female laborers in maternity leave to ensure that they can pay for accommodation and utility fee, etc. ICT enterprises that are known for good SR to laborers include Ho Tram Project Company, HP Technology, etc. The compliance with SR to laborers under sustainable development approach according to ILO indicators is shown in the following aspects:

4.2.1. About social responsibility to freedom of association and collective bargaining

About freedom of association: Although the number of trade union members and trade unions keeps increasing, the rights of laborers to establish trade unions in many ICT enterprises are not yet satisfied; there still exists the situation of labor users avoiding and not facilitating laborers to exercise their rights to join and establish trade unions (VGCL, 2018). In many ICT enterprises, trade unions have been established but only in theory and worked under the dominance from labor users.

Table 4: Level of implementing “freedom of association and collective bargaining” in Vietnam’s ICT enterprises

No.	Indicators	Mean	Stan. deviation
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1	Ensuring to facilitate the establishment of trade unions at unit level	3.21	0.798
2	Ensuring that laborers can participate in trade unions and association at their wills	3.12	0.867
3	Ensuring to organize periodical dialogues	3.33	0.745
4	Ensuring to organize dialogues when one party requests	3.06	0.768
5	Ensuring that dialogue contents are as stipulated by labor law	3.47	0.598
6	Signing and complying with Collective Labor Agreement with many contents higher than in Labor Law	2.83	1.012
7	Being willing to dialogue and adjust contents in Collective Labor Agreement	2.79	0.952

Source: Survey findings by researchers (2022)

These reviews are similar to the findings of the researchers, accordingly, the statements that reflect the rights to be facilitated to “establish trade unions” and to “participate in trade unions at wills” gain quite low mean of 3.21 and 3.12 respectively.

About collective bargaining: The reviews of VGCL hold that there still exist many limitations in the exercise of the rights to collective bargaining and signing Collective Labor Agreement. The number of enterprises which have signed collective bargaining and Collective Labor Agreement remains low. The quality of Collective Labor Agreement has improved but not yet up to laborers’ expectations, many Collective Labor Agreements do not provide higher benefits to laborers but are just the duplications of the Labor Law 2019. Many Collective Labor Agreements are not yet practical but only signed as regulated. Especially many ICT enterprises have in reality implemented many regulations that are more beneficial to laborers than the Labor Law but do not include them in the Collective Labor Agreement so as to avoid legal binding.

According to the findings of the researchers, the mean of “Ensuring to organize periodical dialogues” is 3.33/5.0, “Ensuring that dialogue contents are as stipulated by labor law” is 3.47/5.0 while the lowest mean goes to indicators which reflect higher collective bargaining rights such as “Ensuring to organize dialogues when one party requests” with 3.06/5.0, “Signing and complying with Collective Labor Agreement with many contents higher than in Labor Law” with 2.83 and “Being willing to dialogue and adjust contents in Collective Labor Agreement” with 2.79/5.0

4.2.2. About social responsibility to Prohibiting forced labor

As illustrated in the research by ILO, Asia-Pacific is the region where the victims of forced labor account for over half of the total number in the world. Forced labor happens when laborers are cheated and trapped in the work and cannot escape (in every 1,000 laborers in this region, 3 are stuck in this situation) and Vietnam, which is considered as the world’s workshop, is not an exception (Chang-Hee Lee, 2020). As a result, many ICT enterprises in Vietnam face being criticized for violating forced labor, especially when Vietnam has joined new-generation free trade agreements.

According to the findings by the researchers, the situation of “Prohibiting forced

labor” in Vietnam’s ICT enterprises is shown by the majority in “no opinion” from 2.62 to 3.23 with quite high standard deviation, of which “Ensuring not to use violence to force laborers to stay to work” gains the highest score and “Ensuring not to keep personal documents to force laborers to stay to work” has the lowest score (see Table 5).

Table 5: Level of implementing “Prohibiting forced labor” in Vietnam’s ICT enterprises

No.	Indicators	Mean	Stan. deviation
1	Ensuring not to use violence to force laborers to stay to work	3.23	0.764
2	Ensuring not to use threats to force laborers to stay to work	3.13	0.997
3	Ensuring not to use penalties to force laborers to stay to work	3.05	0.826
4	Ensuring not to retain salary to force laborers to stay to work	2.78	1.076
5	Ensuring not to keep personal documents to force laborers to stay to work	2.62	1.163
6	Ensuring not to force laborers to work overtime	2.81	1.297

Source: Survey findings by researchers (2022)

4.2.3. About social responsibility to Prohibiting child labor

Currently, Vietnam has over 1.75 million laborers of children and adolescents, of which about 1 million children have to do particularly hard work, mostly in rural areas (85% of children), mainly in three sectors of agriculture, services and industry - construction. The number of children working in occupations that prohibit the use of child labor or working in harmful working conditions is 1.3 million, accounting for 75%; 34% of child labor work an average 42 hours a week (Children Protection Agency, MOLISA, 2020).

The research findings indicate that the percentage of child and adolescent laborers doing hard and harmful jobs is very low (most indicators to this criterion are about 4.19/5.0). However, the risks of child labor are still likely as the mean values of “Ensuring the system to verify laborers’ ages before recruiting” and “Ensuring to record profiles of laborers under 18” are low at 2.61 and 3.05 respectively.

Table 6: Level of implementing “Prohibiting and limiting child labor” in Vietnam’s ICT enterprises

No.	Indicators	Mean	Stan. deviation
1	Ensuring not to use laborers under 15	4.32	0.356
2	Ensuring not to use laborers under 18 to work overtime and over stipulated working hours	4.27	0.789
3	Ensuring not to use laborers under 18 to do hazardous work	4.18	0.509
4	Ensuring not to use laborers under 18 to work in bad	4.19	0.654

	working conditions		
5	Ensuring the system to verify laborers' ages before recruiting	2.61	1.210
6	Ensuring to record profiles of laborers under 18	3.05	1.087

Source: Survey findings by researchers (2022)

4.2.4. About social responsibility to Prohibiting labor discrimination

In Vietnam, discrimination against race, nationality, religion, etc. is barely recorded. But discrimination against genders remains a matter of concern as discrimination behavior in this kind is mostly hidden and unrecognizable.

Table 7: Level of implementing “Prohibiting labor discrimination” in Vietnam’s ICT enterprises

No.	Indicators	Mean	Stan. deviation
1	Ensuring not to discriminate against genders and ages in recruitment and pay	2.73	1.211
2	Ensuring not to discriminate against marital status in recruitment and pay	3.12	0.832
3	Ensuring not to discriminate against races, nationalities, politics, religion, political wills in recruitment and pay	4.23	0.511
4	Ensuring not to discriminate against disability, HIV/AIDS in recruitment and pay	3.18	0.897
5	Ensuring not to dismiss laborers for reasons related to pregnancy, maternity leave and raising of children under 12 months old	3.43	1.023
6	Ensuring not to relocate and alter laborers' positions, salaries, bonus or seniority during maternity leave	3.42	0.979

Source: Survey findings by researchers (2022)

The survey results by the researchers show that there are 3 groups of indicators:

Group 1 include indicators with “totally agree” over 4.2, consisting of “Ensuring not to discriminate against races, nationalities, politics, religion, political wills in recruitment and pay”.

Group 2 include indicators with “agree” below 4.2 and above 3.4, consisting of “Ensuring not to dismiss laborers for reasons related to pregnancy, maternity leave and raising of children under 12 months old” and “Ensuring not to relocate and alter laborers' positions, salaries, bonus or seniority during maternity leave”

Group 3 include indicators with “no opinion” above 2.6 and below 3.4, consisting of “Ensuring not to discriminate against genders and ages in recruitment and pay”, “Ensuring not to discriminate against marital status in recruitment and pay”, “Ensuring not to discriminate against disability, HIV/AIDS in recruitment and pay”, of which the lowest mean value goes to “Ensuring not to discriminate against genders and ages in recruitment and pay” with 2.73/5.0

5. Conclusion and recommendations

5.1. Conclusion

The following conclusions about the situation of SR to laborers in Vietnam's ICT enterprises in recent time can be drawn from the above evidence and analysis:

Successes: A number of ICT enterprises have cared about SR to laborers as this is the prerequisite for their products to be exported to foreign markets under the commitments to brands; SR to laborers has been implemented in various forms; ICT enterprises which implement SR effectively have been recognized and honored.

Regarding implementing SR to ensure the basic rights in the workplaces and create acceptable working conditions, ICT enterprises have implemented some indicators related to limiting the use of child laborers well and 2 indicators of "Ensuring not to discriminate against races, nationalities, politics, religion, political wills in recruitment and pay" and "Ensuring the regulation on minimum wage" are also highly appreciated.

Limitations: Many ICT enterprises have not paid due attention to SR to laborers, thereby only carrying out SR to respond to stakeholders or conducting it in an "acceptable" level in accordance with the labor law.

Regarding the SR to ensure the basic rights in the workplace and create acceptable working conditions, most ICT enterprises implement them at average level, some indicators even receive low scores, including: "Signing and complying with Collective Labor Agreement with many contents higher than in Labor Law"; "Being willing to dialogue and adjust contents in Collective Labor Agreement"; "Ensuring not to retain salary to force laborers to stay to work"; "Ensuring not to keep personal documents to force laborers to stay to work"; "Ensuring not to force laborers to work overtime"; "Ensuring the system to verify laborers' ages before recruiting"; "Ensuring not to discriminate against genders and ages in recruitment and pay". This illustrates that many ICT enterprises still have low level of guaranteeing these basic rights to laborers.

These conclusions are supported by the results of the in-depth interviews that the researchers (PV) conducted with laborers/ trade union executives in 5 ICT enterprises (PV1-PV5) among the enterprises that participated in the questionnaires. The answers sound somewhat negative and show that they have to accept the reality that has lasted for a long time as a matter of course (see Box 1).

Box 1: Answers of laborers and trade union executives in Vietnam's ICT enterprises

PV1 (A trade union executive in an ICT enterprise in Hai Phong, 45 years old, female): *"Our company has established the trade union since its foundation. We have conducted periodical activities as stipulated by Law. However, the company has not created favorable conditions for us to participate in the union during and after working hours. That laborers show active participation in the union may affect their job and some laborers have been "warned" so as to make a choice. Well, as to collective bargaining, we have heard of this but it is just done in a superficial manner. If the trade union shows strong responses to the company's policies, we will be called for "questioning". Besides,*

we have to work to make a living, so we do not have enough energy to organize diverse activities for laborers. Just implementing the programs instructed by higher-level trade unions is too tiring for us.”

PV2 (A laborer working in an ICT company in Bac Ninh, 30 years old, female): *“Retaining personal documents and even deliberately slowing the procedures to complete social insurance to force laborers to stay for work are common. Working overtime can be considered as luck because after the Covid-19, while many other companies have closed down, that we can work overtime for additional income is good, although we feel very exhausted, as without this additional income, we couldn’t have afforded our living costs. From the bottom of our heart, we don’t want to work overtime, we just want to be able to come back to our rented room, chat with co-workers or friends, or sometimes we want to participate in some entertainment activities, so on. But it is just a distant dream for us.”*

PV3 (A laborer working in an ICT company in Bac Thang Long Industrial Zone, Hanoi, 28 years old, female): *“In my workplace, there is no laborer under 15 but there are 5 out of 25 people below 18 years old. The tasks of these 5 below-18 laborers are nothing different from ours. However, sometimes I see some juniors who I think are not up to 15 years old as they are very small, they carter food boxes to us. I think they work for sub-contractors that provide lunch services to our company and some others in the industrial zone.”*

PV4 (A laborer working as an engineer in an ICT company producing software in Hanoi, 40 years old, male): *“In my workplace, the rate of male and female laborers is nearly equal, but over 70% of people in management of different levels is male. When we are doing our work, male and female do the same tasks. Our jobs are quite stressful. We don’t have the idea of “office hours”. Our salary is negotiated and agreed when we signed the labor contract, so there is not overtime increment. Our income is quite ok, but I see that with those who have married and have small children, they usually have to use home-maid services to help clean their houses and pick up children”.*

PV5 (A trade union executive in an ICT enterprise in Bac Ninh, about 35 years old, participating in trade union leading position for nearly 10 years): *“As trade union leaders, we also want to organize many creative activities, many contests for laborers but it is very difficult as people usually have to work overtime. If not working overtime, people just want to come back home for rest. They always long for sleeps. One more challenge is the budget for trade union activities remains limited. If we want to organize any costly activities, we need to ask for fund from the company via a complicated procedure.”*

Reasons for inadequate implementation of SR to laborers:

From ICT enterprises

- (i) The awareness and perceptions of ICT of SR to laborers under sustainable development approach on the basic rights in the workplaces remain poor;
- (ii) There is no strategy on SR to laborers;
- (iii) Inadequate attention has been paid to the development of SR culture.

From the State:

(i) The laws on basic rights in the workplaces in Vietnam are not totally compatible with international labor standards;

(ii) There are loopholes in the process of implementing and supervising labor laws at all levels.

5.2. Recommendations

5.2.1. Solutions to ICT enterprises

To implement SR to laborers under sustainable development approach, ICT enterprises should focus on:

(i) Raising the competence of labor users

The competence to implement SR to laborers includes knowledge, skills and attitudes. Depending on their positions, roles and status, each entity should choose appropriate solutions:

- Improving awareness and thinking of ICT enterprises about the rights and obligations of SR to laborers; the roles of SR to laborers; the inevitable trends of SR in the context of digital transformation, new-generation free trade agreements and post-Covid 19 period, opportunities and challenges when carrying out sustainable development goals, etc.

- Improving knowledge of SR to laborers to labor users, including: updating core knowledge of international law standards, especially the basic rights of laborers in the workplace; fundamental knowledge of labor law.

- Improving skills of implementing SSR to laborers such as social dialogue skills (information exchange, consulting, and negotiation); problem spotting and solving skills, etc.

(ii) Establishing the goals of SR to laborers in development strategies

The International Institute of Sustainable Development in Winnipeg, Canada states that “To a business, sustainable development means applying business strategies and activities to satisfy the current demand of business owners and stakeholders while preserving and maintaining sustainability and increasing the values of natural and human resources necessary for the future.” In reality, many enterprises have used SR as a business strategy so as to improve financial situation, increase work morale of laborers, enhance customer loyalty, and raise brand value as well as company reputation. In the value chain that the enterprises participate in, they need to transform from passively implementing and meeting minimum requirements to building strategies to actively implement SR to laborers. Enterprises should include SR to laborers in their mission statements. That way, all divisions can understand and join actions towards the sustainable business strategies. This is also the way ICT enterprises can promote their images to position their brands in the mind of target customers as well as the community. Enterprises can also take advantage of these opportunities to run internal marketing with staff, raise the values of the SR that they are implementing, connect laborers and motivate them to participate more in SR programs. In these business strategies, SR to laborers is identified as a tool to raise the company’s competitiveness and an investment of ICT enterprises.

(iii) Developing corporate culture that integrates SR to laborers

Research by Adam Grant (Wharton Business School) indicates that becoming an ethical company is the way to create motivations for laborers. Research by Carolyn Egri (Simon Fraser University) and Susan Herman also affirm that leaders that advocate sustainable development hold 3 main points: showing care to the benefits of others; showing interest in the environment; being willing to create changes within the company. They are competent leaders who inspire other people to help them gain the vision (Nguyen Thị Minh Nhan, 2016). ICT enterprises should focus on “refining” the SR to laborers when developing their corporate culture.

*5.3.2. Proposals to the State**(i) Completing legal framework related to SR to laborers under sustainable development approach*

Firstly, it is necessary to analyze and prepare necessary conditions to sign Convention 87. This is the prerequisite for Vietnam and other member countries of CPTPP, EVFTA and UKVFTA to implement the Convention effectively;

Secondly, it is important to integrate appropriate international labor standards into the national legal system. Vietnam has approached nearer to the international common legal grounds, so the Labor Law needs further amending, supplementing and completing in both contents and forms towards the SR sustainable development approach. Specifically, it is necessary to supplement and adjust the regulations on the establishment and operation of organizations representing laborers in enterprises; complete the labor law to make it compatible with Convention 29; amend legal regulations on child labor, labor discrimination to ensure the compatibility with international standards, etc.

(ii) Implementing and strengthening labor inspections

It is necessary to establish the mechanism to cooperate between labor inspectors and trade unions or labor representing organizations, at the same time intensify penalties to deal with violations to the labor law. When trade unions or labor representing organizations see the signs of violations and report to inspectors, it is necessary to handle the violations promptly and strictly and publish the information immediately. That way, laborers will believe in the roles of state administration agencies in ensuring law-abiding spirit in the workplaces, the labor community will also act more legally.

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THE DEVELOPMENT OF GREEN LOGISTICS - THE TREND OF THE FUTURE

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Abstract: *The world's environment is currently facing extremely serious issues, and sustainable development has become a necessary issue that countries must implement. Therefore, in Vietnam in recent times, the task of building a green economy has been mentioned in many reports and seminars. In this trend, the development of green logistics is also one of the important solutions for Vietnam to move towards a green economy. This scientific article focuses on the trend of developing green logistics in Vietnam by providing an overview of the current situation of green logistics development, the status of green logistics development, and the opportunities and challenges when developing a green logistics system in Vietnam.*

Keywords: *Green Logistics; Green Economy; Logistics; Reverse Logistics; Sustainable Development.*

PHÁT TRIỂN LOGISTICS XANH - XU HƯỚNG CỦA TƯƠNG LAI

Tóm tắt: *Môi trường thế giới hiện nay đang đối mặt với những vấn đề vô cùng nghiêm trọng, phát triển bền vững đang trở thành vấn đề tất yếu của các quốc gia phải thực hiện. Vì vậy, tại Việt Nam trong thời gian gần đây, nhiệm vụ xây dựng một nền kinh tế xanh đang được đề cập đến trong nhiều báo cáo, hội thảo. Trong xu thế đó, phát triển logistics xanh cũng là một trong những giải pháp quan trọng để Việt Nam tiến tới một nền kinh tế xanh. Bài báo khoa học này tập trung vào xu hướng phát triển logistics xanh tại Việt Nam thông qua việc cung cấp cách nhìn tổng quan về tình hình phát triển logistics xanh, thực trạng phát triển logistics xanh và những cơ hội, thách thức khi phát triển hệ thống logistics xanh tại Việt Nam.*

Từ khóa: *Logistics xanh; Kinh tế xanh, Logistics, Logistics ngược, Phát triển bền vững.*

1. Introduction

In the context of the world facing serious environmental issues, sustainable development is a necessary trend, and it is an approach to economic development that integrates economic growth with environmental protection and social welfare. Currently, Vietnam is also actively transitioning to a green economy.

The approach to sustainable development is specifically divided into development goals, while the approach to green growth creates a green economy that is seen as a way to achieve sustainable development goals. And green logistics is one of the indispensable factors in creating a green economy.

There have been many studies on sustainable development, green growth, and

green logistics. In this article, the author only refers to some studies on green logistics in Vietnam and around the world. Some notable works can be mentioned such as:

- *Green Logistics in Italy: New challenge for sustainable development* - 12th International QMOD and Toulon-Verona Conference on Quality and Service Sciences (ICQSS) LOCATION: University of Verona - At: Verona University - Ilenia Confente and Ivan Russo - 2009 - The authors address the challenges of sustainable development for green logistics. [1].

+ *The development of green logistics for implementation sustainable development strategy in companies* - 1st International Conference Green Cities 2014 - Oksana Seroka-Stolka discusses how green logistics is the basis for implementing sustainable development strategies in companies [2].

+ *Some basic criteria for evaluating green logistics development in logistics companies in Vietnam* - Vuong Thu Giang - Journal of Marine Science and Technology - 2014 focuses on evaluating green logistics development indicators in companies such as: savings and efficiency, scale and efficiency, and development in tandem with environmental protection [3]

+ *Research on the components of green logistics* - Doan Thi Hong Anh - Trade Journal - 2020 - discusses the factors such as the use of green transportation in the transportation process, optimization of warehouse layout strategy, inventory management, application of reverse logistics to reduce costs, and a focus on packaging issues.

+ Many scientific workshops have addressed green logistics from the concept, strategic trends in the future, and greening the supply chain, for example, in 2020, the Regional Political Academy I organized a workshop "Efficient development solutions for the national logistics system to promote fast and sustainable economic growth in the key economic region of Central Vietnam"; in 2022, the Ministry of Industry and Trade in coordination with the City Party Committee and People's Committee of Hai Phong City organized the Vietnam Logistics Forum - Green Logistics [5, 6].

However, the existing works have not addressed the challenges and opportunities that green logistics brings to Vietnam. Therefore, this article will focus on delving into the opportunities and challenges of applying green logistics in Vietnam in the future.

The article focuses on the following main content: An overview of green logistics; Green logistics trends in Vietnam; Challenges with green logistics in Vietnam and Opportunities with green logistics in Vietnam.

2. Literature Review

The authors mainly focus on introducing the concept of green logistics, the relationship between green logistics and green economy, and sustainable development. They all share the same viewpoint that green logistics is the foundation and basis for sustainable development, aiming at a green economy. However, none of the authors have pointed out the opportunities and challenges of green logistics for Vietnam and how to exploit the opportunities and overcome the challenges.

In this article, the author will discuss the opportunities and challenges of green

logistics in Vietnam, as well as propose some solutions to take advantage of the opportunities and overcome the challenges of green logistics in Vietnam. This will contribute to diversifying the research on green logistics in Vietnam.

3. Methodology

Although green logistics was first mentioned in the world in 1980, it is still a relatively new issue in Vietnam, so data collection in Vietnam to support this methodology is conducted by reviewing literature, analyzing documents, and using secondary data. The main database used is to search for related articles and presentations at conferences....

4. Results

4.1. Overview of green logistics

4.1.1. What is Green Logistics

As early as the 1980s, researchers first mentioned the term "green logistics", "sustainable logistics", or "sustainable green logistics". Since then, many organizations and researchers have introduced different concepts of green logistics from different perspectives. In Vietnam, the concept of green logistics is still relatively new, so there is currently no consistent and clear understanding. However, it can be understood that *green logistics is logistics activities aimed at sustainability, environmental friendliness, and environmental protection, minimizing negative impacts on the environment.*[9].

Green logistics emphasizes efforts and measures to minimize the negative impact of logistics activities, thereby achieving a sustainable balance between economic, social, and environmental objectives (Sbihi & Eglese, 2010). All efforts of green logistics are focused on contributing to and ensuring sustainable development. There are various solutions to "greening" logistics in various aspects such as:

- + Green transportation: using low-emission transportation modes such as electric vehicles powered by clean energy, waterway transportation...
- + Green packaging: using packaging that is reusable, recyclable, made from biodegradable and compostable materials...
- + Green warehouses: warehouses that use clean and efficient energy, are designed for sustainability, and prioritize waste reduction and recycling.
- + Green logistics data management: applying technology to manage data effectively, improve logistics efficiency, minimize transportation and delivery time...
- + Reverse logistics: enhancing the reuse of products, packaging, materials; remanufacturing and refurbishing...

4.1.2. The advantages of green logistics

According to a preliminary calculation by a business, applying green logistics to production and business operations would increase input costs and reduce competitiveness. However, in reality, it is completely the opposite.

Green logistics essentially involves applying management and technical measures to reduce fuel consumption of vehicles while ensuring the production process. Therefore,

when green logistics is applied, it will bring many benefits to the business and the environment. The benefits include:

- + **Reduced transportation costs:** Applying green logistics measures can minimize fuel consumption and optimize transportation routes, thereby reducing transportation costs for the business.

- + **Increased competitiveness:** Green logistics can improve the business's reputation and image by showing its commitment to sustainability and reducing its environmental impact. This can help increase customer loyalty and attract new customers who prioritize environmental responsibility.

- + **Compliance with regulations:** Many countries have regulations on emissions and environmental impact. By applying green logistics measures, businesses can comply with these regulations and avoid penalties.

- + **Improved environmental impact:** Green logistics can reduce greenhouse gas emissions and other environmental impacts, such as air and noise pollution, helping to protect the environment and mitigate climate change.

- + **Increased efficiency:** Green logistics measures can optimize processes and reduce waste, leading to increased efficiency in transportation and production processes.

4.2. The green logistics trend in Vietnam

4.2.1. The current situation of green logistics in Vietnam [5, 6]

*** The current situation of green transportation:**

Road transportation:

Regarding transportation infrastructure, although the government has continuously invested in improving the quality of the road infrastructure system in recent years, the highway network still does not meet development requirements. The length of highways is still lower compared to many other countries in the world, and the distribution density of highways is uneven among regions nationwide. Some important highways that have high demand and contribute to solving economic and social issues have not been invested in adequately, such as the North-South highway, the Bien Hoa-Vung Tau highway, the Ho Chi Minh City-Moc Bai highway, highways in the Mekong Delta region, and the beltways of Hanoi and Ho Chi Minh City.

Regarding road transport vehicles, in Vietnam, small-tonnage trucks account for a higher proportion than large-tonnage trucks. According to a report by the World Bank (2019), there are about nearly 1.2 million officially registered trucks in Vietnam, of which 68% have a total weight of less than 5 tons, 11% from 5-10 tons, 14% from 10-20 tons, and 7% are heavy trucks with a total weight of over 20 tons. Due to the low proportion of heavy trucks in Vietnam, a higher number of trucks have to be used to transport the same amount of goods, resulting in higher congestion, costs, and emissions.

Rail transportation:

Railway transportation is considered an environmentally friendly mode of transportation, but in Vietnam, railway transportation has not been invested and developed

in proportion to its potential. The current state of railway infrastructure in Vietnam is still limited and unable to meet the increasing demand for freight, especially on the intermodal route through Dong Dang station.

Regarding equipment, the large variety of locomotives causes difficulties in repair and replacement of parts. Due to limited investment capital, a large number of old and outdated freight cars have not been replaced, while there is still a shortage of container cars. The average speed of Vietnam's railways is currently 80-90 km/h, which is quite slow compared to many countries in the world. With the above-mentioned limitations in infrastructure and equipment, railway transportation also releases a large amount of hazardous emissions and noise into the environment. There is still the phenomenon of railway waste and trash being directly dumped onto both sides of the tracks, causing damage to railway equipment, environmental pollution, and affecting the lives of local communities.

In addition, there is also dust, chemicals, noise, and vibration that affect the environment during transportation, loading and unloading of loose and hazardous goods. Reducing road transportation and increasing railway transportation is one of the green logistics activities. However, with the current state of freight transportation by railways, Vietnam needs to make a lot of effort to develop this type of transportation to meet the demand.

Sea transportation and inland waterway transportation:

According to the International Maritime Organization's (IMO) fourth greenhouse gas emissions report in August 2020, the amount of greenhouse gas emissions from the maritime transport sector (international, domestic, and fishing) increased by nearly 9.6% from 2012 to 2018 (from 977 million tonnes to 1,076 million tonnes). CO₂ emissions alone increased from 962 million tonnes to 1,056 million tonnes. IMO predicts that by 2050, greenhouse gas emissions from maritime transport activities will increase by up to 50% compared to 2018, despite effective energy measures being implemented, due to expected increases in transport demand.

Therefore, the trend of greening seaports is emerging worldwide, and Vietnam is not exempt from this trend. To be recognized as a green port, a seaport must achieve a minimum of 60% of the criteria (with a minimum total score of 60 out of 100) and companies must provide documentation proving that each criterion has been met.

In Vietnam, Tan Cang - Cat Lai in Ho Chi Minh City was the first port to receive the APEC Port Services Network Council's Green Port Award. It is also the largest and most modern seaport in Vietnam and ranks among the top 21 largest and most modern container ports in the world, with a scale of 160 hectares of yard, 2,040 meters of wharf, modern handling equipment and advanced management technology. The experience of greening seaports for businesses includes resource conservation, port environmental quality, clean energy use at ports, waste treatment at ports, and the application of Industry 4.0 technology.

For inland waterways, the development of coastal transport routes and the VR-SB

river-sea fleet has somewhat reduced pressure on the North-South road transport, contributing effectively to container transport operations in the South.

According to the Vietnam Register, as of June 2021, the country has a total of 235,000 inland waterway vehicles, a total tonnage of about 19.6 million tonnes, and an average age of 14 years. However, due to the outdated and inefficient nature of these vehicles, with low fuel burning efficiency and no exhaust gas treatment system, they emit many toxic gases. For example, ports in Ho Chi Minh City emit a large amount of CO₂ into the environment, such as Ben Nghe Port, which emits over 5,000 tonnes of CO₂ annually; Sai Gon - Hiep Phuoc port emits about 7,750 tonnes of CO₂ per year; container port emits about 101 tonnes of CO₂ per year; Thanh Le petroleum port emits about 385 tonnes of CO₂ per year; and ship repair and construction ports emit about 2,278 tonnes of CO₂ per year.

Air transportation:

Although air transportation is the least risky mode of transportation, the emissions from airplanes pollute the most sensitive areas of the atmosphere. According to the Intergovernmental Panel on Climate Change (IPCC), aircraft emissions account for 3.5% of the causes of global warming. According to the European Environment Agency, flights from Europe generate up to 440,000 tons of emissions per day. In Vietnam, on average, transportation activities emit around 30 million tons of CO₂ per year, of which aviation accounts for 5% (Resource and Environment News, 2019).

To evaluate the overall efficiency of transportation operations in Vietnamese enterprises, the Editorial Board of the Vietnam Logistics Report 2022 has proposed that businesses survey and provide feedback on the effectiveness of their transportation management systems in optimizing transport routes and reducing fuel consumption. As a result, up to 77% of businesses responded that their transportation management systems were "relatively efficient" or "very efficient."

*** The current situation of green packaging:**

Packaging is one of the most commonly discarded industrial and household wastes today. Large cities like Hanoi and Ho Chi Minh City discharge approximately 80 tons of plastic waste into the environment each day, but only a small percentage of plastic packaging products are recycled, causing significant environmental impact and economic waste. To promote green logistics, businesses are encouraged to use packaging made from recycled materials or materials that can easily biodegrade in the natural environment.

For example, the Nam Ha Noi cold storage facility has implemented green logistics control processes starting from the packaging of goods, such as using wrapping films made from the simplest packaging materials that can easily biodegrade in the natural environment. In addition, they use pallets (made of wood, plastic, etc.) to store products instead of using packaging that takes up warehouse space and affects the level of greenness.

With its reusable characteristic, this tool is particularly effective in distributing and transporting goods, ensuring the safety of goods and limiting the use of excessive packaging materials and product liners that create environmental waste. According to

survey results, a positive signal in packaging operations is that the proportion of environmentally friendly packaging such as paper and cardboard packaging has reached 42.9% of businesses using them, and 1.2% of businesses using wooden packaging.

*** The current situation of green warehouses:**

Currently, Vietnam's warehouse system has lower quality compared to other Asian countries. Many warehouses do not have concrete floors and are only built with bricks on a sandy foundation, resulting in uneven floors that can easily damage goods. Regarding energy supply, warehouses mainly rely on electricity for lighting and temperature control when necessary. Environmentally friendly features such as solar energy, natural lighting, appropriate area, thick walls and floors, and on-site recycling are requirements for the construction and operation of warehouses in Vietnamese businesses.

According to the survey, up to 68.6% of businesses reported not using renewable energy in their warehouse operations, or not renting warehouses that utilize renewable energy. The survey also shows that warehouse management is not yet truly scientific, modern techniques are not being applied, especially in the use of information technology in coordinating and managing warehouses. Distribution warehouses, or CY/CFS warehouses, have not yet established information networks with customers to facilitate inspection, storage, and tracking of each batch of goods from the warehouse to any location. Warehouse management techniques such as specialized software, barcodes, and others are not being applied.

*** The current situation of green information systems:**

There is very little survey data on the current state of logistics information systems in Vietnamese businesses. Most logistics activities in Hanoi still rely on basic information technology tools such as phones, SMS messages, email, fax, websites, LAN and WAN networks. Although the majority of businesses recognize the importance of IT applications in the logistics industry, the high investment rate results in limited IT projects for businesses such as freight management systems (FMS), transportation management systems (TMS), warehouse management systems (WMS), resource management systems (ERP), etc. As a result, the investment outcomes are not as expected due to the lack of a systematic approach.

The implementation of GPS tracking systems by shipping companies to monitor the location of vessels is an important initiative to promote sustainability in logistics operations. However, the use of GPS systems for other modes of transportation is still limited.

*** The current state of reverse logistics: [7]**

Developing reverse logistics in Vietnam is essential for businesses, industries, and the national perspective, especially in the context of sustainable development becoming the path of the Party, the state's policies, and Vietnam's international commitments on sustainable development such as the United Nations Framework Convention on Climate Change and the Kyoto Protocol, the Vienna Convention on the Protection of the Ozone Layer, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, and the Stockholm Convention on Persistent Organic

Pollutants. Although reverse logistics studies have emerged in countries worldwide, they are less conducted in the Vietnamese market:

Recycling Activities:

Regarding recycling activities, reverse logistics management in Vietnam includes two main contents:

Administrative management related to the process of managing the collection and disposal of waste materials by ministries and sectors.

Operational management related to the participation of supply chain members with responsibilities as collectors, processors, and redistributors.

Waste Management:

Currently, Vietnam's waste management system operates under two main forms of organization: formal and informal. The formal system is managed by the state or private companies based on waste collection and disposal contracts. In contrast, the informal system is small-scale, self-organized, decentralized, and lacks contracts between members participating in the system. However, the reverse logistics system responsible for waste disposal is being managed in a complex manner by various ministries and sectors without clear division of responsibilities. Therefore, reverse logistics activities, particularly in the process of waste management, face many challenges.

4.2.2. Positive Impacts of Green Logistics in Vietnam

+ Minimizing pollution and resource efficiency: With new technologies that allow logistics companies to control their operations without using paper, they can save a huge amount of money through various processes. From management and labor costs, to reducing manual errors and subsequent duplication or delays, or faster and more efficient delivery can lead to surplus time that can be reinvested effectively.

Companies can also save fuel costs, reduce the distance their goods have to travel, and cut CO₂ emissions while improving the customer experience by providing more stable and reliable services, saving energy and resources, and increasing economic efficiency.

+ Improving efficiency and increasing the reliability of the supply chain: Applying green logistics solutions helps to improve the efficiency of transportation processes and reduce response times for supply chains. This will increase competitiveness and customer confidence in the enterprise.

+ Contributing to sustainable development: Green logistics not only helps businesses reduce negative environmental impacts, but also contributes to sustainable development of society by creating environmentally friendly transportation solutions and optimizing supply chains.

4.3. Opportunities and challenges when applying green logistics in Vietnam

4.3.1. Challenges of implementing green logistics in Vietnam [9]

+ Limited awareness and understanding: Despite increasing awareness of environmental issues, many companies in Vietnam may not fully understand the concept of green logistics

+ Lack of skilled labor: Currently, in the field of logistics, Vietnam is lacking in

high-skilled and capable personnel in operating green logistics systems. This poses difficulties in implementing new and more efficient solutions.

+ Poor infrastructure: Some areas in Vietnam still lack transportation infrastructure, especially road infrastructure, which makes it difficult to deploy green transportation vehicles such as electric or underground cars.

+ High investment costs: Investing in green logistics systems requires a high initial investment cost. However, if implemented correctly, this system can help reduce operating costs and increase production efficiency.

+ Habit of using traditional transportation vehicles: In Vietnam, many people still use traditional transportation vehicles such as motorbikes or trucks, which increases the amount of harmful emissions and environmental pollution.

+ Lack of supportive policies: Currently, Vietnam has not had many supportive policies for enterprises applying green logistics systems. This reduces the ability to invest and implement new solutions.

4.3.2. *Opportunities with green logistics in Vietnam. [14]*

+ Along with the challenges, there are also many opportunities for the development of green logistics in Vietnam:

+ The rapid development of the industrial and economic sectors: With the rapid development of the economy, a large amount of goods need to be transported, which has negative impacts on the environment. Therefore, the development of green logistics will help to minimize these impacts, providing a foundation for sustainable development. Hence, this is an opportunity for green logistics to develop even more strongly in the future.

+ Market demand: In Vietnam, some customers are starting to demand that logistics providers ensure that their operations do not have negative impacts on the environment. Although this will increase the costs for customers, some businesses have accepted these costs to ensure sustainable development. Therefore, logistics companies need to apply green solutions to meet market demand.

+ Government support policies: With the aim of promoting the development of the logistics industry, the Vietnamese Government has applied many support policies, including some policies to develop green logistics solutions. These policies not only create incentive mechanisms but also provide financial support for the development of green logistics.

5. Discussion

In the article, the author has provided a general overview of green logistics and its components. They also highlighted the current situation of green logistics in Vietnam, as well as the opportunities and challenges when implementing green logistics in Vietnam.

Through this, we can clearly understand the inevitable trend, timing, and challenges of developing green logistics in Vietnam, as well as worldwide in the future. This is also the difference of this article compared to many scientific studies on green logistics that

have been published.

With these opportunities and challenges, the author proposes some issues for discussion when considering the implementation of green logistics development in Vietnam in the near future.

Some proposals to promote opportunities and overcome challenging issues with green logistics in Vietnam:

+ Training and enhancing the capacity of the workforce: With the specific nature of the green logistics industry, we need skilled and capable workers to operate the green logistics system. Therefore, training and enhancing the skills of the workforce are important solutions.

+ Investing in infrastructure: Infrastructure can be seen as an important factor to enable the use of green logistics, as it provides a foundation for green transport vehicles such as electric cars, electric trains, solar-powered ships, etc. Therefore, the government must invest in building suitable infrastructure to create a platform for the development of green logistics.

+ Encouraging private investment in the green logistics system: In addition to the government creating a platform for the development of green logistics, private enterprises are an essential element in the system. Therefore, the government must create policies to encourage and provide financial support for private enterprises to invest in the green logistics system, as well as build a healthy competitive mechanism to motivate their participation.

+ Establishing an efficient management and monitoring system: Efficient management and monitoring systems can evaluate the effectiveness of the green logistics system and provide solutions to improve production efficiency and environmental protection.

In the limited scope of an article, green logistics in Vietnam has only been broadly portrayed, with the most basic common content about the green logistics system. There are still many issues that the author has not addressed, such as the advantages and challenges of applying green logistics in Vietnam, and specific solutions to promote the development of green logistics system.

6. Conclusion

The article has clarified the inevitable trend of green logistics system in Vietnam in the future. These issues were addressed through an overview of green logistics, the current situation of green logistics in Vietnam in recent years, and the challenges and opportunities when developing the green logistics system in Vietnam. With the basic foundations of the green logistics system in Vietnam, the article will support further research such as proposing solutions and models to build or develop the green logistics system in Vietnam in the future.

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MODELLING BLOCKCHAIN TECHNOLOGY APPLICATIONS IN DEVELOPING AGRICULTURAL SUPPLY CHAINS: THE CASE OF MELALEUCA OIL IN HUE

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Abstract. *The study is conducted to identify potential applications and to outline the relationships among these applications to develop the use of blockchain in developing agricultural supply chains. The study applies both qualitative and quantitative research methods. First, by referencing current literature and combining in-depth interviews with experts, the research has identified 20 potential blockchain applications for agricultural supply chains. Next, the study obtained remarkable results by surveying 225 individuals/organizations involved in Hue's Melaleuca oil supply chain. Firstly, traceability and quality management are considered the most important applications of blockchain. Second, commercial stakeholders (domestic and export) have the highest demand for blockchain adoption. Third, the ISM-DEMTEL analysis results indicate four application groups and three stages in deploying blockchain applications to develop the Melaleuca oil supply chain in Hue.*

Keywords: *Blockchain technology, agricultural supply chain, Melaleuca oil, Hue.*

MÔ HÌNH HÓA ỨNG DỤNG CÔNG NGHỆ CHUỖI KHỐI NHẪM PHÁT TRIỂN CHUỖI CUNG ỨNG NÔNG NGHIỆP: TRƯỜNG HỢP DẦU TRÀM Ở HUẾ

Tóm tắt. *Nghiên cứu được thực hiện nhằm xác định các ứng dụng tiềm năng và phương án ứng dụng của công nghệ chuỗi khối vào phát triển các chuỗi cung ứng nông nghiệp. Nghiên cứu áp dụng đồng thời phương pháp nghiên cứu định tính và định lượng. Trước tiên, thông qua việc tham khảo các nghiên cứu đi trước, kết hợp bước nghiên cứu định tính - phỏng vấn sâu chuyên gia, nghiên cứu đã xác định được 20 ứng dụng tiềm năng của công nghệ chuỗi khối đối với các chuỗi cung ứng nông nghiệp. Tiếp đến, thông qua khảo sát 225 các đơn vị/cá nhân tham gia vào chuỗi cung ứng dầu tràm tại Huế, nghiên cứu đã thu được một số kết quả đáng chú ý. Thứ nhất, khả năng truy xuất nguồn gốc và quản lý chất lượng được coi là các ứng dụng quan trọng nhất của công nghệ chuỗi khối. Thứ hai, các đơn vị thương mại (nội địa và xuất khẩu) có mức độ nhu cầu cao nhất đối với việc ứng dụng công nghệ chuỗi khối. Thứ ba, kết quả phân tích ISM-DEMTEL cho thấy, có bốn nhóm ứng dụng và ba giai đoạn trong việc triển khai các ứng dụng công nghệ chuỗi khối vào phát triển chuỗi cung ứng dầu tràm tại Huế.*

Từ khóa: *Công nghệ chuỗi khối, chuỗi cung ứng nông nghiệp, dầu tràm, Huế.*

1. Introduction

In the current trend of favoring products of natural origin, Melaleuca oil is considered a pharmaceutical with increasing demand at home and abroad. Melaleuca oil is also a famous traditional pharmaceutical product, identified as one of the critical forest products of Thua Thien Hue province. Therefore, developing sustainable supply chains for melaleuca oil is vital in the coming time (Kristiansen et al., 2014). Currently, Thua Thien Hue has more than 200 productions and trading firms of Melaleuca oil; the output of essential oil is about 16,000 liters per year, and the revenue is estimated at 14 billion VND, concentrated mainly in two districts of Phu Loc and Phong Dien. The flip side of the massive development of the melaleuca oil market in Hue is the situation of poor-quality oils, counterfeits, and imitations that are increasingly rampant in the market. Specifically, 90% of the melaleuca oil sold on the market is not extracted from melaleuca; most trading firms sell fake products that mainly cook oil from brooms (Lan & Mai, 2012). In addition, a large amount of cheap melaleuca oil made from industrial flavorings transported from Laos to the Lao Bao border gate is being sold widely on the market. This situation leads to the loss of consumers' trust and seriously affects the development of the local Melaleuca oil brands (Phạm, 2021). Besides the weaknesses in market control of product quality, the market forecast and expansion activities are still fragile. Specifically, the local melaleuca oil is still mainly consumed through traditional trading channels (markets, shops, traders). The products have not yet reached modern trading channels (domestic and international e-commerce exchanges) (Khuat et al., 2018).

Stemming from the above problems, blockchain technology is a highly feasible solution for developing Hue's Melaleuca oil supply chain. Specifically, blockchain offers many potential benefits, such as enhancing transparency, accountability, traceability, and preventing product counterfeiting (Kshetri, 2017). In addition, tracking and verifying information throughout the chain is the key to increasing market forecasting, contributing to sustaining the melaleuca oil supply chain (Kshetri, 2017).

From the academic aspect, research topics on the applications of blockchain technology to agricultural supply chains are receiving much attention from researchers at home and abroad. In particular, the research focuses on two main directions: first, using qualitative research methods (such as in-depth interviews) to study the benefits and barriers of blockchain application (Kamilaris et al., 2019; Rogerson & Parry, 2020). Second, quantitative research tools and theoretical models are still used to explain the adoption of blockchain by stakeholders in the agricultural supply chain (Hoa et al., 2018; Sander et al., 2018). However, almost no research helps clarify the relationship between the applications of blockchain technology and proposes a clear blockchain application roadmap.

In this study, through researching the case of the melaleuca oil supply chain in Hue, the study contributes to measuring supply chain stakeholders' needs with specific blockchain technology applications. At the same time, the study also contributes to modeling the relationship between those applications and proposes a roadmap for blockchain application in the Melaleuca oil supply chain.

2. Literature review

Blockchain in supply chain management (SCM)

Blockchain is a digital ledger of cryptographically signed transactions. Each block cryptographically associated with the block before it, after being validated, undergoes a consensus decision. As a new block is added, the older block becomes challenging to edit. The ledger is then replicated to the entire network, and any conflicts are resolved automatically through established rules (Swan, 2015).

Regarding the research topics on blockchain application in supply chain management, many researchers have developed a broad scale to measure the critical factors that form the acceptability of the application of blockchain technology in agricultural supply chains by consumers and supply chain operators. Several critical factors have been pointed out: usefulness, ease of use, compatibility, autonomy, relative advantage, ability to obtain original information, transmissibility, and information security (Johansen, 2018; Lindman et al., 2017). In contrast, factors such as lack of knowledge and experience in blockchain technology, high security, and privacy risks, high initial installation costs, confusing and complex interfaces, or lack of necessary skills are factors hindering the widespread deployment of new Blockchain technology (Beck et al., 2017; Khan et al., 2022)

Several other researchers have highlighted the benefits and value the supply chain gains through blockchain implementation. The ability of blockchain technology in product traceability, authenticity, and real-time execution of transactions will bring tremendous improvements in product traceability, which will positively impact the quality, safety, and sustainability of agricultural products (Tian, 2017; Z. Wang & Sarkis, 2013). Blockchain can mitigate risks and increase the efficiency of agricultural supply chains by eliminating intermediaries and ensuring transparency and traceability in the supply chain (2018).

Some of these studies conduct behavioral analyses of blockchain adoption using survey-based methods. These studies are based on a combination of different models of technology application, including the technology acceptance model (TAM) (Davis, 1989b), technology readiness index and theory of planned behavior (TPB) (Ajzen, 1991), and unified theory of technology acceptance and use (UTAUT) (Francisco & Swanson, 2018; Queiroz & Wamba, 2019). Supply chain players still need to be more interested in blockchain because of the lack of control or distrust in the potential of blockchain, as the technology requires highly skilled technical personnel and experience in the field of the supply chain (Kamble et al., 2019). The behavioral intent of blockchain adoption is primarily driven by perceived usefulness. As such, industry-wise blockchain applications must be developed by vendors to improve the utility of blockchain (Kamble et al., 2019).

Although attracting the attention of many researchers, there are still theoretical gaps in understanding blockchain applications in the SCM field. First, almost no research helps clarify the relationship among the applications of blockchain technology. Second, previous studies have primarily focused on assessing the consumers' & supply chain stakeholders' acceptance levels. Almost no research focused on clarifying the difference in the necessary

degree of various blockchain applications to SCM. Third, the studies only stopped at the intention of application—almost no research helped establish the application process of blockchain to agricultural supply chains.

In this study, through adopting the ISM-DEMATEL method, the study contributes to measuring supply chain stakeholders' needs with specific blockchain technology applications. At the same time, the study also contributes to modeling the relationship between those applications and proposes a roadmap for blockchain application in the Melaleuca oil supply chain. The next part will outline the list of potential applications of blockchain to agricultural supply chains from current literature.

Potential Applications of Blockchain to agricultural supply chains

Blockchain is considered one of the disruptive digital platforms to restructure agricultural supply chains (Monrat et al., 2019). This study has listed various blockchain applications by reviewing the current literature and conducting the qualitative research step (in-depth interviews with experts) (*please see Table 1*).

Table 1. Potential applications of Blockchain (BA) to agricultural supply chains

Application	Details	Supporting literature
Secured database (BA1)	This application relates to data management in the blockchain. It is tamper-proof and challenging to manipulate. BT uses distributed databases. This unique feature of BT makes it highly secure as it uses asymmetric cryptography and validates exchanges in the form of hash and block functions (mining).	Baygin et al., 2019, Chen et al., 2022; Farrell, n.d. , Ying et al., 2018
Decentralized database (BA2)	This application relates to the metadata used for communication in the blockchain. It is scattered throughout the ledger and cannot be collected at a centralized point. Data is not stored on one server but distributed simultaneously across different computer nodes.	Kouhizadeh et al., 2021, MacDonald et al., 2016
Shared database (BA3)	Blockchain allows to storage of information in the ledger and sharing among participants. Participants will have their copy through copying and have limited access to relevant transactions from the shared record system.	Kouhizadeh et al., 2021, Wang et al., 2018
Anonymity & Privacy (BA4)	The blockchain implements a cryptographic private key to ensure the privacy and anonymity of data. BT uses ring signatures to provide the anonymity of users within the network. BT ensures data security	Ying et al., 2018

	without compromising the privacy of stakeholders.	
Immutability & irrevocability (BA5)	Immutability and irrevocability refer to something that cannot be changed over time, edited, or tampered with. Immutability allows audit tracking of all historical activities on the registry to ensure full traceability of records.	Kshetri (2017). Tran et al., 2017
Information Availability (BA6)	Information availability guarantees that block proposers publish all transaction data of a block available to all network participants. In essence, it refers to all nodes' ability to access and download all the data contained within the various blocks of a network.	Chen et al., 2022, Kshetri, 2017
Provenance (BA7)	BT implementations will create a unique fingerprint for each product. All products can be traced to their origin throughout the value chain. A unique digital token is assigned to the product at each transaction point in the supply chain.	Li & Wang, 2018; Wang et al., 2018
Transparent (BA8)	In BT, the blockchain network creates an identical copy of the network at each node allowing real-time auditing and data auditing, providing transparency within the network. Transparency in all network operations and operations offers high visibility to all network stakeholders, thus reducing the need for a trusted intermediary. BT can help clarify the supply chain, building trust and reputation.	Mirabelli & Solina, 2020, Kouhizadeh et al., 2021, Abeyratne & Monfared, 2016; Kshetri, 2017
Auditability (BA9)	Blockchain is an auditable, trustless, tamper-proof, and self-regulating system. Facilitating audibility is one of BT's most prominent features. Providing a decentralized database makes the blockchain error-free and helps maintain the audit process.	Mirabelli & Solina, 2020, Atzori, 2015, Ying et al., 2018
Traceability (BA10)	BT provides the ability to provide traceability with reliable information through authentic data collection, sharing, and transfer in sourcing, handling, warehousing, distribution, and sales. Any information can be traced back to each blockchain block through a timestamp.	Mirabelli & Solina, 2020, Abeyratne & Monfared, 2016; Tian, 2016
"Trustless" operation (BA11)	The concept of trustlessness is a core element of blockchain, crypto payments, and smart contracts. "Trustless" means you do not have to trust a third party: a bank, a person, or any intermediary that	Baygin et al., 2019, Kshetri, 2017

	could operate between you and your cryptocurrency transactions or holdings. Depending on how you choose to store, move, and trade your assets, you may have a trustless set-up or a set-up that requires the trust of a third party.	
Smart contract (BA12)	A smart contract is helpful because it contains terms agreed upon between stakeholders. Recently, electronic contracts have strongly impacted business processes, especially in BT. An asset or a currency is transferred into a digital BT application as a smart contract.	Baygin et al., 2019, Nakamoto, n.d.; Tran et al., 2017
Fewer third parties (BA13)	Operations on the Blockchain platform are fully automated, thus minimizing costs from manual processes in the past. Transactions can occur quickly without intermediaries; the Blockchain system will help ensure transaction transparency.	Wang et al., 2018, Xiong et al., 2020, Agi & Jha, 2022
Low-cost transaction (BA14)	The use of BT leads to reduced transaction costs. BT features such as decentralized databases, cryptographic signature protection, and reduced need for intermediaries contribute to reducing transaction costs. BT also supports reducing overhead costs compared to traditional transaction methods. Smart contract-based commercial transactions help develop a multi-vendor base, thus effectively reducing transaction costs.	Ying et al., 2018, Wang et al., 2018, Agi & Jha, 2022
Fast settlement (BA15)	Implementing BT leads to reduced payment execution time and transaction execution time. The introduction of BT will result in the consolidation or elimination of unnecessary steps associated with the current post-transaction payment process. Business processes that use data attributes embedded in transactions make the transaction process time-conditional, improving business efficiency by reducing transaction execution time.	Kamble et al., 2019; Shrier et al., 2016; Ying et al., 2018, Wang et al., 2018, Agi & Jha, 2022
IT Integration (BA16)	Blockchain supports integrating agricultural technologies 4.0, such as IoT, AI, and Big Data.	Agi & Jha, 2022
Product recall (BA17)	For companies most affected by product recalls, blockchain tracking systems offer a way to trace the source of contamination quickly, efficiently, and accurately and immediately alert all downstream	Wang et al., 2018, Xiong et al., 2020

	vendors. That includes issues such as contamination at a farm or processor and problems related to temperature regulation in a truck or warehouse.	
Quality control (BA18)	For manufacturers, the application of Blockchain technology in agriculture will help manage the entire process from the farm until the agricultural product is on the shelves; the system closely monitors information about growers, care, transportation, storage, and processing. As a result, exporters can better control supply chain activities, minimizing the risk of substandard products.	Kouhizadeh et al., 2021, Xiong et al., 2020
Commodity Exchange (BA19)	Companies use blockchain to track the movement of goods between suppliers and buyers. Sellers can map their supply chain by allowing participants such as manufacturers, shippers, distributors, end users, and secondary users to add events to the ledger after registering with a certification authority.	Wang et al., 2018, Baygin et al., 2019, Xiong et al., 2020
Market forecast (BA20)	Applying Blockchain technology is a tool for businesses and farmers to forecast agricultural output to plan purchasing and consumption according to the market demand forecast through data on agrarian production consumed in previous seasons. At the same time, timely detect errors, locate the scope of influence, and promptly recall products.	Baygin et al., 2019, Xiong et al., 2020

(Source: Author's Compilation)

First, blockchain brings "added value to products with trust attributes due to increased transparency and assurance." Blockchain helps combat product fraud, especially the fraudulent labeling of products. Blockchain helps trace the origin of the growing, producing - consuming products in real time based on data that stakeholders in the agricultural supply chain can verify (Baygin et al., 2019). Second, businesses can easily manage farms remotely with data stored immutably on the blockchain platform. These data also allow stakeholders to track products from supply to users efficiently without going through intermediary traders. Hence, blockchain application in the agricultural supply chain reduces the number of intermediaries in the long term (Kouhizadeh et al., 2021). Third, automated, smart contracts will replace product delivery processes that will cut costs and risks and improve transaction transparency. In this way, "smart contracts" allow users to pre-program the automated execution of transactions without human intervention, depending on predefined criteria. Enterprises can price their products, creating competitive advantages compared to other products in the market (Kouhizadeh et al., 2021). Fourth, for e-commerce platforms, information on products displayed on the floor will be recorded

and stored on the Blockchain platform before being put on the floor or provide QR codes that allow users to scan codes to authenticate product information. Blockchain transparently provides product information to consumers and minimizes costs to prove safety and hygiene issues (Kouhizadeh et al., 2021). Fifth, security and optimization of IoT-enabled devices - based on the blockchain platform, the security of mobile devices is done using electronic signatures to ensure the accuracy and integrity of the devices. The devices will then act as an authorized blocks in the blockchain system's blockchain (Monrat et al., 2019). Sixth, building an agricultural value chain ecosystem - Currently, the agricultural ecosystem is shifting from traditional to smart agriculture. In addition to the requirement to apply science and technology to production, digital transformation is expected to also contribute to removing difficulties in agricultural financial management to develop sustainable agriculture and rural areas (Baygin et al., 2019). Seventh, in international trade, Blockchain has facilitated commercial transactions that ensure safety and require phytosanitary certification without using the services of third-party certification bodies, which speeds up and simplifies payments to farmers (Swan, 2015).

In general, there are plenty of potential applications from blockchain to agricultural supply chains. However, there are still many questions that come along with these listed apps, like which one offers the most benefit? What is the relationship between applications? What is the roadmap for selecting the correct Melaleuca oil supply chain applications? By adopting the ISM-DEMATEL method, this study will clarify these questions.

3. Methodology

In this study, the author adopts both qualitative and quantitative research methods. In the qualitative step, the authors conducted in-depth interviews with 12 experts, including 3 experienced researchers in the field of technology adoption in the agricultural supply chain, 3 local authorities, and 6 managers from stakeholders in Hue's Melaleuca oil supply chain. This research step helps verify the blockchain's potential applications from the current literature and suggests other potential ones (*please see table 1*). As a result, there are 20 applications listed belonging to different application levels of blockchain.

Next, the quantitative research step collects primary data through structured questionnaire interviews with units/individuals involved in Hue's melaleuca oil supply chain. The sample size was determined using the average sample size method with $n = 225$ samples (Hair & Ctg, 1998). The sample was selected based on a simple random method based on the list of units/individuals participating in the melaleuca oil supply chain in Thua Thien Hue province. The statistics are mainly using Excel and SPSS software. The result of this step helps to assess the different degrees of demand for applications of blockchain technology.

Finally, combining ISM and DEMATEL decision-making techniques was used to analyze the relationship between potential applications and build a blockchain application roadmap into Hue's cajuput oil supply chain (*please see Figure 1*). The list of 20 blockchain applications from table 1 is leveraged to analyze in this step. 12 experts were

recruited again to validate the relationship among blockchain applications. Specifically, ISM is an interactive learning process and is considered a powerful tool for working with participants in a group where structured debate helps the participants to reach a consensus. ISM assists in structuring and organizing different, direct, and related elements into a comprehensive systematic model. The primary objective of using ISM is to access the domain knowledge of subject experts in disintegrating a complex problem into smaller subsystems leading to the construction of a multi-level structural model (Janssen et al., 2019). Next, DEMATEL analysis is used to overcome the limitations of ISM and obtain more profound insights into the inter-relationships of blockchain applications. The results of the DEMATEL are represented through a causal diagram using diagraphs, showing the contextual relationships and the strengths of influence between the variables (Shieh et al., 2010).

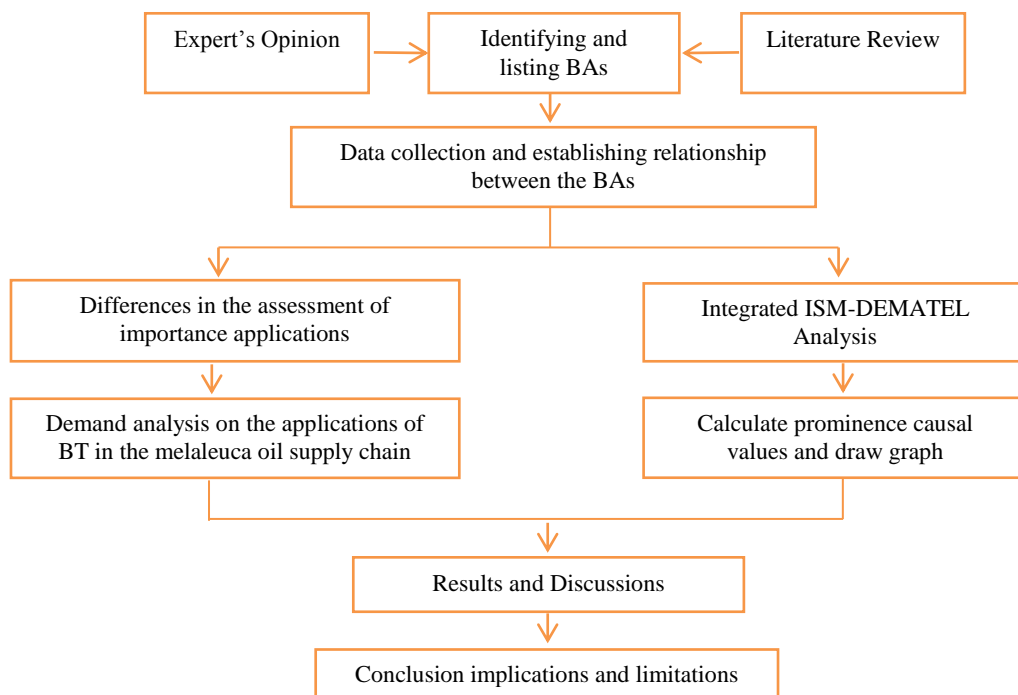


Figure 1. Framework for research methodology

4. Research findings

The author first conducts a demand analysis for blockchain technology applications of stakeholders in the Melaleuca oil supply chain to accomplish the research objectives. Next, analyze the differences in assessing groups of units in the supply chain - differences in position in the supply chain. Finally, the study performs modeling of the factors driving the adoption of blockchain technology using ISM and DEMATEL methods.

4.1. Analyze the needs for blockchain applications in the Melaleuca oil supply chain

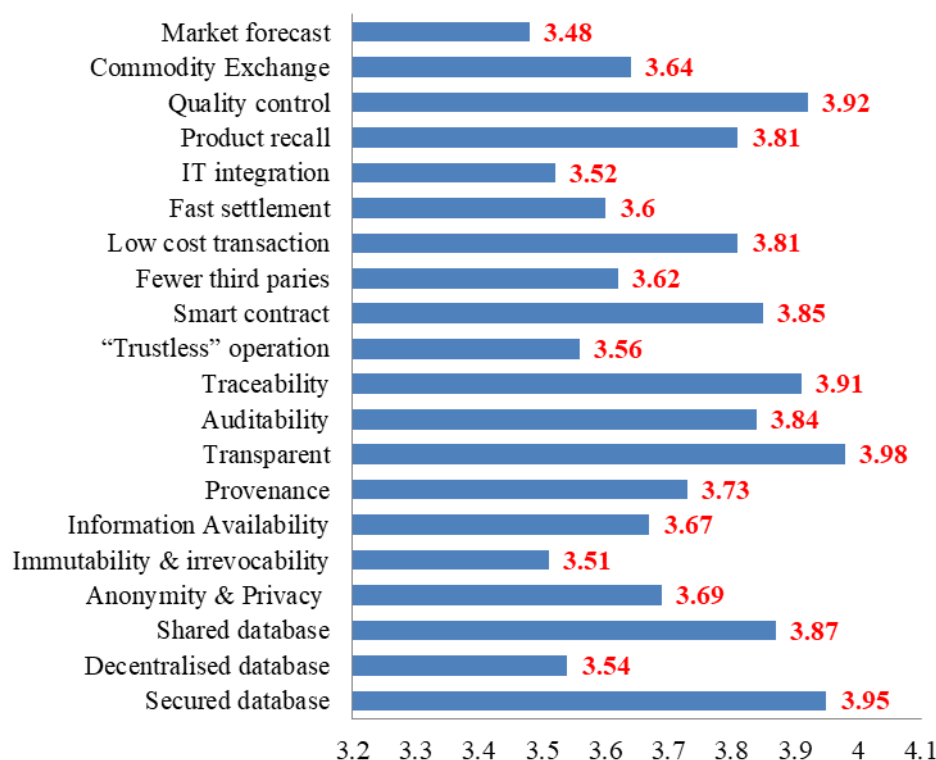


Figure 1. Assessment of the importance of applications

(Source: Data processing in 2023)

From the above results, we see that the applications "Transparency" (3.98), "Secured database" (3.95), "Quality management" (3.92), and "Traceability" (3.91) have the highest average value, which can be said that data transparency is one of the most critical factors in building the reputation of businesses in the modern economy. Based on the blockchain platform, the security of mobile devices is done using electronic signatures that also ensure the authenticity and integrity of the devices. Communications between verified participants will be cryptographically secured and stored in the blockchain ledger to prevent tampering, creating trust for stakeholders in the supply chain. In addition, consumers' awareness of product safety is increasing. Accordingly, they need traceability and quality for the product they want. Therefore, it is common for manufacturers to provide detailed information about the links in the supply cycle and authentication to the villages.

"Smart Contract" elements (3.85); "Information Sharing" (3.87); "Auditability" (3.84) also has a relatively high average value, both above 3.8. Using Smart Contracts has benefits, such as Smart Contracts are highly customizable and can be designed in different ways depending on the type of service and solution. They are also decentralized and self-executing programs, which increase transparency, reduce operational costs, and increase operational efficiency. Smart contracts eliminate intermediary transaction parties and overcome inadequacies in security, legal, fraud, and censorship ... Saving time and workforce.

Differences in the rating of the importance of applications

The results of the difference analysis show that there exist differences in the assessment of the factor groups "Secured database," "Information sharing," "Auditability," "Smart contract," "Quality control," and "Market forecast" (with significance levels of 0.000; 0.013, 0.019; 0.005 and 0.021 lower than the test value of 0.05 respectively). The results of ANOVA's in-depth analysis indicate that groups of domestic trade & export units (with an average value of about 3.8) tend to value more on the benefits of information sharing and secured databases compared to the rest of the supply chain groups - of farmers, traders, shipping units (the average value assessed is only about 3.1 to 3.4). Assessment of audibility, which is most underestimated by groups - farmers and transport units (the average value falls in the range of 3.2 to 3.4). Regarding Smart contracts and Quality control, the groups of farmers, domestic trade & exporters (with the average rating value falling between 3.6 and 3.7) tend to rate higher than the rest. Evaluating the market forecast, groups of farmers and traders tend to appreciate higher than the rest of the groups (with the average value of the assessment falling between 3.7 and 3.8).

Table 2. One-Way ANOVA Test Results

Blockchain applications	<i>Sig. Levene's test</i>	<i>Sig. (P-value)</i>	Blockchain applications	<i>Sig. Levene's test</i>	<i>Sig. (P-value)</i>
Secured database	0,456	0,000	"Trustless" operation	0,256	0,342
Decentralized database	0,527	0,013	Smart contract	0,466	0,010
Shared database	0,786	0,334	Fewer third parties	0,789	0,864
Anonymity & Privacy	0,655	0,820	Low-cost transaction	0,645	0,124
Immutability & irrevocability	0,229	0,534	Fast settlement	0,312	0,634
Information Availability	0,019	0,315	IT Integration	0,430	0,235
Provenance	0,060	0,155	Product recall	0,260	0,743
Transparent	0,629	0,105	Quality control	0,698	0,005
Auditability	0,000	0,019	Commodity Exchange	0,631	0,231
Traceability	0,209	0,110	Market forecast	0,287	0,021

(Source: Data processing in 2023)

4.2. Modelling blockchain technology applications

4.2.1. The analysis of ISM

Blockchain applications in the agricultural supply chain have been determined based on previous studies combined with surveys from an expert group consisting of experts in the fields of the supply chain, agriculture, and information technology; systems integration experts with a computer science and engineering background with expertise in the blockchain field; senior management from enterprises in the Melaleuca oil supply chain. Through the survey, from the initial 13 applications proposed, the study added seven more applications for research. The identified factors represent an application of this technology to the Melaleuca oil supply chain in Hue.

Based on data collected from units in the supply chain, the relationship matrix between the criteria and the accessibility matrix is shown as follows: (see Table 3, Table 4).

Table 3. Matrix of structural interactions between benefits

	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B
BA	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
's	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	0	9	8	7	6	5	4	3	2	1	0	9	8	7	6	5	4	3	2	1
BA ₁	V	V	A	A	V	X	X	V	V	V	A	V	V	V	X	X	V	X	X	
BA ₂	A	V	A	A	V	A	A	V	A	V	A	V	V	V	V	V	V	V	X	
BA ₃	V	V	V	X	V	V	V	V	V	V	A	A	A	A	V	X	X			
BA ₄	A	V	A	A	A	A	A	X	A	A	A	V	V	V	X	X				
BA ₅	A	V	A	A	A	A	A	V	V	V	V	V	A	A	X					
BA ₆	A	V	A	A	V	V	V	V	V	V	A	A	A	A						
BA ₇	V	V	A	A	A	X	A	A	V	A	V	V	X							
BA ₈	V	V	V	A	A	V	A	V	V	A	V	X								
BA ₉	V	V	V	V	V	V	V	V	V	V	X									
BA	V	V	V	V	V	A	A	A	A	A										

10									
BA									
11	V	V	V	V	A	V	A	V	A
BA									
12	V	V	V	A	A	A	A	A	
BA									
13	A	V	A	A	A	V	V		
BA									
14	V	V	V	A	A	A			
BA									
15	V	V	V	A	A				
BA									
16	V	A	A	A					
BA									
17	X	X	X						
BA									
18	X	X							
BA									
19	X								
BA									
20									

Building a structured interaction matrix based on relationships between applications is designed to gather expert opinions about the relationship between each application and the rest of the applications. The relationship between factor i and factor j is expressed as follows: V: Criterion I will help achieve/lead to criterion j. A: Criterion j will help achieve/lead to criterion i. X: Criteria i and j are interrelated. O: Criteria i and j are not related to each other. The relationships between the applications presented in Table 3 are interpreted as follows:

The application of a "Secured database" (BA1) leads to the achievement of "Anonymity & Privacy" (BA4). So, "V" denotes the relationship between BA1 and BA4. The "Smart Contract" application (BA12) is achieved with the support of the "Trustless" operation (BA11). So, "A" is used to denote the relationship between BA11 and BA12. The "Provenance" (BA7) and "Transparent" (BA8) apps help activate each other. Therefore, "X" denotes the relationship between BA7 and BA8. "O" is used when no relationship exists between selected BAs. In this study, "O" was not meant that all selected BAs were affected or affected by other BAs.

Table 4. Accessibility matrix

BA's	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	Dri vin g Po wer
	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	
	2	1	1	1	1	1	1	1	1	1	1	9	8	7	6	5	4	3	2	1	
BA1	0	1	1	0	1	1	0	1	1	0	1	1	1	1	0	1	0	1	1	14	
BA2	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	1	1	1	1	0	16
BA3	0	0	1	1	1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	17
BA4	0	0	1	1	0	0	1	0	1	0	1	0	1	1	0	1	1	0	1	1	11
BA5	1	0	1	1	1	0	1	0	1	0	1	1	1	1	0	0	0	0	1	0	11
BA6	0	1	1	0	1	1	1	0	1	0	1	0	1	0	1	0	1	0	1	0	11
BA7	0	0	0	1	0	1	0	1	1	0	1	1	0	0	1	0	0	0	0	0	7
BA8	1	1	0	1	1	0	0	1	1	0	1	1	1	1	1	0	0	0	1	1	13
BA9	0	1	1	0	0	0	0	1	0	0	1	1	0	1	0	0	1	0	0	1	8
BA10	0	1	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	1	1	0	7
BA11	1	1	0	1	1	1	0	1	1	0	1	1	1	1	1	0	0	1	0	0	13
BA12	1	1	1	0	0	1	1	0	0	0	1	0	0	1	0	0	0	0	1	0	8
BA13	1	1	1	1	1	1	1	0	1	1	1	1	1	0	0	0	0	0	1	1	14
BA14	0	0	1	0	0	1	1	0	1	1	1	1	1	0	1	1	1	0	0	0	11
BA15	1	1	1	1	0	0	1	0	0	1	0	1	1	0	1	1	0	0	0	0	10
BA16	1	1	1	1	1	1	1	1	0	1	0	1	1	0	0	1	0	1	1	1	15
BA17	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	3
BA18	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	5
BA19	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	2
BA20	0	0	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	4
Dependen ce Power	1	2	5	8	1	1	8	1	8	1	7	1	9	1	1	5	1	1	1	1	200

The relationship between applications in the accessibility matrix (Table 4) can be explained, e.g., the application sharing information (BA3) transparency (BA8) is also ensured and increased reliability, which also supports the execution of smart contracts (BA12) between enterprises in the supply chain. The fact that the database is secure and difficult to forge (BA1) entails the blockchain application's anonymity and privacy (BA4) feature. From the application "Decentralized Database" (BA2) comes the immutability and

irrevocability of data (BA5) as well as the availability of information (BA6). "Provenance" (BA7), "Transparent" (BA8), and "Trustless" operation (BA11) will entail the application of "Smart Contracts" (BA12) to efficient agricultural supply chains. "Fewer third parties" (BA13) will lead to "Low-cost transactions" (BA14) and "Fast settlement" (BA15). "Auditability" (BA9) and "Traceability" (BA10) will help stakeholders manage product recalls (BA17) and better manage product quality (BA18).

4.2.2. DEMATEL analysis

Based on the final approach matrix (Table 4) to calculate DrP and DP values, thereby locating the criterion on the graph (figure 2):

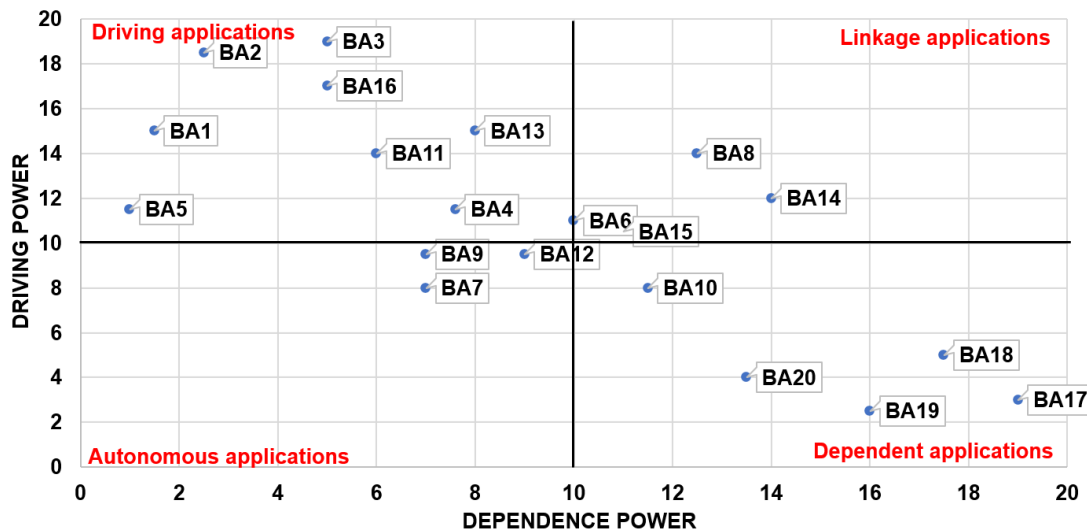


Figure 2. MICMAC analysis

The results of previous studies confirm that applications located in the independent region (with high DrP and low DP) play an important role compared to applications in the other areas. Applications in the autonomous areas have intense DP and DrP and do not promote or affect other applications. Applications in dependencies have low DrP but very high DP and need attention during technology application. Applications in the link area can affect other applications because of the increased uncertainty in practice, which needs to be handled and carefully considered (Firoz & Rajesh, 2014). From the accessibility matrix, the hierarchical model of elements is formed consisting of 3 stages (see Figure 3):

- Stage 1: Focus on core applications to the database
- Stage 2: Focus on basic applications
- Stage 3: Focus on advanced applications

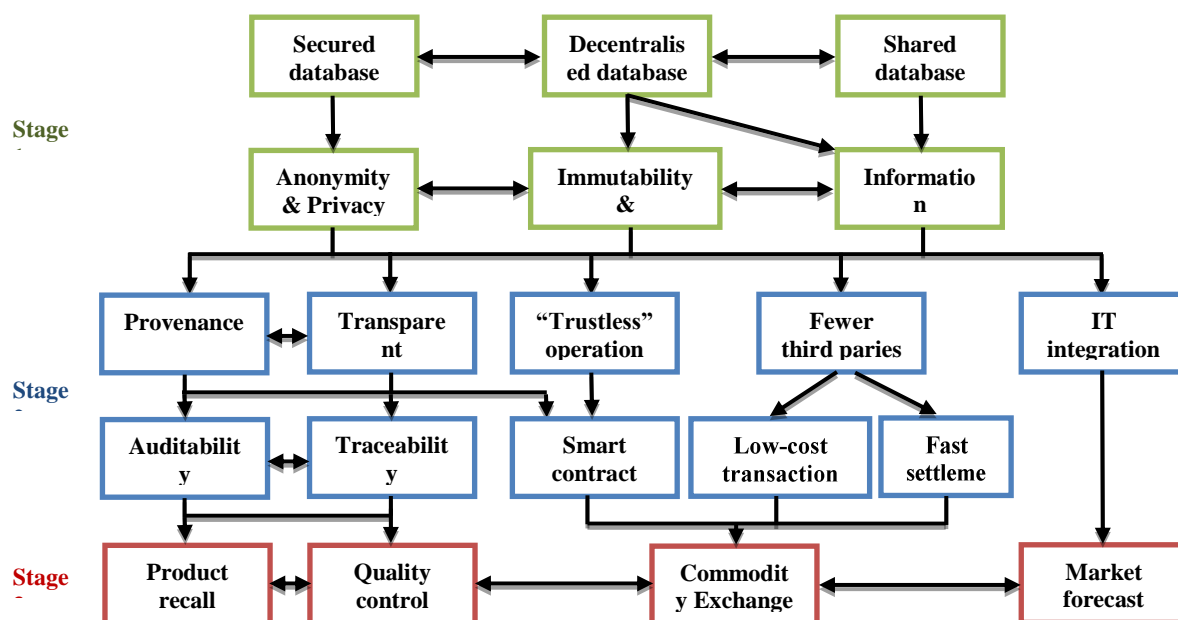


Figure 3. ISM Hierarchy Model

5. Discussion

Based on the results of modeling blockchain applications using ISM and DEMATEL methods, the traceability and quality management of melaleuca oil products is considered the most critical applications. Besides, anonymity and privacy (BA4), provenance (BA7), transparency (BA8), audibility (BA9), and secure databases (BA1) are also assumed to contribute to developing the melaleuca oil supply chain significantly.

According to the results in Figure 2, BA10 (traceability), BA17 (product recall), BA18 (quality control), and BA20 (market forecast) do not affect other applications but are involved in reverse by all other applications. Traceability is identified as the primary BT application in ASC. This is consistent with previous studies showing that product visibility and traceability are difficult in dispersed and geographically disconnected supply chains. With consumers becoming more concerned about the authenticity and legality of the products they buy, ASC is increasingly under pressure to provide them with information about the origin of products (Nakasumi, 2017; Y. Wang et al., 2018). Research shows that traceability as the primary application for BT adoption in ASC receives strong support (Tian, 2016; Y. Wang et al., 2018).

Based on the ISM hierarchy model results in Figure 3, in phase 1, the Decentralized database data, security, and information sharing are factors shown in previous studies that blockchain adoption provides the benefits of decentralization, anonymity, and privacy. Immutable and irrevocable, allowing data integrity (Michelman, 2017). This is consistent with previous studies that have suggested that a secure database is a critical enabler that enables trust between supply chain partners to foster interest in blockchain (Nakasumi, 2017).

In phase 2, the study identified blockchain features such as reducing third-party

unauthenticated transaction intermediaries (Y. Wang et al., 2018; Yuan et al., 2022) to help reduce transaction costs and settlement time. Product provenance and information transparency make audits effective and support product traceability and quality control in the supply chain. The study also shows that implementing smart contracts reduces the number of intermediaries, reducing costs and transaction delays and making the supply chain of goods exchange more efficient.

In phase 3, Product recall, Quality control, Commodity Exchange, and Market Forecast applications are interrelated and advanced applications in BT applications in the Melaleuca oil supply chain. The Quality Control and Product Recall application is driven directly by traceability. Through the traceability system, businesses can quickly detect and promptly handle product problems and help accurately identify and localize problematic products to promptly take action to recall or remove products from the supply chain. Traceability is gradually becoming an effective tool contributing to effective development, goods quality management, and consumer protection.

6. Conclusion

Along with the increasing popularity of blockchain application projects, this technology has shown great potential, helping agricultural supply chains to build agriculture 4.0. This study has made academic and practical contributions by studying Hue's Melaleuca oil supply chain case.

Theoretical contributions

Firstly, this study helps to identify and synthesize potential applications of blockchain technology for the melaleuca oil supply chain in particular and the agricultural supply chain in general. Further research on blockchain in agriculture can refer to this category to select suitable applications for their research content. Secondly, through the application of the ISM-DEMATEL method, the study helps to determine the relationship between the applications of blockchain, classify the applications and propose a detailed roadmap for the application of blockchain in agricultural supply chains. This critical finding helps researchers in the same field visualize blockchain's application. As well as selecting suitable applications at each stage.

Practical contributions

First, the research helps identify the most critical applications to stakeholders in Hue's Melaleuca oil supply chain. This is an essential basis for managers who can choose the appropriate investment level and investment application groups. Second, the study helps outline a roadmap with three specific stages for blockchain application in Hue's Melaleuca oil supply chain. This helps to increase the feasibility of blockchain application projects, in the context of managers' understanding of this new technology is relatively limited.

However, besides the obtained results, the research still has some limitations, such as the identification of 20 applications of blockchain technology in the agricultural supply chain, which is still entirely subjective by experts in Vietnam and implemented in a short

time, there may still be applications that have been ignored. Furthermore, the ISM DEMATEL method is also a subjective assessment from experts and units in the supply chain. Despite the researchers' full attention, the selected experts' personal biases may have influenced the study results. In the future, studies can be conducted to confirm the causal relationships obtained in this study by using empirical research results based on survey methods and the structural equation model (SEM). This will be the premise for further studies in building blockchain technology application models and agricultural supply chains.

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UNDERSTANDING THE EFFECT OF THE CORONAVIRUS PANDEMIC ON FIRM FINANCIAL PERFORMANCE

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Abstract. *In this paper, functional balance sheet approach is used to analyse the financial state of two firms in two different industries: the pharmaceutical and tourism. The aim of the study is to highlight the effect of the coronavirus pandemic on both industries, which are supposed to be the most affected. Accounting data from the financial statements published prior and after the pandemic are used to make the relevant calculations. The results didn't show a direct effect of the Covid-19 pandemic on the activities of the company operating in the pharmaceutical sector. The same is not true for the company in the tourism industry, which has a significant decline of its activity and a deterioration of the studied financial indicators.*

Keywords: *Functional balance sheet, Covid-19, Tourism, Pharmacy.*

JEL: *G30, G32*

HIỆU ỨNG CỦA ĐẠI DỊCH CORONAVIRUS ĐỐI VỚI HIỆU QUẢ TÀI CHÍNH CỦA CÁC DOANH NGHIỆP

Tóm tắt. *Trong bài báo này, phương pháp bảng cân đối chức năng được sử dụng để phân tích tình trạng tài chính của hai doanh nghiệp thuộc hai ngành công nghiệp khác nhau: ngành dược phẩm và ngành du lịch. Mục đích của nghiên cứu là làm nổi bật hiệu ứng của đại dịch coronavirus đối với cả hai ngành, được cho là bị ảnh hưởng nặng nề nhất. Dữ liệu kế toán từ báo cáo tài chính được công bố trước và sau đại dịch được sử dụng để thực hiện các tính toán liên quan. Kết quả không cho thấy ảnh hưởng trực tiếp của đại dịch Covid-19 đối với hoạt động của công ty hoạt động trong ngành dược phẩm. Điều đó không đúng với công ty trong ngành du lịch, có sự suy giảm đáng kể về hoạt động và sự xấu đi của các chỉ số tài chính được nghiên cứu.*

Từ khóa: *Cân đối bảng cân đối chức năng, Covid-19, Du lịch, Dược phẩm.*

1. 1. Introduction

Financial analysis is an important tool for assessing the performance of a business or an organization. To survive firms should be able to adapt to changes of the environment in which they operate. Such as changes in fiscal policy, government regulations, the entry of new players in the firm's industry, the population growth or decrease, natural disasters or pandemic situations.

The Coronavirus pandemic has affected many industries specifically tourism and

pharmacy. According to various analyses and interpretations the leisure industry: including hospitality business, restaurants, air transport is supposed to be the most negatively affected, while the pharmaceutical industry should be the most beneficial of the pandemic.

In this paper, we studied the financial impact of the pandemic on the two industries by using the functional balance sheet method to analyse the financial situation of two leading companies in each industry.

The paper is structured in Motivation and research question, Literature review, methodology, Results and Findings, Discussion and Conclusion, and References.

2. 2. Motivation & research question

The coronavirus has severely changed many business models and many companies have adapted their strategies to reduce its impact. The main objective of this paper is to highlight the effect on the two specific sectors using the functional balance sheet¹ approach in financial analysis.

We used accounting data collected from two companies operating in two relatively impacted economic sectors: the pharmaceutical and tourism industries.

The idea is to understand, how the two main leaders in the industries have been impacted by the pandemic. The main research question is therefore to understand, to which extent the coronavirus covid-19 pandemic has affected the financial health of the businesses.

3. 3. Literature review and concepts clarification

The history of financial analysis has been developing for many years. Beginning from the rough comparison of financial statements and evolving to a more complex process.

The Dictionary of finance and investment terms defines financial analysis as the analysis of the company's financial statements. The term analysis itself is often referred to as detailed examination of the elements or structure of something. Thus, financial analysis aims to investigate in details the different components of the financial statements in order to determine the financial position of a business or organisation.

Financial analysis however is not limited to that. Simple examination of the financial statements cannot be enough to make a definite conclusion about the financial position of the company. As Brealey and Myers (2001) suggest, in order to better interpret the financial state of the company it is essential to compare the various components of the financial reports and analyze their content. Additionally, the changes that occurred in the business over several periods should be examined and the trends outlined. Therefore, the financial statement analysis can be referred to as

1) a study of the relationship between the various financial components of a business, presented in a condensed form by the financial statements and

2) a study of the trends of these components. The former approach is a static analysis reflecting the financial situation at a specific point in time or period. The latter is a dynamic analysis examining the change in this position. Both types of analysis are essential.

Financial analysis uses accounting information to determine and forecast the financial health of the company. One of the tools that can be used is the functional balance sheet. The particularity of the latter consists in using the elements from the balance sheet to calculate indicators, which makes it possible to measure financial performance (Conso and Hemici, 2005).

Unlike the functional balance sheet, the accounting balance sheet is prepared in accordance with the accounting principles and standards. Large companies and generally those that are listed on a stock exchange apply the international accounting standards & International Financial Reporting Standards - IAS/ IFRS. Many authors have studied the particularities of the financial analysis and the IFRS (Piget, 2007; De La Bruslerie, 2006; Danjou, 2012). In the Anglo-Saxon literature, the functional balance sheet is not often used as a tool for financial analysis.

The Anglo-Saxon accounting model is much more oriented towards a shorter payback period for investments than towards long-term perspective of the functional balance sheet, which assumes a logic based on the concepts of resources and their uses (Richard and Collette, 2008; Peyrard, et al., 2006). Therefore, the concept of liquidity balance sheet would fit better into the Anglo-Saxon financial logic.

The results provided by the financial analysis are then used in the preparation and adoption of different solutions. Therefore, a number of interested stakeholders - owners, shareholders, creditors, tax authorities, etc., are using it to access company's performance.

Several authors have underlined the importance of the financial statement analysis.

Graham (1937) suggests that every investor and businessman must be aware of the meanings behind the numbers since the intelligent reading of the financial statements can help taking sound business decisions. He further argues that the success of the business and investment relies on the future development of the enterprise, having in mind that the future cannot be forecasted accurately. However, in order to discover future possibilities, one should be always equipped with the information about the past and present financial situation.

The purpose of financial statement analysis is to provide information about a business unit for decision making purpose and such information need not to be limited to accounting data. Subramanyam (2014) further discusses the way the financial analysis addresses several important questions and can be a sound ground for better understanding and predicting the future of the business. It answers questions about whether the company has enough resources to grow and invest in new projects, what is its future earning power, what are possible challenges it might face. Furthermore, the financial statement analysis of the competing firms may help managers gain better knowledge about their company's position in the industry, their strengths and weaknesses and business operations which need to be further improved. Fridson and Alvarez (2002) see the application of financial statement analysis in different occupations including investment management, corporate finance, commercial lending and the credit extension.

4. Financial analysis tools and the users of the financial information

The most widely used tool of financial analysis is the ratio analysis. The ratio represents a mathematical relation between two quantities. Its calculation is a simple arithmetic operation. Its interpretation, however, is more complex.

A ratio is meaningful only when it refers to an economically important relation. While a good's sales price and its cost are related, no obvious relation could be identified between the freight costs and marketable securities, for instance. The purpose of the ratios, which are a starting point of an analysis not an end point and their usefulness strongly depend on their skillful interpretation. Not only the company's internal activities affect the ratios but also the market conditions, industry characteristics, management policies and the accounting methods used. Thus, it is really important to make an overview of the trends and specifics of the market in which the company operates in order to be more accurate in the ratios' interpretation.

Similarly, to the other techniques used in the financial analysis, ratios are not relevant in isolation. Instead, they are better interpreted by observing them over a period of more years and comparing them with benchmarks or competitors' ratios.

Three broad areas make the financial analysis consistent according to Subramanyam (2014); risk analysis, sources of funds as well as profitability analysis. The profitability analysis focuses on the factors affecting the profitability, identifying main earnings' drivers and evaluating the return on the investments. The evaluation of the profitability margins and the capital utilization turnovers, gives better knowledge about the reasons for changes in the performance and sustainability of revenues.

The risk analysis addresses the questions about the company's liquidity and solvency, which is why it is often evaluated in the context of credit analysis.

4. 5. Limitations of the use of accounting information for financial analysis

A considerable amount of literature has been published on the inconsistent accounting practices and the way they affect the financial analysis. The reported information in the financial statements can deviate from the business reality causing considerable accounting discrepancies. These distortions are due to many factors, including the different accrual accounting standards, the errors in the preparation of the statements, the accountant's choice between relevance and reliability. Each of these factors may have effect on the presentation of the financial statements.

Provided that accounting standards are a result of political processes, different parties can lobby in order to protect their interests. This often results in establishment of standards which do not disclose the most relevant information.

The choice of the reliability instead of relevance in the accounting standards often leads to unrecognizing certain transactions until they prove to be reasonably estimable. An example could be given with the R&D. Although R&D is an investment, Applied accounting standards require it to be recorded as an expense because the return on the R&D is not that certain compared to investments in property and equipment, for instance.

An analyst will be better at reading between the lines when analyzing financial statements (Subramanyam, 2014).

Fridson and Alvarez (2002) further address the importance of analyzing the financial statements with caution. They suggest that financial data could be analyzed using two approaches. The first one being standard, following prescribed steps, which includes calculating financial ratios in a mechanical inflexible manner in order to satisfy the formal requirements of the financial analysis. Yet, this approach will fail to produce meaningful results. The second approach, however, is a more rewarding one, aiming to access the accurate financial performance of the companies since financial statements may conceal more than they reveal.

In today's conditions, when the management faces many problems, the field of application of the creative approach is considerably expanding. Until recently, the creative approach has been associated primarily with research activities and has not been associated with accounting. However, it is now used in the field of accounting as well. Therefore, in the financial analysis of an enterprise, the external analyst should be aware of the possible creative accounting techniques, try to identify them and determine their impact on the information reported.

A generally accepted definition of creative accounting is lacking. Different authors give different definitions, emphasizing various aspects and specifics. One of the most commonly cited definitions of creative accounting is the one of Naser (1993), according to which creative accounting is “the transformation of financial accounting figures from what they actually are into what the compiler wants, taking advantage of the existing rules, or ignoring some of them”.

The purpose of creative accounting is to transform the financial statements so that the company is presented in a better financial position than it actually is. Thus, by using creative accounting techniques, the accountant departs from the principles of true and fair presentation of information by taking advantage of the accounting flexibility.

The term "creative accounting" was first introduced in 1986 by the British business journalist Griffiths. In his book, called *Creative Accounting* he makes the following statement: “Every company in the country is fiddling its profits. Every set of published accounts is based on books which have been gently cooked or completely roasted. The figures which are fed twice a year to the investing public have all been changed in order to protect the guilty. It is the biggest con trick since the Trojan horse. . . In fact, this deception is all in perfectly good taste. It is totally legitimate. It is creative accounting” (Griffiths, 1986).

There are several motives behind the creative accounting behavior. Hepworth (1953) outlines some of the common ones, including the existence of taxes on income and the shareholder's overconfidence in the company's managers.

Niskanen and Keloharju (2000) support this view by further arguing, in a Finnish context, that tax could be an influential motivator. Additionally, creative accounting with the aim of income smoothing can positively affect the security valuation, risk reduction and expectations of the analysts and investors (Beidleman, 1973).

In general, the different parties involved in the creative accounting have different motives. Jones (2011) presents the list of the interested parties including managers, investment analysts, auditors, regulators, shareholders, merchant bankers, suppliers and employees. While some of the parties benefit from the application of creative accounting, others could be significantly harmed.

The managers may try to apply creative accounting techniques in order to present the profit figures that serve their personal interest. Healy (1985) discusses the executive compensation as an influential motivator for managers' earnings manipulations. Moreover, managers may feel the pressure to adjust the earnings to meet the expectations of analysts. This could mislead the users about the current position of the company. Managers would also like to reduce the perception of inconsistency and variability in the company's earnings (Trueman and Titman, 1988)

Despite the limitations of the information provided by financial statements, accounting figures are the most widely used for the analysis of financial situation of a business.

This study is based on the functional perspective analysis of the balance sheet. Consequently, the accounting balance sheets prepared under IFRS were used to obtain functional balance sheets, which made it possible to calculate certain financial indicators.

5. 6. Methodology & Data Collection

Several financial indicators have been calculated to measure the effect of the pandemic. The impact was assessed by the variability of the indicator which can be explained by the constraints related to the pandemic. The main financial indicators used are liquidity, profitability, capital structure and efficiency ratios. The results are presented separately for each company. Accounts published on the websites of the companies and the Sofia Stock Exchange were used. The quarterly results from 2018 to 2020 are compared with each other and then with those for 2019 and 2018, which made it possible to measure the effects of the pandemic.

Both companies are listed on the stock exchange and are required to publish their accounts under IFRS, which facilitated the access to the data.

7. Results and Findings

Measuring liquidity

Table 1. Company A- Operating in tourist industry

Ratios	Quarter 1			Quarter 2			Quarter 3		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
Current ratio	0.47	0.31	0.33	0.52	0.35	0.29	1.53	0.7	0.57
Quick ratio	0.38	0.23	0.25	0.38	0.24	0.2	1.26	0.24	0.43

Source: authors' calculations

We note a relative stability of the liquidity ratios, except in the 3rd quarter 2020 when the ratios increased slightly.

Table 2. Company B- Operating in the pharmaceutical industry

Ratios	Annual Data		Quarter 1		Quarter 2		Quarter 3	
	2018	2019	2019	2020	2019	2020	2019	2020
Current	2.12	1.49	2.12	1.46	1.49	1.81	1.49	1.81
Quick	1.28	0.95	0.95	0.89	0.95	1.18	0.95	1.10

The quarterly data of liquidity is relatively consistent with the annual ratios. A slight improvement can be noted in the 2nd quarter of 2020.

Measuring leverage

Table 3. Company A- Operating in tourist industry

Ratios	Quarter 1			Quarter 2			Quarter 3		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
Total Debt to Total Assets	21%	21%	21%	21%	25%	25%	19%	20%	19%
Debt to Equity	26%	27%	26%	27%	34%	34%	24%	26%	24%
Long-term Debt to Equity	18%	17%	16%	20%	20%	18%	21%	19%	17%
Interest Coverage Ratio	-17.48	-18.92	-20.05	-17.16	-21.42	-25.05	-4.75	11.77	18.7

The debt is relatively constant over the entire period of analysis if we consider the total indebtedness. The coverage ratio highlights the seasonality of the business. The first quarter is a period of low activity. The coverage does not improve until the third quarter.

Table 4. Company B- Operating in the pharmaceutical industry

Ratios	Annual data		Quarter 1		Quarter 2		Quarter 3	
	2018	2019	2019	2020	2019	2020	2019	2020
Total Debt to Total Assets	29%	23%	23%	24%	23%	22%	23%	22%
Debt to Equity	36%	30%	30%	31%	30%	28%	30%	28%
Long-term Debt to Equity	16.7%	4.0%	4.0%	3.2%	4.0%	3.2%	4.0%	3.5%
Interest Coverage Ratio	16	12	39	22	20	4	15	3

Fairly low financial leverage, except in Q2 & Q3 2020 when the interest expense coverage rate is quite low. However, the company generates enough profit to cover the interest.

Measuring Profitability

Table 5. Company A- Operating in tourist industry

Profitability Ratios	Quarter 1			Quarter 2			Quarter 3		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
Return On Equity (ROE)	-1.60%	-1.60%	-1.40%	-2.90%	-2.90%	-2.70%	-0.90%	3.00%	4.00%
EBITDA Return on Assets	-1.20%	-1.30%	-1.10%	-2.30%	-2.35%	-2.05%	-0.70%	2.40%	3.20%

We observe the same trend: low results during the first 2 quarters which improve in the third, except in 2020 when the profitability is negative in the 3rd quarter.

EBITDA return on total assets is negative in quarter 1 and 2, which could be the sign of a very bad activity during that period.

Table 6. Company B- Operating in the pharmaceutical industry

Ratios	Annual data		Quarter 1		Quarter 2		Quarter 3	
	2018	2019	2019	2020	2019	2020	2019	2020
Return On Equity (ROE)	6.81%	7.73%	2.47%	1.64%	4.78%	3.84%	6.41%	4.17%
EBITDA Return on Assets	4.17%	4.55%	1.79%	1.29%	2.50%	2.29%	3.60%	2.85%

The company has relatively stable profitability. However, we note a relative decrease in the first quarter which can be explained by the level of the results.

Efficiency analysis

Table 7. Company A- Operating in tourist industry

Asset management ratios	Quarter 1			Quarter 2			Quarter 3		
	2020	2019	2018	2020	2019	2018	2020	2019	2018
Accounts Receivable Turnover	0.14	0.20	0.19	0.34	1.91	1.95	5.96	6.34	7.58
Accounts Payable Turnover	0.15	0.25	0.28	0.18	1.40	1.40	1.50	2.50	2.41
Total Assets Turnover Ratio	0.0014	0.0017	0.0021	0.0032	0.0283	0.0302	0.0479	0.1473	0.1571

The company is characterized by low turnover of accounts receivable and accounts payable during the first two quarters. The indicators improve from the 3rd quarter.

Table 8. Company B- Operating in the pharmaceutical industry

Ratios	Annual data		Quarter 1		Quarter 2		Quarter 3	
	2018	2019	2019	2020	2019	2020	2019	2020
Average collection period	33	42	46	36	48	56	51	43
Average payment period	44	27	35	47	32	38	30	54
Total Assets Turnover Ratio	0.36	0.35	0.08	0.07	0.15	0.15	0.24	0.21

Asset turnover ratios are 0.36 for the annual data of 2018 and around 0.07 only during the first quarter of 2020.

8. Discussion and conclusion

The results do not lead to the conclusion that the restrictions linked to the Covid-19 pandemic have a direct effect on the activities of the company operating in the pharmaceutical sector. The financial performance indicators studied are relatively stable before and after the first waves of containment. The same is not true for the company in the tourism sector, which saw its activity decline with a deterioration of financial indicators even though the first 2 quarters of the year are not traditionally the best periods of activity for the company and are characterized by a strong seasonality.

The objective of this work is to study the effects of Covid-19 pandemic on the activities of companies in 2 key sectors of the economy: tourism and pharmacy, using a limited number of financial indicators. The results confirm the deterioration of the financial indicators in the tourism sector, while those of the pharmaceutical company seem not to vary too much.

It should nevertheless be noted that the study is carried out on just 2 companies, which might limit the results. It would be interesting to include more companies in the sample and extend the observed period to have more relevant results.

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CORPORATE SOCIAL RESPONSIBILITY ENHANCES FINANCIAL PERFORMANCE: EVIDENCE FROM VIETNAM

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Abstract: *Corporate Social Responsibility (CSR) has been arousing interest from corporations as well as the management board for the worldwide enterprises' strategic development. As top management of the company has integrated positive attitudes, practices, or programs into its business strategy, it is essential to comprehend whether CSR engagement leads to financial profits. The purpose of this study is to examine if CSR practices have a correlation with companies' performance of the twenty Vietnamese firms. Despite a large number of studies on CSR with the sole focus on emerging economies, this concept in the specific Vietnamese market has yet to receive apprehension and qualified research. Therefore, this paper provides a quantitative approach to study the relationship between CSR and financial performance of Vietnamese firms in three distinct sectors: banking, real estate and food manufacturing. Meanwhile, Hexun Evaluation Framework is attained to assess CSR performance constituting five dimensions (Shareholders, Employees, Customers and Suppliers, Environment, Society). The findings show that CSR practices positively contributes to the firms' profitability.*

Keywords: *CSR, financial performance, profitability, Hexun Evaluation Framework, ROA, ROE*

TRÁCH NHIỆM XÃ HỘI CỦA DOANH NGHIỆP TĂNG CƯỜNG HIỆU QUẢ TÀI CHÍNH TẠI CÔNG TY NIÊM YẾT VIỆT NAM

Tóm tắt: *Trách nhiệm xã hội của doanh nghiệp (CSR) đã và đang nhận được sự quan tâm từ các tập đoàn cũng như ban lãnh đạo đối với chiến lược phát triển của các doanh nghiệp trên toàn thế giới. Khi ban lãnh đạo cao nhất của công ty đã tích hợp các thái độ, thực tiễn hoặc chương trình tích cực vào chiến lược kinh doanh của mình, điều cần thiết là phải hiểu liệu việc tham gia CSR có dẫn đến lợi nhuận tài chính hay không. Mục đích của nghiên cứu này dự định kiểm tra các thực tiễn CSR có mối tương quan với hiệu quả hoạt động của các công ty trong số 20 công ty Việt Nam hay không. Mặc dù đã có một số lượng lớn các nghiên cứu về CSR với sự tập trung chủ yếu vào các nền kinh tế mới nổi, nhưng khái niệm này tại thị trường cụ thể của Việt Nam vẫn chưa nhận được sự hiểu biết và nghiên cứu chất lượng. Do đó, bài viết này cung cấp một cách tiếp cận định lượng để nghiên cứu mối quan hệ giữa CSR và hiệu quả tài chính của các doanh nghiệp Việt Nam trong ba lĩnh vực riêng biệt: ngân hàng, bất động sản và sản xuất thực phẩm. Khung đánh giá Hexun được sử dụng để đánh giá hiệu suất CSR cấu thành năm khía cạnh (Cổ đông, Nhân viên, Khách hàng và Nhà cung cấp, Môi trường, Xã hội). Các kết quả cho thấy rằng CSR góp phần tích cực vào lợi nhuận của các công ty.*

Từ khóa: *CSR, hiệu quả tài chính, lợi nhuận, Khung đánh giá Hexun, ROA, ROE*

1. Introduction

The concept of Corporate Social Responsibility (hereinafter CSR) was initially defined in (Bowen, 2013) as “Social responsibility is a commitment of entrepreneurs to seek strategies to make such decisions or carry out such activities, which are desirable in terms of goals and values of our society”. Following that, the concept of CSR has experienced significant development and has been interpreted in a multitude of manners. (McWilliams & Siegel, 2001) defined CSR as an action that seems to promote some social benefit beyond the firm's interests and legal obligations. In 2011, the European Commission redefined CSR to be a more comprehensive concept that centers on the duty and responsibility aspect rather than solely voluntary acts by organizations.

Corporate Social Responsibility (CSR) is now considered as an essential factor for businesses and society. CSR is believed to assist companies in building a positive corporate image and reputation among shareholders and consumers, which could result in economic benefits.

A number of studies have examined the relationship between CSR and firm financial performance. However, the research on whether CSR performance has an impact on firm value has produced inconsistent results. According to (Feldman et al., 1997) companies with excellent environmental performance are perceived as less risky by investors. (Jiao, 2010) discovered that there is a positive correlation between CSR performance and firm value, while (Guenster et al., 2011) argued that there is a positive relationship between environmental performance and firm value. In addition, (Sally et al., 1993) and (Nelling & Webb, 2009) held the opinion that CSR has no impact on corporate performance. However, it is worth noting that the CSR concept has received extensive attention and evidence from companies in developed nations, but this question remains unanswered in developing markets. As a result, it is important to comprehensively examine the correlation between CSR and firm value in both developed and developing nations.

In Vietnam, CSR has gained traction in Vietnam, with multinational companies and government initiatives contributing to increased awareness since the 2000s. (Nguyen et al., 2018) noted that CSR in Vietnam is influenced by individual, organizational, and external social factors, including tradition, governance, and modernity. However, most companies misunderstand the concept, and its implementation faces limitations due to limited resources and awareness. While large multinational companies integrate CSR, small and medium-sized enterprises (SMEs) lack awareness of its benefits. SMEs focus on maximizing profits, neglecting their responsibility to employees, the environment, and the community. Besides, the government lacks regulations, and punishments are not sufficient to prevent violations. Therefore, further investigation into the role of CSR is necessary.

This paper aims to examine the relationship between CSR and financial performance in actual company practice, and to analyze the impact of each individual CSR dimension. The data used in the study is based on 20 Vietnamese companies that are listed on the stock exchange market.

The purpose of the study is summarized in the following research question:

How positive significantly do CSR overall performance and different types of financial indicators affect the firms' profitability?

This paper, therefore, may contribute into the extant body of literature on this topic in 2 ways:

- (1) it focuses on core factors that can provide specific insights for Vietnamese firms
- (2) it constructs a CSR Index for Vietnamese firms using the Hexun Framework from China, which can serve as a reference for Vietnam's corporate governance activities and catch up with modern frameworks.

The paper is structured into six sections. The first section introduces CSR and its background, particularly in Vietnam. The second section reviews the literature on CSR, its development in emerging economies and Vietnam, and the theoretical framework explaining the relationship between CSR and financial performance. The third section presents the methodology used in the study. The fourth section focuses on constructing the CSR index. The fifth section presents the empirical analysis, including regression and discusses the findings. The final section concludes the study, summarizes the findings, and provides recommendations for further research.

2. Literature review

The concept of CSR was first introduced by (Bowen, 2013), who believed that companies should meet all of society's expectations, emphasizing social welfare over profitability. Over time, many other definitions of CSR were proposed by scholars such as Friedman, Jones, Freeman, Wood, McWilliams and Siegel, and Margolis and Walsh.

(Friedman, 1963)'s view is that the social responsibility of a business is solely to increase profits within legal and ethical boundaries, without engaging in deception or fraud. (Freeman, 1984) proposed a stakeholder model as the fundamental concept for the development of CSR, in which groups of stakeholders who are either directly or indirectly influenced by a company's activities are taken into account, and (Jones, 1995) highlighted that determining the appropriate stakeholders is a crucial aspect of the stakeholder model.

(Wood, 1991) argued that the meaning of social responsibility can only be comprehended through the interplay of three principles - legitimacy, public responsibility and managerial discretion, which results in three levels of analysis - institutional, organizational, and individual.

(Margolis & Walsh, 2003) identified nine categories for CSR strategies: charitable contributions, corporate policies, environmental performance, revealed misdeeds, transparency, self-reported social performance, observers' perceptions, third-party audits, and screened mutual funds.

In this paper, CSR is defined as the integration of a company's responsibilities towards economic, employees, customers, suppliers, environment, and society to establish a good relationship with its stakeholders.

Despite numerous CSR studies on developed economies (Max, 1995) (Crane et al., 2019) and international (Matten & Moon, 2004; Xiao, 2005), there is still a lack of understanding and recognition of CSR principles and standards in emerging economies.

The concept of CSR emerged in the 1900s and gained popularity in developed countries, while in Vietnam, CSR is a relatively new concept that is primarily adopted by multinational companies, according to the (Agency, 2015). successful CSR campaigns conducted by Coca-Cola, Microsoft, Qualcomm, Hewlett Packard, etc. and numerous workshops are held are convincing examples of the firm's commitment to be a partner of society in protecting the environment and supporting the local community. However, (Podruzsik, 2018) and (Mai, 2017) pointed out that only large, multinational or export enterprises are mainly involved in CSR in Vietnam, while small and medium-sized enterprises (SMEs) lack understanding of the benefits of CSR. (Xuan, 2014) indicated that there is a dearth for academic and policy literature on CSR in Vietnam.

Based on the extant literature on CSR, it could be observed that the relationship between CSR and firm performance is controversial and inconsistent in different countries, and existing investigations in Vietnam show a gap between awareness and practice, as well as a lack of a standard system to assess performance, which might become an obstacle for CSR and its application in Vietnam.

Based on previous findings, this paper will investigate how CSR performance influences the firm's financial outcomes.

(H) Hypothesis: CSR implementation and financial indicators have a significant positive impact on the firms' financial performance

3. Methodology

3.1. Sample collection

The paper would examine the statistical data from 20 Vietnamese firms over 5 years, from 2016 to 2020. These companies are listed on Vietnam's two largest stock exchanges, namely Ho Chi Minh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX). To guarantee the credibility of the data, annual reports are mainly obtained, besides, finance.vietstock.vn is the information source used as a reliable reference.

3.2. Choosing Variables

3.2.1. Financial performance

To assess financial performance, the most apparent and remarkable factor to indicate how the firm runs efficiently and effectively is profitability performance. In this paper, ROAA (return on assets average) and ROEA (return on equity average) are the two profitability indicators. The formula is given as below

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}}$$

$$ROE = \frac{\text{Net Income}}{\text{Total Equity}}$$

3.2.2. Corporate Social Responsibility Measurement

There are many evaluation frameworks that are applied to measure CSR such as Dow Jones Sustainability Index (DJSI), FTSE4good, Account Ability (AA) Rating, BiTC -

the UK-based Index, Business Ethics 100 - the US-based system, Global Reporting Initiative (GRI).

Addressing the obstacle that Vietnam does not have their own CSR rating system, the study is intended to adopt the Chinese system to calculate the CSR score. In this paper, Hexun Model is chosen to apply thanks to its superior characteristics.

The Hexun rating system (HX) (Yang et al., 2019) is under the management of Hexun Information Technology Limited Company and has several noticeable characteristics. Firstly, the Hexun Model covers a wide range of information and they find alternative information from firms' annual reports and generate the CSR score properly when CSR reports are not necessarily provided. Secondly, the model is designed with three levels. Level 1 indicator system applied stakeholder theory with 5 sub-indicators concluding Shareholder responsibility, Employee responsibility, Supplier, Customer and consumer rights responsibility, Environmental responsibility, and Social responsibility contribution. Following, level 2 comprises 13 indicators and level 3 with 37 indicators. The figure below would describe the whole mechanism. Lastly, the model uses a weighted summation method by assigning weight for three classes of measure and going most detailly in the lowest class. This procedure is accomplished by the Hexun rating staff. For the quantitative data, HX has their own formula system to calculate raw data from annual reports and CSR reports and then finalize the HX overall score, the higher the better. For qualitative data, score 0 and 1 are assigned based on whether the information is disclosed, value 1 means the data is revealed and vice versa.

Generally, the Hexun framework is suitable for the Vietnam economy as it concerns the CSR performance of enterprises while there are few firms in Vietnam producing CSR reports.

3.3. Empirical Model

Hypothesis:

$$L(\text{Financial performance's indicator}) = \beta_0 + \beta_1 * Ln * (\text{Different types of Financial indicators}) + \beta_2 * Ln(\text{CSR})$$

Where:

- Financial performance's indicator represents the measurement of business outcome illustrated above.
- Different types of financial indicators variables represent for each type of firm's indicators as illustrated above.
- Variables with Ln are calculated by the natural logarithm of each variable used.

This study makes log transform of all variables so as to minimize the heteroskedasticity probability. In the later part, the paper will specify which model is appropriate for estimation.

4. CSR Index construction

Hexun CSR score is provided and publicized on Hexun Stock's official website but the data is limited in Chinese listed firms. Therefore, this paper constructs a CSR Index for

Vietnamese firms relating to 3 sectors as Finance and Insurance, Food Manufacturing, Construction and Real Estate subject to Chinese available data.

Firstly, the raw statistics of level 3 indicators are collected and computed based on the source of the annual report. The next section is to convert this raw data into points. The standard formula is private by the Hexun Professional Evaluation System; hence, the research would study the relationship between raw quantitative data and converted points to produce the Index Construction with an estimated result. A list of Chinese firms in 2019 and 2020 is used as a reference source. There are 4561 firms' scores published coming from multiple business industries. Because different industries have different weights on the five items of level 1, there will be corresponding adjustments in the assignment weights to make them more reasonable. Thus, to be consistent with the examined sectors, only data of Banking, Food Manufacturing and Construction and Real Estate are used. The table below shows an example of Chinese Real Estate's some indicators and equivalent points:

	Shareholder Responsibility									
	Profitability									
Firm	ROE	ROEP	ROA	ROAP	PROMB	PROMBP	EPS	EPSP	RE	REP
1	19,8%	2	3,96%	1,01	45,64%	2	0,99	2	3,37	1
1	20,3%	2	4,02%	0,91	42,45%	2	0,91	2	2,91	1
2	18,49%	2	2,22%	0,56	19,08%	2	3,57	2	8,47	1
2	20,67%	2	2,25%	0,51	20,82%	2	3,44	2	8,44	1
3	18,09%	2	2,59%	0,66	24,32%	2	2,30	2	10,52	1
3	18,63%	2	3,01%	0,68	31,25%	2	2,23	2	9,54	1
4	16,86%	2	5,55%	1,41	328,32%	2	1,18	2	3,96	1
4	6,26%	0,82	2,28%	0,52	57,85%	2	0,38	0,88	2,91	1

Table 1: A shortcut of Hexun Evaluation Framework's input and output data

Having imported the Chinese data workbook, the intercept and slope between two untreated materials and their related points. The estimated outcome would be applied to calculate Vietnamese databases.

4.1. Shareholders

Profitability

Some indicators such as Earnings per Share, Retained Earnings per Share relating to currency need rescaling due to different units and the discrepancy in real GDP between two countries to overcome the inaccuracy in generating points. Based on the exchange rate of around VND3,500/CNY and the GDP per capita of Vietnam and Chinese are USD 2,785.72 and USD 10,500.40 respectively in 2020, here the assumption is made for approximate data: CNY 1 would be equivalent to VND 1,000.

Debt paying

There is a note that Quick Ratio, Liquidity Ratio and Cash Ratio of banks receive 0 points.

For the Real Estate industry and Food Manufacturing industry, those indicators are calculated based on intercept and slope.

For the remaining indicators, the rule to assign points is different. With Banking industry, the Asset-Liability ratio is equivalent to 1 point if it is higher than 83%.

With Real Estate and Food Manufacturing industry, the Asset-Liability ratio is equivalent to 1 point if it is higher than 70% and Equity ratio is calculated based on intercept and slope.

Return

There is inconsistency in the Hexun data while obtaining the slope and intercept: the different points happen at the same rate in different companies or different years. Therefore, here makes the assumption: the same rates have the same point. Additionally, Bonus share allocation ratio of profit has the binding on the maximum point of 3, the minimum point of -3 and if the rate is 0, it receives 0 point. Especially, some indicators are unavailable data; therefore, the average numbers estimated from Chinese data would be applied.

Credit

Credit has a total point of 5 (only Number of penalties by the stock exchange is 5 points).

Innovation

No point is assigned.

4.2. Employees

Performance

As a result of the Chinese bank, the per capita income of workers stands at the highest point of 4 for all banks, then making the assumption that it also receives 4 points. It is easily handled and straightforward that people working in the banking industry overall have a high income.

With the Real Estate industry and Food Manufacturing industry, assume that the per capita income of employees receives 3 points and 2 points respectively.

Other indicators are not assigned any points.

Safety and Caring for employees

Both of them are not evaluated, hence, 0 point is given.

4.3. Customer and Supplier, and Environment

These dimensions are also not assessed by Hexun, 0 point is given. Therefore, the same result is applied in 3 sectors for Vietnamese firms.

4.4. Society

Tax

The maximum point for any tax payment rate from 24% and above is 15 points for Vietnamese Banking. In Real Estate industry, the maximum point for any tax payment rate from 23% and above is also 15 points. Meanwhile, with Food Manufacturing firms, the maximum point for any tax payment rate from 22% and above is 10 points.

Otherwise, it is calculated based on slope and intercept.

Donation Amount

As for the case of China, 0 points are given out, assuming the same thing happens for the Vietnamese context.

After calculating each dimension’s points, the total CSR score is computed by summation of total sub-indicators points. This result is the measurement of CSR performance.

4.5. Descriptive statistics of CSR Index

Variable	Mean	Median	Max	Min	Std. Dev.	N
CSR	35.19169	34.74502	38.87741	31.24885	1.746272	100

Table 2: Descriptive statistics of CSR Index

The CSR total score has an average value of 35.19 which is much less than 100. However, it is reasonably consistent with China’s banks, real estate and food industry which have an average score for the banking sector, real estate and food are around 30. With all the scores are 31.25 and above, Vietnamese commercial banks, real estate and food companies are classified as grade D in corporate social responsibility subject to Hexun evaluation ranking. Although the classified group does not rank highly, it is acceptable because even in the country paying high attention to CSR like China, a majority of 3 sectors belong to groups C and D.

5. Empirical analysis

5.1. Descriptive statistics

In the above section, the study illustrated the descriptive information of the CSR Index. Therefore, in this part, only descriptive statistics of Financial Performance variables and Characteristic indicators are highlighted in table 6 in terms of 7 factors including Mean (the average value), Median (the middle value), Maximum (the highest value), Minimum (the lowest value), Std. Dev. (the amount of variation or dispersion), Skewness and N (number of observations).

Table 3: Descriptive statistics of Financial Performances and Financial indicators

Variable	Mean	Median	Max	Min	Std. Dev.	N
<i>Dependent Variable - Financial Performance</i>						
ROA	0.055763	0.024050	0.328900	0.002400	0.072978	100
ROE	0.181411	0.148500	0.490300	0.023200	0.099197	100
<i>Independent Variable</i>						
PM	0.226256	0.226350	0.777200	0.006800	0.120081	100
QR	1.127700	1.070000	3.490000	0.290000	0.486957	100

CR	1.650100	1.100000	10.16000	0.120000	1.655785	100
CAR	0.359100	0.320000	1.430000	0.010000	0.226118	100
SER	0.263760	0.161650	0.775000	0.040600	0.231186	100
ALR	0.736102	0.839950	0.961600	0.225000	0.231090	100
CSR	35.19169	34.74502	38.87741	31.24885	1.746272	100

In the banking sector, ROA records the lowest value from Vietnam Export-Import Bank (EIB) at 0.24% in 2016 and the highest rate of 2.62% is from VP Bank in the most recent year. For real estate companies, the lowest value of ROA is 2.12% in 2017 for Ha Do Group and Vinhomes with the highest value of ROA is 16.71% in 2018. In food companies, the lowest percentage of ROA is 1.16% in 2020 from Masan Group and the highest rate of 32.89% is from Vinamilk in 2016. Overall, the average rate for ROA is 5.58% indicating that three sectors are managing their profitable operation quite well. ROE variable ranges between 2.32% and 49.04% with a mean of 18.14%. Although Vietnam Export-Import Bank (EIB) reaches the minimum of 2.32%, it boosts the performance over time while Bac A Bank performs least efficiently out of 15 banks on average of 9.31%. VPB proves to be the most profitable bank with ROE remaining higher than 21.4%. In the real estate sector, ROE witnessed the lowest value from KDH (8.66% in 2016) and the highest rate of 49.03% in 2018 is from VHM. The third sector is food companies, which experienced the highest proportion from Vinamilk (VNM) at 44.49%.

On the other hand, the PM varies from 0.68% to 77.72% with the maximum value being from the real estate sector. QR variable fluctuates between 0.29 and 3.49 and has a median of 1.07 during the five-year period.

The CR variable observes a range from 0.12 to 10.16 with a mean of 1.65 and among all the variables, CR has the highest amount for standard deviation of 1.66. CAR variable has the highest value of 1.43 with a mean of 0.36. Meanwhile, SER and ALR share nearly the same standard deviation at 0.231 and are also symmetric in skewness.

5.2. Initial Regressions

Fixed effects model (FEM)

Table 4: Summary of Fixed effects model by Eviews output

	Model 1	Model 2
	Log(ROA)	Log(ROE)
LOG(PM)	0.638226*** (0.085391)	0.655363*** (0.088181)
LOG(QR)	-0.070577 (0.103281)	-0.056253 (0.106656)
LOG(CR)	-0.072548 (0.058674)	-0.048457 (0.060591)
LOG(CAR)	-0.017441	-0.005226

	(0.063466)	(0.065539)
LOG(SER)	0.889120** (0.290651)	0.258732 (0.300147)
LOG(ALR)	0.415518 (0.422807)	0.579388 (0.436621)
LOG(CSR)	6.043767** (2.115734)	7.144251*** (2.184859)
LOG(SHR)		
LOG(SR)		
R-squared	0.976074	0.886911

Notes: ***, **, * represent for 1%, 5%, 10% level of significance respectively
Random effects model (REM)

Table 5: Summary of Random effects model by Eviews output

	Model 1	Model 2
	Log(ROA)	Log(ROE)
LOG(PM)	0.459756*** (0.063576)	0.533501*** (0.065512)
LOG(QR)	-0.085972 (0.098867)	-0.068687 (0.102003)
LOG(CR)	-0.096455* (0.050978)	-0.088435* (0.052511)
LOG(CAR)	0.019371 (0.055188)	0.044607 (0.056856)
LOG(SER)	1.122090*** (0.163076)	0.193067 (0.167691)
LOG(ALR)	-0.148939 (0.327046)	-0.146428 (0.336538)
LOG(CSR)	5.402488*** (1.545071)	5.215224*** (1.588803)
R-squared	0.791849	0.588421

Notes: ***, **, * represent for 1%, 5%, 10% level of significance respectively

5.7. Discussion of findings

The foremost intention and destination of this paper are to find out how corporate social responsibility reacts to financial performance. Numerous models have been produced and they undergo several tests to identify which are the most fitted to investigating these relationships under different views but powerful enough. Inspiring from the final models, this chapter will mainly revolve around the discussion of empirical analysis in chapter 5.

The Hausman test and Redundant Test point out that the fixed effects model should be selected. After all, the final empirical regressions can be represented below:

Table 6: Summary of output Eview of final models

	Model 1	Model 2
	Log(ROA)	Log(ROE)
LOG(PM)	0.735331*** (0.063596)	0.607963*** (0.087732)
LOG(QR)		
LOG(SER)	0.437990*** (0.097354)	0.644228* (0.368689)
LOG(ALR)		1.142102** (0.504725)
LOG(CSR)	6.020751*** (1.532148)	2.485086 (2.052318)
AR(1)		0.348485*** (0.131126)
R-squared	0.991533	0.903073

Notes: ***, **, * represent for 1%, 5%, 10% level of significance respectively

CSR Index and Financial Performance

From the investigations, the result suggests that engagement in corporate social responsibility activities will impact a certain level on the firm results. The evidence shows that expectations are met about positive contribution to higher yield. When putting effort into social projects for the sake of stakeholders, there is a potential trigger to the enterprises' profitability. According to the discussion earlier in the literature reviews, there are diverse conclusions on the implementation of CSR. Therefore, it is a good signal for Vietnamese firms to recognize a factor that opens a new path in maximizing the corporations' outcome. When firms decide to dedicate a joint hand to the community's life, the society receives the support financially and mentally and develops its living standards, then returns back value to firms realized in the form of profitability. The enterprises can improve their reputation and awareness among the public through engagement activities; hence, they can attract long-term investment and accumulate source accessibility. However, CSR is a broad aspect containing several contents that weigh differently. To provide a more specific suggestion for firms in three sectors, each component's reaction should be considered.

In terms of the big picture, the investigation also digs into the impact of individual dimensions of CSR. From the results obtained, CSR enhances firms' return, maintaining and taking care of stakeholder welfare delivers financial value to the enterprises. In contrast, the Social dimension, tax expenditure in particular affects the ROA and ROE in a negative way. Although social dimension only weighs a proportion (10%) of the total CSR index, it acts a vital role in the whole picture. Tax payment relates directly to the legal framework, firms cannot decide tax expenditure at will. Thus, a hint for companies is to focus on supporting activities caring for shareholders. For instance, with real estate companies, pay attention to shareholders' returns because the owners of the firms are

seeking for profit. Not only maintaining a reasonable dividend distribution but also maintaining a suitable leverage structure is considered a way to satisfy their shareholders, retain an adequate amount for reinvestment and boost this dimension's performance.

6. Conclusion and recommendations

6.1. Research summary

This research focuses on the relationship between CSR and Financial Performance of the top twenty listed companies in three sectors in Vietnam. The sample is collected during the 2016-2020 period, mostly acquired from annual reports along with credible stock websites.

The input includes 100 observations in total then treated with standard formula and estimated index. Panel regression models were applied to provide statistical evidence.

Overall, Corporate Social Responsibility has a considerable relationship with business performance and the public is increasingly concerned with enterprises' engagement in CSR practices. This study supports that the relationship between CSR and firm performance is positive in the context of three industries in Vietnam.

6.2. Limitations of the study

Limitations are inevitable during this research due to new unpopular concepts, data sampling and analyzing methods.

Firstly, the scope of the sample is quite small. The study only uses a five-year period between 2016 and 2020, representing a short period of time in the panel data regression analysis. Moreover, only three industries are chosen for the sample, creating a bias to represent the whole industry. Besides, reproducing the evaluation system is an obstacle when using Hexun model as the standard framework. Not only the applied framework is just an estimation which cannot guarantee 100% of accuracy but also the weights are assigned based on China context, thus, some adjustments are needed.

6.3. Recommendation and suggestion for further research

The recommendation is considered how research findings are to be used in practice. The poor CSR performance of Vietnamese listed companies provides room for regulatory improvement by the government. Only large corporations are focusing on CSR implementation, small and medium enterprises, which are the majority in Vietnam, are not yet paying attention to CSR. Vietnamese authorities should strengthen their control and supervision of CSR disclosure. Companies must follow the regulations and perform in socially responsible ways under the regulatory environment. Furthermore, the policies of CSR subsidies or tax deductions need to be concerned with governmental authority. The government should provide allowances for CSR investments or release tax-free policies with respect to community developments or charitable donations.

Limitations in this study can be overcome in further research. The later paper should deal with a broader scope and the length of time. Besides, the regression should include the time lag of CSR to assist in more practical significance as the change in business performance may react to CSR's engagement one or a few years later.

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ENVIRONMENTAL DISCLOSURE AND FIRM'S FINANCIAL PERFORMANCE: THE CASE OF FOOD AND BEVERAGE INDUSTRY IN VIETNAM

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Abstract: *This study is carried out to examine the relationship between environmental disclosure and financial performance of companies in the food and beverage industry listed on the Ho Chi Minh and Hanoi stock exchanges, for the period from 2017 to 2021. Using content analysis and General Least Squares, the research reveals that greater environmental disclosure negatively influences the firm's financial performance. Specifically, ROA, ROE and Tobin's Q ratios of firms are used as indicators of financial performance. Firm size and financial leverage are employed as control variables. The research suggests that in this early stage of sustainable development, Vietnamese government should pay more attention to policies that encourage and even force the implementation of various firms' environmental activities and disclosure.*

Keywords: *Environmental disclosure, financial performance, sustainability report, GRI, green finance, food and beverage industry*

CÔNG BỐ THÔNG TIN VỀ HOẠT ĐỘNG MÔI TRƯỜNG VÀ HIỆU SUẤT TÀI CHÍNH CỦA DOANH NGHIỆP: TRƯỜNG HỢP CÁC CÔNG TY THỰC PHẨM VÀ ĐỒ UỐNG VIỆT NAM

Tóm tắt: *Nghiên cứu được thực hiện nhằm xác định mối quan hệ giữa việc công bố thông tin hoạt động môi trường và hiệu suất tài chính của các công ty đại chúng trên sàn giao dịch chứng khoán Hồ Chí Minh và Hà Nội, trong lĩnh vực thực phẩm đồ uống, từ năm 2017 tới năm 2021. Thông qua kết quả phân tích nội dung (content analysis) và GLS (general least squares), nghiên cứu chỉ ra rằng công bố thông tin môi trường có mối quan hệ ngược chiều với hiệu suất tài chính của công ty. Cụ thể, các chỉ số ROA, ROE và Tobin's Q được sử dụng làm thước đo hiệu suất tài chính. Quy mô doanh nghiệp và đòn bẩy tài chính được sử dụng làm biến kiểm soát. Nghiên cứu đề xuất Chính phủ Việt Nam cần có các chính sách bắt buộc cũng như khuyến khích hoạt động liên quan tới môi trường của doanh nghiệp, đặc biệt ở giai đoạn đầu của phát triển bền vững.*

Từ khóa: *Công bố thông tin hoạt động môi trường, hiệu suất tài chính, báo cáo bền vững, GRI, tài chính xanh, công nghiệp thực phẩm và đồ uống*

1. Introduction

In recent years, environmental issues, among other long-term sustainability considerations, have created significant challenges for all nations. As a developing country which pursues economic growth with a natural resource-driven model, Vietnam has also confronted climate change and environmental destructions such as rising sea level, water and air pollution (Le et al., 2022). The problems are even more severe given the fast-growing economy with the increased level of industrial production. Firms are believed to have some accountability in the environmental conditions of the country (Worse & Ngwakwe, 2017), therefore are expected to carry out their business operations in an environmentally responsible manner. Accordingly, environmental compliance must be taken into consideration for implementing corporate strategies and making business decisions to ensure that firms can achieve corporate success while being a socially responsible member of the economy.

Recognising the importance of a green economy, Vietnam's Prime Minister approved the National Green Growth Strategy for 2021-2030, vision to 2050 following the Decision No.1658/QĐ-TTg on the first of October, 2021. Its overall objective is to build a green and carbon-neutral economy that positively contributes to limiting global warming, helping to achieve economic prosperity, environmental sustainability, and social justice. Additionally, the Circular No.155/2015/TTBTC of the Ministry of Finance on the first of January 2016 required listed enterprises to disclose their non-financial information on environmental and social impacts (Ministry of Finance, 2015).

Over the past decade, environmental disclosure has become a trend with increasing reporting requirements by many jurisdictions' governmental bodies (PwC, 2022). In many developed and emerging countries such as Japan, China, Singapore and Malaysia, public listed companies are encouraged to voluntarily report the environment-related factors such as energy consumption, waste emission and impacts on biodiversity. The reporting framework is largely diverse; however, GRI Sustainability Reporting Standards remains the most popular. In Vietnam, the government requires public listed companies to disclose various environmental impacts associated with firms' activities in their annual report (Dinh et al., 2022). In fact, the value of environmental performance disclosure to various market players such as investors and financial analysts via the influence on stock market prices have been suggested in existing literature (Holm & Rikhardsson, 2008).

Engaging in environmentally responsible activities and environmental disclosure involves costs from purchasing environmentally friendly equipment, applying quality control systems to activities related to data collection, communication and audit (Branco & Rodrigues, 2006). Since firms' ultimate goal is to maximize shareholder's wealth, the costs associated with environmental integration are expected to bring value to the companies, mostly in terms of measurable financial returns (Friedman (1962); Jensen (2002)). As a result, the relationship between corporate environmental disclosure (CED) and corporate financial performance (CFP) has been investigated by many studies, both theoretical and empirical focus. The empirical evidence is diverse in terms of direction of the relationship, geographical locations, industry and moderating factors. However, the results of research are still largely inconclusive (Le et al., 2022).

A sector whose operations result in large environmental impacts and therefore is urged to provide environmental disclosure is the consumer goods industry. Consumer goods are mass products for everyday use, including food and beverages, household products and personal care products (Muranko et al., 2021). The industry is considered resource-intensive in which the productions normally require significant use of resources such as land, water, energy as well as create other environmental impacts such as water and waste emissions and changes to biodiversity (Bocken, Harsch and Weissbrod, 2022). With increasing concern over environmental issues by consumers, Vietnamese firms operating in the consumer goods industry are under more pressure to implement environment-friendly business practices as well as provide information about these activities to the public (Nguyen et al., 2019). On the other hand, the environmental factors also in turn affect the companies' management strategies and day-to-day operations.

Given the increasing importance of firms' environmental responsibility as well as heterogeneous conclusions in previous studies about how it may impact firms' business success, this study is carried out to examine the relationship between environmental disclosure and financial performance of firms in the consumer goods industry of Vietnam. It is expected to provide empirical evidence on the interrelation between two factors in an environmentally sensitive industry of an emerging country where both regulations over environmental protection as well as environmental disclosure are still limited.

2. Literature review

2.1. Conceptual backgrounds

There are several opposing schools of thought that drive relationships between corporate financial performance and non-financial performance such as environmental and social activities.

Stakeholder theory

According to this theory's founder - Freeman, a business can be seen as a set of relationships between all related parties who have stake in its operations, including customers, suppliers, employees, investors, bondholders, etc. (Freeman, 1984). The managers' job is to manage these interactions in a way that maximizes stakeholder's values. Additionally, Freeman presented a method for managing the relationships between a company and its stakeholders. This has served as the cornerstone of in-depth research on corporate governance and corporate social responsibility (CSR). According to this viewpoint, it is anticipated that environmental performance and disclosure made by businesses will enhance their financial performance.

The resources-based view

Under the resources-based view, environmentally and socially responsible activities can improve managers' capability, increase firm's reputation, enhance relationships with stakeholders and better attract qualified employees (Branco & Rodrigues, 2006). The resources-based view, thus, suggests a positive relationship between environmental performance and disclosure and firms' financial performance.

Trade-off theory

Trade-off situations are described as "compromise situations where a sacrifice is made in one area to obtain benefits in another" (Byggeth & Hochschorner, 2006). This theory contends that simultaneous achievements of the economic, environmental, and social aspects are impossible. Therefore, it is suggested that environmental performance and financial performance cannot be satisfied at the same time.

Slack resources theory

The slack resources approach suggests that 'firms with considerable financial, managerial, and/or technical resources are more responsive to stakeholder pressures than their peers with limited slack resources' (Waddock and Graves, 1997). Slack resources can be in the forms of financial resources, experienced managerial and technical staff and advanced technologies. As firms have ample slack resources, they can focus more on long-term issues such as improving corporate sustainability performance rather than short-term performance focus such as improving efficiency (Xiao, 2018).

2.2. Environmental disclosure frameworks

Environmental performance has been a major issue confronted by firms for a long time and environmental disclosure is therefore under corporations' important consideration beside reporting about financial performance and position (Wiseman, 1982). The need for high quality disclosure is even increasing recently since the impacts of climate change and other environmental problems become more evident. Moreover, investors and broader stakeholders also demand sustainability information, including environmental disclosure, to be reported by firms in a globally consistent framework (PwC, 2022). Unfortunately, no single framework can serve as a basis for uniformly reporting environmental matters; therefore, the environmental disclosure by corporations remains principally voluntary.

Frameworks for reporting information about environmental performance are largely diverse. An increasing number of international organizations have put effort into developing standards and guidelines for sustainable reporting in general and environmental disclosure in specific. Some outstanding organizations and frameworks can be named, GRI (Global Reporting Initiative) Sustainability Reporting Standards, United Nation Sustainable Development Goals, Task Force on Climate-Related Financial Disclosures (TCFD), etc. (PwC, 2022). The criteria for each framework are different ranging from multiple pillars such as GRI - reporting on environmental, social and governance practices (ESG) of firms or single pillar such as TCFD - reporting on climate-related financial information. The requirements for firms' reporting of environmental matters vary among countries. In general, there is no regulation on which framework must be adopted for reporting; instead, companies are encouraged to follow globally accepted standards and frameworks.

Among internationally recognized environmental disclosure frameworks, GRI standards are reported to be the most popular one used by firms over the world (PwC, 2022). Founded in 1997, The Global Reporting Initiative (GRI) was a joint initiative of Coalition for Environmentally Responsible Economies, a US non-government organization

and the United Nations Environmental Program whose objective is to create a globally accepted reporting framework for sustainability reporting (GRI, 2002). The first version of GRI Sustainability Reporting Guidelines was launched in 2000 that follows 11 principles to ensure that sustainability reports demonstrate a balanced view of economic, environmental and social performance to facilitate over-time and across-organization comparison (Clarkson et al., 2007). These guidelines were then refined in 2016 to become the first global standards of sustainability reporting with a multi-stakeholder perspective. The comprehensiveness and pioneering nature of GRI Standards has explained the widespread adoption of the frameworks in the corporate community (Brammer and Pavelin, 2008).

2.3 Empirical studies on the relationship between environmental disclosure and firm's financial performance

A large number of research studies have been conducted in the context of the relationship between environmental performance or disclosure and disclosure and corporate financial performance, notably, corporate governance and corporate social responsibility. According to some researchers, the most important issue which affect the potential of a firm's performance is environmental information (Clarkson, Li, Richardson and Vasvari, 2008). Therefore, it is crucial for managers to understand the impact of EPD on CFP for the decision-making improvement. However, the existing imperial works on this matter have shown mixed results.

The majority of recent studies found a positive correlation between CED and CFP (Aggarwal, 2022). In particular, the study of Weber and counterparts (2008) study the sample of 100 companies across 19 countries in the period 2001-2004, using multiple linear regression analysis, shows positive relationship between CED (GRI scores) and accounting performance (ROA, ROE, EBITDA). A group of researcher leading by Pham (2021) investigated influence of sustainability practices on the financial performance of 116 listed Swedish companies in the year 2019. The study concludes that firms which report environmental practice have better financial performance (earning yield, ROA, ROA, ROCE) than those that do not. This result has been supported by many other researchers (Mohammad Rakiv et al., 2019; Berthelot et al., 2012; Konar and Cohen, 2001; Nakao et al., 2007; Hu, Chang, Dong, Meng & Hao, 2018). This positive relationship could be explained by the influence EPD on company reputation, competitive advantage, there by improve their financial performance (Oti & Mbu-ogar, 2018). Furthermore, applying green strategies through recycling, waste reduction, pollution prevention - oriented could help firms to reduce unnecessary cost and avoid penalties, hence improve the profitability (Wagner, 2005).

Contradictory to above findings, some of imperial works show negative correlation between CED and CFP. Chang, Kai (2015) studied this topic over 13 heavy pollution industries in China. The inverse relation is confirmed again when environmental performance, presented by GRI indicator, is negatively related with Tobin's Q value. A research by Wasara and Ganda (2019) in South Africa also shows that environmental disclosure has a negative impact on return on investment. This might be due to the fact that

environmental practice required more investment on production system, for example on pollution prevention or end-of-pipe, hence lower profitability (Sarkis and Cordeiro, 2001).

Even though the correlation between CED and CFP is proved in many academic works, some researchers believe that any relationship between environmental disclosure as a pillar of sustainability report and company's financial performance is insignificant (McWilliams & Siegel, 2000). Freedman and Jaggi (1982) disclosed that there is no significant association between environmental disclosure and six accounting ratios used to measure economic performance. Similarly, González-Benito and González-Benito (2005) in their research over 186 industrial Spanish companies found that even environmental practice has positive impact on operational and market performance, it has no significant relationship with financial performance. This finding is aligned with previous works of Shariful et al., (2009) and Malarvizhi & Matta (2016).

The discrepant findings from academic research have raised concern over the complexity of the relation between sustainability information and firm performance. For instance, Nor and partners (2016) find mixed results when examining annual report of the top 100 of market capitalization in Malaysia for the year 2011. The analysis shows that environment disclosure could benefit the profit margin, but creates no significant impact on ROA, ROE and EPS. In other research by Adediran & Alade (2013) in Nigeria, environmental practice found to be negatively related to ROCE and EPS while it is positively related to Net Profit Margin and Dividend Per Share. This complexity is explained by timing impact in study of Connelly and Limpaphayom (2004). This study analyzed a unique data set from CED and CFP including more than 200 public companies in Thailand during the preceding 12 months. The empirical results suggest that disclosure of good environmental policies does not negatively affect short-term profitability as green practices could lead to reduction in company's profit due to environmental cost. The impact of disclosing green practice on company performance also varies among countries. In 2007, a sample of non-financial firm including 248 companies from French, 308 from German, 118 from Canada from 1992 to 1998, was collected by Cormier and Magnan (2007). When a moderating impact of environmental reporting on stock market valuation of German firm's earnings, no significant results founded in Canadian and French market.

Several studies investigate the relationship between CED and CFP while considering moderating factors like innovation, risk management, operational efficiency (Atz et al., 2022); geographic international diversification and financial slack (Duque & Caracuel, 2021); CEO's tenure - in months (Triyani et al, 2020); competitive advantage (Mohammad and Wasiuzzaman, 2021), governance mechanisms such as ownership concentration, board size and board diversity (Albitar et al., 2019). At the same time, many studies employ control variables such as firm size (using number of natural logarithms of total asset), economy, industry type (Alshehhi et al., 2018), leverage (Debt to Equity ratio) (Triyani et al, 2020), board independence, firm's growth, profitability, liquidity, operating cash flow (Mohammad, 2021) to control the effect of variables on the dependent and independent variables.

In Vietnam, research on the relationship between environmental performance

disclosure and firm financial performance is still novel. The researchers mainly focus on corporate governance (CG) and environmental information as an inseparable component of corporate social responsibility (CSR) studies. For example, in a paper published on Industry and trade magazine, Pham and Duong (2022) employed generalized least squares model to study 1520 observation of 304 listed companies in period of 2016 - 2020 and found a positive impact of environment reporting on ROE. Another paper, written by Yekini & Ho (2014) on a sample of 20 Vietnamese companies for 3 years, shows modest relationship between CSR and firm financial performance. The study Nguyen and colleagues (2021), covering four areas of CSR using a data set consisted of 119 observations over 5 years, on a sample of Vietnamese commercial bank, suggests negative relationship between Environmental disclosure and financial performance, particularly, ROAA and ROEA. On the other hand, Tran and colleagues (2019) conducted an analysis of 244 listed companies over the period of 2013 - 2017 showing that environmental disclosure is an important factor of firm's long - term strategy as well as its financial performance. These research papers will shed light for future studies on environmental performance disclosure.

From the above literature review, we develop the following hypothesis: Disclosures of environmental performance (CED) will have positive impact on firms' financial performance (CFP).

For the summary of empirical studies on the relationship between environmental practice and financial performance, please see **Appendix 1** (link at the end of the paper).

3. Research methodology

3.1. Measurement of variables

Environmental disclosure measures

The review of existing empirical literature presents two main themes in measuring firms' environmental disclosure. The first group of studies make use of environmental disclosure ratings provided by specialized rating institutions such as Bloomberg Sustainability, Sustainability Asset Management Group (SAM), ASSET4 by Thomson Reuters, and Kinder Lydenberg Domini & Co. (KLD) by MSCI (Machmuddah and Wardhani, 2019). Ratings developed by these independent rating agencies are considered a reliably available source of data and have been used widely in a large number of empirical researches, these rating systems are only applicable to companies in developed countries (Le et al., 2022).

Another method adopted by many researchers in this field and also in this research paper is content analysis. This method is commonly used in analyzing published information which involves "making inferences by objectively and systematically identifying specified characteristics of messages" (Holsti, 1969). Content analysis has been adopted widely in social and environmental reporting research (Jose and Lee, 2016). Sustainability reports and annual reports of firms are normally used in analyzing content related to environmental disclosure (Guthrie and Abeysekera, 2006). The environmental indexes can be constructed from internationally recognized reporting frameworks and

standards, and may range from 0 to a specific score with a higher score showing higher level of environmental disclosure (Liu et al., 2011). This method is suitable for studies in developing countries where there is no rating system available. Various measures are used in indexing procedure to generate rating for environmental disclosure, such as level of waste emissions (Hart and Ahuja, 1996; Hughes, 2000; King and Lenox, 2001; Al-Tuwaijri et al., 2004), pollution index (Mahapatra, 1984; Jaggi and Freedman, 1992; Cormier et al., 1993) and Toxic Release Inventory Data (Stanwick and Stanwick, 1998; Konar and Cohen, 2001). These measures may be useful but are not as comprehensive as GRI Standards. In fact, an increasing number of empirical studies choose environmental reporting aspects promoted by GRI as the basis for constructing an environmental disclosure index used in investigation (Clarkson et al., 2007; Jose and Lee, 2007; Taskin, 2015; Matuszaka and Rozanskaa, 2017).

Financial performance measures

There are two main financial performance measures: market-value ratios and book-value ratios. Book-value indicators used in this research are Return on Assets (ROA) and Return on Equity (ROE). ROA is the most popular accounting measure, with ROE becoming the second most-used measure in asserting the impact of corporate sustainability on firm's financial performance (Alshehhi et al., 2018). Because ROA is composed using book value, it is not affected by the changes in the firm's market value and can be employed to compare financial performance among firms and of a single firm over time. Additionally, a common market-based ratio used in many different researches is Tobin's Q. This measure is better at reflecting market expectations about the firm's future value and hence may show the time effect of environmental disclosure on corporate financial performance.

3.2. Sample selection and data collection

The research sample consists of top 20 companies by asset size (2022) in the food and beverage (F&B) industry listed on Ho Chi Minh and Hanoi stock exchange, for the period from 2017 to 2021. Data was categorized as balanced panel data with 100 observations in total. Data is collected from companies' sustainability reports and annual reports that are published on firms' official websites. Financial ratios including ROA, ROE, Tobin's Q and Debt-to-total-asset ratios are calculated using data extracted from companies' financial statements. The companies' market capitalisations are calculated using stock prices taken from vietstock.vn website which is a reliable source of financial information on the stock market.

Environmental Disclosure Scores (ES) will be calculated using content analysis method. Information collected is in accordance with GRI standards with 26 environmental criteria for disclosure. Environmental indexes under GRI are separated into 8 main categories: materials (3), energy (5), Water and Effluents (5), Biodiversity (4), Emissions (7), Waste (5), Environmental Compliance (1), Supplier Environmental Assessment (2). The Environmental Disclosure Score for one firm will be calculated as follows: assigning each item being reported, in the firm's annual reports and sustainability report, with score "1", items not being reported will be scored "0". The equally weighted sum of all will be

the firm's Environmental disclosure score (ES). The maximum score for ES is 26 and the minimum score is 0.

3.3 Econometric models

The panel regression analysis using EViews 12 will be employed to examine the relationship between Environmental Disclosure Scores (ES) and financial performance of firms (ROA, ROE and Tobin's Q). Besides, control variables are added into the models to moderate the effects of other explanatory variables on the dependent variable (firm's financial performance). Control variables used are firm size (natural logarithm of total asset: LOG(BVTA)) and leverage ratio (DTA: Debt-to-total-asset ratio). Regression models are built as follows:

$$\text{Model 1: } ROA_{it} = \alpha + \beta_1 ES_{it} + \beta_2 LOG(BVTA)_{it} + \beta_3 DTA + \epsilon_{it}$$

$$\text{Model 2: } ROE_{it} = \alpha + \beta_1 ES_{it} + \beta_2 LOG(BVTA)_{it} + \beta_3 DTA + \epsilon_{it}$$

$$\text{Model 3: } TBQ_{it} = \alpha + \beta_1 ES_{it} + \beta_2 LOG(BVTA)_{it} + \beta_3 DTA + \epsilon_{it}$$

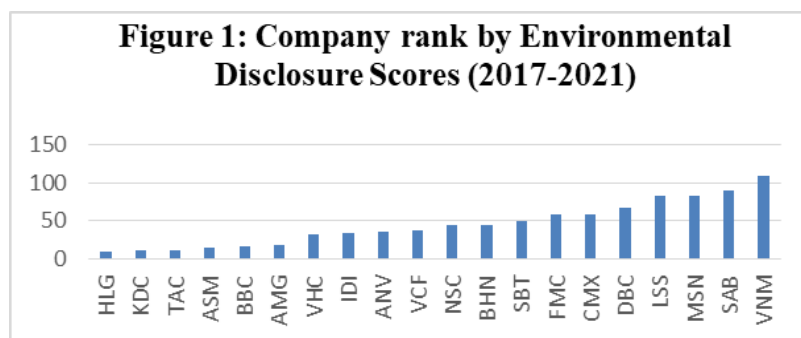
We run three types of estimations for each model above: POLS (Panel Ordinary Least Square), FEM (Fixed Effect Model), and REM (Random Effect Model) to choose the most appropriate regression method for each. Below is the summary of variables used in this research:

Table 1: Summary of variables

Acronyms	Description	Measurement
ROA	Return on assets	$\frac{\text{Net profit after tax}}{\text{Total assets}}$
ROE	Return on equity	$\frac{\text{Net profit after tax}}{\text{Total equity capital}}$
TBQ	Tobin's Q	$\frac{\text{Market value of firm}}{\text{Book value of firm}}$
LOG(BVTA)	Total assets	natural logarithm of total assets
DTA	Leverage (Debt to Total Assets)	$\frac{\text{Total liabilities}}{\text{Total assets}}$
ES	Environmental disclosure score	1 point for disclosure and 0 point for non-disclosure items.

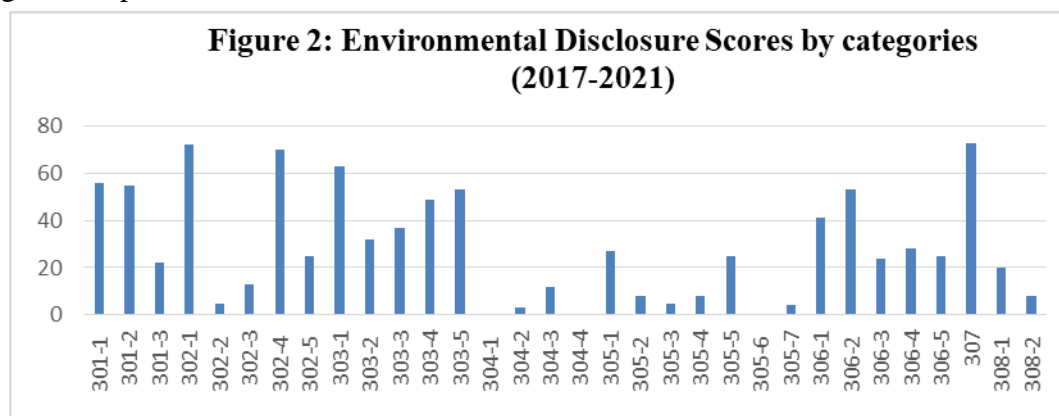
(Source: Developed by authors)

3.4. Descriptive statistics



(Source: Developed by authors)

Figure 1 above presents the descriptive statistics of environmental disclosure scores (ES) of our sample companies during the period of 2017-2021. With the maximum points for disclosure being 26 points, Vinamilk Corporation possessed the highest score of 22 points on an annual average (108 in total for the period 2017-2021), whereas Hoang Long Group only disclosed 2 items on average of 5 years which is the lowest level of disclosure among all companies.



(Source: Developed by authors)

Most of our sample companies disclosed that they followed the related environmental laws and regulations (G307). However, they tended to disclose information on categories like water and effluents (G303), energy (G302) and waste (G306). While Biodiversity (G304) and Supplier Environment assessment (G308) categories recorded the lowest level of disclosure (see figure 2).

Table 2: Descriptive statistics of variables

	ES	ROA	ROE	TBQ	DTA	LOG(BVTA)
Mean	9.09	8.91%	17.27%	1.69562	0.47892	29.32
Median	8.5	6.40%	13.51%	1.17545	0.46448	29.23
Maximum	24	33.81%	58.35%	9.04399	0.91857	32.47
Minimum	0	0%	0%	0.45599	0.22501	27.04
Std. Dev.	0.07711	0.12938	1.593602	6.16621	0.16396	1.29

(Source: Developed by authors)

Table 3 above presents the descriptive statistics of variables in our models. The average environmental disclosure score of our sample companies is 9 points, which is very low compared to the full disclosure score of 26 points. The highest level of disclosure is 24 and the lowest score is 0 which means there are companies that do not publish any information related to environmental practices. In terms of ROA, the maximum value of ROA is 33.81%, the minimum value is 0%, and the mean value is 8.91% showing significant difference in financial performance among companies in the sample. However, all firms are profitable during the period 2017-2021. Similar results are reached when

observing ROE. For Tobin's Q, the average TBQ is 1.696 ranging from 0.46 to 9.04 meaning that the market value of firms is greater than their book values in general.

Debt-total-asset ratio and firm size are used as control variables in our CFP-CED models. The average of DTA on our sample is 47.89% with the range of 0.22 to 0.91, showing high variety in the leverage level of firms. Regarding the firm size, the average firm size is 29.32 varying from 27.04 to 32.47.

Table 3: Correlation matrix and results of multi-collinearity test using VIF

	ROA	ROE	TBQ	ES	LOGBVT A	DTA	VIF
ROA	1.0000						
ROE	0.8042** *	1.0000					
TBQ	0.6731** *	0.4939** *	1.0000				
ES	0.3112** *	0.1944*	0.5034** *	1.0000			1.134 1
LOGBVT A	0.14326	0.00586	0.4511** *	0.4774** *	1.0000		1.187 8
DTA	- 0.4575** *	0.04200	- 0.3542** *	- 0.2335**	-0.03888	1.000 0	1.292 5

*/**/***: correlation is significant at 10%, 5%, 1% level

(Source: Authors' calculation using EViews 12)

The correlation matrix above is used to examine the correlation between variables. As can be seen in table 4, the results show that ES is positively and significantly correlated with ROA, ROE, TBQ and LOG(BVTA). However, it shows a negative relationship between ES and DTA. Hence, this result suggests that there is a positive relationship between level of environmental disclosure and financial performance of firms and that the environmental disclosure is positively related to the firm size but negatively related to the firms' financial leverage.

Overall, the correlation matrix shows no value higher than 0.8 of variables included in the same model (ROA, ROE and TBQ are used in separate models). This could imply no multi-collinearity problem which then is confirmed using Variation Inflation Factors (VIF) test. All the VIF factors of independent variables are less than 2 which indicates no severe multi-collinearity.

3.5. Research design

To test whether good environmental practices lead to better financial performance we run POLS, FEM and REM estimations for the three models above. We choose the FEM for all 3 equations based on the Redundant fixed effect likelihood ratio test and Random effect Hausman test. The R-squared and adjusted R-squared for FEM regressions are also the highest of all three models (see table 5).

Table 4: Goodness-of-fit results of POLS, FEM and REM regressions for three models

	POLS			FEM			REM		
R-squared	0.2543	0.0573	0.3811	0.8444	0.7480	0.8644	0.1634	0.0693	0.0367
Adjusted R-squared	0.2310	0.0278	0.3617	0.79998	0.6760	0.8257	0.1373	0.0402	0.0066

(Source: Authors' calculation using EViews 12)

Later, we check for heteroscedasticity using Park test and autocorrelation using Durbin Watson (DW) test and AR(1) and AR(2) tests. The results show that first-order autocorrelation exists in TBQ regression but does not exist in ROA and ROE models (DW statistics are closed to 2). Heteroscedasticity is presented in all three models. In ROA and ROE equations, DTA is correlated to the log squared of the residual, whereas in TBQ equation the log squared of the residual is correlated to ES and Log(BVTA).

To correct the heteroscedasticity problem in three models, we chose to use the General Least Squared (GLS) method to run three equations and add lagged dependent variable TBQ(-1) to the TBQ model to correct autocorrelation. GLS is especially suitable for fitting linear models on data sets that exhibit heteroscedasticity (i.e., non-constant variance) and/or auto-correlation. Real world data sets often exhibit these characteristics making GLS a very useful alternative to OLS estimation (Bai et al., 2021). We then ran three equations using GLS regression method (cross-section weights) and test of errors and omitted variables (using Wald - Coefficient Restriction and Omitted Variable Test) were conducted.

3.6 Results and discussion

The final models are shown in the table below:

Table 5: Estimation results of GLS regression for three models

	ROA	ROE	TBQ
ES	-0.003014***	-0.003571**	-0.00244***
Log(BVTA)		-0.072009**	0.11971**
DTA	-0.132655***	0.150853**	0.70986***
TBQ(-1)			0.4686**
F-test	28.18838	38.49961	66.77629
R-squared	0.883574	0.916666	0.964821
Adjusted R-squared	0.852229	0.892856	0.950372
Durbin Watson test	1.783948	1.796694	1.929205
*/**/***: significant at 10%, 5%, 1% level			

(Source: Authors' calculation using Eviews 12)

The results show that all three regression models are highly statistically significant and have high explanatory power. As shown in table 6, the coefficients of the ES variable indicates that the disclosure of environmental performance is significantly negatively related to all three financial performance measures as p-values are all smaller than 1% for

ROA and TBQ models and smaller than 5% for ROE model. It means that better environmental disclosure practices actually lead to poorer financial performance of the firm. However, the coefficient of ES variable is small indicating that a large increase in environmental disclosure scores leads to only a small negative change in the ROA, ROE and Tobin's Q. In terms of control variables, the larger the size of the companies ($\log(\text{BVTA})$), the lower the ROE but higher Tobin's Q and higher leverage negatively influences ROA but positively influences the ROE and TBQ (all statistically significant).

Overall, the findings show that environmental disclosure scores have significantly negative correlation with a firm's performance, regardless of which performance measures we use (ROA, ROE or Tobin's Q). This is consistent with the trade-off theory, as firms probably have to incur additional costs to comply with disclosure requirements. However, it is in opposition with the majority of studies. An explanation by Ruan & Liu (2021) is that in the initial stage of ESG activities, performance of the firms may decline as ESG activities may bring the firms greater cost burdens, as they have to invest in energy saving, emission reduction and convert from obsolete technology to clean technology, etc. And because the institutional environment of emerging market countries is generally weak and investor protection is low, to ensure a good degree of trust with investors, these enterprises need to invest more in short term such as hiring external auditors, adding independent directors or strengthening information disclosure which affect the firms' performance in the short term. The results of negative relationship between environmental dimension score of the ESG practice and financial performance were also found in other studies on emerging markets such as the studies by Chang, Kai (2015) in China, Tafadzwa et al. (2019) in South Africa, Sarkis and Cordeiro (2001) in the US.

The primary reason for this negative relationship put forward by different authors is the stage of the capital market development determined by two factors: information asymmetry and input costs. In developed countries, the negative externality stage of the impact of ESG activities on enterprises had passed and the information effects of ESG activities had been fully brought into play whereas in emerging country like Vietnam companies face strong negative externalities and greater cost pressures and therefore performance may be weakened by environmental disclosure practices. Furthermore, the popularity of ESG disclosure has grown rapidly only in recent years with the main driving force being the government regulatory authorities and firms still face high cost of disclosing information. The disclosure of environmental following internationally recognised frameworks such as GRI are merely encouraged by authorities but is not a requirement. We believe that the inverse relationship between environmental disclosure practice and financial performance may continue for some time and when the effect of initial costs is weakened, the more information disclosure will lead to an increase performance of the firm in the later stages.

Another explanation may be because of the time period chosen for the sample from 2017 to 2021. In the period from 2019 to 2021, the world and Vietnam are largely affected by the Covid-19 epidemic. Businesses have faced lots of difficulties in production and sales during this period, especially in the food and beverage industry. This is in support of

slack resources theory. The epidemic reduces firm's resources and which reduces the company's willingness to invest in voluntary activities including environmental activities. Therefore, better environmental practices and disclosures may lead to lower financial performance.

4. Conclusion

This paper examines the relationship between environmental disclosure and financial performance under the control of firm size and financial leverage. Using the sample of 20 companies in F&B industry in the period 2017-2021 and General Least Squares estimation of balanced panel data, the research reveals that greater environmental disclosure negatively influences the firm's financial performance, specifically, ROA, ROE and Tobin's Q ratios of firms. This may be due to the fact that Vietnam is at the initial stage of sustainable development and ESG activities may bring firms greater cost burdens. Another reason may be time-biasness when the period chosen covers Covid-19 pandemic period. It is important to note that, as the environmental performance of firms is hard to be verified, environmental disclosure is used instead of environmental performance in the analysis. Therefore, the actual effect of environmental activities on the financial performance of firms is not yet determined.

The research suggests that in this early stage of sustainable development, since environmental practices and disclosures are costly to the businesses, Vietnamese government should pay more attention to methods of encouraging and may be forcing the implementation of various firms' environmental activities. This can be done through new laws and regulations on environmental practices and disclosure requirements or through impact investing that encourages investors to invest in good-sustainability-practice companies.

Some research limitations must be acknowledged. Due to the employment of content analysis which requires considerable tasks and time to be done and also time limitations, the sample size for the research is relatively small, only 100 observations. This sample is also not selected based on random method as authors chose top 20 companies by asset size in the F&B industry. This is because top companies are assumed to disclose more and give more useful information.

Lastly, this paper also sheds light for future research on sustainability. Further relationship between all the sustainable segments - ESG (environmental, social and governance) disclosures and firm's financial performance can be examined. The study proposes future inspection of the CED-CFP relationship between two distinct periods: before Covid-19 and after Covid-19 outbreak or between period of economic contraction and growth.

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For the complete list of references, visit link:

21. <https://drive.google.com/file/d/1GObphn-hDp-O3DTX3AyykWY0-sX1FoC7/view?usp=sharing>

Appendix

- 22 <https://drive.google.com/file/d/1GcbpwHfsIAfGD0JHXIF2GK8NB6RxVWCi/view?usp=sharing>

THE ANTECEDENTS OF VOLUNTARY EMPLOYEE GREEN BEHAVIOURS IN WORKPLACE: A SYSTEMATIC REVIEW APPROACH

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Abstract: *Although the literature on voluntary employee green behaviour (VEGB) has gained increasing attention, there still exists a notable gap in research regarding the antecedents of VEGB. As a result, this study aims to conduct a systematic literature review on the Scopus database, utilizing a multilevel perspective in the workplace context to investigate the antecedents of VEGB. Only English empirical publications on VEGB were included after the raw data had been archived and filtered. The study examines the methodological approach used in empirical studies, including targeted sample, location, and four fundamental theoretical frameworks, as well as categorizing primary antecedents on VEGB at five different levels, including industrial, organizational, leader, team, and individual. Lastly, the study provides practical implications for emerging economies like Vietnam.*

Keywords: *Employee green behaviour, voluntary, VEGB, green economy, systematic review*

PHÂN TÍCH CÁC YẾU TỐ THỨC ĐẨY HÀNH VI XANH TỰ NGUYỆN CỦA NHÂN VIÊN NƠI CÔNG SỞ BẰNG PHƯƠNG PHÁP TỔNG QUAN HỆ THỐNG

Tóm tắt: *Mặc dù hành vi xanh tự nguyện của nhân viên (VEGB) đã thu hút sự chú ý ngày càng tăng của cộng đồng nghiên cứu, tuy nhiên, vẫn còn tồn tại một khoảng trống đáng kể trong nghiên cứu về các yếu tố thúc đẩy VEGB. Vì vậy, nghiên cứu này được thực hiện nhằm mục đích đánh giá tổng quan về các yếu tố thúc đẩy VEGB trong bối cảnh nơi làm việc, sử dụng phương pháp đánh giá hệ thống từ cơ sở dữ liệu Scopus với cách tiếp cận đa cấp độ. Nghiên cứu chỉ tập trung vào các bài báo thực nghiệm bằng tiếng Anh, dữ liệu được lưu trữ và lọc để tìm hiểu về phương pháp tiếp cận thực nghiệm, bao gồm mẫu mục tiêu, địa điểm và bốn khung lý thuyết cơ bản. Nghiên cứu cũng phân loại các tiền đề chính về VEGB ở năm cấp độ khác nhau, bao gồm cấp ngành, tổ chức, lãnh đạo, nhóm và cá nhân. Cuối cùng, nghiên cứu cung cấp những giải pháp thực tiễn cho các nền kinh tế mới nổi như Việt Nam nhằm thúc đẩy VEGB của nhân viên.*

Từ khoá: *Hành vi xanh tự nguyện, nhân viên, VEGB, kinh tế xanh, tổng quan hệ thống*

1. Introduction and Literature review

In recent years, increased awareness of the impending dangers posed by climate change has motivated the worldwide scientific community, organizational leaders, and experts to work proactively to enhance environmental stewardship and responsibility (Karman & Savanevičienė, 2020; Unsworth et al., 2021) Scholars in the fields of

management and organisations focus on different ‘green’ practices and behaviours that promote environmentally sustainable organizations such as governments’ laws and regulations (Ählström & Sjöström, 2005; Hoejmose et al., 2012), industrial standards (Gilbert et al., 2011), community expectations (Shahzad et al., 2022), and organizational attitudes, policy, facilities (Young et al., 2015).

According to Zaid (2018), Norton et al. (2015), and Yuriev and Sierra-Barón (2020), employee participation is a vital aspect in promoting environmental and financial sustainability in organizations. Employee green behaviour (EGB) refers to the actions and behaviours of employees that can either enhance or hinder environmental sustainability (Saifulina et al., 2021). Yuriev and Sierra-Barón (2020) note that employee participation is a crucial factor in supporting sustainability efforts in organizations, both in terms of environmental and financial sustainability.

Scholars distinguish between two types of employee behaviour regarding the environment. The first is behaviour that is in line with the tasks assigned in their official job descriptions, known as task-EGB, as described by Ones and Dilchert (2012). The second type is voluntary behaviour for the environment. Voluntary employee green behaviour (VEGB) or organisational citizenship behaviour (OCBE) in the workplace refers to behaviours that are not formally mandated or expected by an organization, and are not specifically outlined in an employee's job duties or requirements (Lülfes & Hahn, 2013). This form of conduct can be viewed as a combination of personal interest and concern for others, encompassing the environment, other individuals, and future generations (Bamberg & Möser, 2007). Some VEGB can be described as the direct engagement in managing companies toward sustainability goals (Raineri & Paillé, 2016), green initiatives (suggesting and developing sustainable innovations), green support (promoting and guiding colleagues toward green behaviours) and green participation (proactively engaging environmental activities) (Wu et al., 2019). Most of the efforts made by organizations to become environmentally friendly depend heavily on the voluntary involvement of their employees.

Given its role in promoting a green workplace, scholars have sought to investigate the antecedents of EGB. Preliminary research in this field suggested that antecedents are present at different levels. Norton et al (2015) suggested that at the industry level, EGB can be predicted from external factors such as regulation, industrial standards, and cognitive-cultural sources. At the organisational level predictors are perceptions of corporate social responsibility, green organisational climate, and green human resource management (De Roeck & Farooq, 2018; Magill et al., 2020). Green advocacy has been found to be important at the team level (Kim et al., 2017) while individual traits such as moral reflectiveness, pro-environmental values and attitudes, and affect (intrinsic) are also important. Motivation and commitment at the individual level have also been found to predict EGB (Magill et al., 2020; Tian et al., 2020).

While research on the antecedents of EGB is not novel, there is currently no systematic understanding of the existing literature on VEGB. Previous systematic reviews or meta-analyses on employee green behaviour-related topics have primarily focused on EGB as a whole, assuming that VEGB follows a similar pattern. Moreover, there is a lack

of research that focuses specifically on Asian countries. Therefore, the objective of this project is to make a valuable contribution to the existing literature by conducting a systematic review focusing specifically on VEGB in the workplace. The outcome of this review will also enable us to provide relevant recommendations for Asian regions based on the findings.

The following three research questions guided this review:

RQ1: Which theoretical perspectives were employed in empirical studies examining employees' voluntary green behaviour?

RQ2: What methodological approaches were employed in empirical studies to investigate the antecedents of employees' voluntary green behaviour?

RQ3: How were the antecedents of voluntary employee green behaviour characterized in the reviewed empirical studies?

To address these research questions, we outline our systematic literature review methodology, present a summary and discussion of our findings, and conclude with implications for future research on voluntary employee green behaviour, both in theory and practice.

2. Methodology

A systematic literature review is a valuable tool for researchers to reduce bias by following a systematic process for selecting studies to review. As noted by Bickman and Rog (2009), this process typically involves four steps: formulating clear research questions, establishing a precise search protocol, applying critical reasoning to determine which studies to include, and synthesizing the findings to generate new knowledge.

Search process

This SLR aims to explore the factors that influence employees' voluntary environmentally-friendly behaviour at work. To ensure a thorough and high-quality review, the study utilized Elsevier's Scopus database, which is widely recognized as a reputable and comprehensive academic resource (Çağlayan Akay et al., 2022, Baas et al., 2020) The search query included primary keywords "Green Employee Behaviour", "Voluntary", "Work" and their synonyms. This review was limited to English-language articles resulting in 116 search outcomes.

Screening

From the initial 116 publications, we applied the following inclusion to narrow down our selection.

Inclusion criteria

1. The article's abstract contained keywords related to VEGB, and its primary objective was to examine the factors influencing VEGB in the workplace at various levels.

2. The article targeted employees as participants. our goal was to examine the factors influencing employee behaviour, specifically in the workplace, thus, it was important to select participants who had work experience.

3. The article must use empirical research. This enables us to draw evidence-based conclusions and provide recommendations for future research, theory development, and practice.

Following the aforementioned inclusion criteria, we identified 64 articles to include in our dataset.

Using the inclusion criteria mentioned above, we identified 64 articles that met our requirements for the dataset. The SLR process is summarized in Figure 1.

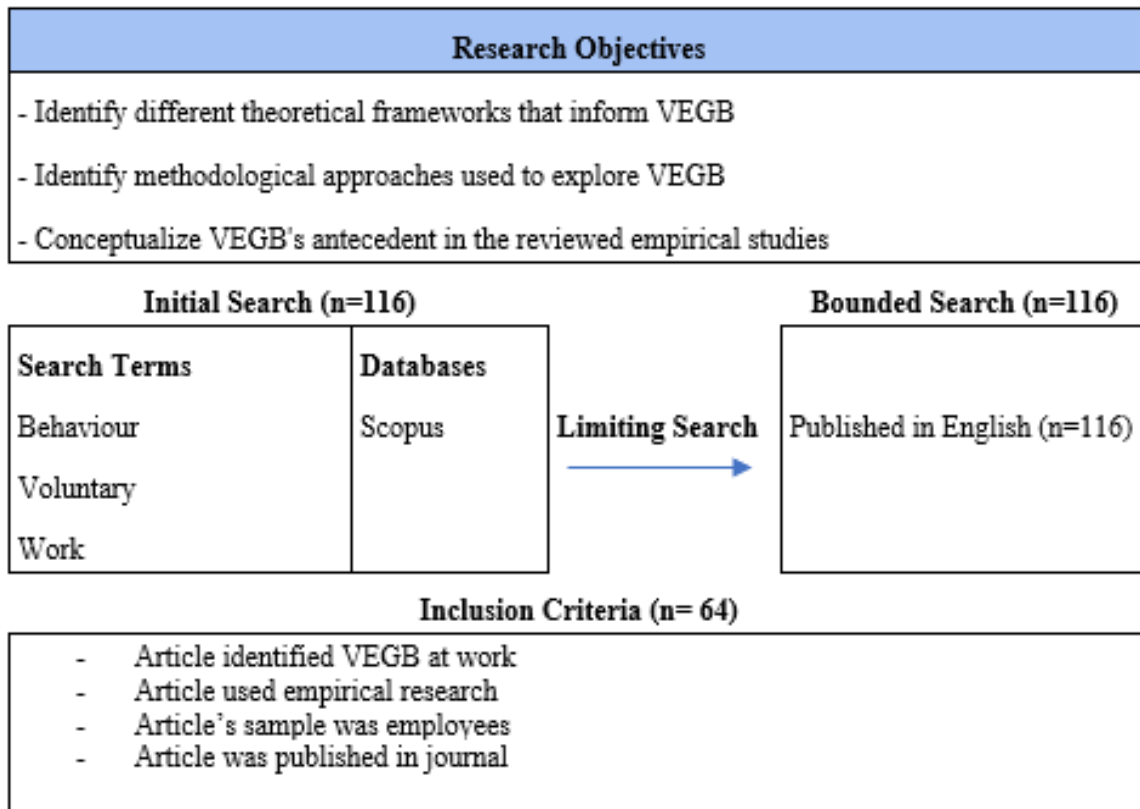


Figure 1. SLR process

Data management

We utilized (Garrard, 2014) matrix to sort the articles from our initial search by various key features, including the title, year of publication, authorship, study purpose, study result, research design, participant selection, and methodology. Based on the matrix, we determined which articles to include in the final review while considering the exclusion criteria listed above. The first column of the matrix indicated our final decision on whether to include the article, denoted by "yes" or "no."

Data analysis

After selecting the final 64 studies, we created a new matrix for analysing and reporting our findings related to the research questions. This new matrix included additional columns for the country of origin, theoretical framework, employees' behaviours, and key findings related to the antecedent of VEGB. The column for the

theoretical framework addressed the first research question, while the research design, participant selection, and methodology columns informed the second research question. To address question three, the key findings related to the antecedents of VEGB and employee behaviour will be classified into five groups: industry, organization, leadership, team, and individual level.

3. Findings

In this section, we will begin by presenting a summary of the theoretical frameworks that have been utilized to examine VEGB. This will be followed by an overview of the methodological approaches employed in the studies. Lastly, we will utilize the framework proposed by Norton et al. (2015) to categorize VEGB into five distinct levels: industrial, organizational, leader, team, and individual levels.

3.1 Guiding framework

In the process of reviewing 64 papers, it was found that the four most cited theoretical frameworks were used to investigate the antecedents of VEGB in the workplace. These frameworks provide valuable insights into how organizational, leader and individual factors influence VEGB.

Theory of planned behaviour

Theory of Planned Behaviour (Ajzen, 1985) links attitudes, norms, and control to behaviour. Shah and Soomro (2022) and Khalid et al. (2022) found that personal factors such as environmental awareness and values directly influence green behaviour intention in the workplace, emphasizing the need to consider individual beliefs and values for promoting sustainability.

Social exchange theory

When individuals perceive that their leaders and organizations prioritize their well-being and demonstrate care, they are more likely to feel a sense of duty to reciprocate positive actions. The significance of interactions, particularly the reciprocal relationship between individual and external entities, such as leaders or groups, is emphasized (Homans, 1958). (Biswas et al., 2021; Elshaer et al., 2022; Pham et al., 2018) confirmed that if employees receive support, they are more inclined to participate in VEGB practices.

Social learning theory

Social learning theory proposes that learning occurs in a social setting, where individuals observe and imitate the actions of others. The theory emphasizes the role of cognitive mechanisms such as efficacy expectation and outcome expectation in the learning process (Bandura, 1977). (Abbas et al., 2021; Althnayan et al., 2022; Shao et al., 2022) suggest that leaders influence their subordinates' green behaviour by serving as green role models and by enhancing their green self-efficacy, rather than solely relying on influencing behaviour by example.

Self-determination theory

Self-determination theory (Deci, 1985) is a psychological theory that focuses on the

motivation behind human behaviour and the factors that contribute to personal growth and well-being. Zhu et al. (2021) confirmed that GHRM has the potential to influence employees' judgment criteria and behavioural motivations towards environmental issues, leading to an increase in their environmental belief (EB) and encouraging them to engage in VGB practices.

3.2 Methodological approaches

This section will discuss the methodological approaches employed in the reviewed studies, highlighting the research design, participant selection, and contextual factors.

Research design

All 64 studies reviewed in this article were quantitative and relied exclusively on web-based surveys to collect data on VEGB. The studies commonly employed three scales to measure VEGB: those developed by Kim et al. (2017), Bissing-Olson et al. (2013), and Boiral et al. (2015).

Pham et al. (2019) were the only ones who utilized a mixed method in their study. They employed a case study approach, conducting in-depth interviews, to explore the reasons behind organizations' adoption of GHRM practices and their effects on OCBE.

Out of the 64 studies reviewed, seven employed a longitudinal design to track changes in participants' attitudes and behaviours over time. To avoid bias, all studies utilized a time-lagged research design with varying time frames. In particular, Khalid et al. (2022) and Ye et al. (2022) conducted longitudinal studies with two rounds of data collection, similar to other researchers. In addition, in Time 3, supervisors of participating employees completed a questionnaire to assess required and voluntary green behaviours demonstrated by their subordinates in the workplace. This approach provided a more comprehensive understanding of the effectiveness of interventions aimed at promoting environmentally sustainable behaviours and allowed for the evaluation of the long-term impact of these interventions.

Participants

All participants in the papers reviewed were employees, as the focus of the studies was solely on green behaviours in the workplace. Employees work in different industries and have different years of experience. Islam et al. (2021) used executive MBA students from Pakistan to overcome potential barriers such as difficulty in obtaining permission from managers and employees feeling uncomfortable discussing their workplace. The researchers also aimed to examine ethical leadership, which can be better predicted by employees with longer working experience with their supervisors. Seven studies in this review also surveyed leaders to test the effect of leader-subordinate relationships on VEGB. Shao et al. (2022) focused on gender differences and found that male leaders have a stronger direct effect on employee green behaviour, while female leaders have a significant sequential mediation effect by serving as role models, increasing self-efficacy, and ultimately leading to behavioural change among subordinates. Table 1 summarized the number of participants in this review paper.

Participants are Leaders		Participants are Employees	
Number of research	7	Number of research	62
Min - Max	70 - 1200	Min -Max	82 - 1605
Average	290	Average	388

Table 1: Total number of participants

Context

The studies reviewed offered global insights across various industries into VEGB. (Jiang et al., 2022) conducted research in five countries, namely Austria, Brazil, China, Germany, and India. Most studies concentrated on Asian countries, including China (12 studies), Pakistan (9 studies), and Bangladesh (4 studies), with only one author (Pham et al., 2018) studying Vietnam in two studies. Temminck et al. (2015) and Lamm et al. (2013) lack clear contextual information in their studies.

Out of 64 studies, the manufacturing industry, specifically the automobile and textile sectors, was the focus of 23 studies, while the service and hospitality industries were examined in 18 and 15 studies, respectively. However, there were 14 studies for which the context was unclear.

3.3 Antecedents of VEGB

This section offered an explanation of the factors that influence voluntary environmental green behaviour (VEGB) in the workplace, categorized into five levels: industrial, organisational, leader, team and individual levels.

Industrial level

Norton et al. (2015) suggest that external factors such as laws, regulations, and industry standards can predict VEGB. However, none of the 64 papers examined the direct impact of these external pressures on VEGB. Instead, most of these external pressures influence VEGB indirectly through organisational policies or leaders' behaviours acting as mediators.

Organisation level

As demonstrated in Table 2, Organisational climate plays a crucial role in influencing VEGB.

A green organisational climate that promotes a positive organizational image and values employees' green efforts is motivating for employees and has a direct impact on VEGB, mediated by organisational identification (Zafar et al., 2022). Pham et al. (2018) also highlight the importance of establishing a green organisational culture by creating a clear green strategy through the company's vision/mission and the managerial level's green support, focusing on environmentally-oriented priorities, and encouraging employee participation in eco-activities at work.

Numerous studies have focused on analysing the contextual factors of

organizational climate, such as organizational policies and green practices. Environmental policies and practices implemented by organizations, including green HRM practices (such as training, compensation, reward, recruitment and selection, and performance management (Amrutha & Geetha, 2021; Chaudhary, 2019; Pham et al., 2018; Shah & Soomro, 2022) corporate environmental strategy (Biswas et al., 2021; Das et al., 2019), and general green practices (such as environmentally friendly projects) (Al-Amin et al., 2021; Alshebami, 2021), have a significant direct impact on VEGB. Elshaer et al. (2022) suggested that such policies and practices should be clearly defined, free of ambiguity, and confidently communicated to encourage VEGB among employees.

Organisation level	Authors	Country	Context	Result
Organisation climate	Shah and Soomro (2022) and Chaudhary (2019) and Pham et al. (2019) and Amrutha and Geetha (2021)	Pakistan, India, Vietnam	Manufacturing Hospitality Service	Positive of green HRM
	Elshaer et al. (2022)	Egypt	Hospitality	Obstacles in initiating green programs reduce VEGB
	Al-Amin et al. (2021) and Alshebami (2021)	Bangladesh, Saudi Arabia	Manufacturing Service	Positive of environmentally friendly projects
	Biswas et al. (2021) and Das et al. (2019)	Bangladesh	Manufacturing	Positive of corporate environmental strategy
	Zafar et al. (2022) Pham et al. (2018) Saifulina et al. (2022)	Poland Vietnam Ecuador and Kazakhstan	Manufacturing Hospitality Service	Positive of organisation climate

Table 2: Antecedents of VEGB at Organisation level

Leader level

The reviewed articles demonstrate the impact of leaders' behaviour on VEGB, both through direct and indirect means. Employees can learn and imitate leaders' behaviour through observation. Leaders are often seen as role models due to their higher status and power, and employees may intentionally mimic their behaviour to appear similar and get closer to them. Additionally, leaders' green behaviour signals to employees that such behaviour is important and expected in the workplace. This learning can occur either through intuitive observation or through motivated imitation (Kim et al., 2017; Shao et al., 2022; Wu et al., 2021). According to multiple studies, servant, transformational, and ethical leadership are three leadership styles that significantly impact VEGB, with green organizational climate or organizational identity as a mediator. However, Azhar and Yang (2021) found no evidence of a relationship between transformational leadership and green employee behaviour in their research. Table 3 presents a summary of the main findings regarding antecedents of VEGB at the leader level.

Leader level	Authors	Country	Context	Result
Leaders' behaviour	Shao et al. (2022)	China	Service	Positive with green role model influence and green self-efficacy
	Wu et al. (2021)	China	Hospitality	Positive with environmental self-identity
	Kim et al. (2017)	South Korea	Manufacturing and Service	Positive, direct
Servant leadership	Zafar et al. (2022) Ying et al. (2020)	Pakistan	Manufacturing	Positive with Green organizational climate, Psychological Empowerment and Organizational Identity
Transformational leadership	Azhar and Yang (2021)	USA	No specific context	No influence
	Althnayan et al. (2022) Robertson and Carleton (2017)	Saudi Arabia Caucasus	Manufacturing	Positive with Environmental Organizational Citizenship Behavior
	Gurmani et al. (2021)	Pakistan	Hospitality	Positive with perceived meaningful work
Ethical leadership	Dey et al. (2022)	Bangladesh	No specific context	Positive, with mediating roles of ethical climate
	Islam et al. (2021)	Pakistan	No specific context	Positive, direct and with HRM

Table 3: Antecedents of VEGB at Leader level*Team level*

At the team level, college attitudes, norms, and behaviours can have an impact on VEGB. Jiang et al. (2022) indicated that work team green advocacy involves discussing the importance of environmental sustainability, sharing information, and encouraging eco-friendly behaviour. Peers communicate the importance of environmental sensitivity through direct influence and persistent advocacy. The norm for eco-friendly behaviour is clear, making it easier for individuals to approach VEGB in such teams. According to Zhang et al. (2022), when co-workers attribute moral motives to employees exhibiting VEGB, they are more likely to perceive higher warmth and competence, which can inspire them to adopt similar behaviours. This, in turn, reinforces social support for the VEGB actors and increases the likelihood of further adoption of pro-environmental behaviours in the workplace.

Individual level

Table 4 provides a summary of individual-level factors that can serve as predictors of VEGB. Personal norms strongly predict volunteering for pro-environmental behaviour. Moral norms are linked to behaviours such as energy conservation, recycling, and pro-

environmental buying. Personal predispositions greatly impact voluntary behaviour, suggesting that individuals who display pro-environmental behaviour outside of work are likely to do so in the workplace (Al Zaidi et al., 2023). Autonomous motivation can impact voluntary EGB. Employees with autonomous motivation are interested in certain activities and find EGB meaningful, which may lead to their engagement in green behaviours and voluntary EGB (Budzanowska-Drzewiecka & Tutko, 2021; Tian et al., 2020). Green attitude significantly impacts voluntary employee green behaviours through green intentions, as it triggers behavioural intentions that lead to actions (Al Zaidi et al., 2023; Khalid et al., 2022; Testa et al., 2018). Environmental concern is an individual's awareness and attitude towards environmental threats. It is linked to ecologically friendly behaviour and drives workplace behaviour. Saifulina et al. (2022) and Temminck et al. (2015) confirmed that environmental concern drives participation in pro-environmental behaviour in the workplace and benefits voluntary behaviour at home and work. Out of the 64 studies reviewed, only one explored the impact of individual traits on VEGB. The results of this study suggest that the connection between personality and voluntary green behaviour in the workplace can be attributed to the intentional process of moral reflectiveness, which has a positive correlation with conscientiousness. (Kim et al., 2017).

Antecedents at individual level	Authors	Country	Context	Result
Personal norms	Al Zaidi et al. (2023)	Abu Dhabi, United Arab Emirates	No specific context	Positive with personal moral norms
employee motivation	Tian et al. (2020)	China	Service	Autonomous motivation positively mediates the relationship
	Budzanowska-Drzewiecka and Tutko (2021)	Poland	No specific context	Positive with Organizational identification as mediator
attitude	Al Zaidi et al. (2023) and Khalid et al. (2022) and Testa et al. (2018)	Abu Dhabi, United Arab Emirate Pakistan	No specific context Hospitality	Positive with employee green attitude
	Tian et al. (2020)	China	Service	Positive with controlled and autonomous motivations as mediator
environmental concern and awareness	Saifulina et al. (2022)	Kazakhstan and Ecuador	Service	positive with personal environmental awareness, environmental concern
	Temminck et al. (2015)	Not mentioned	Service	employees' concern for their environment and OCBE
individual traits	Kim et al. (2017)	South Korea	Manufacturing and Service	Positive with conscientiousness

Table 4: Antecedents of VEGB at Individual level

4. Discussion, implications and conclusion

This systematic review examines voluntary employee green behaviour by analysing major guiding frameworks and various methodological aspects of previous studies. The review highlights the most cited and fundamental frameworks, including the Theory of Planned Behaviour (Ajzen, 1985), Social Exchange Theory (Homans, 1958), Social Learning Theory (Bandura, 1977), and Self-Determination Theory (Deci, 1985). The study shows that quantitative methods, particularly online surveys, are extensively used, with only one exception using a mixed approach. However, nearly 90% of the research uses cross-sectional analysis, indicating a need for a more detailed longitudinal perspective. Additionally, it is noteworthy that only one study included research across five different countries, highlighting the need for further exploration to identify potential differences or variations in employee antecedents across different countries.

Demographic information such as job title, gender, and industry are the primary indicators used in studies. A significant number of authors have chosen to study Pakistan as their research context due to the challenges faced by the country's manufacturing sector, particularly the automobile industry, concerning global demand, cost minimization, and environmental concerns. The rise in the middle-class population and demand for vehicles has led to alarming levels of environmental pollution, including indoor and industrial pollution, increased traffic, and the severe impact of road transport on public health. This highlights the need for further research on this topic in a Vietnamese setting, given the country's similar phase of economic growth (Cai & Le, 2023)

The review identifies a gap in the literature regarding the influence of institutional factors on voluntary employee green behaviour (VEGB). While many studies discuss how industry standards pressure organizations to adopt environmentally sustainable practices, such as providing resources, incentives, and promoting organizational-level behaviour, few studies explore how institutional factors at the industry level, such as market demand, laws, or industrial policies, trickle down to influence VEGB. Further research is needed to investigate the impact of these institutional factors on VEGB.

Moreover, the review highlights the influence of personality traits on voluntary employee green behaviours. It is striking to note that only one study in this review has examined the relationship between employees' personality traits and VEGB (Kim et al., 2014). Therefore, future research can explore how various personality traits affect VEGB and how these traits interact with other job factors, such as job complexity, to trigger VEGB.

Overall, the field of voluntary employee green behaviour is expanding and increasingly relevant in the 21st century, with environmental sustainability playing a critical role in the survival of businesses. However, there is still considerable potential for further development in the field given the limited overall output and a small number of influential publications.

5. Limitations and suggestions for further studies

While conducting our study, we faced certain limitations such as using only Scopus as the primary source and excluding non-English publications. Additionally, the systematic

review method, although time-saving, may hinder the analysis of complex quantitative information. To address these limitations, future research could incorporate bibliometrics and science mapping analysis, perform longitudinal studies, and focus on empirical studies in emerging economies such as Vietnam.

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FACTORS AFFECTING SELECTION OF CONTAINER SHIPPING BY INLAND WATERWAYS IN NORTHERN VIETNAM

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Abstract: *This study aims to determine the criteria affecting the selection of container shipping by inland waterways in Northern Vietnam using Fuzzy Hierarchical Analysis Process (FAHP). The study identified four key criteria: economy, infrastructure, policy and geography and 18 sub-criteria. Data was collected from ten experts in the field of container transport by inland waterways. The FAHP method was used to determine the relative importance of each criterion and rank the criteria. The research results show that the infrastructure criterion has the highest weight, followed by economic, geographical and policy criteria, respectively. In addition, the study found that the number of empty containers was the most important sub-criteria, ranked as the top priority for container shipping by inland waterways. This result shows that stakeholders in the container shipping through inland waterways in Northern Vietnam should focus on improving infrastructure to fully meet customer needs and promptly process orders.*

Keywords: *Container shipping, inland waterways, Northern Vietnam, Fuzzy Hierarchical Analysis Process*

CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN LỰA CHỌN VẬN TẢI CONTAINER BẰNG ĐƯỜNG THỦY NỘI ĐỊA TẠI MIỀN BẮC VIỆT NAM

Tóm tắt: *Nghiên cứu này nhằm xác định các tiêu chí ảnh hưởng đến quyết định lựa chọn vận chuyển container qua đường thủy nội địa ở khu vực miền Bắc Việt Nam bằng phương pháp Quá trình phân tích thứ bậc mờ (FAHP). Nghiên cứu đã xác định bốn tiêu chí chính: kinh tế, cơ sở hạ tầng, chính sách và địa lý. Dữ liệu được thu thập từ các chuyên gia trong lĩnh vực vận tải container bằng đường thủy nội địa. Phương pháp FAHP được sử dụng để xác định tầm quan trọng tương đối của từng tiêu chí và xếp hạng các tiêu chí. Kết quả nghiên cứu cho thấy, tiêu chí cơ sở vật chất có trọng số cao nhất, tiếp theo lần lượt là kinh tế, địa lý và tiêu chí chính sách. Ngoài ra, nghiên cứu cho thấy số lượng container rỗng là tiêu chí phụ quan trọng nhất, được xếp hạng ưu tiên hàng đầu đối với vận chuyển container bằng đường thủy nội địa. Kết quả này cho thấy các bên liên quan trong ngành vận tải container bằng đường thủy nội địa tại miền Bắc Việt Nam nên tập trung vào việc cải thiện chất lượng cơ sở hạ tầng nhằm đáp ứng đủ nhu cầu của khách hàng và kịp thời giải quyết các đơn hàng.*

Từ khóa: *Vận tải container, đường thủy nội địa, miền bắc Việt Nam, Fuzzy Hierarchical Analysis Process*

1. Introduction

For decades, trucking has been the most important mode of transport in Vietnam. Trucks are versatile and can travel on all types of terrain, from urban to rural and isolated areas. As it helps to connect regions within the country and between countries in the region, trucking has contributed greatly to the development of the transport industry. Advantages of this mode of transport cannot be denied but it may also lead to number of problems, such as congestion, traffic accidents, low efficiency for long haul transport and emissions. Inland waterway transport (IWT) appears as a solution to the above problems. Research by Karin J. in 2022 shows that inland waterway transport is one of the most efficient transport modes per ton of goods carried since only 17% of the energy is needed by often-congested road transport. Moreover, water transport contributes to reducing emissions and wastewater into the environment as modern ships are equipped with exhaust and wastewater treatment systems to reduce the discharge of harmful pollutants and wastewater. Reducing energy consumption, emissions and wastewater from transportation is not only beneficial to the environment but also to the economy as this helps to reduce costs and increase competitiveness for businesses using watercraft.

In Vietnam, road is also the backbone of freight transport. However, as road transport shows many limitations in terms of emission, congestion and logistics costs, many experts believe that it is time for Vietnam to take advantage of the river system to develop IWT. Vietnam is one of the countries with the highest density of rivers and canals in the world with 19,000 km of inland waterways and 45 main routes used for freight. With 224 river ports and 8,800 floating berths, Vietnam's inland waterway transport only accounts for 17% of total freight volume, although the cost of water freight is currently only a quarter of that of road transport and half of rail transport (Trang H., 2019). According to the Vietnam Department of Inland Waterways, at present, the investment and development of IWT transport in Vietnam, especially in the Northern Vietnam or Red River Delta region still has many shortcomings and limitations (Viet T., 2022).

Northern Vietnam has more than 4,500 km of rivers and canals being exploited for transportation, of which 42% are managed by the government. The northern river network is formed by two main river systems, the Red River and Thai Binh Rivers, the two river systems are connected by Duong River and Luoc River with high density. The inland waterway transport in Northern Vietnam is now operated on the three corridors: Corridor number 1 with total length of 254 km from Quang Ninh to Haiphong, Bac Ninh, Hanoi and Viet Tri. The corridor number 2 from Ninh Binh, Nam Dinh to Haiphong and Quang Ninh. The corridor number 3 links Hanoi and Nam Dinh, Ninh Binh. Among those three corridors, the first one is the most important for carrying cargoes between Haiphong seaport and its hinterland, especially container shipping. Theoretically, inland waterway and railway transports are the two important modes to play the connecting role. However, according to the fact that currently, almost container terminals in Haiphong (except Chua Ve) are not connected to the national railway system and huge initial investment on railway infrastructure, inland waterway turns to be the first candidate after the road transport.

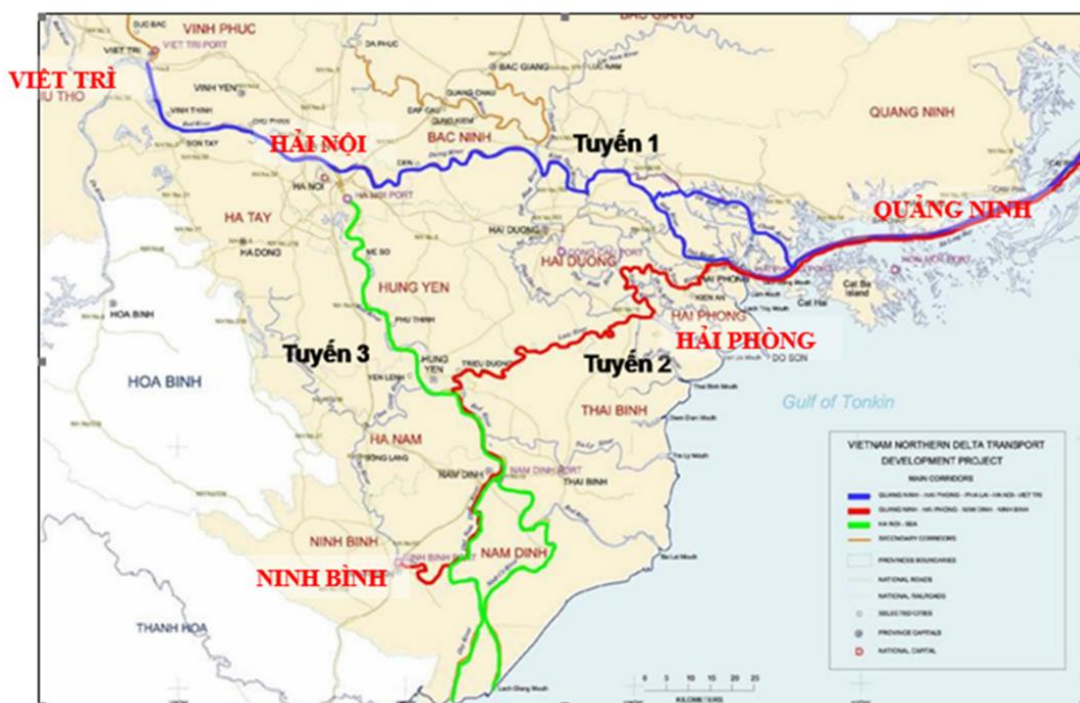


Figure 1. The three corridors of inland waterway in Northern Vietnam

From 2018, the trends of container shipping by inland waterways in Northern Vietnam has been shaped. In 2019, Bac Ky Logistics began its operation of Tri Phuong IWT terminal and Lokaport introduced the services of Dabaco Tan Chi on Duong river, Bac Ninh province. The current services of container shipping on the route are offered by the usage of 40 TEUS to 150 TEUS barges. In the first quarter of 2023, Sai Gon Newport Corporation started the operation of Que Vo ICD with the highlight of IWT connection to their container terminals in Haiphong. Some encouragement policies have been also issued to support the mode of transport, such as the reduction 50% of port infrastructure fee for cargoes carried by inland waterway through Haiphong sea port. Despite of the potentiality, however, a number of questions can be listed as: the short distance of the current route from Bac Ninh to Haiphong (120 km), the shortage of berth for barges in Haiphong seaport, the poor condition of infrastructure in some specific area ...

In the North of Vietnam, container shipping by inland waterway is increasingly used due to its proximity to the sea and the presence of the Red River Delta. Therefore, rational use of inland waterway transport is expected to improve the quality of logistics services in the country in general and the North in particular. Despite having many advantages and being interested and facilitated by the government, inland waterway transport in the northern part of Vietnam is being used under the proportion to its potential and role. Therefore, there is a need to identify and prioritize the factors influencing the decision of customers in choosing transportation mode to improve the efficiency of container shipping through inland waterways in this region.

The paper aims to identify and rank the factors affecting container shipping through inland waterways in Northern Vietnam, using the Fuzzy Analytic Hierarchy Process (Fuzzy-AHP) method. The Fuzzy-AHP method is a multi-criteria decision-making method

that can handle the uncertainty and vagueness of decision-making criteria. The method combines subjective judgments of decision-makers with mathematical calculations to prioritize the factors based on their relative importance. The results of this study will provide insights into the critical factors that need to be considered to improve the performance of container shipping through inland waterways in Northern Vietnam. The findings of this study can be used by policymakers, freight forwarders, shipping companies, and shippers to make informed decisions about the use of container shipping through inland waterways in the region. The remainder of the paper is organized as follows. Section 2 provides a literature review on container shipping through inland waterways and the research on relevant factors when choosing IWT. Section 3 describes the research methodology used in this study. Section 4 presents the results and analysis of the study. Section 5 provides a discussion of the findings and the conclusion of the paper.

2. Literature review

2.1. Research on Inland Waterway Transport

Inland waterway transport refers to transportation operations on inland waterways. Excluding sea shipping and coastal shipping routes, in 2002 the OECD defined inland waterways as the movement of goods or people on 'inland waters' between two places located in the same country even if transiting through a second country. Inland waterway transport cannot be included from the first to the last mile of the transportation process because it depends on the natural conditions. It is proved to as part of a multimodal transport system. The report clarified that to be able to operate effectively, investment especially in infrastructure is required to connect inland waterways with other modes of transport effectively.

There have been many comparisons of benefits between inland waterway and road transport in the world. Inland waterway transport is considered a more sustainable development option in most studies. Using mathematical modeling, Mako et al (2021) calculated CO₂ emissions during transport with the specific example of the Danube waterway, demonstrating that emissions can be reduced by more than 920 tons of CO₂ per km when compared with road transport. This conclusion can change the whole world, climate change exposes us to hundreds of natural disasters every year, environmental problems are becoming hotter than ever. The replacement of road transport with inland waterway transport will contribute to green logistics and towards the common goal of sustainable development. This article prove that inland waterways transport is a sustainable and environmental friendly mean of transport, according to their model.

For their part, Plotnikova et al affirm that inland waterway transport is the key to achieving sustainability goals. Taking Republic of Lithuania as a case study, they compared impact on the main external costs, researchers emphasized it can be reduced external costs by transporting cargo by river instead of by road. For every 80% increase in barge capacity, the external costs of climate change are reduced by 25%. This relationship points to a new direction for governments, and shippers who are concerned about climate change in choosing modes of transport, especially container shipping.

2.2. Research on Inland Waterway Transport in Northern Vietnam

In recent years, many studies have been conducted to examine the inland waterways in Northern Vietnam, particularly the challenges and opportunities of this mode of transportation. Vietnam's inland waterways have attracted the attention of the World Bank, as Blancas L. C. and El-Hifnawi, M. B. have done a lot of research on inland waterways in Vietnam. The article titled "Green growth demystified: investing in Vietnam's inland and coastal waterways", which written in 2013, is a thorough evaluation of the potential of Vietnam's waterways for investment and sustainable development. It emphasizes the significance of waterways in promoting the country's economic growth and reducing carbon emissions. The article also outlines various challenges faced by the country such as insufficient infrastructure, poor management, and the impact of climate change. It suggests the need for increased investment in infrastructure, technology, and human resources to overcome these challenges. Furthermore, it emphasizes the importance of policies and regulations that support sustainable development and green growth. The authors argue that investments in green technology, infrastructure and policy reforms can enhance the competitiveness and sustainability of these modes of transport.

Later, a study conducted by Ngoc, Tran, and Phuong (2019) aimed to identify the critical factors that affect the development of IWT in the Red River Delta region of Northern Vietnam. The authors found that infrastructure and government policies were the most critical factors, followed by the river network, the competitive environment, and the availability of cargo.

Another study conducted by Van, Tuan, and Thu (2020) examined the role of IWT in the Northern mountainous region of Vietnam, particularly in Ha Giang province. The study found that IWT in this region faced many challenges, including insufficient infrastructure, lack of governmental support, and limited cargo availability. However, the study also revealed the potential for IWT to contribute to the development of the region, particularly in promoting tourism and enhancing connectivity with other regions.

Additionally, a study conducted by Duy, Thanh, and Thuy (2021) investigated the potential of multimodal transportation, which integrates inland waterways with other modes of transportation, in Northern Vietnam. The study found that multimodal transportation could significantly reduce transportation costs and improve the efficiency of cargo transportation, particularly for long-distance transportation.

In conclusion, inland waterway transport is a potential mode which should be improved to reduce the burden on road transport. In Southern Vietnam, much higher percentage of containerized cargoes have been carried between seaports and hinterland for years. The advantages of high capacity, lower transport cost and sustainability should be utilized also in the Northern Vietnam as the container throughput has been increasing impressively. Due to the limit of resources, the understanding on factors affecting selection of inland waterway transport for container shipping in Northern Vietnam is important for proper development planning.

2.3. Research on relevant factors affecting the selection of inland waterway transport for container shipping

The selection of means of transportation of goods is always based on many criteria. Each researcher has their own criteria to evaluate the usability of the mode of transport. D'Este and S. Meyrick (1992) argue that all criteria are divided into two groups including subjective criteria (cost, frequency, etc) and objective criteria (reliability, service quality).

Matear and Gray (1993) have identified various factors in their studies, with a commonly occurring set of decision criteria emerging in selecting the mode of transport. These factors include safety, speed, price, lead time, convenience, services, and cargo characteristics. Research based on both shippers and freight suppliers' choice. Similar factors were reported in McGinnis research.

By evaluating numerous research papers published over 10 years from the 1970s to the 1980s, Murphy and Hall (1995) determined that the choice of means of transport is influenced by factors such as freight rates, transit times, transit time, reliability, carrier characteristics, goods required, and emergency services

In Indonesia, Berawi and many other researchers (2019) sought to optimize inland waterways CBL in which the study identified factors that constrain inland waterways including geographical constraints such as discharge, width, depth, air draught clearance and radius curvature, that make impossible for vessels to sail. CBL is considered to be used as a logistics mode of transport with some optimizations after benchmarking against three international standard designs for waterways, PIANC, ASCE and Rijkwaterstaat (RWS), and modeling simulate discharge conditions using HECRAS V4.1 software and finally confirm the results with in-depth interviews of experts.

Totakura et al (2022) studied factors effecting containers transport by inland waterways in India. A set of 4 criteria and 21 sub-criteria have been selected. The 4 criteria include economic factors, infrastructure factors, regulatory factors, and geographical factors. The Fuzzy-AHP methodology was employed to examine the weight of those criteria and sub-criteria. The results show that infrastructure factor is the most important criteria and inadequate depth in waterways should be paid the most attention among all the sub-criteria.

2.4. Research gap

Up to now, there are several scientific studies referring to inland waterway transport in general and in Northern Vietnam in particular, focusing on the main issues such as concepts, the role, the development, challenges and potentials of the transport mode. However, in the perspective of finding the factors that decide the choice of customers in choosing IWT, very little research has been conducted. Even though these factors were mentioned before, it remains challenging to determine their significance to customers, particularly in the northern region of Vietnam. Be addressing the gaps in the topic, the research aims to evaluate and prioritize such factors which can help investors understand market trends and develop effective strategies to fully utilize Vietnam's inland waterways potential. The information obtained from this study will serve as a basis for making informed decisions and maximizing opportunities in the market.

In terms of deciding the set of factors that affect the choices of IWT, a careful reference from previous research was taken. In addition, as the research carried out intensive interviews with experts in the field, a review such factors was implemented to determine the most suitable ones to the customers in Northern Vietnam. The set of criteria include 4 main criteria and their 18 subfactors as described below.

Table 1: Factors affecting the selection of Inland Waterway Transport for container shipping in Northern Vietnam

Code	Criteria	Description
• Economics criterias		
EC1	Cost competitiveness	Competitive advantage of inland waterways over other modes of transport in terms of cost
EC2	Delivery time	Time advantage of IWT complex to other modes of transportation
EC3	Convenience and reliability	Reliability of shipping service
EC4	Investment cost	Investment capital of industrial water system
EC5	Thievery	Loss of goods and fuel in the transportation
• Infrastructure criterias		
IC1	Safety	Accident to vessels and worker during the transport operation
IC2	MRO facility	Facility or a location for conducting maintenance of repair works of vessels
IC3	Combined with other transportation	Connectivity with other means of transport such as trucks, trains
IC4	Efficiency of terminals	Equipment to handle containers with good speed and low costs
IC5	Number of vessels	Quantity of inland waterway transport available for container
IC6	Availability of empty containers	Quantity of container available ready to use
• Policy criterias		
PC1	Government's restrictions on IWT	Degree of government restrictions imposed in moving cargoes
PC2	Government's encouragements on IWT	Priority given to inland waterways in comparison to other modes of transport
PC3	Legal consistency in cross-border transportation	Uniform legal rules across all states as the inland waterways move across more than one state
PC4	Customs supervision capacity for IWT	Facility to customs clearance at loading terminal and thereby containers are sealed by the customs after stuffing them
• Geographical criterias		
GC1	Interlinking of rivers system	Rivers are internal, convenient for transportation of goods
GC2	Inadequate depth in waterways	Constant maintenance of water levels for a good navigation
GC3	Location of IW ports	Location of terminals across the river

The above listed factors are being taken into consideration while performing FAHP in this research.

3. Methodology

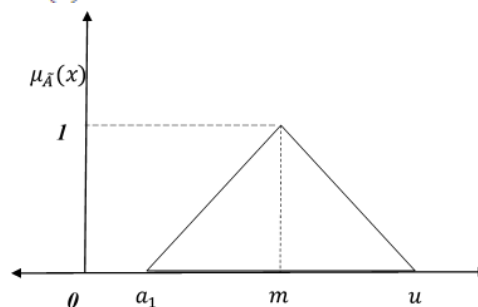
3.1. Fuzzy AHP Methodology

This study aims to evaluate the feasibility of using inland waterways transport for container in Northern Vietnam. The research question is "What are the most important factors to consider when evaluating the feasibility of using inland waterways transport for container?" To answer this question, multi-criteria decision-making (MCDM) is a suitable tool for ranking. There are various MCDM tools such as Analytic Network Process (ANP), Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS), and Simple Additive Weighting (SAW). In this study, a Fuzzy Analytic Hierarchy Process (FAHP) is used, because of its suitability. FAHP is capable of handling imprecise and uncertain data by utilizing fuzzy logic. Fuzzy logic assigns membership values to elements of a set to represent vague or imprecise data, making it appropriate for decision-making situations where data is incomplete or uncertain. FAHP allows for the incorporation of multiple expert opinions and stakeholders in decision-making, promoting a more comprehensive and inclusive process. The hierarchical structure of FAHP enables decision-makers to break down complex decisions into smaller, more manageable parts, allowing for the analysis of decision criteria and alternatives at different levels of detail. Furthermore, FAHP includes consistency checks to evaluate decision criteria and alternatives consistently across all experts. This helps to reduce bias and improve the reliability of the decision-making process.

Fuzzy normal data can be denote by $\tilde{A}(x) = (l, m, u)$, with the membership function

$$\mu_{\tilde{A}(x)} = \begin{cases} 0, & x < l \\ \frac{x-l}{m-l}, & l \leq x \leq m \\ \frac{u-x}{u-m}, & m \leq x \leq u \\ 0, & x > u \end{cases} \quad (1)$$

All of that function $\mu_{\tilde{A}(x)}$ can be graphically presented as Figure



The steps to apply FAHP as follows:

Step 1: To create a fuzzy pairwise comparison matrix, it was necessary to gather input from experts. Once their responses were collected, the matrix could be constructed using the following method:

$$\tilde{D} = \begin{bmatrix} \tilde{a}_{11} & \tilde{a}_{12} & \cdots & \tilde{a}_{1n} \\ \tilde{a}_{21} & \tilde{a}_{22} & \cdots & \tilde{a}_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ \tilde{a}_{n1} & \tilde{a}_{n2} & \cdots & \tilde{a}_{nn} \end{bmatrix} \quad (2)$$

In order to determine the preference of the decision maker's criteria, the value of \tilde{a}_{ij} is used. If the triangular fuzzy number for j^{th} is given as \tilde{a}_{ij} , the corresponding triangular fuzzy number for (a^l, a^m, a^u) can be calculated by $(\frac{1}{a^u}, \frac{1}{a^m}, \frac{1}{a^l})$

Step 2: The fuzzy geometric mean was determined by applying Equation (3) to evaluate the criteria. For every criterion, the geometric mean was computed for the fuzzy pairwise preference matrix:

$$\tilde{r}_i = \left(\prod_{j=1}^n \tilde{a}_{ij} \right)^{\frac{1}{n}}, \quad \forall i = 1, 2, 3, \dots, n \quad (3)$$

Step 3: Compute criterias' fuzzy weight:

For each criterion i , fuzzy weights \tilde{w}_i were calculated by:

$$\tilde{W}_i = \tilde{r}_i \times \left(\sum_{i=1}^n \tilde{r}_i \right)^{-1} \quad (4)$$

Step 4: Defuzzy fuzzy weights:

Center of area approach was used to defuzzy $\tilde{w}_i = (w_i^l, w_i^m, w_i^u)$ into (w_i)

$$W_i = \frac{[(w_i^u - w_i^l) + (w_i^m - w_i^l)]}{3} + W_i^l \quad (5)$$

Step 5: Normalize crisp weights:

The normalized weight (N_i) for each criterion is obtained by:

$$N_i = \frac{w_i}{\sum_i w_i} \quad (6)$$

3.2. Data Collection

The study conducted involved participants who are highly knowledgeable and experienced in the field of transportation, logistics, and supply chain management. They include 4 professionals working in freight forwarding and 6 professionals working in shipping lines. Descriptions of experts are given in the table 2. The selection of these experts was based on their ability to provide well-informed opinions on the research question. To ensure the validity and reliability of the data, a pilot survey was conducted with a small group of experts to test the clarity and relevance of the questions.

Table 2: Detail of experts

Number of respondents	Respondent category	Seniority
4	Freight forwarding	More than 10 years
6	Shipping lines	More than 10 years

In order to gather data for the study, a survey method was used, consisting of a set of pairwise comparisons of criteria and sub-criteria. The aim of the survey was to evaluate the feasibility of using inland waterways transport for freight transportation. The experts were requested to assign numerical values to each pairwise comparison, which were given on a fuzzy scale of 1 to 9, with 1 being equally important and 9 being of utmost

importance. The scale is described in detail in Table 3. The experts were asked to share their thoughts and insights on the importance of each criterion and sub-criterion in the decision-making process. Additionally, Experts were interviewed to further highlight the realities, advantages and challenges that inland waterways are facing. Inter-rater reliability checks were also performed to ensure consistency among the experts in their evaluations.

Table 3: Scale of importance for the Fuzzy-AHP analysis

AHP scale	Meaning	Convert into triangular fuzzy scale
1	Equally important	(1, 1, 1)
3	Weakly important	(2, 3, 4)
5	Fairly important	(4, 5, 6)
7	Strongly important	(6, 7, 8)
9	Absolutely important	(9, 9, 9)
2	Intermittent values	(1, 2, 3)
4		(3, 4, 5)
6		(5, 6, 7)
8		(7, 8, 9)

4. Results and Analysis

Table 4 and figure 3 show the ranks of different four main criteria based on their normalized weights. The criteria include economics, infrastructure, regulatory and geographical. Each criterion has a fuzzy weight and a crisp weight. The normalized weight is calculated from the crisp weight and is used to determine the rank of each criterion.

Table 4: Fuzzy and equivalent crisp weights of main criteria

Criteria	Fuzzy weight for criteria	Crisp weight for criteria	Normalized weight	Rank
Economics criteria	(0.184, 0.259, 0.371)	0.271	0.262	2
Infrastructure criteria	(0.424, 0.586, 0.798)	0.603	0.581	1
Regulatory criteria	(0.036, 0.047, 0.067)	0.050	0.048	4
Geographical criteria	(0.075, 0.107, 0.157)	0.113	0.109	3

The infrastructure factor has the highest rank with a normalized weight of 0.581. This means that it is considered to be the most important criterion among the four. The economics factor has the second highest rank with a normalized weight of 0.262. The geographical and regulatory criteria have lower ranks with normalized weights of 0.109 and 0.048 respectively.

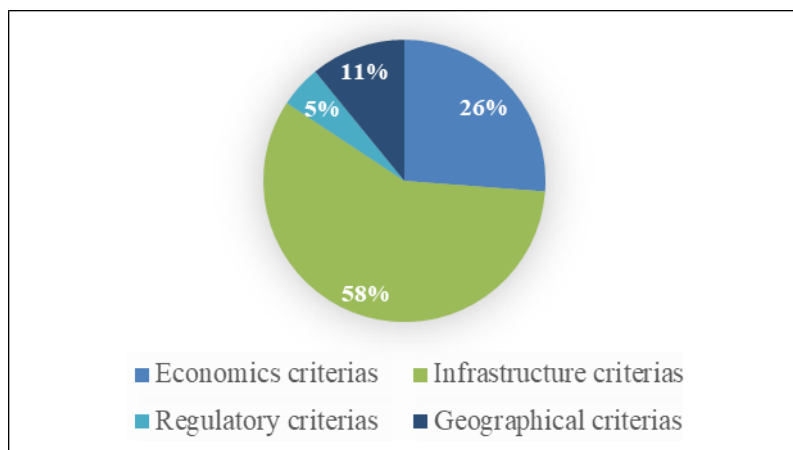


Figure 1: Normalized weight of main criteria

After evaluating the main factors, we look at the secondary criteria. Delivery time (EC2) plays the most important role in deciding to choose IWT as a transportation for container among ECs criteria. Followed by cost competitiveness and investment capital, respectively. All the information is shown in Table 5.

Table 5: Weights and rank of the sub-criterias of economic criterias

Sub-criteria	Local fuzzy weight for sub-criterias	Local crisp weight for sub-criterias	Normalized weight	Rank
EC1	(0.170, 0.262, 0.398)	0.276	0.260	2
EC2	(0.294, 0.432, 0.633)	0.453	0.430	1
EC3	(0.077, 0.120, 0.193)	0.130	0.112	4
EC4	(0.101, 0.153, 0.234)	0.163	0.154	3
EC5	(0.024, 0.033, 0.048)	0.035	0.003	5

Assessment of the importance of the ICs factors are ranked in Table 6. Number of empty container (IC6), safety (IC1), and quantity of vessel are considered to be top three influential sub-criteria, respectively.

Table 6: Weights and rank of the sub-criteria of infrastructure criteria

Sub-criteria	Local fuzzy weight for sub-criteria	Local crisp weight for sub-criteria	Normalized weight	Rank
IC1	(0.135, 0.200, 0.300)	0.212	0.199	2
IC2	(0.036, 0.055, 0.090)	0.060	0.057	5
IC3	(0.023, 0.034, 0.053)	0.037	0.035	6
IC4	(0.086, 0.141, 0.226)	0.151	0.143	4
IC5	(0.112, 0.178, 0.286)	0.192	0.181	3
IC6	(0.266, 0.391, 0.568)	0.409	0.386	1

Government's policies are concerned the most among PCs, restrictions on IWT get more attention from experts than measures to promote inland waterway development. Followed by uniform legal rules (PC3), as illustrated in Table 7.

Table 7: Weights and rank of the sub-criteria of policy criteria

Sub-criteria	Local fuzzy weight for sub-criteria	Local crisp weight for sub-criteria	Normalized weight	Rank
PC1	(0.275, 0.483, 0.792)	0.517	0.470	1
PC2	(0.186, 0.313, 0.563)	0.354	0.322	2
PC3	(0.067, 0.115, 0.207)	0.130	0.118	3
PC4	(0.055, 0.089, 0.155)	0.100	0.091	4

Of the three geographical criteria (GCs) which shown in Table 8, the main sub-criteria selected is the connectivity of the river system (EC1), whereas the location of inland waterway ports (EC3) has received the least attention.

Table 8: Weights and rank of the sub-criteria of geographical criteria

Sub-criteria	Local fuzzy weight for sub-criteria	Local crisp weight for sub-criteria	Normalized weight	Rank
GC1	(0.444, 0.638, 0.897)	0.660	0.632	1
GC2	(0.186, 0.267, 0.395)	0.283	0.271	2
GC3	(0.070, 0.095, 0.140)	0.102	0.097	3

The data is summarized in Table 9 and the formula for calculating the global weight of sub-criteria below

$$\text{Global weight} = \text{Criteria's weight} * \text{Local weight}$$

thereby creating a scale to compare and rank the importance of the sub-criterias. In which the number of available empty containers (IC6) becomes the most noticeable factor. Then safety (IC1) and delivery time (EC2), respectively. The facilities criteria selected to hold the 4th and 5th positions in the ranking are the number of vessels (IC5) and the efficiency of the loading and unloading equipment at the port (IC4).

Table 9: Summarizing local weight, global weight and rank of criterias and sub-criteria

Criteria	Criteria weight	Criteria rank	Sub-criteria	Local weight	Local rank	Global weight	Rank
Economics criteria (ECs)	0.262	2	EC1	0.260	2	0.068	7
			EC2	0.430	1	0.113	3
			EC3	0.122	4	0.032	10
			EC4	0.154	3	0.040	8
			EC5	0.033	5	0.009	16

			IC1	0.199	2	0.116	2
			IC2	0.057	5	0.033	9
Infrastructure criteria (ICs)	0.581	1	IC3	0.035	6	0.020	13
			IC4	0.143	4	0.083	5
			IC5	0.181	3	0.105	4
			IC6	0.386	1	0.224	1
			PC1	0.470	1	0.023	12
Policy criteria (PCs)	0.048	3	PC2	0.322	2	0.015	14
			PC3	0.118	3	0.006	17
			PC4	0.091	4	0.004	18
			GC1	0.632	1	0.069	6
Geographical criteria (GCs)	0.109	4	GC2	0.271	2	0.029	11
			GC3	0.097	3	0.011	15

5. Conclusion and discussion

Utilizing the FAHP approach, the investigation has revealed the level of interest of logistics professionals regarding waterway infrastructure and other related aspects. The ranking of criteria has indicated that the experts who represent those who desire to utilize inland waterways for container transportation in the northern region of Vietnam paid more attention on infrastructure and economic criteria than those in geographical and policy. This is indicative of the successful connection of waterways and the assurance of navigational depth by the government in the north of Vietnam. However, this should not be perceived as an excuse for investors and governments to disregard the enhancement of aforementioned conditions since environmental and policy factors are imperative for the development of any form of transportation. In reality, with the exception of a few specialized ports, such as those for coal, cement, and thermal power, the majority of constructions and loading and unloading equipment in most ports are outdated and antiquated. Only a handful of ports are suitable for container transportation, and the coordination of multimodal transportation and logistics services at major ports is still lacking. As a result, it is necessary to enhance the quality of infrastructure to make inland waterways a more attractive option for transportation and to attract a larger customer base. According to Nhandan newspaper (2022) in the period 2011-2016, the lowest proportion of investment in inland waterways is only about 7.5%. According to VTV (2023), this number will not grow by 2022, but will decrease to 1.5% of the total investment in the transport industry. The reality shows that inland waterway transport has not received much attention from investors. Restrictions on the level of investment make inland waterways not be able to bring into full play its inherent potential. Therefore, causing traffic congestion, increasing costs and reducing competition. Because of the above reasons, experts pay attention to the most complete level of foundation in the four main criteria. The impact of economic factors on the selection of container transportation through inland

waterways in the northern region of Vietnam is being studied. While previous research has shown that inland waterway transportation costs only a quarter as much as road transportation, it still incurs many additional expenses. Few businesses have invested in this mode of transportation due to the added costs, such as handling goods at the wharf, which accounts for almost half of the total cost of water transportation. Additionally, transporting goods with a low tonnage and capacity is not economically beneficial when compared to road transportation.

In this research, the lack of containers available for transporting goods in inland waterways is found to be a major obstacle to their development. This issue, along with concerns about safety, has been identified as the most significant factors to customers in choosing IWT in Northern Vietnam. To address these problems, more measures should be taken to optimize the number of containers available and ensure their secure placement. Currently, inland waterway transport accounts for only 21.73% of the market share for goods transportation, much lower than the 72.93% market share held by road transport. Using inland waterways can significantly reduce environmental impact and costs. Therefore, improving the competitiveness of inland waterways is essential. This research has important implications for helping investors and stakeholders gain a better understanding of the challenges facing inland waterway transport. Experts are concerned about the issue of longer transportation time for container shipping through inland waterways in comparison to road transport. To address this challenge, it is necessary to upgrade the quality of infrastructure features, such as effective container management, or allocate more resources into terminal loading and unloading machinery. This will reduce the waiting period and optimize the economic benefits of inland waterway transport.

Inland waterways play a vital role in transporting goods and people, reducing traffic congestion on highways and railways, and promoting economic growth. However, many of these waterways suffer from outdated infrastructure, inefficient operations, and environmental challenges, limiting their capacity and potential. Therefore, governments and investors must collaborate to improve inland waterways and optimize their full potential. Governments can take several steps to improve inland waterways. Firstly, investing in infrastructure development is crucial, such as constructing new ports, dredging waterways, and upgrading locks and dams. This will increase the capacity and efficiency of inland waterways and enable them to accommodate larger vessels. Governments can also implement policies and regulations that support waterway transportation, such as tax incentives and other financial incentives for shippers and carriers to use waterway transport instead of road or rail transport. Additionally, the government can incentivize private investment by offering tax credits and other financial incentives to investors willing to invest in waterway infrastructure.

Investors can also play a critical role in improving inland waterways. They can contribute by investing in the development of new vessels that are more fuel-efficient and environmentally friendly. This includes designing and building vessels that can navigate shallow waterways and prevent damage to the riverbanks. They can also invest in innovative technologies that make inland waterways more sustainable and efficient. For

example, using autonomous navigation systems can reduce the risks of accidents and improve the efficiency of inland waterway transport. Furthermore, governments and investors can work together to address environmental challenges such as pollution and habitat destruction. By implementing sustainable practices, such as minimizing waste and reducing emissions, inland waterways can become more environmentally friendly and support the preservation of local ecosystems.

In conclusion, improving inland waterways is crucial for enhancing transportation and promoting economic growth. Governments and investors can collaborate to invest in infrastructure development, incentivize private investment, and implement sustainable practices. These measures will improve the efficiency and capacity of inland waterways, promote environmental sustainability, and unlock their full potential as a vital mode of transportation.

Though providing significant supplementation to the previous literature, the study has some limitations which should be taken into account while interpreting the results due to the time constraints. The sample size is relatively small which may not be representative of the entire customers. Additionally, convenience sampling methods were used to recruit participants which may have caused sampling bias. The data collected through self-report measures may have socially desirable biases and may be influenced by response biases. Although anonymity and confidentiality were ensured to minimize these biases, they still may have affected the results. The cross-sectional design of the study does not allow for causal inferences, which is another limitation. Lastly, the study was conducted in two expert groups without involving relevant government stakeholders, so the findings may not generalize to the limitations of IWT in northern Vietnam. Despite these limitations, this study provides important insights into the factors influencing the decision to transport containers via inland waterways in northern Vietnam and lays the foundation for future research in the future.

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CONSUMER PURCHASE INTENTION TOWARDS BEVERAGES WITH ENVIRONMENTALLY FRIENDLY PACKAGING IN HUE CITY, VIETNAM

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Abstract: *This study aims to investigate factors affecting purchase intention towards beverages with environmentally friendly packaging. Data were collected using a survey with 155 consumers in Hue city, Vietnam. The findings reveal that various factors play a significant role in shaping purchase intention towards beverages with environmentally friendly packaging. These factors include environmental consciousness, perceived self-image, perceived behavioral control, and attitude towards purchasing behavior. Since beverage consumption continues to grow in importance in numerous regions worldwide, including developing countries such as Vietnam, studies that examine purchase intention towards beverages with environmentally responsible packaging could significantly add to the body of empirical evidence on consumer behavior in the context of such green food and beverage markets. The results contribute to providing implications for producers, marketers, and policymakers seeking to expand the range of beverage options that feature eco-friendly packaging and promote sustainable food production and consumption in the long term.*

Keywords: *Beverage, environmentally friendly packaging, sustainable packaging, purchase intention*

Ý ĐỊNH HÀNH VI NGƯỜI TIÊU DÙNG ĐỐI VỚI SẢN PHẨM ĐỒ UỐNG CÓ BAO GÓI THÂN THIỆN VỚI MÔI TRƯỜNG TRÊN ĐỊA BÀN THÀNH PHỐ HUẾ

Tóm tắt: *Nghiên cứu này nhằm mục đích tìm hiểu các nhân tố tác động tới ý định mua đối với sản phẩm đồ uống có bao gói thân thiện với môi trường. Dữ liệu được thu thập thông qua khảo sát 155 người tiêu dùng trên địa bàn Thành phố Huế. Kết quả nghiên cứu chỉ ra rằng một số nhân tố có tác động tích cực đến ý định mua đối với sản phẩm đồ uống có bao gói thân thiện với môi trường. Các nhân tố này bao gồm nhận thức về môi trường, nhận thức hình ảnh cá nhân, nhận thức kiểm soát hành vi, và thái độ đối với hành vi mua. Trong bối cảnh các sản phẩm đồ uống ngày càng đóng vai trò quan trọng trong cuộc sống tại nhiều nơi trên thế giới, trong đó có các nước đang phát triển như Việt Nam, các nghiên cứu về ý định mua đối với sản phẩm đồ uống có bao gói thân thiện với môi trường có thể đóng góp vào các bằng chứng thực nghiệm về ý định hành vi người tiêu dùng trong thị trường thực phẩm và đồ uống thân thiện với môi trường. Các kết quả nghiên cứu góp phần cung cấp các hàm ý chính sách cho các nhà sản xuất, nhà tiếp thị, và các nhà lập chính sách trong việc mở rộng các lựa chọn thực phẩm đồ uống có bao gói thân thiện với môi trường và thúc đẩy sản xuất và tiêu thụ thực phẩm bền vững trong dài hạn.*

Từ khóa: *Đồ uống, bao gói thân thiện với môi trường, bao gói bền vững, ý định mua*

1. Introduction

Packaging plays multiple roles in containing, preserving, protecting the content and facilitating the logistics of food and beverage until they are consumed. Food and beverage packaging also performs an essential role in conveying messages about the impacts of the products on the environment (Kim & Seock, 2009). It is estimated that food packaging accounts for about 10% of the total energy input for an average food consumption per person per week. This implies that packaging is key in ensuring that 90% of other energy inputs in the supply chain are not wasted (Verghese et al., 2015). However, product packaging can have negative impacts on the environment, for instance, via resource consumption, generation of solid, liquid and gaseous waste, pollution, and the risks of spread of bacteria and pests (Zhang & Zhao, 2012). Given the growing demand for food and beverage, consumer behavior related to the choice for food and beverage and the associated packaging if not properly performed can have adverse consequences on the environment.

Today, consumers are increasingly aware of their social roles and responsibilities and the various impacts on the environment associated with their shopping behavior (Stolz et al., 2013). Studies on consumer behavior toward food and beverage with environmentally sustainable packaging in the context of developing countries are rather limited. A review of academic studies from 1982 to 2014 with more than 100 academic articles on product packaging and consumer behavior shows that the study of behavior towards products with eco-friendly packaging is relevant in contributing to tackling the issue of environmental degradation relating to production and consumption (Vieira et al., 2015). In the context of rapid economic development, urbanization, and rising income levels, demand for food and beverage in developing countries will be increasing. Specifically, demand for beverages will increase sharply, for instance, in Vietnam (Hoang Phong, 2023). As a result, food and beverage packaging waste in the post-consumption stage will increase drastically, which calls for urgent actions to address environmental issues generated by such a source of pollution.

Therefore, this study aims to investigate factors affecting purchase intention towards beverages with environmentally friendly packaging, address knowledge gaps and propose practical recommendations to provide insights into food and beverage packaging strategies for producers, marketers, distributors and policymakers to minimize the environmental impacts of packaging and promote sustainable consumption. In this research, environmentally friendly packaging refers to any type of packaging associated with materials that are capable of reusing or recycling over the life cycle of the packaging from production through to consumption, disposal and after disposal (Nguyen et al., 2020). Hue city is selected as the study site as this is one of the major cities in Central Vietnam that initially makes significant efforts in greening the cities and shopping behavior. Research's results contribute to the strategies to tackle the environmental threats originating from using beverage packaging that is not environmentally friendly and promote sustainable production and consumption of food and beverages in the long term.

2. Theoretical framework and Methods

2.1. Theoretical framework

According to Ajzen's Theory of Planned Behavior (TPB) (Ajzen, 1991), attitude, subjective norms, and perceived behavioral control can influence purchase intention, which in turn affects consumer behavior. TPB theory is widely used to evaluate the factors affecting the intention to purchase eco-friendly products (Ahmed et al., 2021; Li et al., 2020; Saleki et al., 2020; Saut et al., 2021). Several factors were found to influence purchase intention toward ecological products, which will be elaborated as follows.

Attitude toward purchase behavior

Attitude toward purchase behavior is an essential factor in shaping purchase intention (Ajzen, 1991). There are several empirical evidence of the positive impacts of attitude on the purchase intention. The attitude was found to be positively correlated with green purchase intention (Michaelidou & Hassan, 2010; Tang & Medhekar, 2008; Yadav & Pathak, 2016). In addition, attitudes towards environmentally responsible behavior have a positive effect on purchase intention towards ecologically sustainable products (Lavuri, 2021) and organic products (Roh et al., 2022). Attitude toward green product purchase was also found to have a positive and statistically significant relationship with purchase intention towards green products (Wongsaichia et al., 2022). Hence, the first hypothesis is formulated as follows:

H1: Attitude towards purchase behavior has a positive and significant effect on purchase intention towards beverages with environmentally friendly packaging

Perceived behavioral control

Perceived behavioral control was indicated as a vital factor affecting purchase intention (Ajzen, 1991). Previous studies revealed that perceived behavioral control is a crucial factor affecting purchase intention (De Leeuw et al., 2015; Lizin et al., 2017). Specifically, perceived behavioral control was found to be positively associated with green food purchases (Paul et al., 2016). Perceived behavioral control was also found to drive purchase intention towards organic products (Ogorevc et al., 2020) and ecological products (Harjadi & Gunardi, 2022). Additionally, there is a positive relationship between perceived behavioral control and intention to purchase products with green packaging (Moorthy et al., 2021). Therefore, the second hypothesis is set forth:

H2: Perceived behavioral control has a positive and significant effect on purchase intention towards beverages with environmentally friendly packaging

Perceived availability

Perceived availability of the products in the market plays a significant role in influencing purchase intention and behavior (Gleim et al., 2013). Perceived availability of the product could be a barrier preventing consumers from purchasing a certain product (Groening et al., 2018; Lea & Worsley, 2008; Wijekoon & Sabri, 2021). Limited availability of products at the point of purchase and difficulties to access the products are reported as regular barriers in green food consumption (Qi et al., 2020). Perceived

availability was also identified as a key factor in environmentally sustainable food purchase (Chekima et al., 2017; Hwang et al., 2016). It is clear that if the buyer has the intention and willingness to purchase, however, if the product is in limited availability, requires substantial efforts to access (i.e., inconvenience to find it in the market), this may negatively affect intention to the product purchase. As a results, the third hypothesis is formulated as follows:

H3: Perceived availability has a positive and significant effect on purchase intention towards beverages with environmentally friendly packaging

Environmental consciousness

Environmental consciousness is a vital factor motivating consumers towards green food choice (Hamm & Gronefeld, 2004; Lin & Chang, 2012; Qi & Ploeger, 2019). Environmental consciousness was found as a determinant of organic purchase (Wang et al., 2020). Furthermore, environmental concern was found to be positively associated with organic food purchase (Basha et al., 2015). Additionally, perceived seriousness of environmental issues was found to be a driver of ecological purchase intention (Moon et al., 2021). Hence, the fourth hypothesis is:

H4: Environmental consciousness has a positive and significant effect on purchase intention towards beverages with environmentally friendly packaging

Perceived self-image or Perceived social value

Consumer value is an important component shaping purchase decision. Consumer value refers to “consumer’s overall assessment of the utility of a product (or service) based on perceptions of what is received and what is given” (Zeithaml, 1988, p.14). Social value refers to “the utility derived from the product’s ability to enhance one’s social self-concept” (Sweeney & Soutar, 2001, p.211). Also, social value refers to social identity and self-image perceived by certain groups for instance friends, colleagues, family, and peers (Akbar et al., 2019). Consumers in many cases are value driven, hence their purchase may derive from particular values associated with the product purchase or use (Li et al., 2015; Levy, 1999). Perceived social value may affect purchase behavior of a particular product (Li et al., 2015; Sweeney & Soutar, 2001). Perceived self-image or perceived social value was found to influence organic purchase in the literature (Akbar et al., 2019; Khan & Mohsin, 2017; Li et al., 2015; Rahnama, 2017). Consequently, the final hypothesis is as follows:

H5: Perceived self-image has a positive and significant effect on purchase intention towards beverages with environmentally friendly packaging

There are not many studies that incorporate perceived self-image or perceived social value to test its impact on purchase intention towards beverages with environmentally friendly packaging in the context of developing countries such as Vietnam. This study investigates the effect of the perceived self-image on purchase intention towards beverages with environmentally friendly packaging.

Literature on the purchase intention towards beverages with environmentally

friendly packaging in the context of developing countries such as Vietnam and particularly Central Vietnam has remained untapped. Therefore, the objective of this study is to investigate the impacts of attitude towards purchase behavior, perceived behavioral control, perceived availability, environmental consciousness, and perceived self-image on purchase intention towards beverages with environmentally friendly packaging. Results contribute to provide valuable insights into strategies for producers and stakeholders seeking to promote the adoption of beverages with environmentally friendly packaging as an effective measure for addressing the environmental degradation associated with food and beverage packaging.

2.2. Methodology

2.2.1. Data collection

Data were collected using a survey with 155 consumers in Hue city, Vietnam in August 2022. The study used a non-probability sampling approach, utilizing face-to-face interviews. Participants were recruited at the entrance to the supermarkets, shops, local markets, and shopping centers. Consumers from 18 years and older, having experience towards beverage purchase were eligible to participate. The socio-economic characteristics of the sample are described in the Table 1. More than 40% of the sample are male. Over 40% of the respondents fall into the age bracket of 40 years or above. Participants who have some trainings or specialized account for around 67%. A notable proportion of the study's sample, comprising more than 50%, reported an income level that is 5 million VND or higher.

Table 1. Socio economic characteristics of the participants (n=155)

Items	Percentage (%)
Gender (% male)	43.2
Age (% ≤40 years)	63.9
Education (% have some training, specialized)	67.4
Monthly income (% of 5 million VND and above)	52.9

Source: Data processing in SPSS

2.2.2. Measures

Based on the literature, the measurement of items in the proposed model is presented in Table 2.

Table 2. Description of items used

Item	Description	Adapted from
Perceived availability		
PAVAI1	I find it inconvenient (not easy) to find and buy beverages with environmentally friendly packaging compared to those with conventional materials	(Gleim et al., 2013; Nguyen et al., 2020)

PAVAI2	Beverages with environmentally friendly packaging are not available at the place/area/neighborhood where I shop	
PAVAI3	I honestly do not know where beverages with environmentally friendly packaging can be found/sold	
Environmental consciousness		
ENVCONS1	In my opinion, packaging waste associated with beverage can have serious negative consequences on the environment	
ENVCONS2	One of the major causes of environmental degradation is using un-ecological beverage packaging	(Van Birgelen et al., 2009)
ENVCONS3	I believe that packaging waste associated with beverage is a crucial environmental issue	
Perceived self-image		
IMAGE1	I believe that purchasing beverages with environmentally friendly packaging can earn me appreciation from society	
IMAGE2	I think that purchasing beverages with environmentally friendly packaging makes me special in the eyes of others	(Li et al., 2015; Sweeney & Soutar, 2001)
IMAGE3	I think I will be obsolete if I do not participate in environmental protection (for example, by purchasing beverages with environmentally friendly packaging)	
Perceived behavioral control		
PBCL1	If I want, I can buy beverages with environmentally friendly packaging instead of those with conventional ones.	
PBCL2	I think it is possible (easy) to buy beverages with environmentally friendly packaging	(Ajzen, 2002)
PBCL3	I can consider and control the purchase of beverages with environmentally friendly packaging	
Attitude towards purchasing¹		
ATTITUDE1	Extremely negative → Extremely positive	
ATTITUDE2	Extremely unpleasant → Extremely pleasant	(Bai et al., 2019)
ATTITUDE3	Strongly against → Strongly for	

¹ Respondents were asked: "Please indicate how you feel while purchasing beverages with environmentally friendly packaging?" Attitude items were measured on 7-point semantic differential scales

All statements were measured on a 7-point scale from 1 = total disagree to 7= totally agree.

Measurement of purchase intention is presented in Table 3.

Table 3. Measurement scale of purchase intention

	Description	Adapted from
INTENTION1	Improbable → Probable	(MacKenzie et al., (1986); Michaelidou & Hassan (2008))
INTENTION2	Impossible → Possible	
INTENTION3	Unlikely → Likely	

Respondents were asked: “Please indicate how likely you will purchase beverages with environmentally friendly packaging?” Intention items were measured on 7-point semantic differential scales.

2.2.3. Data analysis

To investigate the impacts of the explanatory variables (i.e. factors) on the dependent variable, the study employs a linear regression. Exploratory factor analysis was performed in the first stage to determine the constructs and aggregated variables. According to Hair et al. (2009), the exploratory factor analysis is a quantitative analysis method used to reduce data into a smaller set of latent/unobserved variables (i.e. referred to as factors) to uncover the underlying structure and obtain more meaningful but still contain most information content from the set of a large number of observed variables.

A number of criteria were evaluated. A Cronbach’s alpha value greater than 0.7 ensures the internal reliability (Hair et al., 2009). Factor loading values greater than or equal to 0.5 are acceptable (Hair et al., 2009). KMO coefficient (Kaiser- Meyer - Olkin) is an index used to measure the sampling adequacy. The value of KMO ranges from 0.5 to 1, the larger the coefficient is, the more relevant to conduct factor analysis. However, if this value is less than 0.5, then factor analysis is likely not suitable for the data. Bartlett's Test of Sphericity is used to examine the hypothesis about the correlation of variables. If this test is statistically significant indicating that it is relevant to conduct data reduction technique such as EFA for the given dataset. Eigenvalue is a commonly used criterion to determine the number of factors in EFA analysis. Factors with Eigenvalue larger than or equal to 1 are remained in the analytical model. The percentage of variance extracted should be larger than 50%.

A linear regression model was applied to evaluate the relationship between the variables of interest (factors) with purchase intention. The following function is adopted:

$$Y = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 * X_3 + \beta_4 * X_4 + \beta_5 * X_5 + \epsilon_i$$

Where:

Y: purchase intention towards beverages with environmentally friendly packaging

X₁, X₂, X₃, X₄, X₅: factors affecting purchase intention

β₁, β₂, β₃, β₄, β₅: regression coefficients

ε_i is the error term

The goodness of fit of the linear regression model is evaluated using the adjusted R^2 . The ANOVA test of variance is used to test the model fit, that is, whether there is a relationship between the independent variables (i.e., factors) and the dependent variable.

The questionnaire is designed to collect the general perception toward beverage, consumer responses towards factors affecting purchase intention with environmentally friendly packaging beverages, and the socioeconomic characteristics of the participants.

Data were analyzed using the software SPSS 24.0. In addition to a linear regression model as detailed above, descriptive statistics were used to describe the characteristics of the sample. Independent sample t tests were applied to verify the characteristics of the sub sample according to the dimensions of interest.

3. Results and discussion

3.1. Importance of beverage packaging dimensions

Participants were asked to rate the importance of the different dimensions of beverage packaging on a 5-point scale from 1= not important, to 5= very important. Results indicated that packaging that is food safe for health ranked the first most important dimension. Consumers showed strong concern about packaging that are made from recycled materials or biodegradable materials, and those that avoid excessive packaging. Simultaneously, they expressed their interest in information about the environmental impact of the product showcased on its packaging. Interestingly, other dimensions for instance packaging color, size and shape are considered less important compared to other elements.

Figure 1. Importance of beverage packaging dimensions



Source: Data processing in SPSS and Excel

To further understand consumer concerns of the different dimensions of beverage packaging, participants are classified into the two groups characterized by their levels of environmental consciousness. Participants were requested to respond to three statements that pertain to their levels of environmental consciousness (See Table 2). Answers were from 1=total disagree, to 7= total agree. The variable “environmental consciousness” is then aggregated from the three items. Respondents who have a score of “7 = total agree” on the variable of environmental consciousness are classified as highly environmentally conscious consumers. Other participants are left for the remaining group. Results are showed in Table 4.

Those who are highly environmentally conscious gave much importance to a number of dimensions of packaging including those that are food safe for health, made from eco-friendly materials, and minimized the packaging materials/times compared to the other group. On the contrary, consumers who are in the remaining group, i.e., having lower environmental consciousness levels seem to give greater importance to packaging shape, size, color compared to those who are highly environmental consciousness. This is an interesting finding from our study. These findings suggest that producers and marketers could consider conducting further consumer segmentation to better tailor product dimensions to specific consumer segments.

Table 4. Consumers’ interest in packaging dimensions based on their levels of environmental consciousness

Item	Highly environmental consciousness (n=52)	Remaining group (n=103)	T-test	
			t	p-value
Packaging shape	3.27	3.60	-1.891	0.061
Packaging size	3.09	3.43	-1.898	0.060
Packaging color	3.02	3.21	-0.996	0.321
Presenting environmentally friendly information on the packaging	4.31	4.18	0.785	0.434
Flexibility of the packaging (in opening/using)	3.73	3.79	-0.309	0.759
Easy to maintain	4.24	4.00	1.541	0.126
Packaging that is food safe for health	4.65	4.35	2.382	0.019
Made from recycled materials/ biodegradable materials	4.54	4.10	3.039	0.003
Minimize packaging materials (avoid excessive packaging)	4.22	3.89	2.010	0.046

Source: Data processing in SPSS

3.2. Analysis of factors affecting purchase intention towards beverages with environmentally friendly packaging

Exploratory factor analysis (EFA) was performed for the proposed scale. The resulting factors' structure is presented in the table below.

Table 5. Results of the Exploratory factor analysis

Items	Factor loading				
	1	2	3	4	5
PBCL1	0.911				
PBCL2	0.902				
PBCL3	0.901				
ATTITUDE1		0.915			
ATTITUDE2		0.915			
ATTITUDE3		0.896			
IMAGE1			0.877		
IMAGE2			0.871		
IMAGE3			0.868		
PAVAI1				0.867	
PAVAI2				0.863	
PAVAI3				0.861	
ENVCONS1					0.894
ENVCONS2					0.819
ENVCONS3					0.768
Eigenvalue	5.764	2.177	2.029	1.426	1.294
Cumulative variance extracted (%)	18.295	36.531	53.208	69.013	84.596

Source: Data processing in SPSS

KMO value is satisfied. The eigenvalue coefficients are greater than 1 and the factor loading values of all items are greater than 0.5. Based on the results of the rotation matrix, it can be inferred that the observed variables were initially clustered into five distinct groups, which correspond to a five-factor solution. Cronbach's alpha values of all the variables are greater than 0.7 (Table 6).

Table 6. Cronbach's alpha value of the proposed items

Variables/ Items	Mean	Std. dev.	Cronbach's alpha
			0.958
PBCL1	5.34	1.66	
PBCL2	5.12	1.60	
PBCL3	5.26	1.63	
			0.891
IMAGE1	5.44	1.52	
IMAGE2	5.14	1.61	
IMAGE3	5.17	1.58	
			0.855
ENVCONS1	5.84	1.21	
ENVCONS2	6.02	1.21	
ENVCONS3	5.94	1.31	
			0.852
PAVAI1	4.81	1.63	
PAVAI2	4.86	1.48	
PAVAI3	4.69	1.75	
			0.939
ATTITUDE1	6.09	1.40	
ATTITUDE2	5.95	1.47	
ATTITUDE3	6.08	1.33	
			0.896
INTENTION1	5.37	1.46	
INTENTION2	5.71	1.28	
INTENTION3	5.61	1.37	

Source: Data processing in SPSS

The total value of variance extracted is equivalent to 84.59% which is larger than 50% as required. Therefore, the proposed model is theoretically relevant. Based on the results of the EFA, a five-factor solution was identified for further analysis. Also, the five factors were utilized to construct five aggregated variables namely perceived availability,

environmental consciousness, perceived self-image, perceived behavioral control, and attitude toward the behavior.

In order to assess the effects of the five factors extracted from the EFA on purchase intention, this study employed a linear regression model of the following form:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Where:

Y: Purchase intention towards beverages with environmentally friendly packaging (Intention)

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: regression coefficients of the variables of interest

X_1 : Perceived availability (PAVAI)

X_2 : Environmental consciousness (ENVCONS)

X_3 : Perceived self-image (IMAGE)

X_4 : Perceived behavioral control (PBCL)

X_5 : Attitude towards the behavior (ATTITUDE)

ε : Error term

Results of the linear regression is presented in the table below.

The results show that the value of adjusted R^2 is 0.553. Thus, the independent variables included in the regression model could contribute to explain about 55.3% of the variation of the dependent variable. The results of the F test show that the p-value is < 0.05 , indicating the linear regression model is relevant for the population sample. The VIF values of the explanatory variables are all less than 10, indicating no concern over multicollinearity in the present data (Tabachnick & Fidell, 2007).

Table 7. Results of the regression model

	Unstandardized Coefficients	Std. Error	Standardized Beta	t	p-value	VIF
constant	0.238	0.441		0.541	0.590	
PAVAI	-0.077	0.050	-0.088	-1.540	0.126	1.127
ENVCONS	0.205	0.073	0.180	2.804	0.006	1.414
IMAGE	0.271	0.054	0.309	5.050	<0.001	1.289
PBCL	0.162	0.052	0.203	3.114	0.002	1.470
ATTITUDE	0.365	0.058	0.386	6.258	<0.001	1.311
Adjusted R^2			0.553			
F			39.177			
p-value			<0.001			

Source: Data processing in SPSS, 2022

Thus, the regression equation has the following form:

$$Y = 0.238 - 0.077*PAVAI + 0.205*ENVCONS + 0.271*IMAGE + 0.162*PBCL + 0.365*ATTITUDE + \varepsilon$$

Results showed that except for perceived availability, all variables statistically significant influence purchase intention towards beverages with environmentally friendly packaging. Environmental consciousness has a positive and significant impact on purchase intention towards beverages with environmentally friendly packaging which is in line with previous literature (Wang et al., 2020; Basha et al., 2015; Moon et al., 2021). Consumer intention towards environmentally sustainable food choice is also considered as a pro-environmental behavior (Qi et al., 2020). Importantly, perceived self-image or perceived social value was found as a significant determinant of the purchase intention towards beverages with environmentally friendly packaging. This is similar to the previous findings (Akbar et al., 2019; Khan & Mohsin, 2017; Li et al., 2015; Rahnama, 2017). It is reported that the purchase of certain products in many cases associates with perceived social value based on the fact that the products can deliver perceived prestige or social status (Li et al., 2015; O’Cass & McEwen, 2004; Sheth et al., 1991). Consumers are concerned about how they are perceived by the society, which leads to a higher perceived social value and further enhances their ideal social image (Li et al., 2015).

Consistent with prior research, perceived behavioral control was found to drive purchase intention towards beverages with environmentally friendly packaging (Paul et al., 2016; Ogorevc et al., 2020; Harjadi & Gunardi, 2022; Moorthy et al., 2021). To increase the access of consumers and facilitate their performance and control towards purchasing beverages with environmentally friendly packaging, the various convenience aspects of the products for instance availability, variety of products for the various purpose uses should be strongly enhanced. We have not found the evidence of perceived availability on purchase intention. However, given that perceived behavioral control has a significant and positive impact on purchase intention, minimizing barriers to purchasing by increasing product availability could potentially boost purchase intention.

Attitude towards purchase behavior was found to be positively correlated with purchase intention towards beverages with environmentally friendly packaging which is in the same manner with previous studies (Lavuri, 2021; Roh et al., 2022; Wongsachia et al., 2022). A more favorable attitude towards purchasing beverages with environmentally friendly packaging associates with a higher purchase intention. Thus, to increase consumers’ purchase intention, producers should enhance the positive attitude of consumers towards buying beverages that feature eco-friendly packaging.

4. Conclusion and policy implications

There is growing interest on green food and beverage consumption in which green packaging emerges as an important topic. This study sheds light on the crucial factors influencing purchase intention towards beverages that feature environmentally responsible packaging. These factors include environmental consciousness, perceived self-image, perceived behavioral control, and attitude toward purchasing behavior. Specifically,

perceived self-image or perceived social value was found to be a significant determinant of the purchase intention. Based on the findings, key implications were provided.

Our study revealed that a higher level of environmental consciousness associates with a higher purchase intention. Therefore, an important implication for producers, marketers and policymakers is to increase consumer awareness and consciousness of the environmental issues associated with consuming beverages with non-environmentally friendly packaging. Also, it is vital to develop effective communication strategies to promote the environmental benefits of using beverages with eco-friendly packaging. Communication via using in-store or point of purchase advertising could be a potential option since consumers seem to shop more often in the stores, shops, supermarkets, and shopping malls. Social media, events can also be used as complementary channels to boost the level of environmental consciousness of consumers. In addition, our results also imply that market segmentation based on consumers' levels of environmental consciousness could be helpful to identify and target relevant consumers for beverages with environmentally friendly packaging.

Our results highlighted that a higher perceived self-image associates with a higher purchase intention. Those who have a higher perceived self-image may have a higher intention to purchase beverages with environmentally friendly packaging. Therefore, an implication for the producers and marketers is to identify different consumer segments and primarily target those who have a higher perceived self-image. Marketers could focus on value specificity relating to social value and perceived self-image to maximize the social value as well as purchase intention towards beverages with green packaging. Also, the social responsibility of the individual should also be highlighted in the promotional campaign of the firms to increase the perceived social value which in turn could contribute to enhancing stronger purchase intention.

To enhance consumers' perceived behavioral control, trial purchases or pilot experiences could be potential options, which in turn could improve their purchase intention. Also, manufacturers should undertake various initiatives to reinforce the positive attitude of consumers towards the purchase of beverages with environmentally responsible packaging. For instance, consumer awareness towards the benefits of beverages with ecological packaging should be publicly enhanced via the various channels. Also, consumers who exhibit a more favorable attitude towards purchasing beverages with environmentally friendly packaging can be considered as a potential segment that marketers can target primarily in order to enhance their purchase intention, thereby increasing consumption and establishing themselves as pioneers in such a green product market.

Since consumption of beverage are increasingly important in many parts of the world including developing countries such as Vietnam, studies on consumer purchase intention toward beverages with environmentally friendly packaging could contribute to empirical evidences on consumer behavior towards such green food and beverage markets. The results provide valuable insights for producers, marketers, and policymakers who aim to broaden the range of beverage options with eco-friendly packaging and promote sustainable production and consumption in the long run.

This study has some limitations. Data were obtained through self-reported questionnaires, thus may influence to some extent from social desirability bias. The sample is limited to the population in a city in Central Vietnam. Future studies that investigate on a larger scale, apply for other products, and incorporate other methods such as experimental methods are recommended.

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HOW DOES SUSTAINABLE DEVELOPMENT AFFECT COMPANIES' FINANCIAL PERFORMANCE

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Abstract: *Sustainable development is an emerging concept worldwide, especially in developing economies. In recent years, there has been renewed interest in sustainable development thanks to the negative impact of climate change, diseases, and natural disasters. In Vietnam, sustainable development and its practices are still new topics and pioneers. However, both researchers and practitioners are meeting (facing) struggles in executing sustainable development plans in Vietnam. Besides, multinational companies and big corporations in the countries are believed to play a significant role given their strong influence and issues they are facing with stakeholders, business operations, etc, in both home and host countries. Their potential can be part of the solution, recognized and increasingly concerned in academic studies for sustainable development. Thus, this research paper examines the impacts of sustainable development practices on a firm's financial performance, including the case of listed 16 big companies and corporations in Vietnam between 2016 and 2020. The archival input data is analyzed in the quantitative research method to produce panel data. On the basis of the study findings, implications and suggestions are made for companies to improve their sustainable development practices in Vietnam.*

Keywords: *Sustainable development, Financial performance*

ẢNH HƯỞNG CỦA PHÁT TRIỂN BỀN VỮNG ĐẾN HIỆU QUẢ TÀI CHÍNH DOANH NGHIỆP

Tóm tắt: *Phát triển bền vững (Sustainable Development) là một khái niệm mới nổi trên toàn thế giới, đặc biệt là ở các nền kinh tế đang phát triển. Trong những năm gần đây, phát triển bền vững đã được quan tâm trở lại do tác động tiêu cực của biến đổi khí hậu, bệnh tật và thiên tai. Ở Việt Nam, phát triển bền vững vẫn là chủ đề mới. Tuy nhiên, các nhà nghiên cứu và các nhà thực hành đang gặp khó khăn trong việc thực hiện các kế hoạch phát triển bền vững tại Việt Nam. Bên cạnh đó, các công ty đa quốc gia và tập đoàn lớn được cho là có vai trò quan trọng nhờ tầm ảnh hưởng mạnh mẽ và các vấn đề họ đang gặp phải với các bên liên quan, hoạt động kinh doanh, v.v. Tiềm năng của chúng có thể là một phần của giải pháp, được công nhận và ngày càng được quan tâm trong các nghiên cứu học thuật về phát triển bền vững. Vì vậy, bài nghiên cứu này xem xét tác động của các*

hoạt động phát triển bền vững đến hiệu quả tài chính của doanh nghiệp, trường hợp của 16 doanh nghiệp và tập đoàn lớn đã niêm yết tại Việt Nam từ năm 2016 đến năm 2020. Dữ liệu đầu vào được phân tích theo phương pháp nghiên cứu định lượng để tạo ra dữ liệu bảng. Trên cơ sở các kết quả nghiên cứu, các hàm ý và đề xuất được đưa ra để các công ty cải thiện hoạt động phát triển bền vững tại Việt Nam.

Từ khóa: *Phát triển bền vững, Hiệu quả tài chính*

1. Introduction

With the intense increase in natural disasters, global economic crisis, and other issues, sustainable development has become a more significant concern. This is not a new concept in developing countries. It has several definitions, but the most frequently quoted one is from the Brundtland Report: "Sustainable development is the development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Cocklin & Moon, 2020). However, in Vietnam, it is a new and emerging concept that attracts little attention from researchers leading to the thirst of adequate paper in the field, especially for the business areas. Thus, this paper is intended to bring the sustainable development concept closer, not only to the Vietnamese public but also to enterprises. In addition, the research aims to make firms recognize the role of sustainable development practices in their business fields.

The paper focuses on two broad concepts including sustainable development pillar (Commission on Environment, n.d.) and the firms' financial indicators. As from the model "The relationships among social, environmental and economic sustainability" developed by Wanamaker (2018), sustainability is defined as the integration of actions on three pillars involving environmental, social, and economical. Regardless of several dimensions of the model, only some dimensions are selected to be measured due to the lack of measurement methods. Meanwhile, there are many measurable indicators for corporate financial performance (CFP), but the most commonly used in research can be categorized into book value and market value indicators.

The goal of this research paper is to clarify the relationship between firms' sustainable development practices and their financial performance. In a closer look, the individual impact of each sustainable development pillar on firms' financial results is also considered before drawing a conclusion and implication. In order to conduct the quantitative analysis, the data was collected from 16 multinational companies and big corporations in Vietnam in the last five years.

2. Literature review

2.1. Sustainable development

The history of sustainability

It was in 1713 when the idea of sustainability was devised by Carlowitz when editing his first book about forest sciences. He argued that timber should be "as important as our daily bread", and "used with caution in a way that there is a balance between timber

growth and lumbering". Thus, a perpetual use is made forever. "For this reason, we should organize our economy in a way that we won't suffer scarcity of timber, and where it is lumbered we should strive for young growth at its place" Carlowitz stated.

The idea of the ongoing use of natural resources inspired the World Commission on Environment and Development (or the Brundtland Commission, WCED) to redefine the concept of sustainability as a broad political vision in 1987. The definition was released by WCED in 1987 as follows: "Sustainable development meets the needs of the present generation without compromising the ability of future generations to meet their needs".

By the release of sustainable development from WCED 1987, there have been reformulated version according to different perspectives. Thus, the definition of sustainable development may vary significantly. In general, the success of sustainability results from the underlying reflections of existing issues of humankind perceived: the rising concern over economic development at the expense of natural resources, and environmental quality.

Further light shed on sustainability

From the view of forest scientist, in the 19th century, the sustainability concept of Carlowitz was expanded to natural resource scarcity and consumption, planet conservation movement, and population concern. However, it all had a limit on such concepts which place concern on the environment aspects only.

Also at this time, the focus on sustainable natural resources shifted to coal as an important source of energy. When coal was on the verge of exhaustion, an influential publication- "W. Stanley Jevons's The coal question of 1866" stated that English coal could be run out in a hundred years. Particularly, England would lose its position as a dominant player when indulgent coal consumption kept continuing (W. Stanley Jevons's The coal question of 1866). Thus, it was important to utilize "every means of sparing the fuel which makes our welfare" (Jevons 1866: 5).

The approach of contemporary proponents of sustainability appeared in Principles of political economy in 1848 by John Stuart Mill. In the chapter of "Stationary state", he mentioned a stationary situation of capital and population, but not of humankind. He stated "I sincerely hope, for the sake of posterity", the population "will be content to be stationary, long before necessity compels them to it" (Mill 1848: 452 - 454). The book "George Perkins Marsh's Man and Nature", published in 1864, has been known as the fountain of the conservation action (Lowenthal 1958: 246, 268). Marsh wrote, "Man has long forgotten that the earth was given to him for usufruct alone, not for consumption, still less for profligate waste" (Marsh 1864: 36). He also described how the natural environment was ruined by human activities, thus our planet would be unsuited for human beings. According to Marsh, he did not preserve nature for its own sake, but for the sake of human well-being - a similarity with a contemporary component of sustainable development.

In the first decade of its evolution, the roots of sustainability could be traced back to the limitation of natural resources when the growth in population raised human

consumption. With the fear that future generations could not maintain the good living standards as at present, they started thinking about a worldwide adoption of sustainable development.

In the next decade, which was the beginning of the 20th century, we experienced a period of fluctuation in which optimistic and pessimistic views were held with regard to human beings. The optimism was reflected by the development of science and technology at the beginning of the century. However, the positive condition was shattered by the economic crisis and global wars in the first half of the century when the dominance of Western civilization seemed to be lost. Nevertheless, an economic boom brings the optimism back about enhancing global living standards. Unfortunately, during the period, the industrial and commercial expansion caused the environmental crisis forcing people to change their perspectives about economic growth and development.

The scientific and technological advancement devastated the natural environment. During industrial and commercial development, the population boom, pollution, and resource depletion caused considerable threat to the environment and human well-being (Mensah, 2019). Natural disasters received significant scientific attention such as *The Silent spring* (Carson, 1962), *The population bomb* (Ehrlich, 1986), *A blueprint for survival* (Goldsmith, 1972) and *Small is Beautiful* (Schumacher, 1973). The prediction of an imminent natural disaster stimulated a new mode of thinking about progress, and paved the way for sustainable development.

Hence sustainable development concept emerged as the solution to growth issues. A new notion of development- sustainable development when it was realized that economic growth cannot solve problems of the underdeveloped world, global inequality, and natural disasters. In the past, development and conservation had been opposite ideas since conservation was considered as to protect resources, and development as to exploit resources (Paxton, 1993). However, the new concept of sustainability now emerged as the combination between conservation and development. The term “sustainable development” was coined as “a state or condition that can be maintained over an indefinite period of time, and was introduced on a more regular basis than before into development discourses” by Barbara Ward, founder of the International Institute for Environment and Development (Mensah, 2019).

Between the end of the 20th and the beginning of the 21st century, the new concept of sustainable development was popularized and more widely applied. In 1987, a group of 22 individuals from developed and developing nations was formed to define long-term environment solutions for the global community, known as the World Commission on Environment and Development (WCED), submitted the Brundtland Commission Report to the United Nations (Brundtland Report | Publication by World Commission on Environment and Development | Britannica, n.d.).

The Brundtland Report placed focus on the needs and benefits of humankind, with the concern for “the causes of environmental degradation, attempted to understand the interconnections between social equity, economic growth, and environmental problems, and developed policy solutions that integrated all three areas” (Brundtland Report |

Publication by World Commission on Environment and Development | Britannica, n.d.). The report stated that social equity, environmental improvements, and economic growth could be achieved simultaneously, highlighting three fundamental proponents of sustainable development. The Brundtland report of sustainable development is still the most often cited by contemporary studies, as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs”.

Sustainable development in Vietnam

In Vietnam, sustainable development is a new and emerging concept in recent years. In the past ten years, sustainable development attracted the concern of government and state activism only, while only a few big enterprises consciously acted for sustainability.

However, the government’s efforts for sustainable development cannot be taken for granted. Particularly, “The vision of sustainable development between 2004-2015” gained significant achievement. The government introduced a new model for reducing pollution in the manufacturing sector which was known as “Making manufacturing a green sector” (Bank, 2005). By which, all the activities of the sectors were required to be environmentally friendly. There have been several definitions made for sustainable development, but most of them discussed only environmental aspects of sustainable development. It was argued that achieving a green economy was one of the key approaches of sustainable development (Tran Ngoc Ngoan, 2016). Meanwhile, a green economy was widely defined as the economic growth that improved people's living standards and social equity, and reduced the environmental disasters and ecological depletion (Nguyen Song Tung, Tran Ngoc Ngoan, 2014).

Because of the vagueness and insufficiency of the sustainable development identification, the implementation of sustainable development strategies has been patchy and inconsistent. Regarding Vietnamese papers of sustainable development, it is argued that Vietnam was doing ineffectively in the process of implementing sustainable development. As such, “inclusive development in Vietnam is unsustainable, especially when there is no connection between the sharing of economic growth achievements with social, cultural and environmental development, which manifests as grievances”, stated by Dr. Nguyen Hoang Tien (Tien, 2008). One of the main reasons for the failure was the lack of specific indicators for the sustainable development practices (Tien, 2008). In addition, the shortcoming issue could be traced back when sustainable development indicators were not based on necessary theoretical frameworks, the unavailability of data, the thoroughly transferring and training of values collecting and calculating (T. N. Dang et al., 2018).

2.2. Stakeholder theory perspective on sustainable development

The Stakeholder Theory was developed by R. Edward Freeman for organization management and business ethics that tackled morals, values in organizational management. The theory is a view of capitalism that highlights the importance of interconnected relationships between a business and its people who have a stake, such as customers, suppliers, investors, workers, communities, etc. It is argued that a company should create

beneficial values for its all stakeholder, not just shareholders. According to Freeman, firms' stakeholders can be defined as (Freeman, R.E. 1984):

“Any group or individual who can affect, or is affected by, the achievement of a corporation's purpose. Stakeholders include employees, customers, suppliers, stockholders, banks, environmentalists, government and other groups who can help or hurt the corporation.”

He also introduced a method and explanation of how and why the relationship between firms and its stakeholders can be managed. Thus, the theory quickly became the theoretical framework and foundation for a contemporary identification for enterprise social responsibility- a small pillar of sustainable development. Moreover, Ruf et al. proposed that the stakeholder theory can be integrated with the transaction cost economics and the resource-based view theory of an enterprise. He suggested that (Ruf et al., 2001) satisfying stakeholders' demand or understanding their willingness to cooperate can often get rid of high costs resulting from formalized contractual compliance mechanisms.

However, the topic about the implication of the stakeholder view theory on firms' conventional performance is still controversial. In a literature review by Margolis and Walsh, 127 studies on the linkage between social initiatives and financial performance from 1972 to 2002 were discussed. They found that more than eighty-five percent of the listed studies indicated that social practice performance can be an independent indicator to forecast the financial performance (Margolis & Walsh, 2003). Of these, there were 54 studies showing a positive relationship, 7 presented a negative relationship, 28 studies found a nonsignificant relationship. Thus, no official conclusion was made.

2.3. Gaps in literature review

There is a lack of research on the correlation between sustainable development and business performance, therefore this research paper aims at filling the gap and shed further light on this topic. Other studies, however, focus only on sustainable development 'how', 'what', or one small pillar of sustainable development for the enterprise.

3. Methodology

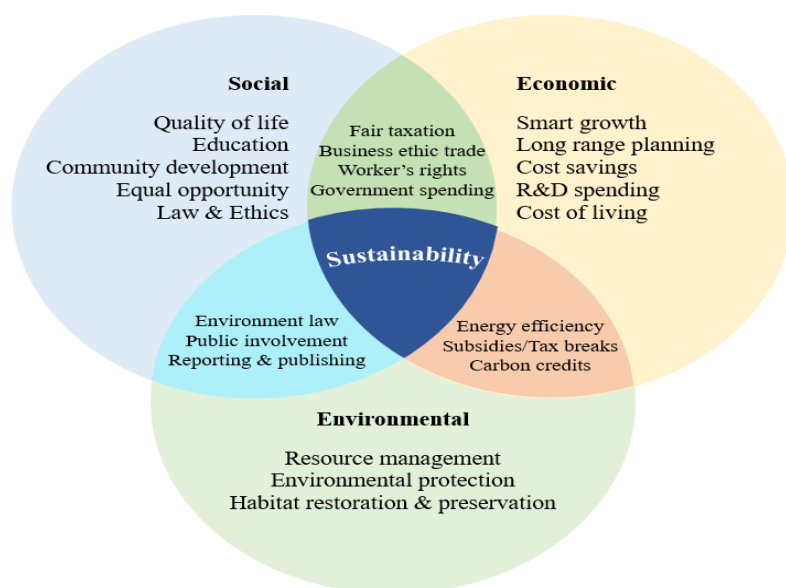
3.1. Sample size

With the aim of studying the relationship between sustainable development practices and firms' financial performance, the listed 16 multinational enterprises and big corporations in Vietnam are chosen as sample size. The rationale for the sample selection is that the above firms are strong players in their sectors and sustainable development execution. They have had experiences in creating, implementing, and controlling sustainable development practices since it was a totally new concept in Vietnam.

3.2 Choosing the model

This paper is intended to combine two models called the model Relationships between Social, Environmental and Economic Sustainability developed by Wanamaker in 2018 (Figure 1), and Sustainable development indicators: large set - conceptual categorisation constructed by United Nations Economic Commission for Europe (UNECE).

Figure 1: Relationships between Social, Environmental and Economic Sustainability



Source: Wanamaker (2018), cited in Messiah (2019, p. 8).

3.3. Financial performance index construction

$$ROE = \frac{\text{Net income}}{\text{Shareholders' equity}}; \text{ and } ROA = \frac{\text{Net income}}{\text{Total assets}}$$

Where ROE, ROA stand for Return on equity, Return on assets respectively.

3.4. Sustainable development index construction

Since the scale of this paper is on sustainable development practices among enterprises, two mentioned models are applied: Relationships between Social, Environmental and Economic Sustainability developed by Wanamaker in 2018 (Figure 1), and Sustainable development indicators: large set - conceptual categorisation constructed by United Nations Economic Commission for Europe (UNECE) (Table 1). Due to the limitation of secondary data that can be found from firms' annual reports, key sustainable development indicators will be selected from two frameworks as follow:

Table 1: Sustainable development indicators: large set - conceptual categorisation

Sustainable development pillars	Indicators	Notation	Formula
Social	Gender equality ratio	GEN	$= \frac{\text{Male}}{\text{Female}}$
	Per capita income of worker	PERIN	$= \text{Total staff cost} / \text{Total number of employees}$
Economic	Physical capital stock	PHYCAP	$= \text{Fixed assets}$
	Financial capital	FICAP	$= \text{Total assets} - \text{Total liabilities}$
Environment	Annual CO2 emission	CO2	$= \text{Upstream CO2 emission} + \text{Downstream CO2 emission}$

Source: Authors

3.5. Data analysis

The financial indicator and the sustainable development indicators are categorized as the dependent variable and independent variables. Variables, hence, are analyzed in panel data on ROE and sustainable development indicators of 20 firms including MNCs and VN30 firms between 2018 and 2020. For any given year, the data on ROE and sustainable development indicators represent a cross-sectional sample. For any given firm, there are three-time series observations on ROE and sustainable development indicators. Thus we have in all 60 observations on firms' ROE and sustainable development index.

4. Empirical results

4.1 Descriptive statistics

Table 2: Descriptive Statistics

	ROE	ROA	LOG(GEN)	LOG(PERIN)	LOG(PHYCAP)	LOG(FICAP)	LOG(CO2)	VN30	LOG(TOTAL_ASSET)
Mean	0.23	0.08	0.74	11.10	20.81	22.26	17.15	0.50	23.53
Median	0.20	0.06	0.77	9.99	19.80	21.76	16.76	0.50	24.54
Maximum	0.87	0.33	2.66	18.98	25.42	26.14	20.38	1.00	26.45
Minimum	0.00	0.00	-0.62	8.75	9.89	17.95	14.46	0.00	18.87
Std. Dev.	0.16	0.07	0.66	2.80	3.09	2.24	1.10	0.50	2.23
Observations	100	100	100	100	100	100	100	100	100

Source: Authors

The social pillar includes two indices: gender ratio and personal income per capita. The average log value for gender ratio is 2.66, which implies that the gender equation remains a significant problem in achieving social welfare of sustainable development. Meanwhile, there is a considerable gap between the largest and the smallest log values of personal income per capita with 175,000,000 and 19,826. This difference can be explained by the effect of currency exchange rate on VN30 companies, causing Vietnamese firms to record lower income for each company.

The second pillar is economic field with two indexes physical capital and financial capital. The average log values for both indexes are 13,700,000,000 and 28,900,000,000 respectively. Meanwhile, there are huge differences between the maximum and minimum log values for both two indexes, which can be traced back to the fact that the data set includes both global and Vietnamese-based firms. In fact, global-based firms are reported with much higher amount of capital assets.

The third pillar is CO2 representing the environmental aspect. It is the amount of CO2 a firm emits to the environment which is counted as the Scope 3 emission and measured in tonnes. There also exists a huge gap between the minimum and maximum log

values of greenhouse emission of 1,911,294 and 710,000,000. The gap can be explained by the fact that the data set combines a variety of industries, from manufacturing to technological firms.

In evaluating financial performance, two indexes return on equity (ROE), and return on asset (ROA) are used. From the descriptive statistical outputs, the average number for ROE is 0.23 and that number of ROA is 0.07. Over one hundred observations, there are huge gaps between the largest and smallest values for both indexes.

Table 3: Correlation matrix of financial indexes and sustainable development indexes

Correlation	ROE	ROA	LOG(GEN)	LOG(PERIN)	LOG(PHYCAP)	LOG(FICAP)	LOG(CO2)	VN30	LOG(TOTAL_ASSET)
ROE	1.00								
ROA	0.40	1.00							
LOG(GEN)	-0.06	-0.25	1.00						
LOG(PERIN)	-0.02	0.05	0.20	1.00					
LOG(PHYCAP)	0.28	0.01	0.32	0.64	1.00				
LOG(FICAP)	0.11	-0.14	0.36	0.74	0.90	1.00			
LOG(CO2)	0.12	-0.11	0.38	0.35	0.66	0.63	1.00		
VN30	-0.18	0.00	-0.43	-0.57	-0.83	-0.78	-0.61	1.00	
LOG(TOTAL_ASSET)	0.08	-0.31	0.34	0.63	0.84	0.91	0.59	-0.69	1.00

Source: Authors

As observed, the sustainable development indexes correlate significantly with ROA, except for log form of gender ratio, log CO2, and log total assets. On the other hand, most of the sustainable development indexes correlate with ROE, except for log total asset value at roughly 5%. Particularly, the financial index ROE has a negative relationship with all sustainable development indexes except for total assets. This implies the fact that the increase in ROE causes decline in sustainable development values. In other words, the ratio of profit and shareholder equity took no or negative impacts on sustainable development values. Meanwhile, it is recorded the positive influence of ROA on sustainable development values, excluding log form of gender ratio, log CO2, and log total assets. However, the negative relationship of ROA and log total asset indicates that firms

have well utilized assets when the reduction in total asset happened, the ROA surged. Consequently, the increase of ROA created higher values on sustainable development indicators.

Additionally, most of the correlations reported are under 50%, so the examination of the relationship between each variable indicates no issue of multi-collinearity error. The normal distribution is reported in most of the indicators, excluding log personal income per capita and log total asset values. Log gender ratio, log physical capital, log financial capital and log CO2 indexes witness the left-skew distribution.

4.2. Final Models and Discussion

$$\text{LOG}(\text{ROE}+1) = 0.279 - 0.024*\text{LOG}(\text{GEN}) - 0.013*\text{LOG}(\text{PERIN}) + 0.034*\text{LOG}(\text{PHYCAP}) - 0.027*\text{LOG}(\text{TOTAL_ASSET})$$

t-stats are 3.807, -2.018, -2.945, 7.716, -5.584 respectively

$R^2 = 45.83\%$; Adjusted $R^2 = 43.55\%$

$$\text{LOG}(\text{ROA}+1) = 0.325 - 0.017*\text{LOG}(\text{GEN}) + 0.006*\text{LOG}(\text{PERIN}) + 0.016*\text{LOG}(\text{PHYCAP}) - 0.027*\text{LOG}(\text{TOTAL_ASSET})$$

t-stats are 11.289, -4.333, 4.101, 8.919, -13.790 respectively

$R^2 = 75.53\%$; Adjusted $R^2 = 74.50\%$

From the research outcomes, it is indicated that sustainable development implementation in general does not influence firms' financial performance. However, when sustainable development practices are categorized into individual dimensions, it is suggested that economic responsibility is statistically significant with firms' financial performance. Regarding social responsibility impacts, from both models, even though gender ratio is not statistically significant with dependent variables, it reveals a good notion from the coefficient value that the higher the female proportion in the labor force, the higher the financial performance. In terms of the third pillar for sustainable development, the explanatory variable CO2 emission was redundant from the initial model, thus it can be concluded that environmental actions have no impacts on firms' financial performance.

5. Conclusion, limitation, and recommendation

With the emergence of social and environmental issues worldwide, sustainable development implementation is paid more attention. Today, sustainable development is not limited to national accountability, but enterprises are required to take action for this phenomenon to achieve sustainable growth. In the global context, sustainable development has long history of implementation. Multinational firms recognize that they cannot trade off economic benefits for the survival of the environment and society. Thus, sustainable development is not only considered as a way firms giving back to the society, but also a way to maintain their economic benefits. On the other hand, in Vietnam, sustainable development remains a new and controversial topic. Only a few Vietnamese firms pay attention to this topic. Hence, their implementation of sustainable development is limited within certain practices.

From the model outputs, it is suggested that overall sustainable development implementation has no impact on firms' financial performance. However, when sustainable development is looked as individual pillar, economic dimension takes certain impact on financial results. Particularly, the increase in physical capital contributes to the growth of financial values. Besides, the coefficient values for both models also show a good indication that the social dimension of sustainable development has a positive relationship with sustainable development.

During the research, there are numerous obstacles in the data sampling and analyzing process. Thus, limitations are unavoidable, particularly due to the new concepts and data sample. The first drawback of this paper is the sample data. The data is collected from both global and Vietnamese companies operating in diverse industries which may lead to huge differences in sustainable development implementation results. In the world, sustainable development implementation is not a new concept and it is applied in a wide variety of aspects. However, sustainable development practices are limited in certain fields in Vietnam. It is noteworthy that only big firms in Vietnam take actions on sustainable development. Therefore, when put two types of firms in one sample, Vietnamese firms may face inferiority towards global companies in implementing sustainable practices. Moreover, since companies are from different industries, their focus for each sustainable development pillar may vary. This can cause differences between index values collected. Besides, to depict a full picture of sustainable development in companies, the sample needs more observation over the years. Besides, to increase the level of accuracy of the paper, the sample size should be larger with companies at the same level of growth, size, and in certain industries.

Sustainable development still remains a hot topic in terms of its relationship and impacts on business. There are already studies on the sustainable development dimension individually, but little of them investigate all sustainable development components in one study. From the research outcomes, there exists some correlative relationship between sustainable development implementation and firms' financial performance. Therefore, this topic should be further studied profoundly and extensively, in both Vietnam and global business context. The further investigation should pay attention to expanding to other sustainable development variables and financial variables to obtain the most accurate outputs. Since there have been few studies in Vietnam on this topic, this article contributed a framework for sustainable development implementation including background history, theoretical framework, models and tests to identify the correlation between variables. Besides theoretical implications, this paper also brings administrative implications in the business context. Despite no specific correlative relationship obtained, the research has presented the positive contribution of individual sustainable development aspects to firms' financial performance. Thus, the importance of sustainable development to a business initially recognized, firms should balance between benefits and costs. Sustainable development implementation can be viewed as a good way for companies to gain sustainable benefits.

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APPENDIX

Final regression models

Dependent Variable: LOG(ROE+1) Method: Panel EGLS (Cross-section weights) Date: 03/30/23 Time: 11:57 Sample: 2016 2020 Periods included: 5 Cross-sections included: 20 Total panel (balanced) observations: 100 Linear estimation after one-step weighting matrix Cross-section weights (PCSE) standard errors & covariance (d.f. corrected)					Dependent Variable: LOG(ROA+1) Method: Panel EGLS (Cross-section weights) Date: 03/30/23 Time: 12:00 Sample: 2016 2020 Periods included: 5 Cross-sections included: 20 Total panel (balanced) observations: 100 Linear estimation after one-step weighting matrix Cross-section weights (PCSE) standard errors & covariance (d.f. corrected)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.278877	0.07324	3.80744	0.0002	C	0.325184	0.02880	11.2889	0.0000
LOG(GEN)	0.023908	-0.01184	2.01784	0.0464	LOG(GEN)	0.017171	-0.00396	4.33269	0.0000
LOG(PERIN)	0.012997	-0.00441	2.94537	0.0041	LOG(PERIN)	0.005841	0.00142	4.10144	0.0001
LOG(PHYCAP)	0.034283	0.00444	7.71581	0.0000	LOG(PHYCAP)	0.016062	0.00180	8.91925	0.0000
LOG(TOTAL_ASSET)	0.027220	-0.00487	5.58449	0.0000	LOG(TOTAL_ASSET)	0.027416	-0.00198	13.7900	0.0000
Weighted Statistics					Weighted Statistics				
R-squared	0.458264	Mean dependent var	0.28825	7	R-squared	0.755260	Mean dependent var	0.09813	4
Adjusted R-squared	0.435454	S.D. dependent var	0.20667	9	Adjusted R-squared	0.744955	S.D. dependent var	0.07326	9
S.E. of regression	0.107556	Sum squared resid	1.09898	9	S.E. of regression	0.048391	Sum squared resid	0.22246	0
F-statistic	20.09054	Durbin-Watson	0.75696	5	F-statistic	73.29167	Durbin-Watson	1.16293	4
Prob(F-statistic)	0.000000				Prob(F-statistic)	0.000000			
Unweighted Statistics					Unweighted Statistics				
R-squared	0.209838	Mean dependent var	0.20204	1	R-squared	0.391186	Mean dependent var	0.07270	6
Sum squared resid	1.162046	Durbin-Watson	0.52447	2	Sum squared resid	0.254390	Durbin-Watson	0.73617	0

Detect Error

Dependent Variable: LOG(ROE+1) Method: Panel EGLS (Cross-section weights) Date: 03/30/23 Time: 11:36 Sample (adjusted): 2017 2020 Periods included: 4 Cross-sections included: 20 Total panel (balanced) observations: 80 Iterate coefficients after one-step weighting matrix Cross-section weights (PCSE) standard errors & covariance (d.f. corrected) Convergence achieved after 12 total coef iterations					Dependent Variable: LOG(ROA+1) Method: Panel EGLS (Cross-section weights) Date: 03/30/23 Time: 11:34 Sample (adjusted): 2017 2020 Periods included: 4 Cross-sections included: 20 Total panel (balanced) observations: 80 Iterate coefficients after one-step weighting matrix Cross-section weights (PCSE) standard errors & covariance (d.f. corrected) Convergence achieved after 10 total coef iterations				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.015383	0.17995	0.08547	0.9321	C	0.486015	0.08077	6.01702	0.0000
LOG(GEN)	0.018206	-0.01717	1.05990	0.2926	LOG(GEN)	0.002640	0.00144	1.83220	0.0709
LOG(PERIN)	0.012634	-0.00914	1.38211	0.1711	LOG(PERIN)	0.011111	0.00507	2.18978	0.0317
LOG(PHYCAP)	0.024336	0.00495	4.91188	0.0000	LOG(PHYCAP)	0.005174	0.00336	1.53775	0.1284
LOG(TOTAL_ASSET)	0.008125	-0.01044	0.77770	0.4392	LOG(TOTAL_ASSET)	0.027643	-0.00361	7.65549	0.0000
AR(1)	0.677275	0.06514	10.3965	0.0000	AR(1)	0.736808	0.04755	15.4949	0.0000
Weighted Statistics					Weighted Statistics				
R-squared	0.749178	Mean dependent var	0.28727	2	R-squared	0.938905	Mean dependent var	0.12025	9
Adjusted R-squared	0.732231	S.D. dependent var	0.20624	4	Adjusted R-squared	0.934777	S.D. dependent var	0.11824	8
S.E. of regression	0.072552	Sum squared resid	0.38952	1	S.E. of regression	0.037449	Sum squared resid	0.10378	1
F-statistic	44.20600	Durbin-Watson stat	2.20562	5	F-statistic	227.4440	Durbin-Watson stat	2.08130	0
Prob(F-statistic)	0.000000				Prob(F-statistic)	0.000000			
Unweighted Statistics					Unweighted Statistics				
R-squared	0.624436	Mean dependent var	0.20489	1	R-squared	0.638661	Mean dependent var	0.07362	3
Sum squared resid	0.411378	Durbin-Watson stat	2.48845	6	Sum squared resid	0.124227	Durbin-Watson stat	2.10862	1
Inverted AR Roots	.68				Inverted AR Roots	.74			

Pooled GLS models

Dependent Variable: LOG(ROE+1) Method: Panel EGLS (Cross-section weights) Date: 03/30/23 Time: 11:30 Sample: 2016 2020 Periods included: 5 Cross-sections included: 20 Total panel (balanced) observations: 100 Linear estimation after one-step weighting matrix					Dependent Variable: LOG(ROA+1) Method: Panel Least Squares Date: 03/30/23 Time: 11:32 Sample: 2016 2020 Periods included: 5 Cross-sections included: 20 Total panel (balanced) observations: 100				
Variable	Coefficient	Std. Error	t-Statistic	Prob.	Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.131741	- 0.779052	0.169104	0.8662	C	0.031071	0.605886	0.051282	0.9592
LOG(GEN)	0.026812	- 0.016850	1.591198	0.1157	LOG(GEN)	0.015302	- 0.013046	1.172946	0.2445
LOG(PERIN)	0.002991	- 0.063443	0.047148	0.9625	LOG(PERIN)	0.023430	- 0.049123	0.476962	0.6348
LOG(PHYCAP)	0.037099	0.005688	6.528900	0.0000	LOG(PHYCAP)	0.007025	0.004138	1.697788	0.0936
LOG(TOTAL_ASSET)	0.016360	- 0.020316	0.805294	0.4232	LOG(TOTAL_ASSET)	0.007097	0.016413	0.432431	0.6667
Effects Specification					Effects Specification				
Cross-section fixed (dummy variables)					Cross-section fixed (dummy variables)				
Weighted Statistics					Weighted Statistics				
R-squared	0.825812	Mean dependent var	0.228740		R-squared	0.773150	Mean dependent var	0.072706	
Adjusted R-squared	0.773097	S.D. dependent var	0.110567		Adjusted R-squared	0.704499	S.D. dependent var	0.064967	
S.E. of regression	0.061710	Sum squared resid	0.289414		S.E. of regression	0.035316	Akaike info criterion	3.643407	
F-statistic	15.66566	Durbin-Watson stat	1.906679		Sum squared resid	0.094788	Schwarz criterion	3.018166	
Prob(F-statistic)	0.000000				Log likelihood	206.1703	Hannan-Quinn criter.	3.390361	
					F-statistic	11.26191	Durbin-Watson	1.929249	
					Prob(F-statistic)	0.000000			
Unweighted Statistics					Unweighted Statistics				
R-squared	0.802305	Mean dependent var	0.202041						
Sum squared resid	0.290738	Durbin-Watson stat	2.121277						

ẢNH HƯỞNG CỦA ĐẠI DỊCH COVID-19 ĐẾN SẢN XUẤT VÀ TIÊU THỤ SẢN PHẨM: TRƯỜNG HỢP NGHIÊN CỨU TẠI LÀNG NGHỀ TRUYỀN THỐNG HOA GIẤY THANH TIÊN, TỈNH THỪA THIÊN HUẾ

Nhiều Khánh Phước Hải, Trần Thị Quang Lộc, Phan Văn Hoà

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Tóm tắt: Đại dịch Covid-19 bùng phát từ đầu năm 2020 đã tác động rất lớn đến sản xuất và tiêu thụ sản phẩm, ảnh hưởng nặng nề đến công tác tổ chức sản xuất, đến ngành logistics, du lịch, dịch vụ và thị trường tiêu thụ, trong đó có hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế.

Qua khảo sát 20 cơ sở làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, tỉnh Thừa Thiên Huế cho thấy, sự phục hồi sản xuất và tiêu thụ hoa giấy sau đại dịch Covid-19 chưa được như trước đại dịch, số lượng cơ sở sản xuất giảm, số lượng sản phẩm sản xuất và tiêu thụ chưa tăng, doanh thu còn hạn chế, thị trường hoa giấy chưa phục hồi như trước đại dịch.

Để phân tích ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm, từ đó phát triển sản xuất và tiêu thụ hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên hậu Covid-19, cần thực hiện các giải pháp thiết thực như xúc tiến và mở rộng thị trường tiêu thụ; quy hoạch không gian làng nghề, không gian tổ chức sản xuất, không gian trưng bày; áp dụng công nghệ số để marketing và phát triển thị trường tiêu thụ sản phẩm; đào tạo nghệ nhân và thợ lành nghề; khuyến khích các tổ chức, doanh nghiệp đầu tư, liên doanh, liên kết sáng tạo sản phẩm mới, hấp dẫn, tạo thành chuỗi liên kết, cung ứng sản phẩm từ nghiên cứu thị trường, thiết kế sản phẩm đến khâu cung cấp nguyên liệu, sản xuất, phân phối và tiêu thụ...

Từ khoá: Covid-19, thủ công truyền thống, hoa giấy Thanh Tiên, Thừa Thiên Huế

RESULTS AND ECONOMIC EFFICIENCY OF PAPER FLOWER PRODUCTION AND CONSUMPTION IN THANH TIEN PAPER FLOWER TRADITIONAL CRAFT VILLAGE, THUA THIEN HUE PROVINCE, AFTER COVID-19

Abstract: The Covid-19 pandemic, which began to spread at the beginning of 2020, has had a significant impact on the production and consumption, as well as logistics, tourism, services, and the consuming market. This includes paper flowers in Thanh Tien, Thua Thien Hue province's traditional paper flower village.

A survey of 20 confetti-making enterprises in Thanh Tien, Thua Thien Hue province's traditional paper flower hamlet, revealed that the recovery of paper flower production and consumption after the Covid-19 epidemic was not as excellent as before the pandemic. The number of production facilities decreased, the quantity of items produced and consumed has not increased, revenue is still limited, and the paper flower market has not recovered

to pre-pandemic levels.

To promote the manufacturing and consumption of confetti in Thanh Tien's traditional paper flower village following Covid-19, practical methods such as marketing and extending the consuming market must be implemented; planning spaces for craft communities, production management areas, and exhibition spaces; utilizing digital technology in marketing and developing product consumption markets; training artisans and skilled workers; encouraging organizations and businesses to invest, develop joint ventures, produce new and appealing products, form a chain of links, supply products from market research, product design, raw material supply, manufacture, distribution, and consumption, and so on.

Keywords: Covid-19, traditional craft, Thanh Tien paper flower, Thua Thien Hue

1. Giới thiệu

Đại dịch Covid-19 tác động gần như đồng thời tới toàn bộ các nền kinh tế trên thế giới. Ảnh hưởng của đại dịch đã làm cho mười nền kinh tế hàng đầu thế giới như Hoa Kỳ, Trung Quốc, Nhật Bản, Đức, Vương quốc Anh, Pháp, Ấn Độ, Ý, Brazil và Canada gặp nhiều khó khăn (Parag Verma và cộng sự, 2021). Đại dịch Covid-19 đã tác động rất lớn đến các hoạt động thương mại và đầu tư của các nước trên thế giới. Giãn cách xã hội ở nhiều quốc gia gây ra suy giảm giá trị xuất, nhập khẩu hàng hóa và dịch vụ, kèm theo đó là thu nhập giảm, tiêu dùng giảm và hoạt động xuất, nhập khẩu bị đình trệ. Cấu trúc sản xuất toàn cầu mang tính tập trung cao độ, một số trung tâm lớn trên thế giới cung ứng đầu vào, đóng vai trò quan trọng trong chuỗi giá trị và mạng sản xuất toàn cầu như Trung Quốc, Nhật Bản, Hàn Quốc, Mỹ... chịu tác động nặng nề từ đại dịch Covid-19. Kết quả là cung, cầu hàng hóa trên phạm vi toàn cầu cũng ngưng trệ và khối lượng thương mại hàng hóa thế giới sụt giảm đáng kể ngay từ những tháng đầu của năm 2020 và tiếp tục giảm sâu ở những tháng tiếp theo (Nguyễn Thị Chinh, 2020). Nếu như giai đoạn đầu của đại dịch Covid-19, nguồn cung bị hạn chế, cầu giảm và các công ty trì hoãn đầu tư, khiến tăng trưởng toàn cầu âm 4,5%, thì từ đầu năm 2022 đến nay, nhờ có vaccine phòng Covid-19 được phủ rộng, người dân trên toàn cầu gần như đã vượt qua được thời kỳ đen tối nhất của đại dịch Covid-19. Năm 2021, cú sốc về nguồn cung và nguồn cầu cùng diễn ra, góp phần làm tăng giá hàng hóa từ sản xuất đến người tiêu dùng cuối cùng. Năm 2022, đại dịch đã dịu bớt, nhưng cuộc chiến giữa Nga và Ukraine có thể còn kéo dài làm trầm trọng hơn sự đứt gãy cung - cầu, tạo nên tình trạng lạm phát do “chi phí đẩy” (Đoàn Thanh Hà và cộng sự, 2022).

Đối với nước ta, nền kinh tế với độ mở lớn, hội nhập quốc tế sâu rộng đã và đang chịu nhiều tác động, ảnh hưởng nghiêm trọng của đại dịch Covid-19 đến tất cả các lĩnh vực kinh tế - xã hội, gây gián đoạn chuỗi cung ứng và lưu chuyển thương mại, làm đình trệ các hoạt động sản xuất - kinh doanh, dịch vụ; đã tác động trực tiếp đến các ngành xuất, nhập khẩu, hàng không, du lịch, dịch vụ lưu trú, ăn uống, y tế, giáo dục, lao động, việc làm; nhiều doanh nghiệp phá sản, giải thể, tạm dừng hoạt động, thu hẹp quy mô, GDP quý I/2020 chỉ tăng 3,82%, là mức thấp nhất trong 10 năm gần đây (Nguyễn Thị Chinh, 2020); chỉ số CPI tháng 3 và chỉ số CPI bình quân quý I năm 2020 đều đang ở mức cao nhất trong

giai đoạn 2016-2020, tỷ giá thương mại hàng hóa lần đầu tiên giảm trong ba năm gần đây, vốn FDI vào Việt Nam giảm cả về số lượng cũng như tổng vốn đầu tư (Trần Thọ Đạt, 2020). Ảnh hưởng của đại dịch Covid-19 đến nền kinh tế Việt Nam trên 3 tác động chính gồm: tăng trưởng, đầu tư và thương mại; gián đoạn các chuỗi giá trị sản xuất quan trọng; suy giảm tiêu dùng tác động lớn đến dịch vụ và du lịch. Tuy nhiên, Chính phủ Việt Nam đã có nhiều biện pháp thích hợp, tăng trưởng GDP đất nước 2 năm 2020, 2021 đều dương, tăng 2,1% năm 2020 và 2,58% năm 2021 (Đoàn Thanh Hà và cộng sự, 2022).

Đối với ngành nghề thủ công truyền thống như nghề làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế cũng không nằm ngoài những tác động đó. Những sản phẩm mà nghề làm hoa giấy tại làng hoa giấy Thanh Tiên, Thừa Thiên Huế để lại ngày nay đã trở thành những sản phẩm truyền thống dân gian hết sức đặc sắc, chứa đựng tinh hoa văn hóa dân tộc, khẳng định nét đẹp riêng, sự độc đáo riêng vốn có của nó, không những đáp ứng nhu cầu thờ cúng của người dân địa phương, mà vươn ra thế giới và đã thu hút khá nhiều khách du lịch các nước đến tham quan, trải nghiệm (Võ Văn Dân, 2022). Tuy nhiên, do ảnh hưởng của đại dịch Covid-19, sản xuất và tiêu thụ sản phẩm tại làng nghề truyền thống hoa giấy Thanh Tiên, Thừa Thiên Huế gặp nhiều khó khăn, giai đoạn đầu của đại dịch (2020-2021) giãn cách xã hội dẫn đến khó khăn trong tổ chức sản xuất, số lượng đơn hàng và hợp đồng cắt giảm hoặc hủy bỏ, lượng khách du lịch trong nước và quốc tế sụt giảm,... dẫn đến thị trường tiêu thụ thu hẹp, đã ảnh hưởng nặng nề đến sản xuất và tiêu thụ sản phẩm tại làng nghề truyền thống hoa giấy Thanh Tiên, Thừa Thiên Huế.

Chính vì vậy, nghiên cứu tác động của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm, đặc biệt là sản phẩm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, Thừa Thiên Huế là khá cấp thiết, ý nghĩa, nhằm phát triển sản xuất và tiêu thụ sản phẩm, góp phần phát triển kinh tế địa phương, bảo tồn bản sắc văn hoá dân tộc, thu hút khách du lịch trong và ngoài nước.

2. Cơ sở lý thuyết và phương pháp nghiên cứu

2.1. Cơ sở lý thuyết

Cho đến nay, nghề thủ công truyền thống là ngành nghề được tổ chức sản xuất rộng khắp trên thế giới, đã tạo ra vô số sản phẩm thủ công truyền thống đặc sắc, mang đậm bản chất văn hoá các dân tộc của nhiều quốc gia trên thế giới. Tuy nhiên, hiện nay vẫn chưa có định nghĩa chính xác, thống nhất về nghề hay sản phẩm thủ công truyền thống (Yongzhong Yang, Mohsin Shafi, Xiaoting Song and Ruo Yang, 2018). Theo Dương Bá Phượng: “Nghề thủ công truyền thống bao gồm những ngành nghề phi nông nghiệp có từ trước thời thuộc Pháp còn tồn tại cho đến ngày nay. Nghề thủ công truyền thống còn bao hàm cả những ngành nghề được cải tiến hoặc sử dụng những loại máy móc hiện đại để hỗ trợ sản xuất nhưng phải tuân thủ công nghệ truyền thống, thể hiện được những nét văn hoá đặc sắc của dân tộc Việt Nam” (Dương Bá Phượng, 2001). Theo Fabeil: Sản phẩm thủ công truyền thống, thủ công mỹ nghệ có thể được định nghĩa là những mặt hàng thường được làm bằng tay, có sức hấp dẫn về văn hóa và nghệ thuật dựa trên chất liệu, thiết kế và tay nghề của nghệ nhân (Fabeil và các cộng sự, 2014).

Theo Dương Bá Phương (2001), có thể phân chia ngành nghề thủ công truyền thống thành các nhóm chính là:

+ Các ngành nghề sản xuất các mặt hàng thủ công mỹ nghệ như gốm sứ mỹ nghệ, sơn mài, thêu, ren, thảm, khảm, chạm khắc gỗ, chạm khắc đá, chạm, mạ vàng bạc, dệt tơ tằm, thổ cẩm, mây tre đan các loại,...

+ Các ngành nghề sản xuất công cụ sản xuất như rèn, sắt, làm cày bừa, nông cụ, đóng thuyền,...

+ Các ngành nghề sản xuất các mặt hàng phục vụ tiêu dùng thông thường như dệt chiếu, làm nón, đan màn, rổ, rá, sọt, bồ, bện thừng, chao, dệt vải; may mặc, ...

+ Các ngành nghề phục vụ cho sản xuất và đời sống như nề, mộc, hàn, đúc đồng, gang, sản xuất vật liệu xây dựng,...

+ Các ngành nghề chế biến lương thực, thực phẩm như xay xát, làm bún, bánh, đường, mật, làm tương, đậu phụ, nấu rượu, chế biến hải sản các loại,...

Như vậy, theo các định nghĩa và phân loại trên, nghề làm hoa giấy truyền thống tại làng Thanh Tiên, xã Phú Mậu, huyện Phú Vang, tỉnh Thừa Thiên Huế (nay là làng Thanh Tiên tại xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế) là ngành nghề thủ công truyền thống và được UBND tỉnh công nhận danh hiệu làng nghề truyền thống theo Quyết định số 725/QĐ-UBND ngày 16/4/2013 của Chủ tịch UBND tỉnh Thừa Thiên Huế về việc công nhận làng nghề, làng nghề truyền thống tỉnh Thừa Thiên Huế.

Hiện nay, trên thế giới và Việt Nam, đã có nhiều nghiên cứu về tác động, ảnh hưởng của đại dịch Covid-19 đến nền kinh tế, đến sản xuất và tiêu thụ sản phẩm trên nhiều khía cạnh như đứt gãy chuỗi cung ứng, ảnh hưởng đến nguồn cung nguyên liệu, ảnh hưởng đến ngành Logistics (Aalok Kumar, 2020; CAI Min, 2020; Nguyễn Thành Hiếu, 2020; Phan Văn Hoà, 2022); ảnh hưởng đến nguồn lao động, tổ chức sản xuất sản phẩm (Aalok Kumar, 2020; Phan Văn Hoà, 2022); ảnh hưởng cả phía cung và cầu, kết quả và hiệu quả sản xuất, tiêu thụ... (Phạm Hồng Chương, 2020; Phan Văn Hoà, 2022)...

Theo Phan Văn Hoà, nghiên cứu tác động, ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm thủ công truyền thống, thủ công mỹ nghệ, được đánh giá thông qua các nội dung sau:

- Ảnh hưởng của đại dịch Covid-19 đến sự tăng trưởng, phát triển về mặt số lượng các cơ sở sản xuất, kinh doanh;

- Ảnh hưởng của đại dịch Covid-19 đến các yếu tố đầu vào phục vụ sản xuất, trong đó các yếu tố quan trọng như nguyên nhiên vật liệu, lao động, ...;

- Ảnh hưởng của đại dịch Covid-19 đến sản lượng sản xuất, tiêu thụ và thị trường;

- Ảnh hưởng của đại dịch Covid-19 đến kết quả, hiệu quả sản xuất, kinh doanh của các cơ sở sản xuất (Phan Văn Hoà, 2022).

Trong khuôn khổ nghiên cứu này, hoa giấy truyền thống tại làng nghề truyền thống hoa giấy Thanh Tiên, tỉnh Thừa Thiên Huế thuộc loại sản phẩm thủ công truyền thống, thủ công mỹ nghệ, nên đánh giá ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm hoa giấy Thanh Tiên tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế cũng được phân tích, đánh giá qua các nội dung trên.

2.2. Phương pháp nghiên cứu

Để phản ánh được các nội dung trên, nghiên cứu sử dụng các phương pháp chủ yếu là thống kê mô tả, so sánh, hạch toán kinh tế và phương pháp chuyên gia, chuyên khảo... Nguồn thông tin số liệu thứ cấp được thu thập từ các cơ quan ban ngành từ Trung ương đến địa phương, đặc biệt Tổng cục Thống kê Việt Nam, Phòng Kinh tế thành phố Huế và các công trình đã công bố. Nguồn dữ liệu sơ cấp: năm 2022, số cơ sở làm hoa giấy của làng nghề truyền thống hoa giấy Thanh Tiên chỉ còn 20 cơ sở. Để đảm bảo tính chính xác, nhóm nghiên cứu tiến hành điều tra phỏng vấn trực tiếp toàn bộ 20 cơ sở làm hoa giấy hiện đang hoạt động tại làng Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế theo bảng hỏi được thiết kế sẵn. Nội dung bảng hỏi tập trung thu thập các thông tin về các yếu tố nguồn lực, tình hình sản xuất, kết quả sản xuất, thị trường tiêu thụ cũng như ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm hoa giấy của các cơ sở tại làng nghề truyền thống hoa giấy Thanh Tiên.

3. Kết quả nghiên cứu và thảo luận

3.1. Ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm

Cho đến hiện nay, chưa có số liệu thống kê cụ thể ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ sản phẩm thuộc các ngành nghề truyền thống, hay ngành nghề thủ công mỹ nghệ. Do vậy, trong khuôn khổ bài báo này, nhóm nghiên cứu xin phân tích thông qua số liệu thống kê tổng hợp nền kinh tế, từ đó, xem xét riêng cho trường hợp sản xuất và tiêu thụ sản phẩm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế. Trước hết là ảnh hưởng của đại dịch Covid-19 đến số lượng cơ sở sản xuất, doanh nghiệp.

- Ảnh hưởng đến số lượng cơ sở sản xuất, doanh nghiệp

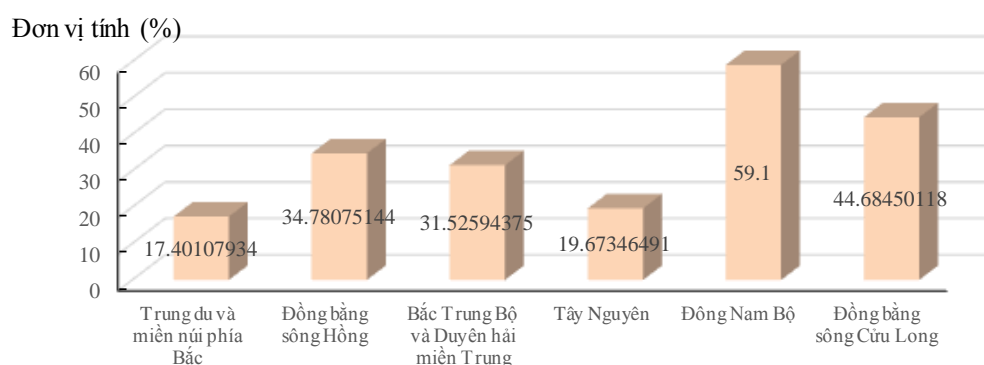
Theo báo cáo của Tổng cục Thống kê, đại dịch Covid-19 đã tác động nặng nề đến các doanh nghiệp và các cơ sở sản xuất nói chung. Trong 9 tháng đầu năm 2020 cả nước có 98.954 doanh nghiệp thành lập mới, giảm 3,2% so với cùng kỳ năm trước. Đây là lần đầu tiên số doanh nghiệp thành lập mới trong 9 tháng đầu năm bị sụt giảm trong giai đoạn 2015-2020. Có 78,3 nghìn doanh nghiệp rút lui khỏi thị trường, tăng 27,2% so với cùng kỳ năm 2019, trong đó có 38,6 nghìn doanh nghiệp đăng ký tạm ngừng kinh doanh, tăng 81,8% với cùng kỳ năm 2019. Hiện tại doanh nghiệp siêu nhỏ việc tiếp cận nguyên, vật liệu đầu vào chỉ thỏa mãn được gần 1/5 nhu cầu, tỷ lệ này tăng dần theo quy mô doanh nghiệp đến nhóm doanh nghiệp lớn là trên 1/3 nhu cầu (Tổng cục Thống kê, 2021).

Tuy nhiên, sự gia tăng về số lượng và vốn của doanh nghiệp đăng ký thành lập mới 6 tháng đầu năm 2021 cho thấy sự nỗ lực và tinh thần khởi nghiệp của cộng đồng doanh nghiệp trong bối cảnh dịch bệnh đang diễn biến phức tạp. Tính chung 6 tháng đầu năm 2021, tổng số doanh nghiệp thành lập mới và doanh nghiệp quay trở lại hoạt động đạt 93,2 nghìn doanh nghiệp, tăng 6,9% so với cùng kỳ năm 2020; vốn đăng ký bình quân một doanh nghiệp thành lập mới đạt 14,1 tỷ đồng, tăng 24,2% (Tổng cục Thống kê, 2021).

- Ảnh hưởng đến các yếu tố đầu vào phục vụ sản xuất

Theo báo cáo của Tổng cục Thống kê về tác động của đại dịch Covid-19 đến tình hình lao động, việc làm cho thấy, đại dịch Covid-19 đã có tác động lớn đến lao động, việc làm của lao động nước ta. Hình 1 cho thấy, ảnh hưởng nặng nề nhất là đợt dịch thứ 4 kéo

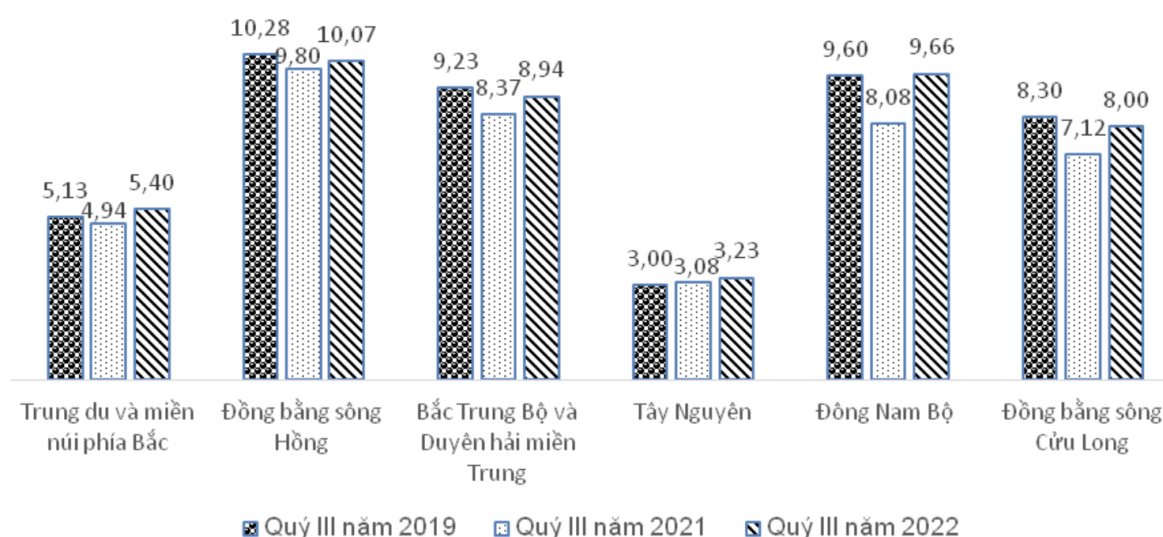
dài vào quý III năm 2021, tương ứng 47,2 triệu lao động có việc làm. So với thời điểm chưa bùng phát dịch Covid-19 ở quý IV năm 2019 là 51 triệu lao động có việc làm, đợt dịch thứ 4 quý III năm 2021 đã giảm 3,8 triệu lao động.



Hình 1. Tỷ lệ người từ 15 tuổi trở lên bị ảnh hưởng tiêu cực chia theo vùng kinh tế xã hội, quý III năm 2021

Nguồn: Tổng cục Thống kê, 2021

Chỉ tính riêng trong quý III năm 2021, cả nước có hơn 28,2 triệu người từ 15 tuổi trở lên hứng chịu ảnh hưởng tiêu cực của đại dịch Covid-19 khiến họ bị mất việc làm, giảm thu nhập,... So với quý trước, số lao động chịu tác động xấu bởi đại dịch Covid-19 trong quý III tăng thêm 15,4 triệu người. Hầu hết những người bị ảnh hưởng nằm trong độ tuổi lao động, từ 25 đến 54 tuổi, chiếm 73,3% tổng số lao động chịu ảnh hưởng (Tổng cục Thống kê, 2021). Hình 1 cho thấy, lao động từ 15 tuổi trở lên thuộc vùng Bắc Trung Bộ và Duyên hải miền Trung cũng bị tác động nặng nề từ đại dịch Covid-19, tỷ lệ thất nghiệp của lực lượng này chiếm đến 31,5% vào quý III năm 2021.



Hình 2. Số người có việc làm trong độ tuổi lao động theo vùng kinh tế quý III, giai đoạn 2019-2022 (Đơn vị tính: triệu người)

Nguồn: Tổng Cục thống kê Việt Nam (2022)

Nếu so sánh quý III giai đoạn 2019-2022, hình 2 cho thấy, số người có việc làm trong độ tuổi lao động năm 2021 ở các vùng kinh tế là thấp nhất. Nguyên nhân chính được cho là do tác động của đại dịch Covid-19. Tuy nhiên quý III năm 2021 nhờ nền kinh tế phục hồi, số lượng người có việc làm ở các vùng kinh tế trong nước có xu hướng tăng trở lại, góp phần giải quyết việc làm và tăng trưởng kinh tế địa phương.

Hoạt động cung ứng nguyên liệu đầu vào cũng bị ảnh hưởng trầm trọng. Có hai giai đoạn tác động ban đầu do sự bùng phát và lây lan dịch. Giai đoạn 1, việc sản xuất buộc phải tạm dừng tại Trung Quốc và nguồn cung nguyên liệu toàn cầu bị thu hẹp do các đơn hàng xuất khẩu bị trì hoãn và giảm chủ yếu vào tháng 2 và tháng 3 năm 2020. Giai đoạn 2, cung và cầu trong chuỗi cung ứng sản xuất bị ảnh hưởng nghiêm trọng với sự lây lan liên tục của Covid-19 trên toàn cầu. Nhiều doanh nghiệp nhỏ và vừa đang đứng trước nguy cơ phá sản cao hơn bao giờ hết (CAI Min and LUO Jianwen, 2020).

Ở trong nước, hiện tượng “đứt gãy” nguồn cung cũng xuất hiện do tác động của đại dịch. Theo Nguyễn Thành Hiếu, khó khăn của các doanh nghiệp Việt Nam bắt đầu từ quý I năm 2020, khi Trung Quốc rơi vào khủng hoảng vì dịch Covid-19 thì việc cung cấp nguyên liệu cho các khách hàng nước ngoài bị gián đoạn, điều này khiến cho hoạt động sản xuất của các doanh nghiệp Việt Nam gần như đình trệ trong thời gian qua vì thiếu hụt nguyên liệu. Các doanh nghiệp hầu như không có kế hoạch dự phòng và cũng không đủ thời gian để tìm kiếm nguồn cung khác (Nguyễn Thành Hiếu và cộng sự, 2020).

- Ảnh hưởng đến sản lượng sản xuất và thị trường tiêu thụ

Thị trường tiêu thụ trong nước bị thu hẹp, khi có tới trên 2/3 số doanh nghiệp cho rằng thị trường tiêu thụ trong nước giảm mạnh. Tỷ lệ doanh nghiệp gặp khó khăn do thị trường xuất khẩu thu hẹp ở mức khá cao. Các doanh nghiệp xuất khẩu có quy mô càng lớn có tỷ lệ doanh nghiệp gặp khó khăn do thị trường xuất khẩu thu hẹp càng cao (Tổng cục Thống kê, 2021).

- Ảnh hưởng đến kết quả và hiệu quả sản xuất, tiêu thụ sản phẩm

Khó khăn không chỉ đến với doanh nghiệp xuất khẩu, mà các doanh nghiệp tiêu thụ nội địa cũng gặp khó khăn do cầu thị trường giảm đột ngột. Nhiều khách hàng đã đặt lịch thì hủy lịch khiến doanh thu của doanh nghiệp giảm đến gần 70% so với cùng kỳ năm trước. Báo cáo khảo sát của Ban nghiên cứu phát triển kinh tế tư nhân (Hội đồng tư vấn cải cách thủ tục hành chính của Thủ tướng Chính phủ) công bố cho thấy nếu dịch bệnh kéo dài tới 6 tháng, sẽ có hơn 60% doanh nghiệp được khảo sát bị giảm trên 50% doanh thu, gần 29% doanh nghiệp bị giảm 20-50% doanh thu (Nguyễn Thành Hiếu và cộng sự, 2020).

3.2. Ảnh hưởng của đại dịch Covid-19 đến sản xuất và tiêu thụ hoa giấy tại làng nghề hoa giấy Thanh Tiên, tỉnh Thừa Thiên Huế

- Ảnh hưởng đến số lượng cơ sở sản xuất hoa giấy truyền thống

Cũng như các cơ sở sản xuất, doanh nghiệp trong nền kinh tế, số lượng cơ sở sản xuất hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế cũng bị ảnh hưởng nặng nề từ đại dịch Covid-19. Cụ thể số liệu sau phản ánh rõ điều đó. Bảng 1 cho thấy, đại dịch Covid-19 đã tác động rất lớn đến ngành nghề sản xuất hoa giấy truyền thống tại Làng nghề truyền thống hoa giấy Thanh Tiên, xã

Phú Mậu, thành phố Huế những năm qua. Để có cơ sở, chúng tôi sử dụng số liệu năm 2019 làm số liệu trước đại dịch xảy ra và năm 2020, 2021 làm số liệu trong đại dịch (tức đại dịch đang bùng phát) và năm 2022 làm số liệu hậu đại dịch (tức sau đại dịch bùng phát), đây là thời gian phục hồi, tình hình sản xuất kinh doanh đã ổn định trở lại. Điều đó cho phép phân tích tác động của đại dịch chính xác hơn.

Bảng 1 cho thấy, tác động của đại dịch Covid-19 đến hoạt động của các cơ sở và tình hình sản xuất, tiêu thụ sản phẩm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên là rất lớn. Về số cơ sở sản xuất, so với trước đại dịch năm 2019, số cơ sở làm hoa giấy sau đại dịch năm 2022 đã giảm 36 cơ sở, tức giảm 64,3%. Qua tìm hiểu thực tế cho thấy, phần lớn các cơ sở làm hoa giấy ở đây với quy mô nhỏ, cấp hộ. Đây là các hộ gia đình sản xuất chủ yếu nông nghiệp kiêm ngành nghề, tranh thủ thời gian rảnh rỗi để làm hoa giấy và bán kiếm thêm thu nhập. Năm 2020, 2021 đại dịch Covid-19 bùng phát, do chủ trương giãn cách xã hội để phòng dịch, dẫn đến tổ chức sản xuất đình trệ, thị trường thu hẹp, khách du lịch trong và ngoài nước giảm mạnh gần như không có, nên nhiều cơ sở đã tự ngừng sản xuất. Cùng với chủ trương của địa phương là xây dựng thương hiệu tập thể làng nghề làm hoa giấy truyền thống để đăng ký thương hiệu, chọn các hộ đủ tiêu chuẩn để cấp phép, vì thế nhiều hộ không đáp ứng đầy đủ các tiêu chuẩn đề ra cũng phải dừng sản xuất. Chính những lý do này đã làm cho số cơ sở làm hoa giấy năm 2021, 2022 giảm mạnh so với những năm trước đại dịch 2019. Mặc dù số cơ sở làm hoa giấy giảm xuống, tuy nhiên đây là xu hướng tốt, nhằm chọn lọc các cơ sở đảm bảo đủ tiêu chuẩn, tâm huyết, có quyết tâm giữ nghề, tạo ra nhiều sản phẩm chất lượng, đáp ứng nhu cầu khách hàng, bảo tồn và phát huy văn hoá dân tộc. Về sản lượng sản phẩm và doanh thu, năm 2022 hậu Covid-19 so với năm 2019 trước đại dịch, số lượng sản phẩm và doanh thu tiêu thụ suy giảm mạnh, lượng sản phẩm giảm 18,9%, đã làm cho doanh thu giảm 38,9% so với năm 2019, trước khi đại dịch bùng phát.

Bảng 1. Ảnh hưởng của đại dịch Covid-19 đến số lượng cơ sở sản xuất hoa giấy tại làng nghề hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế giai đoạn 2019-2022

Chỉ tiêu	Đơn vị tính	Trước đại dịch	Trong đại dịch		Sau đại dịch	So sánh sau và trước đại dịch (%)
		2019	2020	2021	2022	
1. Cơ sở sản xuất	Cơ sở	56	50	20	20	-64,3
2. Lượng sản phẩm	Nghìn sản phẩm	1.358,6	1.202,5	960,1	1.102,2	-18,9
3. Doanh thu	Triệu đồng	4.825,0	3.430,0	2.175,2	2.950,5	-38,9

Nguồn: Báo cáo của UBND xã 2019-2022; Báo cáo tình hình hoạt động kinh doanh hoa giấy Thanh Tiên và tranh dân gian làng Sinh năm 2021, 2022 và thống kê của Trường làng

- Ảnh hưởng đến các yếu tố đầu vào phục vụ sản xuất hoa giấy truyền thống

Nguồn lực làm hoa giấy truyền thống tại làng Thanh Tiên khá đơn giản, ngoài lao động với bàn tay tài hoa của người thợ thì một lượng vốn không lớn là nguồn lực chủ yếu

của các cơ sở làm hoa giấy ở Thanh Tiên. Do quy mô sản xuất nhỏ, chủ yếu sử dụng công lao động nhân rỗi của gia đình và thường tập trung vào 2-3 tháng trước Tết Nguyên đán, với sản phẩm hoàn toàn thủ công truyền thống nên hầu như không có cơ sở nào đầu tư máy móc thiết bị hay công nghệ mới, tiên tiến hiện đại gì. Chính vì thế, nguồn lực sản xuất làm hoa giấy ở Thanh Tiên hiện nay chủ yếu vẫn là vốn và lao động.

Bảng 2 cho thấy, so với năm 2019 (thời điểm trước đại dịch), năm 2022 (thời điểm sau đại dịch), số lượng vốn sản xuất và lao động của nghề làm hoa giấy ở Thanh Tiên đã giảm mạnh. Về vốn, giảm 69,9% và lao động giảm 68,1%. Trong đó số lượng lao động giảm là do số cơ sở sản xuất giảm từ 56 cơ sở năm 2019 xuống còn 20 cơ sở năm 2022 và lượng lao động thuê ngoài giảm. Năm 2021, với 20 cơ sở, không còn cơ sở nào thuê lao động ngoài để phục vụ sản xuất hoa giấy. Nếu xét bình quân 1 cơ sở thì số vốn sản xuất bình quân là khá thấp, bình quân 6 triệu đồng/cơ sở/năm; bình quân 1 cơ sở cũng chỉ có 3,8 lao động và đây chủ yếu là lao động gia đình. Mặc dù về mặt số lượng, giảm 13 lao động thuê ngoài là không đáng kể, tuy nhiên về mặt tính chất, qua tìm hiểu, nhiều lao động trong số này đã có nhiều năm gắn bó với các cơ sở, nay do dịch bệnh Covid-19 bùng phát, giãn cách xã hội, thị trường thu hẹp, lượng khách du lịch giảm, nên các cơ sở buộc phải cho họ nghỉ việc. Nghề sản xuất hoa giấy là nghề đơn giản, việc nhẹ, nhưng người thợ phải có tính kiên nhẫn cao, tỉ mỉ, chịu khó và phải có bàn tay khéo léo, tài hoa mới làm được sản phẩm tốt, đúng chất lượng và truyền thống... trong khi đào tạo được một người lao động như vậy với kinh nghiệm nhiều năm là rất khó và mất nhiều thời gian. Chính vì vậy, sẽ rất khó để thuê lại thợ làm hoa giấy này khi khôi phục được sản xuất, do họ đã chuyển sang ngành nghề khác.

Bảng 2. Tình hình vốn sản xuất và lao động của các hộ điều tra tại làng nghề truyền thống hoa giấy Thanh Tiên trước và sau đại dịch Covid-19

Chỉ tiêu	ĐVT	Trước đại dịch Covid-19 (2019)	Trong đại dịch Covid-19 (2021)	Sau đại dịch Covid-19 (2022)	So sánh sau và trước đại dịch (%)
I. Tổng số					
1.1. Vốn sản xuất	Triệu đ	398	110	120	-69,9
1.2. Lao động	LĐ	235	72	75	-68,1
- LĐ gia đình	LĐ	196	72	73	-62,8
- LĐ thuê	LĐ	45	0	2	-95,6
II. Bình quân/cơ sở					
2.1. Vốn sản xuất	Triệu đ	7,1	5,5	6,0	-15,5
2.2. Lao động	LĐ	4,2	3,6	3,8	-10,7
- LĐ gia đình	LĐ	3,5	3,6	3,7	4,3
- LĐ thuê	LĐ	0,8	0	0,1	-87,5

Nguồn: Số liệu điều tra của tác giả

Qua bảng 2 cho thấy, với những nguồn lực khá hạn chế, quy mô khá nhỏ, thời gian sản xuất không lớn, thị trường hẹp,... đã dẫn đến nhiều hạn chế trong phát triển sản xuất và

bảo tồn nghề làm hoa giấy ở Thanh Tiên, đặc biệt sau đại dịch Covid-19 như vừa qua. Chính những vấn đề này, để khôi phục sản xuất và tiêu thụ sản phẩm hoa giấy truyền thống ở Thanh Tiên, địa phương cần có kế hoạch rõ ràng, thiết thực, đặc biệt là các chủ trương biện pháp sao cho vừa bảo tồn làng nghề, ngành nghề nhưng yếu tố quyết định vẫn là nâng cao hiệu quả sản xuất và tiêu thụ hoa giấy cho các cơ sở, không những giúp họ làm sao chỉ để tồn tại nghề, mà phải có kế hoạch để các cơ sở này vươn lên làm giàu với nghề truyền thống này của họ.

- Ảnh hưởng đến sản lượng sản xuất và thị trường tiêu thụ

Theo các chủ cơ sở làm hoa giấy Thanh Tiên cho biết, nói về công đoạn làm hoa giấy, tất cả đều được người dân Thanh Tiên làm thủ công hoàn toàn bằng tay. Phải tốn rất nhiều thời gian kết hợp với sự khéo léo của đôi tay, sự tỉ mỉ của nghệ nhân mới tạo thành một bông hoa đẹp. Chưa kể các công đoạn còn phải được chuẩn bị từ trước, thậm chí từ mấy tháng trước chứ không phải ngày một ngày hai mà thành. Tre phải lựa những cây tốt nhất (phải là loại tre lồ ô mới dẻo dai), đem chẻ nhỏ ra vót tròn, rồi đem phơi khô làm cành, cuống bông hoa. Tiếp đến là khâu chọn giấy và nhuộm màu, khâu này rất quan trọng sao cho giấy phải bền, màu cánh hoa phải luôn tươi mới như hoa thật.

Người làng Thanh Tiên đặc biệt không sử dụng phẩm màu hay hóa chất độc hại nhuộm hoa giấy, tất cả đều từ nguồn nhựa cây và lá cây theo công thức gia truyền chế xuất ra làm thuốc nhuộm. Công đoạn cuối mới là cắt cánh, cắt cành, làm nhụy hoa, tạo nếp nhăn cho hoa sống động như hoa thật rồi dùng hồ dán kết bông vào cành. Rất nhiều công đoạn đòi hỏi đức tính tỉ mỉ và sự chăm chỉ, cái tâm của người thợ, nên một ngày một nghệ nhân chỉ tối đa làm được 15-20 bông hoa giấy. Thế nhưng giá bán lại không cao, chỉ 7-9 đồng/cặp cành hoa cúng (hoa đơn giản như hoa hồng, hoa cúc, hoa lan...). Còn với hoa sen, vừa để cúng vừa trang trí, công đoạn phức tạp hơn, đẹp hơn nên giá cao hơn chút. Bảng 3 cho ta biết về sản lượng hoa giấy sản xuất tại làng nghề truyền thống hoa giấy Thanh Tiên, Thừa Thiên Huế giai đoạn 2019-2022.

Bảng 3. Sản lượng hoa giấy sản xuất tại làng nghề truyền thống hoa giấy Thanh Tiên trước và sau đại dịch Covid-19

DVT: Nghìn sản phẩm

Chỉ tiêu	Trước đại dịch Covid-19 (2019)	Trong đại dịch Covid-19 (2021)	Sau đại dịch Covid-19 (2022)	So sánh sau và trước đại dịch (%)
I. Tổng số	1.358,6	960,1	1.102,2	-18,9
1.1. Hoa giấy thờ cúng	1.210	850	987	-18,4
1.2. Hoa sen giấy	128	100	104	-18,8
1.3. Loại khác	20,6	10,1	11,2	-45,6
II. Bình quân / cơ sở	24,3	48,0	55,11	127,4
2.1. Hoa giấy thờ cúng	21,6	42,5	49,35	128,4
2.2. Hoa sen giấy	2,3	5,0	5,2	127,5
2.3. Loại khác	0,4	0,5	0,56	52,2

Nguồn: số liệu điều tra của tác giả

Bảng 3 cho thấy sản lượng hoa giấy sản xuất ra tại làng nghề truyền thống hoa giấy Thanh Tiên có xu hướng giảm mạnh vào năm 2021 khi đại dịch Covid-19 bùng phát, nguyên nhân chính là do giãn cách xã hội, các cơ sở không tổ chức sản xuất, thị trường tiêu thụ khó khăn, bên cạnh đó lượng khách đến tham quan trải nghiệm tại làng nghề năm 2021 gần như không có. Chính vì thế hai năm 2020 - 2021 là hai năm khó khăn nhất của các cơ sở làm hoa giấy tại đây. Số lượng sản phẩm hoa giấy sản xuất năm 2021 đã giảm đáng kể so với trước đại dịch năm 2019. Cụ thể, số lượng hoa giấy sản xuất năm 2021 sau đại dịch là 960,1 nghìn sản phẩm, giảm 398,5 nghìn sản phẩm so năm 2019 trước đại dịch. Trong đó hoa giấy thờ cúng có sản lượng sản xuất cao nhất nhưng chỉ đạt 85 vạn sản phẩm, thấp thua 36 vạn so năm 2019. Hoa sen giấy chỉ đạt 10 vạn hoa, thấp thua 2,8 vạn hoa so năm 2019. Bình quân 1 cơ sở năm 2021 chỉ sản xuất 4,25 vạn sản phẩm hoa thờ cúng và 5 nghìn hoa sen giấy. Năm 2021, hầu hết các cơ sở sản xuất đều tập trung làm sản phẩm hoa giấy thờ cúng vì nó dễ tiêu thụ, chủ yếu dùng để cho văn hoá thờ cúng của dân gian địa phương. Đối với hoa sen giấy làm khá lâu, cần sự tỉ mỉ, khéo léo và yêu cầu các nghệ nhân có tay nghề cao mới có thể làm ra hoa sen giấy. Nhưng năm 2021 do ảnh hưởng của đại dịch Covid-19, thị trường tiêu thụ hoa sen giấy là khá thấp, nên các cơ sở cũng ít làm hơn. Năm 2022, mặc dù thị trường có hồi phục, nhưng sản lượng hoa giấy sản xuất và tiêu thụ cũng còn khá thấp, chưa phục hồi như những năm 2019, trước dịch. Cụ thể, bảng 3 cho thấy, so với trước dịch năm 2019, năm 2022 sau dịch, tổng số lượng hoa giấy sản xuất và tiêu thụ giảm 18,9%, trong đó hoa giấy thờ cúng và hoa sen giảm tương ứng 18,4% và 18,8%. Các loại hoa khác sử dụng ở các mục đích khác như trang trí, sản phẩm kết hợp với các loại sản phẩm khác như quạt, tranh,... thường các loại sản phẩm này làm theo hợp đồng hoặc thoả thuận trước. Tuy nhiên do ảnh hưởng của dịch bệnh, các loại sản phẩm này giảm mạnh sau năm 2019.

Đối với thị trường tiêu thụ sản phẩm, qua khảo sát thực tế cho thấy, thị trường tiêu thụ sản phẩm hoa giấy Thanh Tiên của 20 cơ sở như sau:

1, Người dân địa phương tiêu thụ: thị trường này chiếm một phần khá lớn trên toàn thị trường tiêu thụ. Trước năm 2019, sản lượng hoa giấy do người dân địa phương tiêu thụ đạt 44,25%, bởi người dân tại địa bàn cũng như cả tỉnh Thừa Thiên Huế tín ngưỡng rất cao và họ thường mua hoa giấy để thờ cúng ông bà tổ tiên vào những dịp Tết đến, xuân về;

2, Khách du lịch trong nước tiêu thụ khoảng 21% trong tổng thị trường tiêu thụ sản phẩm hoa giấy. Lượng khách du lịch trong nước tiêu thụ sản phẩm hoa giấy truyền thống chủ yếu là lượng khách đến tham quan, thường là những khách đi theo đoàn, sinh viên hoặc những khách có sở thích khám phá và trải nghiệm du lịch nơi vùng quê yên bình địa phương;

3, Khách du lịch nước ngoài tiêu thụ khoảng 15,5% trong tổng số thị trường tiêu thụ sản phẩm hoa giấy, nguyên nhân chủ yếu là do địa điểm chưa thực sự thu hút khách du lịch nước ngoài và chưa có các kênh quảng cáo và quảng bá sản phẩm ra nước ngoài;

4, Cơ sở kinh doanh tiêu thụ và xuất khẩu: tương ứng 19,0% và 0,25%. Nguyên nhân là do sản phẩm hoa giấy chưa có mẫu mã và chưa có sự sáng tạo tạo một cách bắt mắt, chưa thu hút được người tiêu dùng, sản lượng sản xuất không lớn, nên chưa thu hút được nhiều cơ sở kinh doanh để tiêu thụ. Bên cạnh đó, một lượng ít hoa sen giấy được xuất

khâu, bán cho nước ngoài, chủ yếu từ hộ nghệ nhân Thân Văn Huy, đặc biệt là Việt Kiều mua chủ yếu để trang trí, thờ cúng trong các đền chùa,...

Qua khảo sát các hộ làm hoa giấy cho thấy, hình thức bán trực tiếp cho người tiêu dùng địa phương chiếm tỷ lệ sản lượng lớn. Tuy nhiên đa số cơ sở làm hoa giấy hiện nay đều chưa có điểm trưng bày sản phẩm, chủ yếu là trưng bày tại nhà, không gian chật hẹp, sự trưng bày, bố trí sản phẩm khá đơn giản, hoàn toàn tự phát, thiếu thẩm mỹ, không khoa học, đặc biệt gần như thiếu kiến thức marketing trong việc bố trí, trưng bày sản phẩm; thời gian trưng bày chủ yếu tập trung 2 tháng Tết nguyên đán, những ngày tháng bình thường có rất ít cơ sở làm hoa để dự trữ và trưng bày. Vì thế quảng bá, quảng cáo thông qua trưng bày, bố trí sản phẩm gần như rất yếu kém. Bên cạnh đó, việc quảng bá, quảng cáo, trưng bày sản phẩm, tổ chức bán hàng trên các sàn giao dịch sản phẩm chính, bán hàng trực tuyến như Lazada, Shopee, Sendo, Tiki,... gần như khá ít. Các hình thức quảng bá, quảng cáo, bán hàng trực tuyến trên Facebook, Zalo, Twitter, LinkedIn,... cũng rất hiếm và rất thiếu chuyên nghiệp. Đây là những hạn chế lớn của các cơ sở làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, Thừa Thiên Huế hiện nay.

Trong khi đó, những năm gần đây, trên thị trường xuất hiện nhiều loại hoa nhựa, hoa làm từ sản phẩm công nghiệp, hoa làm từ các vật liệu cao cấp,... bày bán nhiều trên địa bàn, đã cạnh tranh mạnh mẽ với hoa giấy Thanh Tiên. Do hoa nhựa thường ban đầu có màu sắc sặc sỡ, dễ làm thành nhiều loại hoa lạ mắt không thực tế nhưng dễ cuốn hút người dùng, có độ bền lâu, giá cả không cao,... nên nhiều người dân lựa chọn thay hoa giấy truyền thống. Điều đó ảnh hưởng lớn đến thị trường tiêu thụ của hoa giấy truyền thống Thanh Tiên. Chính vì thế, khó khăn lớn nhất hiện nay đối với các cơ sở làm hoa giấy truyền thống không phải ở đầu vào, hay tổ chức sản xuất, tay nghề nghệ nhân mà chính là thị trường tiêu thụ. Vấn đề nhiều hộ cần nhất là làm sao để bán được lượng lớn hoa giấy làm ra? từ đó nâng cao hiệu quả kinh tế trong sản xuất hoá giấy, tăng thu nhập và có lợi nhuận cao, thì việc phát triển sản xuất, bảo tồn và phát huy làng nghề làm hoa giấy truyền thống sẽ đơn giản hơn.

Để làm được điều đó, những chủ trương biện pháp trước mắt là phải tập trung giải quyết vấn đề tiêu thụ sản phẩm, cần trả lời câu hỏi “Làm cách nào để bán được sản phẩm?” mà không nên tập trung vào giải quyết vấn đề “Làm sao để phát triển sản xuất hay làm sao để sản xuất thật nhiều hoa giấy?”. Giải quyết vấn đề đó, đồng nghĩa với việc phải phát triển thị trường, xúc tiến tiêu thụ. Ngoài những biện pháp như hiện nay, tiêu thụ ở chợ địa phương, phát triển du lịch trải nghiệm thì các biện pháp khác mạnh mẽ hơn cần được thực hiện như mở rộng các hình thức quảng bá, quảng cáo, marketing, số hoá sản phẩm và quảng bá trên các phương tiện thông tin đại chúng, mạng xã hội; khuyến khích người dân địa phương giữ gìn nét đẹp văn hoá dân gian, tiêu thụ sản phẩm; truyền bá văn hoá ra các vùng miền khác để tăng khả năng tiêu thụ sản phẩm; nghiên cứu phát triển các ứng dụng sản phẩm hoa giấy ở các lĩnh vực khác như phổ biến ở trường học, cho học sinh trải nghiệm; mở rộng các hình thức dịch vụ trang trí trong dân gian, trang trí trong các dịch vụ cao cấp,... Một khi thị trường tiêu thụ mở rộng, hiệu quả kinh tế nâng cao, các cơ sở sẽ chuyên tâm cho việc sản xuất và phát triển sản phẩm, thông qua đó bảo tồn và phát huy nghề truyền thống làm hoa giấy ở địa phương.

- Ảnh hưởng đến kết quả và hiệu quả sản xuất, tiêu thụ hoa giấy

Doanh thu của 20 hộ sản xuất hoa giấy tại làng nghề hoa giấy Thanh Tiên khá thấp, trước dịch Covid-19, năm 2019, doanh thu của làng đạt 4,8 tỷ đồng, tuy nhiên năm 2021, doanh thu chỉ đạt hơn 2,1 tỷ đồng; năm 2022 sau dịch, doanh thu có tăng lên và đạt hơn 2,9 tỷ đồng. Bình quân 1 hộ trước dịch năm 2019 doanh thu đạt hơn 86,1 triệu đồng, năm 2021 tăng lên bình quân đạt hơn 108,7 triệu đồng. Năm 2022, sau khi hồi phục, doanh thu bình quân hộ tăng đáng kể, đạt 147,5 triệu đồng. Mặc dù vậy nhưng với mức tăng doanh thu này chưa thể nói là thị trường tiêu thụ sản phẩm hoa giấy truyền thống đã hồi phục. Sở dĩ doanh thu không cao là vì ngoài thị trường hoa giấy truyền thống thu hẹp do đang bị hoa giả, hoa nhựa cạnh tranh gay gắt thì mẫu mã sản phẩm hoa giấy truyền thống hiện nay được đánh giá là không đa dạng, thiếu phong phú, chất lượng làm ra không đồng đều, tính hấp dẫn khách hàng thấp. Và lại sản phẩm hoa giấy truyền thống có độ bền không cao, sau 1 vài tháng hoặc năm thì bụi bặm nhiều, màu sắc phai nhanh và rất khó bảo quản, phục hồi nên khó thu hút khách hàng, nhất là sản phẩm trang trí, thờ cúng có thời gian dài. Chính những lý do này đòi hỏi địa phương và các cơ sở sản xuất cần có những biện pháp thiết thực hơn nhằm sáng tạo ra các sản phẩm hợp thị hiếu người tiêu dùng hơn, nghiên cứu cải tiến sản phẩm để độ bền cao hơn.

Bảng 4. Kết quả và hiệu quả sản xuất, tiêu thụ sản phẩm hoa giấy của các hộ điều tra tại làng Thanh Tiên, Thừa Thiên Huế trước và sau đại dịch Covid-19

DVT: Triệu đồng

Chỉ tiêu	Trước đại dịch Covid-19 (2019)	Trong đại dịch Covid-19 (2021)	Sau đại dịch Covid-19 (2022)	So sánh sau và trước đại dịch (%)
I. Tổng số				
1.1. Doanh thu	4.825,00	2.175,15	2.950,45	-38,85
1.2. Chi phí	1.879,50	802,40	936,90	-50,15
1.3. Thu nhập	2.945,50	1.372,75	2.013,55	-31,64
II. Bình quân / cơ sở				
2.1. Doanh thu	86,16	108,76	147,52	71,22
2.2. Chi phí	33,56	40,12	46,85	39,58
2.3. Thu nhập	52,60	68,64	100,68	91,41
III. Chỉ tiêu hiệu quả				
3.1. Tỷ suất doanh thu/chi phí	2,57	2,71	3,15	22,67
3.2. Tỷ suất thu nhập/chi phí	1,57	1,71	2,15	37,14

Nguồn: số liệu điều tra của tác giả

Nếu xét các chỉ tiêu hiệu quả, năm 2022 tỷ suất doanh thu/ chi phí và tỷ suất thu nhập/ chi phí tương ứng 3,15 và 2,15 cao hơn so với năm 2019 trước dịch, tuy nhiên đây cũng là ngành nghề có chỉ số hiệu quả không cao. Bình quân 1 đồng chi phí, năm 2022 các cơ sở thu được 3,15 đồng doanh thu và 2,15 đồng thu nhập. Mặc dù so với nhiều ngành nghề khác thì thu nhập này là cao tuy nhiên đa số các cơ sở sản xuất không làm thường xuyên mà chỉ làm vào những lúc rảnh rỗi, mang tính chất thời vụ, công gia đình đầu tư lớn. Chính vì thế nếu trừ chi phí công lao động thì hiệu quả không cao. Tuy nhiên do các cơ sở sử dụng lao động gia đình, thời gian nông nhàn, đặc biệt vào mùa mưa lũ và dịp Tết Nguyên đán, góp phần tăng thu nhập cho hộ có tiền để trang trải và chi tiêu vào các ngày Tết đến xuân về, nên ngành nghề này được các hộ gìn giữ để sản xuất và tồn tại cho đến hiện nay. Trong thời gian đến, nếu địa phương không có biện pháp tốt để khuyến khích phát triển, người lao động có thể có nhiều việc làm tốt hơn, đặc biệt là lớp trẻ, thì chắc chắn ngành nghề truyền thống này khó gìn giữ và phát triển bền vững trong tương lai. Chính điều đó đòi hỏi, từng bước nâng cao hiệu quả kinh tế sản xuất và tiêu thụ hoa giấy truyền thống ở các cơ sở làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế là điều cấp thiết hiện nay. Chỉ có nâng cao hiệu quả kinh tế mới thu hút được nghệ nhân, lao động trẻ, tham gia đào tạo, học hỏi và phát triển sản xuất, từ đó từng bước bảo tồn và phát huy ngành nghề thủ công truyền thống ở địa phương.

4. Giải pháp giảm thiểu tác động của Covid-19, nâng cao hiệu quả kinh tế sản xuất và tiêu thụ hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, tỉnh Thừa Thiên Huế

* Giải pháp chung:

- Chính phủ cần có những biện pháp, chính sách kịp thời hỗ trợ cho các cơ sở sản xuất kinh doanh như: hỗ trợ vốn tín dụng với lãi suất ưu đãi; cơ cấu lại thời hạn trả nợ và các khoản nợ,...

- Các doanh nghiệp cần có biện pháp hữu hiệu tổ chức đàm phán với các cơ sở kinh doanh, các doanh nghiệp đặt hàng để kéo dài thời hạn giao hàng, giảm thiệt hại trong kinh doanh. Đàm phán với khách hàng nhằm khắc phục phần nào thiệt hại của cơ sở. Việc đàm phán với các nhà cung cấp tốt cũng giúp cho các cơ sở tìm kiếm sự chia sẻ khó khăn từ phía nhà cung cấp để có thể được hưởng mức giá và các điều kiện khác tốt hơn...

- Tăng cường chuyển đổi số, áp dụng công nghệ số vào các khâu thiết kế sản phẩm, tổ chức sản xuất một số khâu có sử dụng máy móc thiết bị sản xuất đồng loạt, quảng bá, quảng cáo và thương mại điện tử. Các cơ sở cần xác định đây là thời điểm tốt để chuyển đổi số, áp dụng công nghệ số để số hoá sản phẩm, quảng bá, quảng cáo và thu hút khách hàng trong và ngoài nước.

* Giải pháp giảm thiểu tác động của Covid-19, nâng cao hiệu quả kinh tế sản xuất và tiêu thụ hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, tỉnh Thừa Thiên Huế:

- Xúc tiến và mở rộng thị trường tiêu thụ sản phẩm.

Trước mắt, để mở rộng thị trường tiêu thụ, cần mở rộng các hình thức quảng bá, quảng cáo, marketing, số hoá sản phẩm và quảng bá trên các phương tiện thông tin đại

chúng, mạng xã hội; khuyến khích người dân địa phương giữ gìn văn hoá dân gian, tiêu thụ sản phẩm; truyền bá văn hoá ra các vùng miền khác để tăng khả năng tiêu thụ sản phẩm; nghiên cứu phát triển các ứng dụng sản phẩm hoa giấy ở các lĩnh vực khác như phổ biến ở trường học, cho học sinh trải nghiệm; mở rộng các hình thức dịch vụ trang trí trong dân gian, trang trí trong các dịch vụ cao cấp,...

- Quy hoạch không gian làng nghề, không gian tổ chức sản xuất, trải nghiệm và không gian trưng bày giới thiệu sản phẩm, lịch sử sản phẩm.

Hiện nay, cơ sở và địa điểm sản xuất của tất cả 20 cơ sở làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên đều được tổ chức sản xuất tại nhà riêng, họ sử dụng một phần diện tích nhà ở để làm cơ sở sản xuất, tận dụng công lao động nhàn rỗi của gia đình và sản xuất quy mô nhỏ, với ý tưởng phụ thêm thu nhập lúc nông nhàn. Chính điều này đã dẫn đến sức hấp dẫn du khách, sức thu hút khách hàng và quảng bá sản phẩm là rất yếu kém. Vì vậy, giải quyết vấn đề này, địa phương cần có quy hoạch làng nghề sao cho tập trung, có không gian sản xuất để du khách thập phương trải nghiệm, thuận lợi trong giao lưu văn hoá và giao tiếp xã hội. Có như vậy, cơ sở sản xuất mới hoạt động quanh năm, hàng ngày luôn có khách, họ mới đầu tư thời gian, công sức, cải tiến sản phẩm, thay đổi hành vi sản xuất, tâm huyết kinh doanh vươn lên chuyên tâm sản xuất, đầu tư phát triển và làm giàu. Từ đó phát triển sản xuất và tiêu thụ hoa giấy truyền thống địa phương.

- Áp dụng công nghệ số để marketing và phát triển thị trường tiêu thụ [14].

Trước mắt, địa phương hỗ trợ các cơ sở làm hoa giấy truyền thống, mời chuyên gia công nghệ, chuyên gia marketing phối hợp các cơ sở số hoá thương hiệu làng nghề, thương hiệu sản phẩm, chủng loại, mẫu mã, kích cỡ, hình ảnh, quy trình sản xuất, đơn hàng, hợp đồng thương mại điện tử... đăng ký và tham gia quảng bá, quảng cáo, bán hàng trực tuyến trên các trang mạng xã hội như Facebook, Zalo, Twitter, LinkedIn,...; trên các sàn giao dịch điện tử hàng thủ công mỹ nghệ, sàn giao dịch chính thức của các địa phương, nơi có nhiều tiềm năng tiêu thụ; trên các trang mạng bán hàng online như Lazada, Shopee, Sendo, Tiki,... để các cơ sở, các đơn vị và cá nhân tiêu thụ, vận chuyển có thể đặt hàng, hợp đồng, liên doanh, liên kết trực tuyến...

- Đào tạo người làm hoa giấy thành các nghệ nhân và thợ làm hoa lành nghề, điều luyện.

Hiện nay, các công đoạn làm hoa giấy hiện nay còn khá thủ công, mất thời gian và rất tỉ mỉ, cần bàn tay tinh khéo của các nghệ nhân, vì thế, địa phương, đặc biệt chính quyền cấp tỉnh, thành phố, cần có các giải pháp mạnh mẽ, thiết thực trong việc hỗ trợ, khuyến khích các cơ sở, cá nhân, nghệ nhân, trước hết nhận thức ngành nghề làm hoa giấy là ngành nghề truyền thống, cần bảo tồn và phát huy bản sắc dân tộc. Chính vì thế cần thiết các nghệ nhân, cơ sở phải đầu tư chuyên sâu, đào tạo lao động, người thợ làm hoa giấy để làm giàu và phát triển, chứ không phải tận dụng công lao động nhàn rỗi của gia đình để tăng thêm nguồn thu. Có như vậy các cơ sở mới đầu tư thời gian, công sức, chuyên tâm sáng tạo sản phẩm, đào tạo lao động và nâng cao tay nghề, đáp ứng yêu cầu vừa bảo tồn bản sắc văn hoá dân tộc, vừa làm giàu từ ngành nghề truyền thống địa phương.

- Thiết kế, sáng tạo ra nhiều sản phẩm mới, hấp dẫn với nhiều thành phần khách hàng, đặc biệt là khách hàng trẻ, xu hướng thưởng thức nghệ thuật cao.

Cần có giải pháp áp dụng công nghệ số với việc gắn kết các nhà thiết kế, sáng tạo với các nghệ nhân trong quy trình thiết kế, chế tác sản phẩm. Quy trình thiết kế ra các mẫu mã mới, sản phẩm mới hiện nay chủ yếu vẫn dựa vào óc sáng tạo và kinh nghiệm của các nghệ nhân. Chúng loại sản phẩm quá đơn điệu, mẫu mã cũ, thiếu tính hấp dẫn trong tiêu dùng và vẫn còn mang nặng tư tưởng tạo ra sản phẩm phục vụ chủ yếu người dân địa phương để thờ cúng, chưa nghiên cứu tạo ra sản phẩm hoa giấy có chất lượng cao sử dụng vào các mục đích khác như trưng bày, trang trí, tạo cho người tiêu dùng thưởng thức giá trị thẩm mỹ chiều sâu về văn hoá lịch sử và bản sắc dân tộc. Ý tưởng về thiết kế các mẫu mã, sản phẩm mới hiện nay chưa xuất phát từ người sử dụng, người tiêu dùng, chưa dựa vào các ý tưởng mới, độc đáo từ các nhà thiết kế, mỹ thuật nên tính thẩm mỹ, độc đáo, tính phù hợp với người tiêu dùng chưa cao.

- Tăng cường các biện pháp liên kết, liên doanh giữa các cơ sở làm hoa giấy với các doanh nghiệp, cơ sở cung cấp đầu vào, các doanh nghiệp, đơn vị tiêu thụ, tạo thành chuỗi liên kết, cung ứng sản phẩm từ nghiên cứu thị trường, thiết kế sản phẩm đến khâu cung cấp nguyên liệu, sản xuất, phân phối và tiêu thụ. Tạo mọi điều kiện khuyến khích doanh nghiệp đầu tư thu hút các nghệ nhân, các nhà mỹ thuật, sáng tác thiết kế sản phẩm, đào tạo, bồi dưỡng các thợ thủ công có kỹ năng và tay nghề cao tham gia vào chuỗi sản xuất và tiêu thụ sản phẩm.

5. Kết luận

Đại dịch Covid-19 đã ảnh hưởng và để lại những hậu quả nặng nề cho các quốc gia, các nền kinh tế trên thế giới và Việt Nam. Tác động của đại dịch đến nền kinh tế cả về phía cung và cầu, ảnh hưởng đến lao động, đứt gãy chuỗi cung ứng, ảnh hưởng nặng nề đến ngành logistics, tổ chức sản xuất và thị trường tiêu thụ.... Tất cả những tác động đó là rất lớn, gây ra nhiều hệ lụy cho doanh nghiệp và các cơ sở sản xuất kinh doanh trong nước và thế giới, trong đó có các cơ sở sản xuất, kinh doanh hàng thủ công truyền thống, thủ công mỹ nghệ.

Đối với các cơ sở làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế, do tác động của đại dịch Covid-19, tình hình sản xuất và tiêu thụ sản phẩm nơi đây gặp nhiều khó khăn, số cơ sở sản xuất giảm mạnh, chỉ còn 20 cơ sở. Những khó khăn mà các cơ sở gặp phải là thị trường tiêu thụ giảm sút; lượng khách du lịch trong và ngoài nước giảm; thiếu không gian trưng bày; tình hình quảng bá, quảng cáo và chuyển đổi số kém; mẫu mã sản phẩm còn đơn điệu, nhiều hạn chế, khả năng hấp dẫn du khách và người tiêu dùng không cao; sản phẩm hoa giấy truyền thống bị các sản phẩm công nghiệp khác như hoa giả, hoa nhựa,... cạnh tranh gay gắt, dẫn đến sản xuất kém phát triển, sản lượng tiêu thụ không lớn, hiệu quả kinh tế thấp, duy trì sản xuất khó, dẫn đến khó khăn trong việc bảo tồn ngành nghề truyền thống trong thời gian đến.

Để giải quyết những vấn đề trên, trước mắt, địa phương và các cơ sở làm hoa giấy truyền thống cần có những giải pháp thiết thực, hiệu quả như xúc tiến và mở rộng thị trường tiêu thụ; quy hoạch không gian làng nghề, không gian tổ chức sản xuất, không gian trưng bày; áp dụng công nghệ số để marketing và phát triển thị trường tiêu thụ sản phẩm;

đào tạo nghệ nhân và thợ lành nghề; khuyến khích các tổ chức, doanh nghiệp đầu tư, liên doanh, liên kết sáng tạo sản phẩm mới, hấp dẫn, tạo thành chuỗi liên kết, cung ứng sản phẩm từ nghiên cứu thị trường, thiết kế sản phẩm đến khâu cung cấp nguyên liệu, sản xuất, phân phối và tiêu thụ... Thực hiện được các giải pháp trên, góp phần phát triển sản xuất, bảo tồn và phát huy nghề truyền thống làm hoa giấy tại làng nghề truyền thống hoa giấy Thanh Tiên, xã Phú Mậu, thành phố Huế, tỉnh Thừa Thiên Huế, đáp ứng nhu cầu tiêu dùng và thu hút khách du lịch trong và ngoài nước.

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TÁC ĐỘNG CỦA COVID 19 ĐẾN HOẠT ĐỘNG SẢN XUẤT KINH DOANH CỦA CÔNG TY CỔ PHẦN DỆT MAY HUẾ (HUEGATEX)

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Tóm tắt: Đại dịch COVID-19 đã ảnh hưởng nghiêm trọng đến các hoạt động kinh tế - xã hội và sản xuất ở Việt Nam. Đặc biệt, ngành dệt may phải đối mặt với nhiều khó khăn, thách thức khi việc tiếp cận nguồn nguyên liệu đầu vào, sức tiêu thụ cũng như nhu cầu xuất khẩu hàng dệt may giảm sút. Nghiên cứu này chỉ ra rằng đại dịch COVID-19 đã ảnh hưởng đến hoạt động kinh doanh của Công ty cổ phần dệt may Huế. Tuy nhiên mức độ ảnh hưởng không lớn, bên cạnh một số ảnh hưởng tiêu cực như chi phí nguyên vật liệu đầu gia tăng do đứt gãy nguồn cung và lực lượng lao động đã bị ảnh hưởng bởi các biện pháp giãn cách xã hội, các chỉ số về kết quả kinh doanh vẫn tăng trưởng và phục hồi tích cực. Nghiên cứu này đề xuất một số giải pháp giúp doanh nghiệp vượt qua khó khăn và có phương án tốt nhất để giải quyết những bất ổn trong thời gian tới như: cắt giảm chi phí; chủ động nguồn nguyên liệu; chuyển đổi sản xuất để gia tăng giá trị gia tăng; liên kết với các doanh nghiệp trong ngành và tăng cường ứng dụng công nghệ thông tin.

Từ khóa: Tác động của Covid 19, doanh nghiệp dệt may, HUEGATEX.

THE IMPACT OF COVID - 19 ON THE PRODUCTION AND BUSINESS ACTIVITIES OF HUE TEXTILE AND GARMENT JOINT STOCK COMPANY

Abstract: The COVID-19 pandemic has seriously affected the economic, social and production activities in Vietnam. In particular, the textile and garment industry has faced many difficulties and challenges due to disrupted access to input materials, decreased consumption, and reduced demand for textile and garment exports. This study shows that the COVID-19 pandemic has affected the business operations of Hue Textile and Garment Joint Stock Company. However, the level of impact is not significant, alongside some negative effects such as increased input material costs due to supply chain disruptions and labor force affected by social distancing measures, business performance indicators still show growth and positive recovery. This study proposes some solutions to help businesses overcome difficulties and find the best approach to address instability in the future, such as cost cutting, proactive sourcing of raw materials, production transformation to increase value-added, linking with other businesses in the industry, and enhancing the application of information technology.

Keywords: impacts of Covid-19, textile and garment enterprises, HUEGATEX.

1. Đặt vấn đề

Đại dịch COVID -19 đã làm thay đổi, đảo lộn cả ngành công nghiệp dệt may. Trong năm 2020, do ảnh hưởng dịch COVID-19, sức mua giảm, các đối tác nước ngoài yêu cầu giảm giá 20-30%, trong khi đó, các doanh nghiệp (DN) Việt Nam muốn duy trì công ăn việc làm cho người lao động (NLĐ), vẫn chấp nhận đơn hàng với giá thấp. Bước sang đầu 2021 ngành may mặc đã hồi phục, sức mua toàn cầu tăng, đơn hàng nhiều với giá tốt hơn, nhưng DN may mặc vẫn phải chịu áp lực lớn do thị trường châu Âu chưa phục và các chính sách Zero Covid 19 ở Trung Quốc đã hạn chế nhập khẩu từ Việt Nam.

Bên cạnh ảnh hưởng của Covid 19, các nhãn hàng đã đưa ra những tiêu chuẩn đánh giá DN rất khắt khe, nếu DN nào không đáp ứng được thì họ rút đơn hàng. Về việc thanh toán, các nhãn hàng thanh toán bằng phương thức trả chậm 1-3 tháng, thậm chí có những khách hàng yêu cầu thanh toán trả chậm 6 tháng. Điều này nằm ngoài dự tính của DN sản xuất trong nước bởi khả năng rủi ro lớn.

Công ty cổ phần Dệt May Huế (HUEGATEX) là một đơn vị thuộc thuộc tập đoàn Dệt May Việt Nam và doanh nghiệp có kim ngạch xuất khẩu dệt may lớn nhất ở tỉnh Thừa Thiên Huế. Cũng như các doanh nghiệp dệt may trên cả nước, công ty cũng chịu ảnh hưởng rất lớn bởi các tác động do Covid 19 mang lại. Nghiên cứu này nhằm mục đích đánh giá những ảnh hưởng của Covid 19 đến tình hình hoạt động sản xuất kinh doanh của công ty cổ phần dệt may Huế nhằm đề xuất các giải pháp để phục hồi sản xuất kinh doanh của Công ty trong thời gian tới.

2. Cơ sở lý thuyết và phương pháp nghiên cứu

2.1. Cơ sở lý thuyết

Tác động của Covid 19 đến nền kinh tế

Các nghiên cứu gần đây đã chỉ ra rằng có bốn phương diện kinh tế và thương mại quốc tế bị ảnh hưởng tiêu cực trực tiếp bởi Covid 19: (i) Chuỗi cung ứng toàn cầu bị gián đoạn cục bộ, lưu thông hàng hóa, dịch vụ và lao động toàn cầu không còn như trước khiến cho mọi hoạt động kinh tế, thương mại và đầu tư không thể thông suốt và hiệu quả, do vậy kinh tế và thương mại quốc tế không thể hoạt động bình thường chứ chưa nói đến có thể tăng trưởng. Bên cạnh đó, nguy cơ rơi vào trì trệ hoặc thậm chí suy thoái kinh tế có thể gia tăng; (ii) Đại dịch Covid-19 đã làm suy giảm tiêu dùng của người dân và xã hội, ảnh hưởng nhiều nhất đến lĩnh vực du lịch và dịch vụ. Vì thế những nền kinh tế dựa vào du lịch và dịch vụ làm trụ cột và động lực tăng trưởng đang bị ảnh hưởng nặng nề nhất và tiêu cực nhất bởi đại dịch này; (iii) Đại dịch Covid-19 hoành hành và diễn biến phức tạp như hiện nay, mặc dù một số quốc gia đang khẩn trương phát triển tiến tới đưa vacxin phòng chống dịch vào sử dụng trong cộng đồng nhưng vẫn làm giảm nhiệt huyết của các nhà đầu tư và các doanh nhân cũng ngần ngại đẩy mạnh hoạt động sản xuất - kinh doanh, điều này tác động mạnh tới tăng trưởng kinh tế, thương mại và đầu tư; (iv) Mọi quan hệ và mức độ hợp tác về kinh tế, thương mại và đầu tư giữa các đối tác trên thế giới bị ngưng trệ khi Chính phủ và các doanh nghiệp quyết định ngừng hoạt động kinh tế ở những nơi bị dịch bệnh, đồng thời chuyển dịch cơ sở sản xuất ra nơi khác.

Tác động của đại dịch Covid-19 đến ngành Dệt May

Ngành công nghiệp dệt may Việt Nam trong những năm gần đây đã có những bước tiến tích cực cả về sản xuất và xuất khẩu. Trong đó, tốc độ tăng trưởng trong sản xuất ngành dệt may bình quân giai đoạn 2016 - 2020 đạt 7,9%/năm, riêng năm 2018 tăng trên 33%. Năm 2020, ngành dệt may là một trong những ngành chịu tác động tiêu cực và kéo dài của dịch Covid-19. Chỉ số sản xuất công nghiệp ngành dệt giảm 0,5%; ngành sản xuất trang phục giảm 4,9% do đại dịch Covid-19 làm đứt gãy nguồn cung nguyên liệu, thu hẹp thị trường tiêu thụ các sản phẩm may mặc, nhu cầu sản phẩm dệt may giảm sút mạnh khi người tiêu dùng trên thế giới chỉ quan tâm đến đồ dùng thiết yếu và phòng chống dịch.

Một số nghiên cứu liên quan đến tác động của Covid đến ngành Dệt may như: Nghiên cứu của tổ chức lao động quốc tế (ILO) cho thấy ngành dệt may Châu Á- Thái Bình Dương chịu tác động nặng nề do COVID-19 ảnh hưởng toàn bộ chuỗi cung ứng. Báo cáo mới của ILO đánh giá tác động của cuộc khủng hoảng gây nên bởi đại dịch COVID-19 đối với các chuỗi cung ứng, các nhà máy và người lao động tại 10 nước sản xuất hàng dệt may lớn nhất trong khu vực, trong đó bao gồm Việt Nam. Tương tự như vậy, nghiên cứu của Trần Huỳnh Kim Thoa về tác động của đại dịch Covid - 19 đến hiệu quả của ngành Dệt may Việt Nam (Trần Huỳnh Kim Thoa và cộng sự, 2021) đã chỉ ra rằng ngành Dệt may phải đối diện với không ít khó khăn, thách thức khi chuỗi cung ứng nguyên liệu đầu vào từ các nước bị gián đoạn, nhu cầu tiêu thụ, xuất khẩu sản phẩm giảm,... Nghiên cứu đánh giá những thuận lợi và khó khăn mà Việt Nam gặp phải trước sự thay đổi của chuỗi cung ứng toàn cầu dưới tác động của Covid-19 (Ngô Dương Minh, 2020). Nghiên cứu cũng đề cập đến những việc Việt Nam cần làm để được hưởng lợi từ việc đưa các hoạt động sản xuất vào thị trường toàn cầu. Tuy nhiên, chưa có nghiên cứu nào về tác động của covid - 19 đến công ty cổ phần Dệt may Huế.

2.2. Phương pháp nghiên cứu

Phương pháp thu thập số liệu thứ cấp: Thu thập số liệu và thông tin liên quan đến đề tài qua các Báo cáo, số liệu thống kê của Công ty cổ phần Dệt May Huế trong giai đoạn 2019 - 2022; Các số liệu tổng hợp từ Tổng cục thống kê.

Hiệu quả hoạt động SXKD của doanh nghiệp là một phạm trù kinh tế phản ánh trình độ khai thác, sử dụng nguồn lực của DN về vật tư, lao động, vốn (Nguyễn Trọng Cơ & Ngô Thế Chi, 2009) để đạt được kết quả cao nhất với chi phí thấp nhất. Để đánh giá tác động của Covid 19 đến hoạt động của doanh nghiệp, nghiên cứu này sử dụng các chỉ tiêu doanh thu, chi phí và lợi nhuận, các chỉ tiêu sinh lời, kim ngạch xuất khẩu, thu nhập của người lao động. Các chỉ tiêu này được so sánh qua các giai đoạn trước và sau Covid 19.

3. Kết quả nghiên cứu và thảo luận

3.1. Tác động Covid 19 đến kết quả kinh doanh của HUEGATEX

Doanh thu thuần của Công ty năm 2019 đạt 1.744 tỷ, con số đó của năm 2018 là 1.733 tỷ đồng. Đối với lĩnh vực Sợi trong năm 2019 gặp nhiều khó khăn, tuy nhiên với định hướng thị trường xuất khẩu đồng thời kết hợp với kinh doanh thương mại nên doanh thu tăng hơn so với năm trước. Lĩnh vực May với việc đưa nhà máy May 4 và chi nhánh

Quảng Bình vào hoạt động đã và nâng năng lực sản xuất nhà máy nhờ đó tăng năng doanh thu so với năm 2018.

Do ảnh hưởng của dịch bệnh Covid - 19, tình hình đơn hàng may xuất khẩu giảm hoặc do khách hàng thông báo dừng sản xuất đồng thời đơn hàng Sợi gặp nhiều khó khăn cuối năm 2018 đến nay, nhà máy Sợi chỉ hoạt động 70% năng lực sản xuất có thời điểm phải dừng máy hoàn toàn (20/4 - 21/5/2021) do đó doanh thu và lợi nhuận đều thấp hơn 2019. Doanh thu thuần năm 2020 đạt 1.348,4 tỷ đồng giảm 22,7% so với năm 2019.

Bảng 1. Tình hình doanh thu của Huegatex giai đoạn 2020 - 2022

Chỉ tiêu	2020 (Tr.đ)	2021 (Tr.đ)	2022 (Tr.đ)	2021/2020		2022/2021	
				(+/-) (Tr.đ)	(%)	(+/-) (Tr.đ)	(%)
Tổng doanh thu	1.348,4	1875,7	2049,5	527,3	39,1	173,8	9,3
Doanh thu từ bán hàng và cung cấp dịch vụ	1.338,6	1.858,8	2.010,4	520,2	38,9	151,6	8,2
Doanh thu từ hoạt động tài chính	9,8	16,9	39,1	7,1	72,4	22,2	131,4

Nguồn: Tổng hợp từ các Báo cáo tài chính của Huegatex các năm 2020- 2022

Năm 2020, cả thế giới chịu ảnh hưởng nghiêm trọng do dịch bệnh Covid - 19 bùng phát trên khắp thế giới đến nay vẫn chưa có dấu hiệu giảm. Trong đó ngành Dệt May Việt Nam chịu ảnh hưởng đáng kể. Khi dịch bệnh mới bùng phát, nguồn cung cấp nguyên liệu bị gián đoạn do các nước thực hiện giãn cách xã hội. Cùng với đó, nhu cầu tiêu dùng của người dân giảm mạnh chỉ chi tiêu những khoản phục vụ cho đời sống tối thiểu. Riêng đối với khu vực miền Trung, ngoài chịu ảnh hưởng của dịch bệnh, trong những tháng cuối năm liên tục chịu những trận bão lớn. Công tác sản xuất kinh doanh chịu ảnh hưởng nghiêm trọng. Tuy nhiên, đi cùng với những khó khăn thách thức luôn là cơ hội, thực hiện chủ trương chung của Tập đoàn về công tác sản xuất đơn hàng khẩu trang cung ứng cho thị trường để bình ổn giá từ đó phát triển sản xuất mặt hàng này cho các đối tác khác giúp Công ty vượt qua giai đoạn khó khăn.

Năm 2021, khi dịch bệnh bắt đầu được kiểm soát thì doanh thu của Huegatex cũng có sự tăng lên đáng kể, đạt 1.875,7 tỷ đồng, tương ứng tăng 39,1% so với cùng kỳ năm trước trong đó doanh thu bán hàng chiếm 99% (tương ứng 1.858,8 tỷ đồng).

Có thể nói, năm 2022 là một năm doanh thu đạt kết quả tốt của Huegatex dù trên thế giới tình hình chiến tranh còn đang căng thẳng giữa Nga và Ukraina, cũng như phải cạnh tranh với hai đối thủ mạnh trong lĩnh vực Dệt may đến từ các nước Bangladesh và Trung Quốc. Cụ thể, đạt 2.049,5 tỷ đồng, tăng 173,8 tỷ đồng so với năm 2021, tương ứng tăng 9,3%. Trong đó doanh thu từ bán hàng và cung cấp dịch vụ tăng 8,2% và doanh thu từ hoạt động tài chính tăng 131,4%.

Bảng 2. Tình hình lợi nhuận của Hugatex giai đoạn 2020 - 2022

Chỉ tiêu	2020 (Tr.đ)	2021 (Tr.đ)	2022 (Tr.đ)	2021/2020		2022/2021	
				(+/-) (Tr.đ)	(%)	(+/-) (Tr.đ)	(%)
Lợi nhuận gộp	109.912	295.650	303.521	185.738	169	7.871	2,7
Lợi nhuận thuần từ hoạt động kinh doanh	12.555	138.757	169.625	126.202	1005	30.868	22,24
Lợi nhuận khác	2.733	2.984	1.170	251	9,2	-1.814	-60,8
Lợi nhuận trước thuế	15.288	141.742	170.795	126.454	827	29.053	20,5
Lợi nhuận sau Thuế	11.905	112.530	131.741	100.625	845	19.211	17,1

Nguồn: Tổng hợp từ các Báo cáo tài chính của Hugatex các năm 2020- 2022

Với tình hình thị trường khó khăn chung, biến động nguyên liệu liên tục không lường trước được nên giá sợi biến động nhưng không theo kịp với biến động của nguyên liệu do đó, xác định mục tiêu, đảm bảo đơn hàng sản xuất, không dừng máy và giảm tối đa tồn kho bộ phận kinh doanh sợi tập trung tìm kiếm đơn hàng và chấp nhận hiệu quả thấp nhất hoặc lỗ để đảm bảo sản xuất. Đối với khối may, đơn hàng vẫn đảm bảo cho các nhà máy hoạt động và vẫn duy trì được lợi nhuận.

Năm 2021 là năm để lại dấu ấn với sự tàn phá khủng khiếp của đại dịch Covid - 19 trên toàn cầu, dịch bệnh phủ kín hầu hết các quốc gia, gây ra những tổn thất hết sức nặng nề; ngành Dệt May trải qua nhiều thách thức trước sức ép về chi phí gia tăng, khủng hoảng logistics, đứt gãy chuỗi cung ứng, thâm hụt lao động và áp lực của đại dịch.

Đối với công ty cổ phần Dệt may Huế, năm 2021 là một năm đặc biệt khó khăn đối với hoạt động sản xuất kinh doanh của Công ty do tác động tiêu cực của dịch bệnh Covid - 19, mọi hoạt động diễn ra trong điều kiện hết sức nghiêm ngặt để đảm bảo các yêu cầu phòng, chống dịch. Tuy nhiên, với sự chỉ đạo sâu sát của lãnh đạo Tập đoàn dệt may Việt Nam, sự linh hoạt, sáng tạo trong công tác điều hành, quản lý với sự nỗ lực của toàn thể CBCNV, Công ty cổ phần Dệt May Huế đã hoàn thành toàn diện mục tiêu sản xuất kinh doanh năm 2021, đảm bảo an toàn trong công tác phòng chống dịch bệnh, đảm bảo việc làm, đời sống của người lao động. Chính vì thế đã mang lại kết quả đáng kinh ngạc, lợi nhuận sau Thuế trong năm đạt 112.530 triệu đồng, tăng hơn 8 lần so với cùng kỳ năm 2020.

Thêm vào đó, qua năm 2022, cuộc xung đột vũ trang giữa Nga và Ukraine, tình trạng lạm phát kéo dài chưa có hồi kết thúc, tiến độ cung ứng NPL chậm dưới tác động của chính sách Zero-Covid của Trung Quốc, khủng hoảng logistics,... đã ảnh hưởng rất lớn đến hoạt động sản xuất kinh doanh (SXKD) của Công ty. Bởi vậy, dù dịch bệnh Covid - 19

cơ bản được kiểm soát, hoạt động sản xuất kinh doanh của các doanh nghiệp bước sang trạng thái bình thường mới và tăng trưởng tốt trong nửa đầu năm, song lại gặp rất nhiều khó khăn. Cụ thể, giá trị sản xuất công nghiệp 1.962 tỷ đồng, đạt 108% kế hoạch năm, tăng 9,6% so với năm 2021; tổng doanh thu 2.049 tỷ đồng, đạt 109% kế hoạch năm, tăng 9,3% so với năm 2021

Bảng 3. Các chỉ tiêu về khả năng sinh lời giai đoạn 2019 - 2021

Đơn vị tính: %

Chỉ tiêu	Năm 2019	Năm 2020	Năm 2021
Lợi nhuận/doanh thu	1,35	1,14	7,63
Lợi nhuận/vốn điều lệ	23,47	15,29	107,17
Lợi nhuận sau thuế/tổng tài sản	2,50	1,98	14,67
Lợi nhuận từ HĐKD/doanh thu thuần	1,31	0,94	15,90

Nguồn: Số liệu phân tích hoạt động kinh doanh Hiegatex của tác giả

Năm 2019, do ảnh hưởng của Covid - 19, Công ty gặp nhiều khó khăn trong kinh doanh. Với chủ trương đảm bảo công việc cho người lao động và giảm tối đa tồn kho, Công ty chấp nhận bán hàng dưới giá vốn sản xuất nên hiệu quả không đạt theo kế hoạch đề ra. Do đó các chỉ tiêu về khả năng sinh lời đều giảm so với trước.

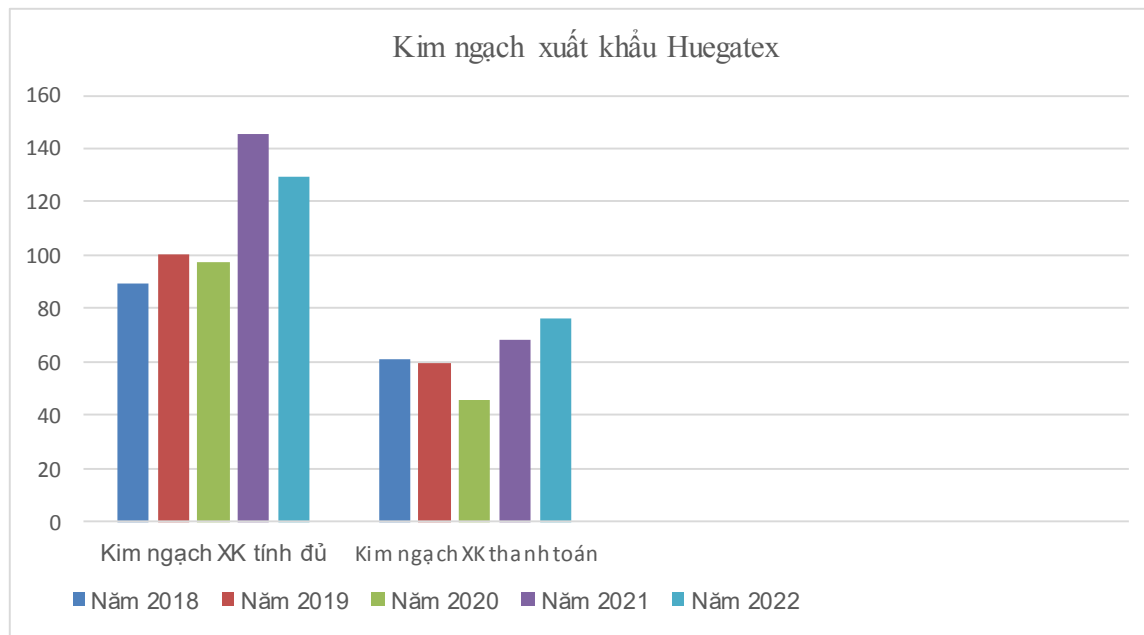
Năm 2020 lại là năm tiếp tục ảnh hưởng bởi dịch Covid - 19 nên các chỉ tiêu sinh lời đều giảm so với năm trước đó do khách hàng yêu cầu tạm không xuất một lượng hàng lớn làm tồn kho một lượng thành phẩm trong thời gian dài.

Năm 2021 sau khi dịch bệnh Covid - 19 được kiểm soát Công ty đã có những kết quả tốt so với năm trước. Các chỉ tiêu về khả năng sinh lời tăng lên vượt bậc. Nhờ vào việc chuyển đổi kịp thời sang sản xuất và kinh doanh mặt hàng khẩu trang để đảm bảo nguồn cung cả trong nước và quốc tế.

Đến năm 2022, dù thị trường có nhiều khó khăn nhưng Công ty vẫn thu được những kết quả đáng khích lệ, lợi nhuận trước thuế 170,7 tỷ đồng, đạt 142% kế hoạch năm, tăng 20,3% so với năm 2021.

3.2. Tác động của Covid-19 đến tình hình xuất khẩu

Năm 2019, kim ngạch xuất khẩu đầy đủ đạt 100,43 triệu USD, trong đó kim ngạch xuất khẩu thanh toán đạt 59,809 triệu USD giảm 1,9% so với năm 2018. Thị phần tại thị trường Sợi lớn là Thổ Nhĩ Kỳ (45,6% doanh thu) nhưng đây lại là thị trường tiềm ẩn nhiều rủi ro từ các chính sách của Chính phủ nước này như chính sách chống bán phá giá, chính sách tăng lãi suất và các chính sách phòng vệ thương mại khác, tuy nhiên, việc định hướng phát triển các thị trường thay thế để giảm thiểu rủi ro chưa rõ nét. Trong năm 2019, công ty xây dựng phương án phát triển 5-10 % sản lượng xuất khẩu sang thị trường Hàn Quốc, tuy nhiên chỉ thực hiện được 1% sản lượng xuất bán. Năm 2020 kim ngạch xuất khẩu thanh toán đạt 45,52 triệu USD, đạt 96,9% kế hoạch, giảm 23,9% so với năm 2019.

Hình 1: Kim ngạch xuất khẩu của Huegatex giai đoạn 2018 - 2021*DVT: triệu USD*

Trong năm này, đại dịch Covid-19 đã có những tác động rất lớn đến hoạt động sản xuất kinh doanh của Công ty. Công ty chỉ bán được sợi cho một số khách hàng ở thị trường Đài Loan và khách hàng nội địa trong thời gian dịch bệnh bùng phát nhưng do áp lực cạnh tranh từ các đơn vị khác trong nước nên gặp rất nhiều khó khăn, doanh thu đạt được chỉ tương đương khoảng 25% so với thời điểm trước dịch trong tháng 4, tháng 5 và tháng 6/2020.

Do khó khăn từ công tác bán hàng, nhà máy Sợi phải đóng máy ngừng việc từ 22/4/2020 đến 20/5/2020 mới hoạt động trở lại nhưng chỉ hoạt động khoảng 40% công suất của nhà máy. Các đơn hàng Sợi bị hủy, hoãn vô thời hạn trị giá 41,6 tỷ đồng.

Tháng 01 và tháng 02/2020, Công ty gặp khó khăn trong việc đảm bảo tiến độ sản xuất do nguồn nguyên phụ liệu chính của Công ty chủ yếu nhập từ Trung Quốc, Đài Loan (đây là thời điểm bùng phát dịch mạnh tại Trung Quốc). Đến tháng 3/2020, khi dịch bệnh lây lan sang châu Âu và Mỹ, các đơn hàng May bị thông báo hủy, hoãn trị giá 71,8 tỷ đồng.

Các nhà máy phải sắp xếp cho người lao động nghỉ ngừng việc do không có việc làm và không có kế hoạch sản xuất trong tháng 4/2020. Công ty phải tìm kiếm, tiếp nhận các đơn hàng gia công khâu trang kháng khuẩn để đảm bảo việc làm, thu nhập cho người lao động.

Năm 2021 kim ngạch xuất khẩu tính đủ là 145,34 triệu USD, trong đó kim ngạch xuất khẩu thanh toán là 68,5 triệu USD, tăng 50,5% so với cùng kỳ năm trước. Đồng thời Công ty cũng đặt ra mục tiêu kim ngạch xuất khẩu đầy đủ năm 2022 là 133 triệu USD.

Năm 2022, kim ngạch xuất khẩu tính đủ ước thực hiện 129,3 triệu USD, đạt 98% kế hoạch năm, giảm 8,6% so với năm 2021; kim ngạch xuất khẩu thanh toán 76 triệu USD, đạt 105% kế hoạch năm, tăng 9,1% so với năm 2021.

3.3. Tác động của Covid-19 đến thu nhập của công nhân

Đến ngày 31/12/2019, toàn Công ty có 5.346 người, với thu nhập bình quân là 6.435.000 đồng/người/tháng. Cuối năm 2020, thu nhập bình quân của Công ty là 7.125.000/người/tháng. Sở dĩ năm 2020 giảm 438 người lao động (tương ứng giảm gần 9%) là do Công ty tái cấu trúc, nhà máy Sợi giảm sản lượng từ 6,5 vạn tấn về 4,5 vạn tấn.

Bảng 4. Tình hình lao động và tiền lương ở Hugatex giai đoạn 2019 - 2021

Đơn vị tính: Người

STT	Tiêu chí	2019		2020		2021		So sánh 2020/2019		So sánh 2021/2020		
		SL	%	SL	%	SL	%	(+/-)	%	(+/-)	%	
I	Theo trình độ lao động											
1	Đại học và trên đại học	241	4,49	286	5,81	289	5,85	+45	+18,67	+3	+1,05	
2	Cao đẳng và trung cấp	104	1,94	158	3,21	155	3,14	+154	+51,92	-3	-1,94	
3	Công nhân kỹ thuật, lao động đơn giản	5.019	93,57	4.482	90,98	4.495	91,01	-577	-11,98	+13	+0,29	
II	Theo đối tượng lao động											
1	Lao động trực tiếp	4.909	91,52	4.554	92,45	4.643	94	-355	-7,8	+89	+1,95	
2	Lao động gián tiếp	455	8,48	372	7,55	296	6	-83	-22,3	-76	-25,7	
III	Theo giới tính											
1	Nam	1.647	30,7	1.357	27,55	1.433	29	-290	-21,37	+76	+5,6	
2	Nữ	3.717	69,3	3.569	72,45	3.506	71	-148	-4,15	-63	-1,8	
	Tổng	5.364	100	4.926	100	4.939	100	-438	-8,89	+13	+0,26	

Nguồn: Phòng Nhân sự Hugatex

Đến ngày 31/12/2021 toàn Công ty có 4.939 người, thu nhập bình quân là 9.206.371 đồng/người/tháng, tăng 30,6% so với năm 2020. Trong năm 2021, khi tình hình dịch Covid-19 bùng phát tại Công ty, để người lao động yên tâm điều trị, Công ty đã hỗ trợ cho người nhiễm Covid đi cách ly bằng tiền, thuốc men và các vật dụng cá nhân quan trọng khác. Trong năm này Công ty cũng được nhận Bằng khen trong phong trào chống dịch Covid-19 của tỉnh.

Năm 2022, Công ty vẫn cố gắng giữ mức thu nhập trung bình 9,5 triệu đồng/người/

tháng, phù hợp với mặt bằng thu nhập chung của toàn xã hội. Như vậy, thu nhập trung bình của người lao động trong Công ty không những không bị ảnh hưởng bởi tác động của đại dịch Covid 19 mà còn tăng lên. Do công ty đã thực hiện khoán quỹ lương cho phòng Kinh doanh, ban Đời sống từ 01/7/2021 và tất cả các đơn vị từ 01/01/2022 nhằm tạo động lực làm việc cho CBCNV của đơn vị, nâng cao hiệu quả SXKD Công ty.

4. Một số giải pháp nhằm phục hồi hoạt động của công ty HUEGATEX

Để khôi phục và phát triển hoạt động của công ty trong thời gian tới, cần thực hiện một số giải pháp như:

- Chủ động nguồn cung nguyên vật liệu: đây là một bài toán khó giải của doanh nghiệp dệt may. Để hoạt động sản xuất được liên tục, Công ty nên sử dụng nguồn nguyên liệu trong nước thay vì nhập khẩu từ nước ngoài. Đối với các doanh nghiệp lớn có thể tự sản xuất nguyên vật liệu, từ đó tạo ra một chuỗi cung ứng khép kín. Các doanh nghiệp vừa và nhỏ có thể dựa vào liên kết ngành để tìm kiếm và hỗ trợ nguồn cung ứng nguyên vật liệu cho nhau. (<http://unctad.org>)

- Chuyển đổi sản xuất và kinh doanh để tăng giá trị gia tăng: muốn phát triển lâu dài buộc các doanh nghiệp dệt may phải từng bước cải tiến sản xuất để có giá trị gia tăng cao hơn. Đối với các doanh nghiệp may mặc, nếu tham gia chuỗi cung ứng với phương thức CMT (Cut-Make-Trim) và sử dụng chi phí sản xuất thấp là một lợi thế để cạnh tranh thì giá trị gia tăng mà các doanh nghiệp nhận được sẽ rất thấp và không bền vững. Các doanh nghiệp nên chuyển đổi sang phương thức ODM (Original Design Manufacturing) hoặc OEM (Original Equipment Manufacturing) có giá trị gia tăng cao hơn. Để làm được điều này, đòi hỏi các doanh nghiệp phải có nguồn lực tài chính lớn, qui mô lớn, đẩy mạnh tự động hóa, đầu tư vào công nghệ, nâng cao chuyên môn của người lao động, đảm bảo được nguồn cung nguyên vật liệu. (ILO, 2020)

- Liên kết các doanh nghiệp trong ngành: việc này không chỉ mở ra các cơ hội hợp tác đầu tư cho các doanh nghiệp mà còn giúp các doanh nghiệp tìm được nguồn cung nguyên liệu trong nước. Các doanh nghiệp có thể chia sẻ cho nhau kinh nghiệm, công nghệ, phương thức quản lý hay hỗ trợ pháp luật... từ đó tạo ra một hàng rào bảo vệ lẫn nhau trước các sức ép cạnh tranh của nước ngoài, dễ dàng vượt qua các cuộc khủng hoảng kinh tế.

- Chuyển đổi sản phẩm để phù hợp với nhu cầu hiện tại: khi dịch bệnh vẫn chưa hoàn toàn được đẩy lùi thì những nhu cầu về các sản phẩm phục vụ cho y tế, đồ mặc nhà hay đồ tập thể thao vẫn tăng cao. Do đó, các doanh nghiệp nên linh hoạt chuyển đổi sản phẩm để tận dụng các cơ hội này.

- Triển khai công tác số hóa và ứng dụng triệt để công nghệ thông tin trong tất cả các quá trình hoạt động của Công ty, tạo điều kiện để thực hiện thành công chiến lược chuyển đổi số toàn Công ty.

Bằng những ứng dụng liên quan công nghệ 4.0 như big data, trí tuệ nhân tạo thông qua việc xác định các công việc trên dây chuyền sản xuất.

- Tiếp tục đầu tư chiều sâu máy móc, thiết bị để tăng tỷ lệ tự động hóa của các quá trình sản xuất, nâng cao năng suất lao động và chất lượng sản phẩm

Việc phát triển công nghiệp hỗ trợ là thực sự cần thiết đối ngành dệt may. Vì vậy Công ty cổ phần Dệt May Huế luôn dành một phần chi phí hoạt động vào đầu tư máy móc các dự án dệt, nhuộm, do lo ngại gây ô nhiễm môi trường. Bởi lẽ, Công ty muốn tận dụng các ưu đãi Thuế từ các Hiệp định thương mại tự do khi xuất khẩu thì phải hình thành các khu công nghiệp lớn có xử lý nước thải tập trung; có công nghệ tiên tiến, công nghệ xanh. Tự động hóa trong cắt, may, tiết giảm nguồn nguyên vật liệu một cách tối ưu nhất trong cắt, cung cấp các giải pháp giúp giảm thiểu lượng vải thừa, tiết kiệm năng lượng...

- Đầu tư bổ sung nguồn lực để cơ cấu lại hàng, khách hàng theo hướng ký hợp đồng với các khách hàng trực tiếp, giảm trung gian, sản xuất mặt hàng có giá trị gia tăng cao để tăng hiệu quả.

Xu hướng tiêu dùng tại các thị trường chính của Huegatex đang thay đổi, hàng công sở, hàng thông thường giảm mạnh, nhu cầu hàng trung và cao cấp lại đang đi lên. Vì vậy, Công ty phải thay đổi cách thức tiếp cận thị trường, danh mục sản phẩm, cơ cấu sản xuất.

5. Kết luận

Đại dịch Covid-19 vẫn đang gây nên những ảnh hưởng tiêu cực cho nền kinh tế - xã hội của tất cả các quốc gia trên thế giới. Ngành Dệt may với thế mạnh xuất khẩu, vẫn đang phải đối mặt với rất nhiều khó khăn và thách thức. Nguồn cung nguyên vật liệu đứt gãy, các hợp đồng xuất khẩu bị hủy, hoãn, khó khăn trong việc đảm bảo tiến độ hợp đồng và rủi ro phải ngưng hoặc đóng cửa sản xuất để phòng chống dịch. Tuy nhiên, với những kinh nghiệm đã thu được trong thời gian qua, Công ty Cổ phần Dệt May Huế cũng đã chuẩn bị những phương án, giải pháp thích ứng và biến hóa linh hoạt với sự thay đổi của nền kinh tế toàn cầu vì vậy đã mang lại những kết quả đáng kể biểu hiện trên doanh thu, lợi nhuận và các chỉ tiêu sinh lời mà Công ty đạt được. Đồng thời, Công ty Cổ phần Dệt May Huế cũng chủ động đưa ra các giải pháp để sẵn sàng ứng phó với những biến động về kinh tế trên toàn cầu như: Chủ động nguồn cung nguyên liệu; chuyển đổi sản phẩm; triển khai công tác số hóa và một số phương pháp khác.

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LOGISTICS ACTIVITIES FOR TEXTILE ENTERPRISES IN BINH TRI THIEN REGION: DEVELOPMENT OF A VALID MEASUREMENT SCALE

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Abstract. *The scope of this research paper is to build a standardized scale of logistics activities in enterprises. The essence of logistics activities as proposed by council of logistics management is referring to efficient and effective movement and storage of goods, services, and its related information's from point of origin to point of consumption. However, how to assess the effective and efficient transportation and storage of goods, services, and information is the fundamental question that every organization seeks to resolve. With this overarching objective in mind, the researcher seeks to create a scale that takes secondary literature research and the opinion of logistics experts into account when assessing the logistical methods in textile enterprises in the Binh Tri Thien region. The study used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) to develop and validate the scale using survey data from textile enterprises in the Binh Tri Thien area. A measurement scale for logistic activities of textile enterprises, which includes five dimensions: internal logistics, internal logistics, external logistics, support logistics and logistics costs.*

Keywords: *Logistics activities, textile enterprises.*

HOẠT ĐỘNG LOGISTICS CHO DOANH NGHIỆP DỆT MAY KHU VỰC BÌNH TRỊ THIÊN: PHÁT TRIỂN THANG ĐO

Tóm tắt. *Phạm vi của bài báo nghiên cứu này là xây dựng thang đo chuẩn hóa hoạt động Logistics trong các doanh nghiệp. Bản chất của quản lý logistics theo đề xuất của hội đồng quản lý logistics là đề cập đến việc di chuyển và lưu trữ hiệu quả và hiệu quả hàng hóa, dịch vụ và các thông tin liên quan từ điểm xuất phát đến điểm tiêu thụ. Tuy nhiên, câu hỏi quan trọng mà mọi doanh nghiệp đều nhắm đến để trả lời là làm thế nào để đánh giá việc di chuyển và lưu trữ hàng hóa/dịch vụ/thông tin một cách hiệu quả và hiệu quả. Ghi nhớ mục tiêu rộng lớn này, nhà nghiên cứu nhằm mục đích phát triển thang đo dựa trên nghiên cứu tài liệu thứ cấp và ý kiến chuyên gia Logistics về cách các hoạt động logistics trong các doanh nghiệp dệt may. Nghiên cứu sử dụng số liệu khảo sát từ các doanh nghiệp dệt may tại khu vực Bình Trị Thiên để kiểm định thang đo thông qua phân tích nhân tố khám phá EFA và phân tích nhân tố khẳng định CFA. Nghiên cứu đã nhận diện 5 thành phần cấu thành nên hoạt động logistics: logistics nội bộ, logistics bên trong, logistics bên ngoài, logistics hỗ trợ và chi phí logistics.*

Từ khóa: *Hoạt động logistics, doanh nghiệp dệt may.*

Introduction.

In recent times a lot of literature highlight the importance of logistics either as a source of competitive advantage (Bowersox, 1990; Williamson, Spitzer and Bloomberg, 1990; Christopher, 1998; Carvalho and Dias, 2000; Lai et al., 2006; West and Bengtsson, 2007; Sharma et al., 2007), or as a determinant for the success of firms (Bowersox, 1990; Post et al., 2002; Sadler and Sohal, 2005; Feng and Yuan, 2006). Some of those changes are: (i) the globalization of businesses (Christopher, 1998; HIDC, 1998; Evans, 2000); (ii) Shortening of Product life cycle (iii) Industrial competition (NEVEM-workgroup, 1989); and (iv) the appearance of new competitive priorities (Wheelwright, 1978). The appearance of those changes has highlighted the logistics importance since it makes possible that firms becomes more competitive than their competitors (Skinner, 1969). This is because through logistics firms reach easier the new competitive priority and agility (Wheelwright, 1978; Carvalho et al., 2001).

Today's logistics activities are not only associated with warehouse activities, freight forwarding, but also planning and arranging the flow of raw materials and materials from suppliers to manufacturers, then moving goods from production to the final consumer, creating a connection throughout society in ways that optimize, reduce transportation and storage costs. A well-executed logistics chain will help solve both inputs and outputs for businesses effectively, three products and services to the right place, at the right time with minimal costs while still satisfying the requirements of society and consumers. Therefore, logistics activities have, are and will have a great influence on the business performance of enterprises.

The main objective of this paper is to build a set of logistics activities in textile enterprises. To attain this, we propose a performance measurement system in a logistics context and test some linkages between logistics activities in the enterprises.

1. Literature Review

1.1. Logistics activities

Logistics is described as activities (services) related to logistics and transportation, including jobs related to supply, transportation, production tracking, warehousing, distribution procedures, customs, so logistics is a collection of activities of many industries and stages in a complete process (Liyan Zuo, 2016), (Doan Thi Hong Van, 2010). Thus, it can be understood that logistics are services related to activities that ensure the optimization of the entire production and business process, including from input supply to product consumption, which are self-organized by enterprises, implemented or outsourced (Đặng Đình Đào, 2003) (Lê Công Hoa, 2013) (Hu Mingming, 2010). Quality of logistics activities for textile enterprises is constituted by transportation services, supply of raw materials and necessary elements for production, transportation services, distribution of raw materials and finished products from home. Machines to users and other logistics services such as packaging, delivery, warehousing, procedures, paperwork, information services. Based on classifications of

logistics activities in textile enterprises, research the research and identification of logistics activities includes the following activities:

Internal logistics: In the flow of segmented materials within the factory, raw materials are transported from the warehouse to the production site, and they are handled during production. This activity is also known as internal logistics. The task of internal logistics is to establish relationships between production departments in the enterprise. Therefore, internal logistics must transport raw materials and semi-finished products to parts in the production process. Effective internal logistics activities will help businesses save costs and increase business efficiency (Nguyễn Đình Hiền, Đặng Đình Đào, 2013) (Lê Công Hoa , 2013) (Trần Văn Hòa, 2014).

Inbound logistics: Inbound logistics activities are responsible for transporting and supplying materials and elements needed for production from the supplier to the factory or production site. Inbound logistics is also responsible for regulating the relationship between the company and its material suppliers (Angelisa Elisabeth Gillyard, 2003). The input logistics activities directly affect the revenue, cost, and competitive advantage of the business (Lê Công Hoa , 2013).

Outbound logistics is the process of transporting and distributing raw materials and finished products from the factory to the user. Outbound logistics is also responsible for establishing relationships between the company and its customers. In addition to directly affecting costs, revenue, and output logistics, it also directly affects the competitive position of enterprises (Lê Công Hoa , 2013) (Lai, 2002) (K. Kavčič, 2016).

Support logistics is the process of transporting and distributing raw materials and finished products from the factory to the user. Support logistics is also responsible for establishing relationships between the company and its customers. In addition to directly affecting costs, revenue, and output logistics, it also directly affects the competitive position of enterprises.

Logistics costs: Whether outsourcing or self-service, businesses always must incur costs for logistics activities, which may include transportation costs, inventory costs, warehousing costs, order processing costs. goods and information systems, ordering costs, etc (Yuehua Yuan, 2018). The cost level will directly affect the business performance of textile enterprises. The more reasonable the cost of logistics activities, the higher the business efficiency and vice versa (Nguyễn Xuân Hào , 2015).

1.2. The role of logistics activities with business efficiency of enterprises

Manufacturing enterprises in general and textile enterprises create products supplied in the market to make profits. Therefore, logistics activities also have a close relationship in improving the competitiveness and operational efficiency of these enterprises. Especially in improving the competitiveness and operational efficiency of enterprises in specific markets:

Logistics activities improve production, use rationally, save resources, reduce costs for the production process, improving the competitiveness of enterprises (Angelisa Elisabeth Gillyard, 2003) (Krauth, 2005).

Logistics activities ensure supply at the right time and place, helping the production process to go smoothly flow, contributing to improving product quality and lowering product prices (Krauth, 2005) (Lai, 2002).

Logistics activities help managers make decisions about the source of raw materials, the quantity to be supplied and the optimal time to minimize the costs incurred, ensuring the efficiency of production and business activities (production and business). (Angelisa Elisabeth Gillyard, 2003) (Krauth, 2005) (Lai, 2002).

Logistics activities contribute to increasing the business value of enterprises through the implementation of additional circulation services (services that continue the production process in the distribution and circulation stage). Logistics is a service with a much larger scale and complexity than pure transportation and forwarding (Angelisa Elisabeth Gillyard, 2003). In the past, the freight forwarder only provided customers with simple, pure, and individual services. Today, due to the development of production and circulation, the details of a product can be supplied by many countries, and conversely, a product of an enterprise can be consumed in many countries, many markets. different markets, so the services that customers require from distributors, transport and forwarding businesses must be diverse (Krauth, 2005).

The research determines that the quality of logistics activities are influenced by the following factors:

*** *Internal logistics of the enterprise***

According to author Le Van Bay, the task of internal logistics is to establish relationships between production departments in the company.

Therefore, internal logistics must transport raw materials and semi-finished products to parts of the production process. Effective internal logistics activities will help businesses save costs and increase business efficiency. Thus, the relationship between service quality internal logistics and business efficiency is positive. The research proposed 3 items in internal logistics.

*** *Inbound logistics to supply raw materials***

Inbound logistics activities tasks are transporting, supplying raw materials and necessary factors for production from suppliers to factories or production places. Inbound logistics is also responsible for regulating the relationship between the company and its material suppliers. It is clear that inbound logistics activities have a direct impact on the business's revenue, costs, and competitive advantages. Each relationship between this factor and the efficiency of production and business activities is in the same direction. The research proposed 5 items in the inbound logistics.

*** *Criteria for evaluating outbound logistics***

The quality of finished product distribution logistics or outbound logistics is understood as the process of transporting and distributing raw materials and finished products from the factory to the user. Outbound logistics is also responsible for establishing relationships between the company and its customers. In addition to directly

affecting costs, revenue, and output logistics, it also directly affects the competitive position of enterprises. The research proposed 5 items in the outbound logistics.

*** *Other logistics support***

In the process of performing logistics activities, businesses may encounter many problems such as faulty goods purchased or exported, delayed delivery times, damaged goods, the search process, linking with other customers. external logistics service company... These factors greatly affect the cost, revenue, profit, competitive position of the business. These factors directly affect the business efficiency of enterprises. Authors such as Le Van Bay, Doan Thi Hong Van, Angelisa Elisabeth Gillyard all determined that this factor has a positive impact on business efficiency. The research proposed 6 items in logistics support.

*** *Cost of using logistics services***

Whether outsourcing or self-service, businesses always have to spend money on logistics activities. The level of costs will directly affect the business performance of textile enterprises. The more reasonable the cost of logistics activities, the higher the level of business efficiency and vice versa. The research proposed 5 items in the logistics cost.

Methodology

- Developing theoretical framework and research process: The research team collects and evaluates major domestic and foreign scientific works related to the topic, thereby building a theoretical framework and process. research consistent with the research objectives of the topic.

- Development of a measurement scale: On the basis of a theoretical model (from the overview) and through in-depth interviews with authorities, to develop a measurement scale suitable to the current situation of the epidemic.

- Scale development: research develops from the existing scale of previous research. Qualitative research is carried out as a basis for building models and supplementing explanations for research results from quantitative data. The internal consistency approach evaluates the scale's reliability using the Cronbach's Alpha coefficient. Before examining exploratory and confirmatory factor analysis components, apply the Cronbach's Alpha reliability coefficient approach to exclude unsuitable variables.

Finally, the research conducts exploratory and confirmatory factor analysis to develop and validate the scale using survey data from textile enterprises in the Binh Tri Thien area.

In order to achieve the stated research objectives and using the above-mentioned approach, the study proceeds according to the following procedure.

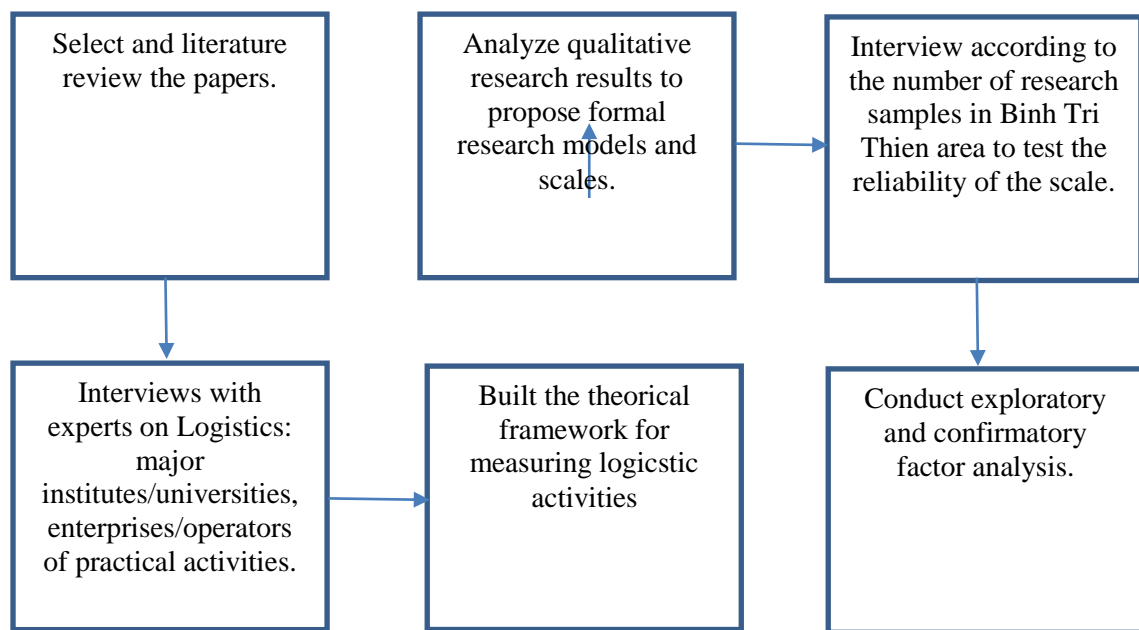


Figure 1. Research process

Source: Proposed by authors

2. Qualitative research results

To check the validity of the logistics activities scale, the author chooses a method of interviewing how experts are managers and employees who are in charge of logistics activities in textile enterprises and supply companies. logistics service for interview. The interview subjects consisted of 12 people, the content of the interview was carried out according to the questionnaire, the interview time was conducted in 30-1h/subject. At the end of the interview, the respondents and the author reached a high consensus on the criteria as well as the additional and revised contents. This is an important basis in designing the main scale for the quantitative research of the thesis. The results of the interview are as follows:

The experts invited to interview assess the factors of logistics activities that affect the business performance of enterprises. In which, the group of factors that have the greatest influence are:

- Transportation activities, ordering, relationships between businesses and raw material suppliers (10/12 people listed).
- Transportation activities, delivery to partners and distribution system. (12/12 people listed).
- Packing, forwarding, payment procedures (12/12 people listed).
- Capacity of enterprises in production management (10/12 people listed).
- Expenses for transportation and outsourcing activities (12/12 people listed).
- Relationship between businesses and partners (7/12 people listed).

In general, the factors that experts consider have high similarities in the factors proposed by the synthesis thesis. When considering the grouping of evaluation criteria for the general factor, it also received high agreement from the interviewers.

For the measurement criteria for the factor, the results are suggested as follows:

*** Internal Logistics Scale:**

Table 1. Official scale for assess the internal logistics

Code	Criteria	Opinions	Source
LNB1	The inventory of raw materials and finished products are adequate.	Additional	Le Van Bay, Doan Thi Hong Van
LNB2	The company's departmental coordination process works properly.	Keep the original	
LNB3	Enterprises have adequate transportation, human resources, warehouses, and capital to support production and business activities.	Keep the original	

Source: Combine research from authors.

After qualitative research, in the Internal Logistics quality scale the expert agreed to keep 2 items LNB2 and LNB3 but substituted LNB1: “*The inventory of raw materials and finished products are adequate*”.

***Inbound Logistics Scale:**

In the Inbound Logistics scale, LDV4 is suggested to add in the scale “The information on the raw material suppliers' catalogs is comprehensive”, all 5 items are kept.

Table 2. Official scale to assess the inbound logistics

Code	Criteria	Opinions	Source
LDV1	The process of transporting materials for efficient manufacturing.	Keep the original	Le Van Bay, Doan Thi Hong Van, Nguyen Xuan Hao, Angelisa Elisabeth Gillyard.
LDV2	It is simple to order production materials.	Keep the original	
LDV3	Ordering time and raw material transportation to ensure production and business progress	Keep the original	
LDV4	The information on the raw material suppliers' catalogs is comprehensive.	Additional	Nguyen Dinh Dao, Doan Thi Hong Van, Nguyen Xuan Hao, Angelisa Elisabeth Gillyard.
LDV5	The company has a good working relationship with the raw material supplier.	Keep the original	
LDV6	Less product errors (technical errors, packaging errors, excess, or missing product errors, etc.) in the trading process with material suppliers	Keep the original	

Source: Combine research from authors.

* *Outbound Logistics Scale:*

All experts decided to keep all the 5 items in the outbound logistics scale.

Table 3. Official scale to assess the quality of outbound logistics

Code	Criteria	Opinions	Source
LDR1	Packaging and transportation of finished products to partners and convenient sales locations	Keep the original	Le Van Bay, Doan Thi Hong Van, Nguyen Xuan Hao, Angelisa Elisabeth Gillyard.
LDR2	The packaging and preservation of finished goods is excellent.	Keep the original	
LDR3	The time of delivery/shipping to the point of sale is always on time.	Keep the original	
LDR4	The company maintains positive relationships with its distributors/partners.	Keep the original	
LDR5	Few mistakes and misunderstandings (quantity, product design, location, object, etc.) in delivery	Keep the original	Nguyen Dinh Dao, Doan Thi Hong Van, Nguyen Xuan Hao, Angelisa Elisabeth Gillyard.

Source: Combine research from authors.

* *Support Logistics Scale:*

Table 4 Official scale to assess the support logistics

Code	Criteria	Opinions	Source
LHT1	The company has a comprehensive and up-to-date information system about its partners and customers. => Customer and partner information is complete and up to date.	Alter the wording	Le Van Bay, Doan Thi Hong Van, Nguyen Xuan Hao, Angelisa Elisabeth Gillyard.
LHT2	Efficient order processing, order processing, complaint handling	Keep the original	
LHT3	Procedures for goods delivery and receipt, convenient and easy payment	Keep the original	
LHT 4	The company is very adaptable in terms of product specifications, delivery time, location, and so on.	Keep the original	

LHT5	Find professional logistics service providers quickly and easily.	Keep the original	Nguyen Dinh Dao, Doan Thi Hong Van, Nguyen Xuan Hao, Angelisa Elisabeth Gillyard.
LHT6	Businesses can benefit from outsourced logistics services.	Keep the original	

Source: Combine research from authors.

All experts decided to keep all the 5 items in the outbound logistics scale. However, in the LHT1 items is suggested to alter the wording: “Customer and partner information is complete and up to date”.

*** Logistics Cost Scale**

After qualitative research, in the logistics cost scale, the expert agreed keep 5 items from CPL1 to CPL5 and added the CPL6: “It is reasonable to rent a warehouse and inspect the goods”.

Table 5. Official scale for assessing logistics costs

Code	Criteria	Opinions	Source
CPL1	Shipping cost is reasonable	Keep the original	Dang Dinh Dao, Nguyen Spring Good, Angelisa Elisabeth Gillyard.
CPL2	The cost of raw material inventory is reasonable.	Keep the original	
CPL3	The cost of finished goods inventory is reasonable.	Keep the original	
CPL4	Order processing and information system costs are reasonable.	Keep the original	
CPL5	The paperwork for goods delivery and payment is reasonably priced.	Keep the original	
CPL6	It is reasonable to rent a warehouse and inspect the goods.	Additional	

Source: Combine research from authors.

Based on qualitative research, the author adjusts the factors for use in formal research.

The author systematized theoretical issues about Logistics activities. The criteria in 5 groups of Logistics activities: Internal Logistics, Input Logistics, Output Logistics, Support Logistics and Logistics costs have been synthesized, inherited and proposed by the author.

5. Evaluating and examining the Scale of Logistics activities.

5.1. Descriptive statistics

With a sample size of 230 directors of textile enterprises and managers of the logistics department of the enterprise, the selection of the proposed sampling method here

is a convenient sampling method divided by local and regional variables. The survey results show that the surveyed enterprises are concentrated in three types of enterprises, private enterprises, limited liability companies and joint stock companies. Out of a total of 212 respondents, mainly limited liability companies, accounting for 67.5% of the total sample. This is also consistent with the representativeness because in the overall SMEs of the provinces, limited liability companies account for a very large proportion. Regarding the survey area, the survey subjects are distributed in three provinces: Thua Thien Hue, Quang Tri, and Quang Binh. The survey results show that mainly enterprises belong to Thua Thien Hue, accounting for 60.8%. The remaining two provinces have approximately the same percentage of respondents ($\approx 40\%$).

5.2. Examine the scale.

The internal consistency approach evaluates the scale's reliability using the Cronbach's Alpha coefficient. Before examining EFA components, apply the Cronbach's Alpha reliability coefficient approach to exclude unsuitable variables because these garbage variables can create dummy variables (Nguyen Dinh Tho & Nguyen Thi Mai Trang, 2009). Cronbach's Alpha analysis evaluation requirement for this study is that variables with total correlation coefficients of less than 0.3 will be discarded, and scales with alpha reliability of 0.6 or higher can be employed in this study. if the idea under studied is novel to the respondent in the context of the research (Nunnally, 1978; Peterson, 1994; Slater, 1995).

The method of finding Cronbach's Alpha coefficient (CA) from 212 samples gathered is used to examine the relevance of observable variables as well as independent variables in the research model. Table... in appendix... shows the results of the CA (all >0.6) coefficient study.

The results of the CA analysis also demonstrate that there are 39 observed variables that provide dependability for inclusion in the EFA analysis.

5.3 Exploratory factor analysis (EFA)

Cronbach's Alpha analysis includes 39 observed variables belonging to 5 independent variables and 4 observed variables (which are subdivided into 13 small variables) belonging to 1 dependent variable. According to the results of the scale's reliability analysis, all the scales met and were included in the EFA analysis.

5.3.1. Exploratory factor analysis.

Factor analysis with Varimax rotation was performed to identify factors for further analysis. With the hypothesis posed in this analysis, there is no correlation between the 25 observed variables in the population. KMO and Barlett's test in factor analysis shows that this hypothesis is rejected (sig = 0.000), the KMO coefficient is 0.856(>0.5). This result indicates that the observed variables in the population are correlated with each other, and factor analysis (EFA) is appropriate.

The EFA study findings reveal that with the principal component extraction approach and Eigenvalue = 1,813 (>1), the Varimax rotation allows to extract 5 factors

from 26 observed variables and the derived variance is cumulative Eigenvalues=71.03%, the extracted variance meets the requirements.

Table 6 clearly shows the factor rotation matrix, demonstrating that all observed variables had load coefficients greater than 0.5. As a result, the results have guaranteed the discriminant between factors. According to the EFA results, the logistics activity scale has 5 factors and 25 observable variables. The variables will be calculated using the factors to create new variables for regression analysis.

Table 6. EFA analysis results

<i>Factor rotation matrix</i>					
<i>Observe variables</i>	<i>Components</i>				
	1	2	3	4	5
LNB1	0.551				
LNB2	0.828				
LNB3	0.873				
LDV1		0.677			
LDV2		0.638			
LDV3		0.603			
LDV4		0.683			
LDV5		0.763			
LDV6		0.769			
LDR1			0.877		
LDR2			0.809		
LDR3			0.740		
LDR4			0.854		
LDR5			0.919		
LHT1				0.826	
LHT2				0.652	
LHT3				0.634	
LHT4				0.828	
LHT5				0.655	
LHT6				0.589	
CPL1					0.761

CPL2					0.816
CPL3					0.693
CPL4					0.775
CPL5					0.928
CPL6					0.790

Source: Data Analysis

5.4. Confirmatory factor analysis (CFA)

CFA method in analyzing linear structure model is used because it has many advantages compared to traditional methods such as correlation coefficient method, exploratory factor analysis (EFA), multiple methods-multiple concepts. Specifically, the CFA method allows testing the theoretical structure of measurement scales, such as the relationship between a research concept and other concepts without being biased by measurement errors (Steenkamp & Van Trijp, 1991). Moreover, CFA allows testing the convergent and discriminant value of the scale without using as many studies as the traditional method.

Following CFA confirmatory factor analysis, the data yielded a Chi-Square adjusted for degrees of freedom (CMIN/df) of 1,329 (2), which is considered good (Hair et al., 2010; Hu & Bentler).

Table 7: The index to assess the relevance of the confirmatory factor analysis

Index	CMIN/df	GFI	TLI	CFI	RMSEA	PCLOSE
Value	1.329	0.985	0.975	0.972	0.029	0.956
Reference value	<2	≥0.9	>0.95	>0.95	<0.03	>0.05
Conclusion	Good	Good	Very good	Very good	Very good	Good

Source: Data analysis

Hair et al (A Primer on Partial Least Squares Structural Equation Modeling, 2021) suggest that an AVE value of 0.5 or higher indicates that the latent variable will explain more than half the variance of its observed variables, at this scale achieves good convergence. In table 8 shows that all scale achieves good convergence (all>0.5)

Table 8: The index Composite Reliability & Average Variance Extracted

	Composite Reliability (CR)	Average Variance Extracted (AVE)
Internal Logistics	0,873	0,579
Inbound Logistics	0,916	0,784

Outbound Logistics	0,948	0,785
Support Logistics	0,859	0,670
Logistics cost	0,927	0,762
Reference value	≥0,7	≥0,5
Conclusion	Significant	Significant

Source: Data analysis

The obtained absolute goodness of fit index (GFI) is 0.985 (≥ 0.9), expressed at a good level. The Comparative Relevancy Index (CFI) and the Tucker & Lewis Index (TLI) of 0.972 and 0.975 are both greater than 0.95, respectively, and the indicator is at a very good level. The model's goodness of fit (RMSEA) index of 0.03 is very good (Hair et al., 2010; Hu & Bentler, 1999). With a value of 0.029, it shows that the fit of the model compared to the overall is very good; A PCLOSE index of 0.956 greater than 0.05 is very good (Hu & Bentler, 1999). The criteria for assessing the relevance of the confirmatory factor analysis are significant to reinforce the confirmatory factor analysis to be appropriate.

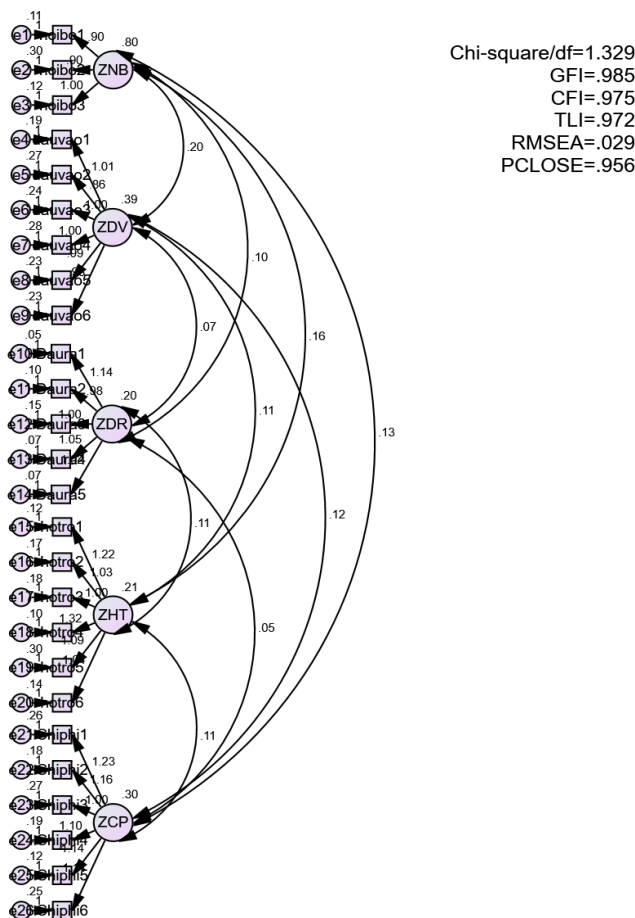


Figure 2. Confirmatory factor analysis result of Logistics activities scale.

Source: Data analysis

6. Conclusion

The main objective of this research paper is to develop and validate the scale using survey data from textile enterprises in the Binh Tri Thien area. The official scale of logistics activities includes 26 observed variables grouped into 5 dimensions as follows: internal logistics (3 observed variables), inbound logistics (6 observed variables), external logistics (5 observed variables), support logistics (6 observed variables) and logistics costs (6 observed variables). From Cronbach's alpha, Exploratory factor analysis (EFA) and Confirmatory factor analysis (CFA) demonstrate that the scales achieve reliability, the observed variables in each scale achieve convergent and discriminant values.

As future research line we would like to point out the following: (i) The present study can be further tested empirically and validated. It is further recommended that manufacturing industries where the logistic activity and supply chain network is quite apparent can be used as a basis for study. (ii) To identify and test other predictor variables of business efficiency beyond the logistics practices. Researchers believe that an alternative theoretical model could be proposed considering the resources and capabilities of firms with a special highlight on information and communication resources and capabilities. Such a proposed framework provides an important base for further study.

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Appendix

Appendix 1. The result of Cronbach's Alpha			
Research variables	Observed variables	Corrected Item-Total Correlation	Cronbach's Alpha
Internal logistics (LBN)	LNB1	0.351	0.812
	LNB2	0.653	0.463
	LNB3	0.657	0.458
Inbound Logistics (LDV)	LDV1	0.555	0.765
	LDV2	0.472	0.782
	LDV3	0.434	0.792
	LDV4	0.556	0.769
	LDV5	0.667	0.737
	LDV6	0.670	0.740
Outbound Logistics (LDR)	LDR1	0.844	0.903
	LDR2	0.764	0.918
	LDR3	0.699	0.935
	LDR4	0.837	0.905
	LDR5	0.921	0.888
Support Logistics (LHT)	LH	0.736	0.864
	LHT2	0.591	0.887
	LHT3	0.744	0.863
	LHT4	0.745	0.862
	LHT5	0.749	0.863
	LHT6	0.669	0.875
Logistics Cost (CPL)	CPL1	0.700	0.892
	CPL2	0.747	0.884
	CPL3	0.651	0.899
	CPL4	0.703	0.889
	CPL5	0.942	0.855
	CPL6	0.701	0.890
Business efficiency (HQ)	PDTC	0.683	0.791
	PDKH	0.644	0.808
	QTNB	0.684	0.791
	DTPT	0.676	0.794

Appendix 2. KMO coefficient and Bartlett's Test of the scale belonging to the independent variable

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.856
Bartlett's Test of Sphericity	Approx. Chi-Square	3717.891
	df	325
	Sig.	0.000

WORKPLACE SPIRITUALITY & WELL-BEING IN RELATION TO A SUSTAINABLE HUMAN CAPITAL MANAGEMENT

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Abstract: *This paper proposes an approach to sustainable human resource management that examines the intersection of workplace spirituality, employee well-being, and their intention to continue working, even when financial needs are met. The study surveyed 595 managers and employees across various sectors in Vietnam and found a positive relationship between workplace spirituality and employee well-being. Furthermore, an increase in well-being and interconnected spirituality at work was associated with a higher likelihood of employees intending to continue working, regardless of their income. However, the study also found that an individual's inner spirituality towards work was negatively associated with their willingness to continue working. These findings have important implications for organisational leaders, human resource professionals, and researchers, which are also discussed in the paper for the sustainability of human resource management.*

Keywords: *Spirituality; workplace spirituality; employees well-being; willingness to work; sustainable human resources management.*

MỐI QUAN HỆ GIỮA TÂM LINH NƠI LÀM VIỆC & AN SINH VỚI QUẢN LÝ NGUỒN NHÂN LỰC BỀN VỮNG

Tóm tắt: *Nghiên cứu này đề xuất một cách tiếp cận để quản lý nguồn nhân lực bền vững bằng cách đánh giá mối quan hệ giao thoa giữa niềm tin tâm linh nơi làm việc, an sinh của nhân viên và ý định tiếp tục làm việc của họ khi không có nhu cầu về tài chính. Nghiên cứu đã khảo sát 595 nhà quản lý và nhân viên trong nhiều lĩnh vực khác nhau ở Việt Nam và tìm thấy mối quan hệ tích cực giữa tinh thần nơi làm việc và hạnh phúc của nhân viên. Hơn nữa, sự gia tăng về an sinh và sự kết nối niềm tin tâm linh nơi công sở tỷ lệ thuận với ý định tiếp tục làm việc ngay cả khi họ không có nhu cầu về tài chính. Tuy nhiên, nghiên cứu cũng phát hiện ra rằng niềm tin tinh thần nội tại lại tỷ lệ nghịch với sự sẵn sàng tiếp tục làm việc của nhân viên. Ý nghĩa của kết quả này với các nhà lãnh đạo tổ chức, các chuyên gia nhân sự, các nhà nghiên cứu được thảo luận sâu trong bài nhằm hướng đến sự bền vững của việc quản lý nguồn nhân lực.*

Từ khóa: *Sức khỏe tinh thần, tâm linh tại nơi làm việc, an sinh của nhân viên, cam kết làm việc, quản lý nhân sự bền vững.*

1. Introduction

For the last decade, especially after the most recent global pandemic, along with political turmoil and environmental crises happening worldwide, sustainability and sustainable development have garnered much attention from both the business world and academia. In management, unsustainable management practices can result in negative externalities, which refer to organisational practices' costs on employees, their families, and the community (Mariappanadar, 2003). Such practices can lead to psychological, social, and health-related harm to employees. Sustainable human resources management, which presents the needs of the organisation and the community without compromising the ability to meet future requirements of employees, their families, and the community, significantly impacts organisational survival and success (Mariappanadar, 2003; Karmar, 2014). The United Nations has also raised the need for sustainable human resources development to achieve Sustainable Development Goals (SDGs) such as SDG-3, highlighting Well-being as essential to sustainable development or SDG 8, highlighting the Decent Work in the organisation (UN, 2020a; Lu et al., 2022). This paper aims to promote sustainable human resources management by focusing on well-being and spirituality in the workplace.

Well-being is one of the most significant concerns governments and organisations face for sustainable development (Boddy, 2014; Laszlo and Tso, 2021). People's well-being is significantly affected by what happens at work, where they spend most of their adult lifetimes (Fairholm, 1996; Guest, 2017). The recent Covid-19 pandemic has created a more serious consideration of people's well-being since 62% of the global workforce reported a great concern for mental health (Pfeffer and Williams, 2020). The pandemic further changes people's perspectives regarding the workplace, emphasising employees' well-being and calling for organisation and management practices to become more meaningful and purpose-driven (Singh & Singh, 2022). These changes create new challenges for sustainable human resource management, demanding organisations to cater to sustainability development. Discussion on sustainable human resource management (SHRM) emphasises employees' satisfaction and positive changes in employees' well-being (Vaida et al., 2021). Employees' interests and well-being are integral to the organisations' human and social goals, and achieving those goals creates a foundation for sustainable human resources management to help organisations accomplish other objectives (Lu et al., 2022).

Academic evidence shows that workplace spirituality determines employee well-being (Aboobaker et al., 2019; Garg, 2017; Kinjerski & Skrypnek, 2008). Workplace spirituality has been extensively studied since the 2000s, with significant findings on the influence of spirituality at work on organisations and their employees (Garcia- Zamor, 2003; Atلمان et al., 2022). Specifically, previous studies found a positive relationship between workplace spirituality and individual well-being (e.g., Pawar, 2016; Garg, 2017; Walia; 2018; Villani et al., 2019; Griggs, 2021) as well as the organisational commitment (e.g., Vandenberghe, 2011; Fanggidae, 2017; Rego & Pina E Cunha, 2008). However, spirituality at work is still a relatively new domain and requires more research (Tackney et

al., 2017; Altman, 2022). Research on workplace spirituality is mainly in the service sector (Singh & Singh, 2022) and social work (Furman et al., 2005; Gilligan & Furness, 2006). In addition, none of the previous studies explores the employee commitment to the work and organisation if they do not need money (e.g. won the lottery). When there are no financial concerns, the picture of the connections between workplace spirituality, well-being and organisation commitment can be different. Furthermore, the research landscape lacks geographical diversity with different social, cultural, and political conditions (Altman et al., 2022; Singh & Singh, 2022; Wu, Rafiq, & Chin, 2017). Thus, this paper will fill the gap mentioned above by examining the impact of workplace spirituality on employees' well-being and their intention to continue working in Vietnam, where most of the population declares themselves as having 'no religion'.

2. Literature Review

2.1. Sustainable human resource management and employee well-being

The United Nation's World Commission on Environment and Development (WCED), also called the "Brundtland Commission", initiated the definitions of the terms "sustainability" and "sustainable development": "sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (WCED, 1987, p.43). According to this view, sustainable development is global and long-term and concerns different stakeholders, which comprises three pillars: economic, social and environmental. In the organisational context, Elkington (1997) pioneered the "triple bottom line" notion, which regards financial, environmental and social as three broad foci of organisational performance. The sustainability issues from Mariappanadar's perspective (2003) focus on employees, stating that unsustainable management practices will cause negative externality, described as the cost of organisational practices on employees, their families and the community. Unsustainable management practices can cause psychological, social and health-related harm to employees (Mariappanadar, 2003). Mariappanadar (2003) defined SHRM as "the management of human resources to meet the optimal needs of the organisation and the community of the present without compromising the ability to meet the needs of the future requirements of employees, their families, and the community". Karmar (2014) reviewed the literature on SHRM and suggested that despite certain differences, all acknowledge organisations' human and social outcomes and the impact of human resource outcomes on organisations' survival and success. As such, it can be stated that a core component of SHRM is concerned with employee well-being (Guest, 2017; Lu et al., 2022; Vaida et al., 2021). Thus, practices that guarantee employees' well-being satisfy the SHRM agenda of organisations.

Unfortunately, the literature review on SHRM by Piwowar-Sulej (2021) showed that most studies discuss green employee training practices aiming at environmental sustainability, which suggests a shortage of SHRM research focusing on employees' well-being. In the Vietnamese context, research on HRM mainly addressed changes in policies and practices and implementing Western practices (Budhwar & Debrah, 2009; Cooke,

2018). Previous research stated that personnel management dominates HRM practices in Vietnam with some diffusion and the rise of strategic HRM (Nguyen et al., 2017). There seems to be a scarcity of research efforts on SHRM other than the work by Luu (2018), who examined how green HRM helps preserve culture in tourism (Tran, 2018).

2.2. Workplace spirituality and employee well-being

The definition of spirituality is varied. Spirituality is described as a pursuit of meaning, purpose, and relations with oneself, the universe, and reality (Furman et al., 2005) or the connectedness of oneself to others and presence (Staupe, 2005). Karakas (2010) differentiated spirituality from religion, viewing it as a personal, broad, general human feeling rather than a commitment to a certain organised establishment's principles, rites, or practices. In the workplace setting, spirituality is seen as the inner consciousness (Guillory, 2000), a type of work feelings that prompts action (Dehler & Welsh, 1994), a path to the holy force that infers life (Nash & McLennan, 2001) and the individual pursuit of the highest personal development through partaking into otherworldly musters (Delbecq, 1999). Spirit at work is a unique experience encompassing different components: cognitive component, interpersonal dimension, spiritual presence, and mystical aspect (Kinjerski and Skrypnek, 2004; 2006b). In the same order, these four components depict a belief in doing something meaningful and a match between personal values/beliefs with work, a feeling of connectedness to others and shared purpose, a sense of connection to something larger than self, and a positive state of vigorous energy along with absolute happiness and bliss (Kinjerski and Skrypnek, 2006).

The influence of spirituality has been proved in academic literature. Workplace spirituality promotes attachment, loyalty, and belonging, which gives employees connectedness and a sense of community (Duchon & Plowman, 2005; Fairholm, 1996; Milliman et al., 1999). It also leads to personal fulfilment (Krishnakumar and Neck, 2002). Programs that enhance workplace spirituality result in increased employee commitment, job satisfaction, organisational productivity (Fry 2003, 2005; Giacalone & Jurkiewicz, 2003; Reave, 2005), job involvement (Milliman, Czaplewski & Ferguson, 2003), and reduced absenteeism and turnover (Fry 2003, 2005; Giacalone & Jurkiewicz, 2003). Spirituality also significantly influences people's mental health, improving their life satisfaction, helping them to find meaning in life, and raising their hope, optimism, happiness, and self-esteem (Reave, 2005). Thus, spirituality is the source of daily expressions of compassion, wisdom, and connectedness which, in return, will influence employee well-being (Maxwell, 2003).

Employees' sense of responsibility, ethics, collaboration and creativity are enhanced when they find work more meaningful and satisfying (Gull and Doh, 2004), which is caused by spirituality at work (Ajala, 2013). Employees with spirit at work recognise the value of their own and of others as well as take time to pursue intrinsic worth and self-care (Kinjerski, 2004), which means they are more likely to develop a sense of support when they are connected to their inner self as well as to other people. When employees are adaptive, open-minded, and have a sense of harmony due to their spiritual

inclination (Kinjerski & Skrypnek, 2006), they can find a way to overcome work-related problems and reduce work stress.

Literature has specifically identified the relationship between workplace spirituality and organisational well-being. The study by Pawar (2016) found that workplace spirituality positively affects employees' emotional, psychological, social, and spiritual well-being, while Walia (2018) and Aboobaker, Edward and Zakkariya (2018) also indicated a similar relationship. Garg (2017) 's empirical results demonstrated that workplace spirituality positively affects the components of employees' well-being, such as work-life balance.

Hypothesis 1. Workplace spirituality will be positively related to employees' well-being

2.3. Workplace spirituality, Well-being and Intention to continue working

Studies have found the influence of workplace spirituality and organisational commitment, which is a state in that individuals identify themselves with their organisation (e.g. Meyer & Allen, 1991; Porter & Steers, 1977). A positive relationship between workplace spirituality and organisational commitment has been examined in different contexts (Fanggidae, 2017; Rego et al., 2007). Conversely, a negative relationship between workplace spirituality and turnover has also been revealed (Milliman et al., 2003). However, none of the previous studies investigates the non-financial employment commitment (NFEC) (Morse & Weiss, 1955; Warr, 1982; Paulsen, 2008). The classic study by Morse & Weiss (1955) created a foundation on the meaning of work, discovering that people consider working as more than a mere means of economic support and that they still want to work even if they are financially secure. Other factors that led to such a desire to continue working included the social aspect (the feeling of belonging to a society), having a purpose in life, and having things to do. Harpaz's (1989) study also obtained similar results and phrased it as non-financial employment commitment (NFEC). The NFEC approach to other aspects of organisations and individuals by giving the people the assumption of an excellent financial condition (e.g. winning the lottery) to learn about their intention to continue to work in the same job at the same organisation (Paulsen, 2008). NFEC allows employees to find the true meaning of work for them, the intrinsic motivation to work, and bonds with the organisation. Inspired by Morse & Weiss, Carr et al. (1997) researched the meaning of work in Malaŵi - an African country. They found that in parallel with the view of seeing work as needed means for survival, people also desire the fulfilling-ness of the occupation and stated that even if they had money to live comfortably, they would continue working but in the form of self-employment (owning a business). Similarly, other studies showed that most people want to continue to work but want to work another job in a different organisation (Paulsen, 2008; Sharabi & Harpaz, 2019). It means that people are motivated to work but not at work, or the organisation is a negative factor in peoples' decision to continue working, which suggests that the intention to work may be affected by the organisational working environment.

Spirituality is a critical part of every human being and influences their behaviours; what people do are affected by how they exercise and use their spirit (Rashid & Ratten,

2021). Employees can develop a sense of belongingness to their companies through workplace spirituality because spirituality consists of meaningful work, a sense of community/ interconnectedness and transcendence (Petchsawanga & Duchon, 2012). Spirituality interconnectedness involves psychological, emotional and spiritual connections among employees (Neal and Bennett, 2000); thus, workplace spirituality brings in the sense of support, freedom of expression, and genuine caring, which guarantees well-being at the workplace. Workers' job satisfaction, commitment, teamwork and morale are also influenced by spirit at work programs (Kinjerski & Skrypnek, 2008). Several studies by Aboobaker, Edward, and Zakkariya (2019, 2021) found that workplace spirituality impacts employees' loyalty and decisions to continue working. Therefore, this paper proposes that: *Hypothesis 2. Workplace spirituality and employees' well-being positively affect Willing to Continue Working.*

3. Methodology

Quantitative research was employed to examine the relationship between spirituality at work, employees' well-being, and how these factors influence the intention to continue to work in the same organisation. There were 606 respondents, and 595 responses were fit for analysis. Data analysis was conducted using Statistical Tools of Social Sciences (SPSS); Exploratory Factor Analysis (EFA), hierarchical moderation regression, and logistic regression were employed to test hypotheses.

3.1. Measure

To measure spirituality in the workplace, the research study entirely adopts the Spirit at Work Scale (SWS) developed by Kinjerski (2013). There are a total of 18 items on a 6-point Likert scale, which asks respondents to rank how well the statements match their personal experiences. To measure the mental well-being of employees, the study entirely adopts the Warwick - Edinburgh Mental Well-being Scale (WEMWBS) developed by Tennant, Hiller, and Fishwick (2007). WEMWBS includes 14 items on a 5-point Likert scale, asking respondents to report the frequency of the statements to match their personal experiences.

Additionally, demographic factors of respondents, including age, gender, and working positions (workers, non-workers), are also collected because studies are showing that well-being differences exist according to different age ranges, genders, and positions (Wilks & Neto, 2012; Lorente et al., 2018; Kamerāde & McKay, 2014; Nyberg et al., 2015). The respondents are asked to provide information about their religion if they have any.

Participants were also asked lottery questions (Paulsen, 2008; Sharabi & Harpaz, 2019), including "*If you won the Jackpot, would you continue to work?*". This question explores participants' non-financial employment commitment, focusing on the willingness to work without financial needs (CW). It is a solid foundation to examine the importance of well-being and spirituality in organisations.

3.2. Procedure

The two instruments (SWS and WEMWBS) were translated from English to Vietnamese in a back-translation method by Brislin (1970). This method is widely used in validating instruments (Cha, Kim, & Erlen, 2007) as it helps to create the equivalence between the original and translated versions (Behling & Law, 2000). The first bilingual translator translated the two instruments from the original language (English) to the target language (Vietnamese). The second and the third bilingual translators independently back-translated the two instruments from Vietnamese to English. Then, these three versions were compared for equivalence. After finalising the translated versions, the questionnaires were sent to three experts in the field and four employees and enterprise managers for feedback. The experts are lecturers in management from three different universities, who provided feedback on the grammar and wording of items in the two instruments. Four employees and managers from four different enterprises gave feedback on the questionnaire structure and the clarity of items in the two instruments. Then, those responses were compared and discussed to make adjustments to the structure and wording of the questionnaire. The wording and structure of the questionnaire's first section, which collects respondents' demography, were adjusted for better clarity and more logical flow. Two items in the SWS instrument were adjusted in terms of word choice for better ease of understanding. Based on their feedback, the author will develop a final questionnaire version to minimise the language and culture gap and fit the study's purpose.

The survey in Google form was distributed online via social media from the beginning of August till the beginning of October 2022. Participants could choose to answer the survey anonymously. An information consent was introduced at the beginning of the survey with all transparent information and no obligation for participants to withdraw if feeling uncomfortable. There were 606 data, of which 595 were qualified for the analysis.

4. Results

Most respondents (95.3%) reported no religion in the questionnaire. 13.9% of the total respondents were in the manager position, while the rest (86.1%) were employees. More than half (68.7%) were female, and the rest were male. The majority (83.4%) were between the age of 18 to 34, 14.5% were from 35-49, and the rest were from 50 years old and above.

4.1. Exploratory Factor Analysis

Because the spirituality (SWS) and well-being (WEMWBS) measures were adapted from Western literature and first time used in Vietnam, Exploratory Factor Analysis (EFA) was used to validate the factors, and Cronbach Alpha was conducted to check scale reliability. Kaiser-Meyer-Olkin statistic ($0.5 < KMO < 1$) and Bartlett's test of Sphericity were employed for factorability (Kaiser, 1974). Factors with eigenvalues greater than 1 were kept (Thompson, 2004). Principal Axis Factor (PAF), which seeks a minimum number of factors that explain common variance among a set of variables (Borsboom, 2006,) was the factor extraction method. To maximise simple structure and allow factors

correlation, Direct Oblimin factor rotation was used. Item loaded highly on more than two factors, loading of items smaller threshold value of 0.4 was eliminated, and the analysis repeated with remaining items. Coefficient Alpha was used to gauge the internal consistency of each Principal Axis Factor (PAF), with any item that lowered Alpha by its removal being excluded and the entire PAF analysis repeated. For the scale's reliability, Cronbach Alpha should be at least greater than 0.6; 0.3 is the hurdle for corrected item-total correlation (Hair, Anderson, Tatham, & William, 1998).

For the construct Spirituality at Work, the result of KMO and Bartlett's Test of Sphericity (KMO = 0.964; Chi-square = 7121.773, df=136, $p=.000$) indicated that the degree of inter-correlation among the items was suitable for the EFA procedure. Two factors with Eigenvalue over Kaiser's criterion of 1 and in combination explained 63.6% of the variance (extraction sum of square loading = 58.3%). The items that cluster on the same factor suggest that factor 1 represents Interconnected Spirituality at Work (ISAW: Eigenvalue = 9.7; 14 items); factor 2 represents Inner Spirituality to Work (ISTW, Eigenvalue = 1.097; 3 items EW5, SpC2, SpC3).

The Cronbach's alpha of ISAW is 0.949, ISTW .777, which is fairly good reliability, and all in the range 0.7-0.95, should be acceptable (Peterson, 1994) (corrected item-total correlation of all items is greater than 0.6), so we keep all two factors.

For Well-being, the scales were developed based on the Warwick-Edinburgh Mental Well-being Scale (WEMWBS) (Tennant, Hiller, and Fishwick, 2007). Bartlett's Test of Sphericity and KMO measure indicated that the degree of inter-correlation among the items was suitable for the EFA procedure (KMO = 0.952; Chi-square = 4707.366, df=91, $p=.000$). The analysis produced one component with Eigenvalue = 7.559 in combination explained 53.99% of the variances.

The Cronbach's alpha is 0.933 (the corrected item-total correlation of all items is greater than 0.9, which is good reliability).

4.1.1. Mean, Standard Deviation and Pearson Correlation

Respondents indicated a high score in Well-being with a mean of 3.86/5 (SD = .65), a high level of Interconnected Spirituality at Work (ISAW) with a mean of 4.44/6 (SD = .914), and a lower Inner Spirituality to Work (ISTW) level with mean 3.93/6 (SD=1.11). For non-financial employment commitment (CW), a number shared that they would keep working if they won the lottery is 472 (79.3% of total respondents), while 123 reported that they would stop working.

As multivariate multiple regression analysis was employed to test the hypothesis, prior to conducting regression, correlations between the variables were checked (Table 1). The test of assumption of linearity shows that interaction terms are not statistically significant ($p \text{ value} > 0.05$), indicating that the assumption of linearity of the logit has been met; Variance-inflation-factors (VIF) is less than 10, so the regression model was not multicollinearity. Thus, further multivariate analysis was deemed appropriate.

Table 1: Correlation Matrix

	Age	Gender	Position	NFEC	ISAW	ISTW	WB
Age	1						
Gender	.118**	1					
Position	.426**	.137**	1				
WorkCont	.133**	.089*	.090*	1			
ISAW	.128**		.144**	.414**	1		
ISTW	.137**	.081*	.129**	.207**	.644**	1	
WB	.081		.114	.353**	.620	.575	1
**. Correnlation is significant at the 0.01 level (2-tailed)							
*. Correnlation is significant at the 0.05 level (2-tailed)							

4.2. Hypothesis testing

Hypothesis 1. Workplace spirituality will be positively related to employees' well-being:

To address the first hypothesis on the relationship between workplace spirituality and employees' well-being, linear regression was employed. Age and Position were the control variables in the structure. The regression is conducted at the same time with control variables, Interconnected Spirituality at Work (ISAW) and Inner Spirituality to Work (ISTW), with one dependent variable Well-being (WB). As shown in table 4, the value of R square = 0.522 (adjusted R square = 0.520), which is moderately good, which means that 52% of the changes related to Well-being are explained by workplace spirituality (P value= 0.00). The result of multiple linear regression in Table 4 shows that only ISAW and ISTW have a significant and positive impact on Well-being with p-value =0.00 and 0.04, respectively. The Standardized Coefficient Beta shows that Interconnected Spirituality at Work has a more substantial impact on Well-being with Beta = 0.656 than Inner Spirituality to Work (Beta = 0.087). The impact of control variables all have p-value = > 0.05 and are not significant at a 95% confidence interval.

Table 2: Regression analysis of how workplace spirituality relates to employee's well-being

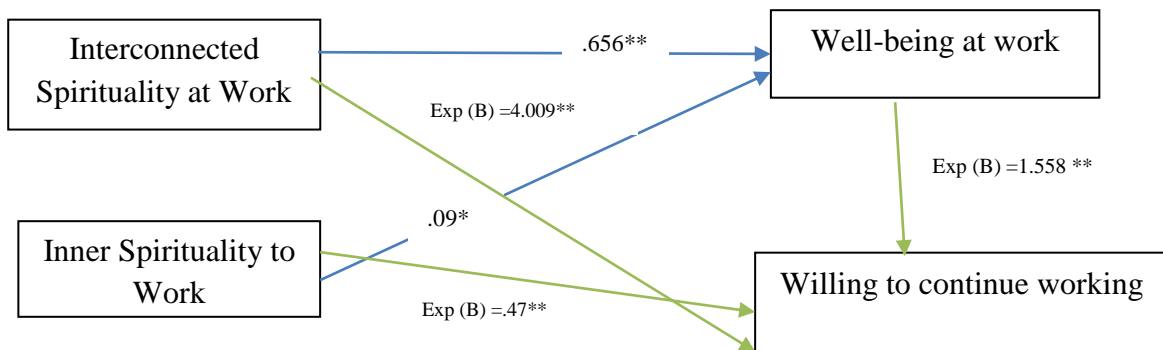
Variables	Model
Age	0.034
Position	0.07
ISAW	0.656**
ISTW	0.087*
R square	0.522
Adjusted R square	0.52

*Notes: Dependent Variable: WB, N=595. Standardised coefficients are shown. *p<.05; **p<.01

For *Hypothesis 2* about the positive effects of spirituality at work and well-being on

the likelihood that participants will continue to work if having enough money for life, a dichotomous categorical outcome (CW), a logistic regression was employed to ascertain the relationship. The logistic regression, which was conducted on ISAW (Interconnected spirituality at work), ISTW (Inner spirituality to work), WB (well-being) and CW (Intention to continue to work: yes = 1; No= 0), had a p -value <0.05 , statistically significant. The regression was statistically significant with Chi-square (2) = 6.065, p -value <0.01 , and Hosmer and Lemeshow Test had a p -value $>.05$, thus, the model fits the data. The model explained 26.9% (Nagelkerke R²) of the variance in different organisations and correctly classified 83.3% of cases. The increasing level of Interconnected Spirituality at Work was associated with an increased likelihood of continuing working regardless of income (Exp (B) = 4.009, (p -value <0.01), while increasing level of Inner Spirituality to Work was associated with a decreased likelihood of continuing working regardless of income (Exp (B) = .470, (p -value <0.01). For well-being, an increasing level of Well-being was associated with an increased likelihood of continuing working (Exp (B) = 1.558, (p -value <0.01)).

Figure 1: Summary of research results



5. Discussion

Analysis confirms all the hypotheses. Firstly, the test results show that workplace spirituality positively impacts employees' well-being, which is consistent with current literature. After translation and adaptation, workplace spirituality turns into two aspects: Interconnected Spirituality at Work (ISAW) and Inner Spirituality to Work (ISTW). ISAW represents the vibration fields of energy created by interaction at work as a small world in which people are compassionate, share and care about each other (Laszlo, 2021), while ISTW reflects individuals' innate quality they bring to work (Yonochan, 2020/2). Workplace spirituality encompasses interconnectedness and a sense of community which connect employees, create a sense of support, and eventually improve their well-being (Ajala, 2013; Neal & Bennett, 2000; Petchsawanga & Duchon, 2012). Therefore, accommodating spirituality at work makes a good SHRM practice because ensuring employees' well-being is a core aspect of SHRM (Guest, 2017; Lu et al., 2022; Vaida et al., 2021). Secondly, the result confirms that workplace spirituality and well-being influence

employees' decisions to continue working. It can be explained by the ISAW aspect of workplace spirituality that helps to improve workers' sense of community, sense of meaningful work, a sense of purpose, sense of responsibility, and ethics which is consistent with the literature (Aboobaker, Edward & Zakkariya, 2019; Hassan et al., 2022; Gull & Doh, 2004). The higher the spirit at work, the more meaningful and interconnectedness people have, and the more likely they are satisfied and committed to their work (Kinjerski & Skrypnek, 2008), keeping them at work even if they feel financially secure.

Furthermore, the intention to continue working is more robust when employees feel connected and belong at the workplace. Sense of community, sense of interconnectedness, and sense of harmony between employees are enhanced by innate personal reflection, such as the exercise of self-care and the pursuit of intrinsic worth, which are found in those with spirit at work (Kinjerski, 2004; Kinjerski & Skrypnek, 2006). When organisations encourage sustainable HRM practices promoting such social capital (shared commitment and relationships), employees' loyalty and retention increase (Cachón-Rodríguez et al., 2022). Overall, implementing workplace spirituality practices for employees' well-being can be considered as an SHRM practice as SHRM practices evoke favourable attitudes from employees and make them see the organisation as a good workplace where their well-being and sense of belongingness are guaranteed, and in turn, reduces turnover intention (Gomes et al., 2023).

Inner spirituality is a sense of connectedness with one's inner self and the broader universe. It entails investigating one's inner being and getting a deeper grasp of one's position and significance in the world. Inner spirituality could be incorporated into work through mindfulness, purpose and meaning in work, compassion and empathy toward others, clarification of values, and the development of ethics (Ashmos & Duchon, 2000; Harrington et al., 2001; Milliman et al., 2003). The relationship between spirituality and well-being at work is confirmed as research results highlight that Interconnected and Inner Spirituality positively contribute to organisational citizenship, enhance the working attitude and behaviour, improve work and team dynamics and boosts the employee's confidence. The results were consistent with the previous research that highlighted the importance of spirituality to employee well-being and enjoyment at work (Khan, 2022; Romadhoni & Suryani, 2023; Vandenberghe, 2011)

Surprisingly, another interesting finding of this research is the negative relationship between the Inner Spirituality (ISTW) dimension and willingness to continue working. Specifically, when people perceive that they have enough money for life, their commitment to work will be decreased. This result seems to be contradicting many other studies claiming that if an individual's spiritual needs are satisfied, people will feel that the organisation respects and supports them, and motivate them to adapt to the behavioural norms and values, resulting in higher organisational commitment (Hafeez et al., 2022; Mathew et al., 2019; Shankar Pawar, 2009; Vandenberghe, 2011; Wahib & Machfudz, 2023). However, Campbell & Hwa (2014) partly agree with the mainstream ideas but point out that inner life has no significant effect on the decision to stay or leave the organisation of the employees. Furthermore, the research highlights the negative relationship between

enjoyment at work and commitment to stay in the organisation. It supports explaining the result of (H2) in this research that although people are happy and satisfied with their current work, they still might leave to pursue higher inner value, especially when their financial goals are accomplished.

Research results also enlighten the Human Resource manager that monetary rewards cannot solely motivate employees to commit to the organisation. It is necessary to diversify the rewards system and design an interesting job that has certain characteristics, including skill variety, task identity, level of autonomy, task significance, and feedback (Raymond A. Noe et al., 2022; Robbins et al., 2017).

The research paper has important implications for individuals, organisations, and the government. Research results help individuals understand how the workplace environment affects their spirituality, well-being and inner self. This self-awareness may help people navigate their spirituality in a way that fits with organisational values and positively affects their mentality and well-being. For organisations, spirit-at-work awareness assists sustainable human resource management practices to create a working environment that benefits employees and effectively retains the workforce. Workplace spirituality can be integrated into the organisational culture, which helps to strengthen organisational cohesion and collaboration. Enterprises can develop programs and interventions that accommodate employees' spiritual needs, consequently influencing their organisational commitment. Finally, recognising spirituality justifies the government's endorsement of policies that enhance the public's well-being.

6. Conclusion and limitation

The research paper contributes to the existing literature on the relationship between workplace spirituality and employees' well-being, confirming a positive association. Our study's critical contribution is exploring the interaction between spirituality, employees' well-being and employees' commitment, which has important implications for sustainable human resource management practices. Nevertheless, our paper has the limitation of self-reported information. As the data are from self-reported responses from workers and managers, having other data sources and from more stakeholders, such as the government, would be more comprehensive.

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THE IMPACT OF SOCIAL RESPONSIBILITY DISCLOSURE ON THE COST OF EQUITY CAPITAL OF VIETNAM'S CONSTRUCTION MATERIAL ENTERPRISES

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Abstract: *This research examined the impact of corporate social responsibility (CSR) disclosure on the cost of equity capital in the context of Vietnam's construction material enterprises. Using a static panel data estimation method, the research conducted an experiment on a sample of 26 listed construction material companies in Vietnam from 2014 to 2021. The study employed a capital asset pricing model to estimate the cost of equity capital and content analysis techniques with non-financial information to measure the level of CSR disclosure of the enterprises. The research revealed that companies with better CSR disclosure scores have lower cost of equity. These findings supported arguments that CSR disclosure can maximize shareholder value, reduce business risks, and has valuable references for sustainable development of enterprises.*

Keywords: *Cost of equity capital, disclosure, corporate social responsibility, construction materials, Vietnam.*

TÁC ĐỘNG CỦA MINH BẠCH THÔNG TIN TRÁCH NHIỆM XÃ HỘI TỚI CHI PHÍ VỐN CHỦ SỞ HỮU CỦA CÁC DOANH NGHIỆP VẬT LIỆU XÂY DỰNG VIỆT NAM

Tóm tắt: *Nghiên cứu xem xét tác động của minh bạch thông tin trách nhiệm xã hội doanh nghiệp đối với chi phí vốn chủ sở hữu trong bối cảnh các doanh nghiệp vật liệu xây dựng ở Việt Nam. Thông qua việc áp dụng phương pháp ước lượng dữ liệu bảng tĩnh, chúng tôi tiến hành thực nghiệm với mẫu gồm 26 doanh nghiệp vật liệu xây dựng niêm yết của Việt Nam từ năm 2014- 2021. Bài báo sử dụng mô hình định giá tài sản vốn để ước tính chi phí vốn chủ sở hữu và kỹ thuật phân tích nội dung với các thông tin phi tài chính để đo lường mức độ minh bạch thông tin trách nhiệm xã hội của doanh nghiệp, nghiên cứu chỉ ra rằng, các doanh nghiệp với điểm số minh bạch thông tin trách nhiệm xã hội tốt hơn có chi phí vốn chủ sở hữu rẻ hơn. Những phát hiện của nghiên cứu này hỗ trợ các lập luận rằng minh bạch thông tin trách nhiệm xã hội có thể tối đa hóa tài sản của các cổ đông và giảm thiểu rủi ro cho doanh nghiệp và có giá trị tham khảo vì sự phát triển bền vững của doanh nghiệp.*

Từ khóa: *Chi phí vốn chủ sở hữu, minh bạch thông tin, trách nhiệm xã hội, vật liệu xây dựng, Việt Nam.*

1. Introduction

One of the goals of a green economy is the sustainability of businesses, which is closely related to their corporate social responsibility (CSR). The sustainability of a business is the source of its competitiveness, and businesses need to have good management abilities, including efforts to improve environmental behaviors and social activities, which are specific expressions of CSR (Baumgartner, 2013). CSR researches help provide an understanding of how businesses can achieve sustainable development (Van Marrewijk, 2003).

The listed construction material businesses in Vietnam, which are a sector that produces and conducts business activities that have a significant impact on the environment and society, have increasingly recognized the role of sustainable development in their operations. From 2014 to 2021, businesses in the industry have been striving to implement CSR such as reducing emissions, sourcing sustainable materials, and optimizing supply chains. In parallel with CSR performance, businesses have also increased the disclosure of CSR in accordance with international norms and increased their responsibility towards the environment and society.

Many studies have discussed the relationship between CSR and firm value (Harijoto & Laksmana, 2018; McWilliam & Siegel, 2000). However, few studies have paid attention to the impact of transparent CSR information on the cost of equity capital, which reflects investors' risk expectations of the firm (Kim & colleagues, 2014). The relationship between CSR and the cost of equity capital is still debated.

Some authors have found a negative correlation between CSR and the cost of equity capital. Jo & Harijoto (2015) illustrated that CSR can reduce asymmetric information, market risk, and transaction costs, thereby reducing the cost of equity capital. Moreover, Girerd-Potin & Colleagues (2014) found that investors require additional risk compensation when investing in companies with poor CSR disclosure.

On the other hand, some studies have identified a complex relationship between CSR and the cost of equity capital and believe that the negative correlation is established only under certain conditions. Breuer & Colleagues (2018) revealed that the impact of CSR on reducing costs is limited to countries with relatively complete investor protection, while the opposite is true in other countries. Feng & Colleagues (2015) stated that good CSR disclosure can reduce costs in the Northern United States and Europe, but not in Asian countries.

The lack of consensus suggests that further research on the relationship between CSR disclosure and the cost of equity capital is needed. This study investigates the relationship between CSR disclosure and the cost of equity capital of listed construction material companies in Vietnam. To the best of our knowledge, this is the first study to use data from Vietnam's construction material companies to examine the impact of CSR on the cost of equity capital. Additionally, in this research, we estimate the impact of CSR by controlling for various firm characteristics that have been shown to affect the cost of equity capital.

The rest of the paper is organized as follows. Section two provides the literature review and the research hypotheses. Section three describes the research methodology. Section four reports the empirical results. The final section is the discussion and conclusion.

2. Literature review and research hypothesis

2.1. Cost of equity capital

The cost of equity capital is the internal rate of return (or discount rate) that the market applies to a company's future cash flow to determine its current market value (El Ghoul et al., 2011). Research on the relationship between CSR and the cost of equity capital is limited. Some scholars have studied the impact of practicing CSR or disclosing CSR reports on the cost of equity capital. Among them, El Ghoul et al. (2011) provided evidence that environmental CSR can reduce the likelihood and cost of negative events, reduce risk expectations, increase the proportion of investors holding stocks, thereby reducing the cost of equity capital; Dhaliwal et al. (2011) showed that information about CSR can increase the share ownership of institutional investors and improve the accuracy of analysts, thereby reducing information asymmetry and ultimately reducing the cost of equity capital.

2.2. Corporate social responsibility performance

According to Carrol (1991), the corporate social responsibility (CSR) of a business is its commitment to contributing to sustainable economic development through activities with stakeholders such as employees, customers, shareholders, and the environment during its operations. CSR disclosure involves providing financial and non-financial information related to an organization's interactions with the natural environment and society through annual reports or separate social reports (Hackston & Milne, 1996).

There are currently two opposing views on the economic effectiveness of CSR disclosure:

Firstly, CSR performance and CSR disclosure help reduce risks and increase the value of the business. CSR can reduce a company's risks in many ways, including the diversification of products by investing in CSR, as noted by Albuquerque et al. (2013). Research by Godfrey (2005) and Luo et al. (2015) found that CSR performance can bring moral capital to companies and help increase the value and profits of shareholders.

Secondly, CSR performance and CSR disclosure lead to excessive investment costs of the enterprises. On the other hand, some studies suggest that practicing CSR as an overinvestment behavior by companies will increase risks, increase capital costs, and decrease the value of the enterprise. Bhandari & Javakhadze (2017) found that investing in CSR consumes resources needed for projects that could increase the value of the company, thereby reducing the effectiveness of the company's investments, increasing the company's representative costs, and ultimately damaging the stock value.

2.3. Economic impact of corporate social responsibility disclosure to the cost of equity capital

Most current researchs support the positive impact of CSR on the cost of equity capital in the following aspects: Some studies have shown that CSR performance improves trust with stakeholders and reduces a company's risk. Specifically: CSR performance promote communication between shareholders and management, increase transparency, and reduce information asymmetry between the company and investors (Cui & et al., 2018; Kim & et al., 2012). According to El Ghouli & et al. (2011), the cost of equity capital is the return on investment based on market perception of a company's risk, so if CSR affects a company's perceived risk, companies with CSR will benefit from lower cost of equity capital.

However, there is still a belief that CSR efforts may increase company's risk and the required rate of return for shareholders. Companies with poor operating efficiency, even investing in CSR, may make investors doubt the financial management's ability, increasing the risk of their dismissal, thus increasing the risk of employee turnover (Hubbard & et al., 2017). CSR requirements may sacrifice resources for other positive investment projects and redirect the attention of managers, thereby reducing the efficiency of capital allocation, sacrificing shareholder benefits, and eroding the value of the enterprise (Bhandari & Javakhadze, 2017).

According to the above research, it can be seen that there is a correlation between CSR disclosure and the cost of equity capital. This study contributes empirical evidence on this relationship in the context of construction material companies in Vietnam.

2.4. Research Hypothesis

Based on the overview of the research results which show that most empirical studies support the positive impact of CSR disclosure on reducing the cost of equity capital, the following hypothesis is proposed:

Hypothesis: There is a significant negative correlation between CSR disclosure and the cost of equity capital.

3. Research Methodology

3.1. Data Collection Method

The data used in this study was selected from 3 sources: (i) Financial and non-financial data of construction material companies which listed stocks on the Hanoi Stock Exchange (HNX) and the Ho Chi Minh City Stock Exchange (HOSE) from 2014 to 2021 were taken from the website [cophieu68 \(www.cophieu68.vn\)](http://www.cophieu68.vn); (ii) Stock price data and government bond interest rate data were taken from the website [investing.com \(vn.investing.com\)](http://vn.investing.com); (iii) Data on international bond yield differentials and Moody's credit ratings for the Vietnamese market were taken from the website of researcher Aswath Damodaran (www.damodaran.com).

Criteria for selecting companies in the research sample:

- Companies that disclose at least one of the following reports: Annual report, sustainable development report, CSR report from 2014-2021.

- Companies that fully disclose audited financial reports during the period of 2014-2021.

The research period chosen for the study was from 2014 to 2021 because:

- This is the period before and after Circular 155/2015/TT-BTC was issued regarding the mandatory disclosure of information on the stock market related to CSR reports of companies on environmental and social issues.

- Studying the impact of CSR disclosure on the cost of equity capital during this period will show how the CSR disclosure changes when both mandatory and voluntary CSR disclosure forms are applied.

Thus, there were 26 companies with enough information to be included in this research, creating a sample of 208 observations (26 companies over an 8-year period).

3.2. Measuring variables in the model

3.2.1. Measuring the dependent variable: Cost of equity capital.

The research uses the Capital Asset Pricing Model (CAPM) by Sharpe (1964) and John (1965). According to the CAPM model, the cost of equity is determined based on the following formula:

$$R_e = R_f + \text{Beta} \times (R_M - R_f)$$

Where:

- R_e : Cost of equity capital
- R_f : Risk-free rate of return
- Beta: Beta coefficient measuring market risk
- $(R_M - R_f)$: Market risk premium

The components of the CAPM model are determined in this study as follows:

- R_f : The risk-free rate of return is determined by the yield of the 10-year government bond rate in Vietnam.

- Beta: The beta coefficient measuring market risk is calculated by the ratio of the covariance of the stock's returns with the market index (VNINDEX) returns and the variance of the market index (VNINDEX) returns. This data is calculated annually for each stock based on data collected from the market.

$(R_M - R_f)$: The market risk premium is calculated by subtracting the risk-free rate of return (R_f) from the expected return on the stock market (R_M). In this research, the authors used data from the Vietnam stock market, which is published annually on the website of researcher Aswath Damodaran. The country risk level is determined by the difference in international bond yields or by using Moody's credit rating. Based on this, the research identified two measures of the cost of equity in a company: R_{cds} , which is based on the difference in international bond yields, and R_{rate} , which is based on the credit rating.

3.2.2. Independent variable measurement: Corporate social responsibility disclosure

The research uses a secondary data collection method to measure the CSR disclosure through content analysis techniques with information presented in the annual

report, sustainable development report, and CSR report of the enterprise. This method is widely used in many studies on CSR disclosure in developed and developing countries (Roberts, 1992; Esa & Ghazali, 2012). The steps for constructing independent variable data are as follows:

Step 1: Establish a list of CSR information items that need to be checked for disclosure based on the disclosure requirements of the listed company's information disclosure law under Circular 155/TT-BTC/2015 issued by the Ministry of Finance in 2015.

Step 2: Dividing the transparency information items into three groups according to the requirements of Circular 155/2015/TT-BTC, including transparency information related to the environment, to labor, and to community service.

Step 3: Using a scale from 0 to 1 to encode the CSR-related information disclosed. Accordingly, the CSR disclosure score is "1" if the information item is disclosed and "0" if it is not disclosed in the company's annual report. The scoring method for CSR disclosure index items is shown in Table 1 below:

Table 1. Constructing a scale for CSR disclosure items.

Code	Information items	Maximum score
<i>A1</i>	<i>Information related to the environment</i>	<i>18</i>
A1.MAT	Raw material management	5
A1.ENE	Energy consumption	5
A1.WAT	Water consumption	5
A1.ENV	Compliance with environmental laws	3
<i>A2</i>	<i>Information related to labor</i>	<i>10</i>
<i>A3</i>	<i>Information related to community service</i>	<i>5</i>
	Total score	33

Source: Research based on Circular 155/2015/TT-BTC.

In which: Information category A1 has 4 criteria, with A1.MAT, A1.ENE, A1.WAT criteria each having 5 sub-criteria, therefore the maximum score for these criteria is 5 points; A1.ENV criterion has 3 sub-criteria, with a maximum score of 3. Information category A2 has 10 sub-criteria, with a maximum score of 10. Information category A3 has 5 sub-criteria, with a maximum score of 5.

Step 4: After constructing the CSR disclosure index, a scoring table is developed to evaluate the level of CSR disclosure. The level of CSR disclosure index (CSRI) is calculated for each enterprise by dividing the actual score of disclosed information by each enterprise by the total of 33 maximum information category points required to be disclosed under Circular 155/2015/TT-BTC.

Step 5: The CSR information disclosure score (CSRI) is calculated for each company in each year based on the total score that company *i* achieved in information items A1 to A3, divided by the maximum total score of the required information items to

be disclosed (33 points). Accordingly, the formula to determine CSRI is as follows:

$$CSRI = (CSR \text{ information disclosure score} / \text{Total score})$$

Where:

CSRI_i: The level of CSR disclosure of company i ($0 \leq CSRI_i \leq 1$).

3.2.3. Measuring control variables

To examine the potential impact of other factors on the relationship between CSR and the cost of equity capital, the study proposes several control variables in the model described in Table 2 below:

Table 2. Control variables in the model

<i>Variable</i>	<i>Symbol</i>	<i>Measurement</i>	<i>Expectation</i>	<i>References</i>
Revenue growth	GROWTH	(Revenue in year t - Revenue in year t-1) / Revenue in year t	+	Dhaliwal & et al. (2006, 2009)
Market risk	BETA	Beta estimation coefficient in asset pricing model	+	Dhaliwal & et al. (2006, 2009), Hail & Leuz (2006)
Firm size	SIZE	Ln (Total assets in year t)	-	El Ghoul & et al. (2011), Gebhardt & et al. (2001)
Financial leverage	LEV	Total debt/ Total assets	+	El Ghoul & et al. (2011), Dhaliwal & et al. (2006)
Book-to-market value	BTM	Book value of equity/ Market value of equity	+	Hail & Leuz (2006)
Profitability	ROA	Return on Asset/ Total assets	-	El Ghoul & et al. (2011)

Source: Compiled by the author.

3.3. Research Model

After identifying the main research variables, the proposed model is as follows:

$$R_{i,t} = \beta_1 + \beta_2 CSRI_{it} + \beta_j X_{it} + \mu_i + \varepsilon_{it} (*) \text{ with } j > 3$$

where:

R: Cost of equity capital

The cost of equity capital has two measures:

- R_cds: Cost of equity capital determined based on the difference in international bond interest rates;

- R_rate: Cost of equity capital determined based on Moody's credit rating.

- CSRI: The degree of CSR disclosure

- X: Control variables in the model include: GROWTH, BETA, SIZE, LEV, BTM, ROA.

- μ : Fixed effects.

- ε : Random error.

- The subscript (i, t) represents observation i at time t.

3.4. Data Analysis Method

Due to the data being collected in tabular form, the research uses regression methods for panel data: Pooled Ordinary Least Squares (Pooled OLS), Fixed Effects Model (FEM), and Random Effects Model (REM) to investigate the impact of CSR disclosure on the cost of equity capital. After performing regression using these three methods, the research uses appropriate tests to select and build an appropriate model for presenting and discussing the research results.

4. Empirical results

4.1. Initial analysis with data

Descriptive statistics:

The descriptive statistics in Table 3 indicate the mean and standard deviation of all variables included in the model. The cost of equity capital measured by two different methods is not significantly different, with an average R_cds of 12.893% and an average R_rate of 14.572%. The CSRI score varies considerably within the sample, with an average value of 0.209, a minimum value of 0.034, and a maximum value of 0.852. The basic control variables have similar variations (except for the GROWTH variable, which has a large variation).

Table 3. Descriptive statistics of variables in the model.

Variable	Observation	Mean	Standard Deviation	Min	Max
R_cds	208	12.893	5.281	2.739	32.984
R_rate	208	14.572	6.715	1.247	40.415
CSRI	208	0.209	11.206	0.034	0.852
GROWTH	208	4.792	8.221	-1.237	1,302.8
BETA	208	1.761	0.832	0.129	3.979
SIZE	208	21.187	1.715	16.213	27.192
LEV	208	0.657	0.218	0.011	0.971
BTM	208	0.481	0.315	0.092	1.672
ROA	208	0.052	0.071	-0.562	0.895

Source: Compilation of results from Stata 14 software.

Correlation coefficient matrix:

Table 4. Correlation coefficient matrix between variables in the model.

	CSRI	GROWT H	BETA	SIZE	LEV	BTM	ROA
CSRI	1						
GROWT H	0.051	1					
BETA	0.062	0.029	1				
SIZE	-0.075	-0.058	0.068	1			
LEV	0.173	-0.143	0.056	0.040	1		
BTM	-0.109	-0.087	-0.261	0.086	0.173	1	
ROA	0.020	-0.317	0.048	0.029	0.028	0.039	1

Source: Compilation of results from Stata 14 software.

The data in Table 4 on the correlation coefficient matrix between variables in the model shows that the correlation coefficients between pairs of variables are all less than 0.5. To test for multicollinearity in the model, the study examined the variance inflation factor (VIF) using the data obtained in Table 5 below:

Table 5. Results of the variance inflation factor.

Variable	VIF (R_cds)	VIF (R_rate)
CSRI	1.32	1.39
GROWTH	1.15	1.42
BETA	1.28	1.25
SIZE	1.47	1.18
LEV	1.35	1.11
BTM	1.43	1.16
ROA	1.16	1.23
Average VIF	1.31	1.25

Source: Compilation of results from Stata 14 software.

The results in Table 5 show that both cases with the dependent variables R_cds and R_rate have average VIF coefficients of 1.31 and 1.25, respectively. Therefore, according to Menard (1995), the model (*) with the dependent variables R_cds and R_rate does not suffer from multicollinearity.

Stationarity test:

The study performed a stationarity test for each data series of the variables in the model using the method of Harris & Tzavalis (1999). The test results are summarized in

Table 6 below, and the summary shows that all variables are stationary at the original data level at a significance level of 5%.

Table 6: Stationarity test results for variables in the model.

Variable	Z_statistic	P-value
R_cds	-5.221	0.0001
R_rate	-6.223	0.0001
CSRI	-8.710	0.0000
GROWTH	-10.318	0.0000
BETA	-11.815	0.0000
SIZE	-7.116	0.0002
LEV	-9.003	0.0001
BTM	-10.313	0.0000
ROA	-7.006	0.0000

Source: Compilation of results from Stata 14 software.

4.2. Testing the impact of corporate social responsibility disclosure on the cost of equity capital

Model (*) with the dependent variable R_cds and R_rate was estimated using 3 methods: OLS pooled, FEM, REM on Stata 14 software. Then, the Hausman test was used to choose between FEM and REM, with P_values for both <0.05, therefore the FEM model was selected. Next, the choice between FEM and pooled OLS was determined by the F-test, with P_values for both <0.05, indicating significant differences between fixed observations. Hence, the FEM model was found to be more appropriate at the 5% significance level (results shown in Table 7).

Table 7. Model selection test results.

Test	P-value (R_cds)	P-value (R_rate)
Hausman test	P-value=0.0020	P-value=0.0023
F-test	P-value= 0.0005	P-value=0.0001

Source: Compilation of results from Stata 14 software.

To ensure the quality of the estimates obtained from the model, the study conducted tests for the presence of heteroscedasticity and autocorrelation for the FEM model selected above with the dependent variables R_cds and R_rate. The results of the tests for heteroscedasticity and autocorrelation are summarized in Table 8, showing that the selected FEM model exhibits both heteroscedasticity and autocorrelation for models with the dependent variables R_cds and R_rate.

Table 8. Results of testing for heteroscedasticity and autocorrelation of the FEM model.

Test	P-value (R_cds)	P-value (R_rate)
Heteroscedasticity	P-value=0.0001	P-value=0.0002
Autocorrelation	P-value= 0.0000	P-value=0.0000

Source: Compilation of results from Stata 14 software.

The presence of heteroscedasticity and autocorrelation in the FEM model can lead to unreliable estimates. Therefore, the study addresses these issues by using a GLS model in Stata. The estimation results of the GLS model, presented in Table 9, will be used to discuss the research findings.

Table 9. Regression results of the GLS model

Variable	GLS (R_cds)	GLS (R_rate)
CSRI	-6.124***	-5.381***
	(-3.11)	(-3.65)
GROWTH	0.002	0.017
	(0.21)	(0.34)
BETA	0.324**	0.419**
	(2.08)	(2.01)
SIZE	-1.016*	-1.413*
	(-1.71)	(-1.83)
LEV	0.784***	0.693***
	(2.86)	(2.94)
BTM	1.317**	1.825**
	(2.34)	(2.38)
ROA	0.994	0.867
	(0.88)	(0.96)
_CONS	9.318**	7.660**
	(2.08)	(2.02)
N	208	208

*Note: *p<0.1, **p<0.05, ***p<0.01 (Source: Compilation of results from Stata 14 software)*

The regression results in Table 9 indicate that CSR disclosure has a negative impact on the cost of equity capital using two measurement methods (R_cds and R_rate) at a significance level of 1%. This result is consistent with the researches of El Ghouli et al. (2011), Dhaliwal et al. (2011), Jo & Hajaroto (2015). Among the control variables in the model, the study only finds that BETA, SIZE, LEV, and BTM have statistically significant effects on the cost of equity capital using two measurement methods. Specifically, firm

size (SIZE) has a negative impact on the cost of equity capital using two measurement methods at a significance level of 10%, suggesting that the larger the firm size, the lower the cost of equity. Additionally, the positive impacts of BETA, LEV, and BTM on the cost of equity capital using two measurement methods indicate that firms with higher market risk, higher leverage, and higher book-to-market ratios have lower cost of equity capital.

5. Discussion and conclusion

The inverse relationship between CSR disclosure and cost of equity capital measured by two methods at the 1% significance level suggests that the hypothesis has been accepted in the context of this research. The results indicate that the CSR performance and CSR disclosure of construction materials companies in the period 2014-2021 can reduce the cost of equity capital. This means that for investors, a company's participation in and disclosure of CSR is a signal of increased enterprise value and risk reduction, rather than a representational cost that reduces investment efficiency. When investors perceive a reduction in enterprise risk, they are more likely to accept lower rewards corresponding to lower risks, meaning lower cost of equity capital.

The coefficient of CSRI is significantly negative, similar to the study of Dhaliwal et al. (2011), and this result indicates a strong relationship between CSR disclosure and the cost of equity capital.

By discussing the relationship between CSR disclosure and cost of equity capital, this study affirms that CSR performance and disclosure of CSR information by companies attract the attention of stakeholders and can reduce the financial pressure on the company. The study empirically examines the relationship between CSR disclosure and cost of equity capital of listed construction material companies in Vietnam while considering the mediating effect of the company characteristics. The results show that efforts to perform and disclose CSR information can reduce the cost of equity capital for the company's shareholders. The conclusion drawn from this study is in complete agreement with previous studies by El Ghouli et al (2011), and Dhaliwal et al (2006, 2009).

This research contributes to the existing literature on CSR by examining the use of different firm characteristics as mediating factors to explain the relationship between CSR disclosure and cost of equity capital. The results of the study show that firms with high market risk, high financial leverage, high book-to-market ratio, and small size that perform and disclose CSR information have lower cost of equity capital. The findings of this study support arguments that CSR disclosure can maximize shareholder value by minimizing deviations from optimal risk-taking (Harjoto & Laksmana, 2018).

Limitations and future research:

This study only focuses on a sample of construction material companies listed on the HNX and HOSE, and the research only limits at examining the overall impact of CSR disclosure on the cost of equity capital, taking into account some intermediary variables related to different characteristics of the companies. Therefore, future research directions may expand the research data to the listed companies on the Vietnamese stock market to increase empirical evidences on this issue in developing countries. At the same time, the study evaluates the impact of specific aspects of CSR disclosure on the cost of equity capital, such as transparency about the environment, labor and community service affecting the cost of equity capital. Other intermediary variables that may promote a

negative relationship between CSR disclosure and the cost of equity capital include R&D costs of the company, the participation of institutional investors, and so on.

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WOOD PELLET AS THE ALTERNATIVE THERMAL ENERGY FOR POWER PLANT - AN APPROACH TO GREEN ECONOMY IN VIETNAM

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Abstract: *Climate change and its consequences are a pressing issue in many countries. Greenhouse gas emissions from transportation, electricity generation, and industry are the major contributors to the problem. To meet energy demand while protecting the environment, countries have been developing and utilizing renewable energy sources as an alternative to the previous thermal power model, including wind power, solar power, hydroelectric power, nuclear power, and more. However, developing countries still face challenges in building clean energy power plants, particularly in terms of economic efficiency. Biomass thermal power generation is a transitional step from conventional thermal power to cleaner energy sources with lower costs, eco-friendliness, and optimal utilization of potential resources. This article presents an economic and environmental assessment model of using wood pellets instead of coal for thermal power plants in Vietnam, along with recommendations for converting coal-fired power plants in Vietnam to biomass thermal power plants. The results indicate the utilization of wood pellets has the potential to decrease the release of CO₂ from thermal power plants in Vietnam. Nevertheless, the expense of transitioning to wood pellet combustion methods is a determinant that impacts the emission factor indicator. Furthermore, the provision of wood pellets in Vietnam is still inadequate in relation to the requirement for producing thermal power, and the ongoing conflict between Russia and Ukraine is another element that influences the emission factor in Vietnam.*

Keywords: *Emission factor, greenhouse gas emissions, forest residues, green economy, renewable energy resources, sustainable development, thermal power plant, wood pellet.*

SỬ DỤNG VIÊN GỖ NÉN NHƯ NGUỒN NHIỆT LƯỢNG THAY THẾ CHO CÁC NHÀ MÁY NHIỆT ĐIỆN - MỘT HƯỚNG TIẾP CẬN CHO KINH TẾ XANH TẠI VIỆT NAM

Tóm tắt: *Biến đổi khí hậu và hậu quả của nó là vấn đề cấp bách ở nhiều quốc gia. Khí thải nhà kính từ giao thông, sản xuất điện và công nghiệp là những nguyên nhân chính gây ra vấn đề này. Để đáp ứng nhu cầu năng lượng trong khi bảo vệ môi trường, các quốc gia đã phát triển và sử dụng các nguồn năng lượng tái tạo như điện gió, điện mặt trời, thủy điện, điện hạt nhân và nhiều hơn nữa. Tuy nhiên, các nước đang phát triển vẫn đối mặt với nhiều thách thức trong việc xây dựng nhà máy điện sạch, đặc biệt là về mặt hiệu quả kinh tế. Nhiệt điện sinh khối là một bước chuyển tiếp từ điện nhiệt truyền thống sang các nguồn năng lượng sạch hơn với chi phí thấp hơn, thân thiện với môi trường và tối ưu hóa sử dụng*

tài nguyên tiềm năng. Nghiên cứu này trình bày một mô hình đánh giá kinh tế và môi trường của việc sử dụng viên gỗ nén thay thế than cho nhà máy điện nhiệt tại Việt Nam, cùng với đề xuất chuyển đổi các nhà máy nhiệt điện than sang nhiệt điện sinh khối. Kết quả cho thấy việc sử dụng viên gỗ nén có tiềm năng giảm thiểu khí thải CO₂ từ các nhà máy nhiệt điện tại Việt Nam. Tuy nhiên, chi phí chuyển đổi sang phương pháp đốt viên gỗ nén là một yếu tố ảnh hưởng đến chỉ số khí thải. Bên cạnh đó, nguồn cung gỗ nén tại Việt Nam vẫn chưa đáp ứng được nhu cầu sản xuất điện nhiệt, và cuộc xung đột giữa Nga và Ukraine cũng là một yếu tố khác ảnh hưởng đến chỉ số khí thải tại Việt Nam.

Từ khóa: *Chỉ số khí thải, khí thải nhà kính, chất thải rừng, kinh tế xanh, năng lượng tái tạo, phát triển bền vững, nhà máy điện nhiệt, viên gỗ nén.*

1. Introduction

According to the International Energy Agency (IEA), Vietnam's energy consumption has been growing at an average rate of 5% per year over the last decade and will grow by 4.5% per annum between 2020 and 2040, which is faster than any other Southeast Asian country (International Energy Agency, n.d.). This increasing demand for electricity has led to a significant increase in carbon emissions, with the country being among the top 10 carbon emitters in the Asia-Pacific region (World Bank, n.d.). To mitigate the environmental impact of coal-fired power plants, the Vietnamese government has set a target of increasing the share of renewable energy in the country's electricity mix to 15% by 2030 (World Bank, n.d.). This presents a significant opportunity for the adoption of biomass and wood pellet-fired power plants, which have lower carbon emissions and can be a sustainable source of energy.

1.1. Rationale

Vietnam, as a rapidly developing country in Asia, heavily relies on electricity consumption which accounted for 226 billion Kilowatt-hours (kWh) (Minh, 2023). However, the country also heavily depends on coal-fired power plants, which are major contributors to greenhouse gas emissions causing environmental damage and air pollution. Biomass and wood pellet-fired power plants have been widely adopted worldwide to replace coal as more than 21.7 million tons had been consumed in 2022 (Eurostat, 2022). Therefore, it is necessary to identify the economic and environmental benefits of wood pellets for power generation in Vietnam to address the country's sustainable development concerns.

Wood pellets are a renewable and sustainable energy source that can be produced from forestry residues, sawdust, and other wood waste. Vietnam has a massive forest coverage with 14.8 million hectares which accounted for 46.7% of land and a diverse wood exploitation industry, which can be maximized for wood pellet production, supporting sustainable forest management and reducing deforestation (Minh, 2023).

Furthermore, promoting wood pellet production in rural areas also has the potential to generate economic benefits, create employment opportunities, and increase income for people in poverty-stricken areas, which has been explained in research "Effects of

Production of Wood Pellets in the Southeastern United States on the Sustainable Development Goals” (Kline et al., 2021).

Lastly, there is limited information and detailed research on the feasibility and potential benefits of wood pellets for power generation in Vietnam. The aim of this research is to provide a specific assessment of the value of wood pellets for power generation, in order to raise awareness and promote discussion on the potential of wood pellets to meet sustainable development goals, including environmental protection and operational efficiency for thermal power plants.

1.2. Statement of problems

The 17 Sustainable Development Goals (SDGs) were announced by the United Nations in September 2015 to guide countries worldwide in sustainable development and poverty reduction (United Nations, 2015.). The goals focus on three specific criteria, including economic development, environmental protection, and social contribution. Vietnam's ambitious goals were given a boost on December 21, 2021, with the signing of Decision No. 2157/QĐ-TTg by the Prime Minister (Prime Minister, 2021). This decision established a National Steering Committee responsible for implementing the country's commitments made at COP26, marking Vietnam's initial move towards realizing those goals, and especially Goal 13, which focuses on climate action. By implementing this decision, Vietnam can better align its national policies and priorities with the global agenda for sustainable development, while also taking concrete steps to address climate change.

The purpose of this research is to analyze the economic feasibility of using wood pellets as an alternative source of energy for thermal power generation in Vietnam. The study aims to ascertain whether the supply of wood production in Vietnam is sufficient to meet the demand of thermal power plants, while also evaluating various economic factors, including operational expenses such as the cost of employing co-firing technology to support the demand. Additionally, the research will examine the price volatility of wood pellets relative to coal. The ultimate goal of this study is to equip policymakers with the necessary information to make informed decisions regarding the adoption of wood pellets as a sustainable and environmentally friendly energy resource.

Also, the environmental impact of wood pellets usage in Vietnam is a critical issue that needs to be addressed. CO₂ is the one of the primary greenhouse gases responsible for climate change, and its emission is a significant environmental concern. This research aims to analyze the CO₂ emissions factors associated with using wood pellets as alternative energy sources for thermal power plants to determine the amount of CO₂ emissions released into the environment accurately. By evaluating the environmental impact from wood pellet usage, the study can help identify ways to minimize the CO₂ emissions and mitigate the potential environmental risks associated with this alternative energy source.

1.3. Research question

The emission factors of wood pellets and coal will be used to evaluate their contributions to CO₂ emission. The targets outlined in the draft National Power Development Plan for the 2021-2030 period with a vision to 2045 (PDP VIII) will be

considered to ensure that the use of wood pellets aligns with the country's goals of promoting renewable energy sources and reducing reliance on fossil fuels, including coal (VEPG, 2021). By examining the emissions of both fuels in the context of these targets, the study will provide policymakers with insights into the potential environmental impact of using wood pellets as an alternative energy source.

Additionally, the study will evaluate the availability and sustainability of biomass resources for producing wood pellets in Vietnam. This aspect is crucial since it affects the long-term feasibility of the technology. The research study will use scenario analysis methods to make assumptions about the availability of feedstock and the replacement rate of coal with wood pellets in thermal power plants to assess the potential reduction of emissions that Vietnam can achieve.

Furthermore, the study will answer the economic benefits by proposing an econometric model to evaluate the economic viability of using wood pellets compared to coal. This model will assess the operating margin cost, price volatility, and fuel consumption for power generation. The analysis of operating margin cost will provide insight into the cost-effectiveness of using wood pellets compared to coal, while the examination of price volatility will help determine which fuel source is more stable and reliable. Finally, the assessment of fuel consumption will enable the determination of the efficiency of both products in power generation.

2. Research Overview

2.1. Literature Review

The article "How certain are greenhouse gas reductions from bioenergy? Life cycle assessment and uncertainty analysis of wood pellet-to-electricity supply chains from forest residues" which was published in the journal "Biomass and Bioenergy" and conducted by Roder et al. (2015, pp. 50-63), describes the life cycle assessment of wood pellets to electricity. This research conducted in the UK examines the greenhouse gas (GHG) emissions associated with the combustion of wood pellets from forest residues to generate electricity, and considers uncertainties related to emissions arising at different points within the supply chain. Using life cycle assessment (LCA) and sensitivity analysis, the study finds that bioenergy can result in substantial GHG reductions compared to coal-fired electricity generation. (Roder et al., 2015, pp. 50-63)

The article "Reducing emissions of the fast-growing Vietnamese coal sector: The chances offered by biomass co-firing" by Truong A.H et al. in "Journal of Cleaner Production" describes the technology of co-firing wood pellets with coal in thermal power generation. The study investigated the potential of co-firing technology to mitigate greenhouse gas emissions caused by the expansion of coal power plants in Vietnam under the Power Development Plan 7A. The authors assessed the costs and potential of co-firing rice residues in existing and planned coal power plants in Vietnam using a spatially explicit optimization model. The research found that the cost of CO₂ emissions is a crucial factor determining the feasibility of using this technology, and at a cost of \$8/tCO₂, the rice straw and husk domestic resource could reduce emissions by 28MtCO₂eq/year by 2030. With this level of investment, biomass

co-firing could decrease emissions by 8% in the coal power sector, with an abatement cost of 137 million USD. (Truong et al., 2019, pp. 1301-1311)

The working paper by Robert Ireland (2022) explores the increasing popularity of utility wood pellets as a source of energy in the context of climate change. Since the late 2000s, production, consumption, and trade of wood pellets have grown substantially, particularly in a few countries where they are used for co-firing with coal or as a replacement. The main driving forces behind this trend are the EU's climate change policies, which have designated wood pellets as a renewable energy source with zero carbon emissions and provided financial incentives. The US, with its vast forests and timber plantations, has responded by increasing wood pellet production for export, primarily to the UK and EU countries. Wood pellet consumption is also on the rise in Asia, with South Korea and Japan importing large quantities to meet their own climate change targets. The paper provides an analysis of the factors contributing to the growth of wood pellets as an alternative energy source and traded commodity in the era of climate change. (Robert, 2022).

2.2. Theoretical Framework

This research will be based on the internationally recognized method for calculating emission factors for electricity systems, which is the latest version 07.0, Appendix 04, EB 100 report. This method was adopted by the UNFCCC CDM Executive Board and is effective from August 31, 2018 (United Nations, 2018). This method is in accordance with the United Nations Framework Convention on Climate Change, which was published on August 31st, 2018.

In the context of Vietnam, the OM (Operating Margin) emission factor will be utilized for calculation purposes. This will be based on the net electricity supplied to the grid by all power plants serving the system, excluding low cost/must-run power plants/units. The calculation will be based on the fuel type(s) and the total fuel consumption of the project's electricity system.

$$EF_{grid,OMsimple,y} = \frac{\sum_i FC_{i,y} \times NCV_{i,y} \times EF_{CO2,i,y}}{EG_y}$$

Where:

$EF_{grid,OMsimple,y}$ = Simple operating margin CO₂ emission factor in year y (t CO₂/MWh)

$FC_{i,y}$ = Amount of fuel type i consumed in the project electricity system in year y (mass or volume unit)

$NCV_{i,y}$ = Net calorific value (energy content) of fuel type i in year y (GJ/mass or volume unit) $EF_{CO2,i,y}$ = CO₂ emission factor of fuel type i in year y (t CO₂/GJ)

EG_y = Net electricity generated and delivered to the grid by all power sources serving the system, not including low-cost/must-run power plants/units, in year y (MWh)

i = All fuel types combusted in power sources in the project electricity system in year y

y = The relevant year as per the data vintage chosen in the Operating Margin Emission Factor.

For this approach (simple OM) to calculate the operating margin, the subscript m refers to the power plants/units delivering electricity to the grid, not including low-cost/must-run power plants/units.

2.3. Methodology

2.3.1. Data collecting

The research article is based on secondary data collected from the following sources:

General Department of Vietnam Customs: Information on the volume of exported wood pellets, purchasing countries, and export prices of Vietnam wood pellets.

Ministry of Industry and Trade of Vietnam (MoIT) and Vietnam Electricity Group (EVN): Information on the National power development plan, Vietnam's historical electricity consumption, lists of existing, under-construction, and planned power plants from 2012-2022, electricity generation capacity of all power plants, the number of coal-fired power plants, their coal consumption value and operating costs.

The International Renewable Energy Agency: Information on Vietnam's emission factors for all kinds of electricity production.

World Bank and Ourworldindata: Information on power plants around the world that use wood pellets as fuel, countries' demand for wood pellets, and information on the prices of coal and wood pellets from 2020-2022.

The dataset utilized in this study comprises 36 observations obtained from the thermal power plants that contribute the most significant percentage of electricity production in Vietnam between 2020 to 2022.

2.3.2. Research design and estimation procedure

The method of calculation for Emission Factor (EF).

Due to limited accessibility to the detailed output from each power plant, a simplified calculation method for emission will be used. The output of the Clean Development Mechanism (CDM) project is assumed to account for 2% of the total output. This is based on the fact that, as of 2011, 40 of the CDM projects in Vietnam were hydro power plants, and only 2 were renewable power plant with wattage under 100 MW (JICA, 2011)

Firstly, the operating margin will not exclude low-cost/must-run generating sets and the method used will remain the same as for simple OM. Secondly, Vietnam is not classified as a Least Developed Country (LDC), a country with less than 10 registered CDM projects at the starting date of validation, or a Small Island Developing States (SIDS).

In addition, the share of renewable energy in total installed capacity in a

grid/project electricity system is less than or equal to 20%, and EF_{grid, BM, y} is assigned a value of 0.568 tCO₂/MWh (based on best available technology for oil-fired CCGT) because natural gas is not used for electricity production but the coal. Most of the natural gas generating sets were installed before the study period. Lastly, each factor is given equal weight and remains unadjusted from the previous report by the Ozone Layer Protection and Low Carbon Economy Development Center (2020), except year 2022 due to additional installed power plants.

Table 1. CO₂ emission factors in IPCC (2006)

Fuel	Lower heating Value	Energy basis
	TJ/Gg	kgCO ₂ /TJ
Anthracite	26.7	98300
Wood or Wood waste	15.6	112000

Source: Intergovernmental Panel on Climate Change (2006)

Assumptions.

Several assumptions have been made. Firstly, it is assumed that the export volume of wood pellets will be consumed for electricity generated in Scenario 1. The potential kWh generated from 1 kg of wood pellet is 4.8-4.9 kWh, but this is lowered due to the quality and component of Vietnamese wood pellets, with a specified value of 4 kWh (European Pellet Council, n.d.). The potential kWh generation from 1 kg of coal is 3-4 kWh, but for Vietnam during 2020-2022, it is lessened, varying from 1.81-2.39 kWh/kg (compiled by the author).

Secondly, the supply of electricity during 2020-2022 is consistent with the country's Power Development Plan, according to the decision 3733/2019/QD-BCT, 3598/2020/QD-BCT, and 3063/2021/QD-BTC.

Thirdly, the wood pellet heating value is assumed to be 15.6 MJ/kg according to a report from 2006. This value is adjusted to 15.5 MJ/kg, according to the Japan Woody Bioenergy Association (2020) report on the value of imported wood pellets, as Vietnam is one of the two main exporters to Japan.

Lastly, an assumption is made for subsidies to investigate the economic potential of co-firing and other CO₂ mitigation strategies. An alternative way to increase the economic competitiveness of CO₂ mitigation strategies is to increase the prices for CO₂ certificates. The required price level of CO₂ certificates is determined by assuming that the marginal cost of electricity generation must be the same for the different CO₂ mitigation strategies and the pure coal combustion without Carbon Capture and Storage (CCS) technology. The necessary CO₂ certificate prices determined in this way for the energy pathway E as given in Table 2.

Table 2. Effects of price increase of CO2 certificates (CO2 price compared with monetary subsidies using energy pathway E as an example

Scenario	CF, wood chips		CF, industry pellets		CF, torrefied biomass		CBPP		CCS	
	Subsidy	CO2 price	Subsidy	CO2 price	Subsidy	CO2 price	Subsidy	CO2 price	Subsidy	CO2 price
Average electricity generation costs (€/MWh)	58.29	119.34	58.16	126.81	57.68	125.09	48.6	95.12	60.54	76.68
Biomass demand incl. EG plants (PJ)	309.4	345.4	634.9	514.5	827.0	489.6	1196.7	1025.4	749.8	245.5
CO2 emissions (Million t/a)	114.9	70.5	94.6	60.7	75.9	54.5	45.2	22.9	85.3	29.9
CO2 mitigation costs (€/tCO2)	7.2	73.9	51.7	92.8	78.5	268.7	106.1	112.	159.2	66.7

Source: Evaluation of co-firing as a cost-effective short-term sustainable CO2 mitigation strategy in Germany (Knapp et al., 2019)

The scenario for simulation.

The simulation scenario involves the partial replacement of coal as a source of electricity generation with wood pellets. The total amount of electricity generated from coal and wood pellets remains the same as the base case, in order to compare the emission factors from unchanged output. This is a rational approach, as the demand for electricity continues to increase and cannot be cut off, given its importance for economic growth and improving living standards. Thus, the amount of coal used in the simulated scenario is only enough to generate the remaining electricity that wood pellets do not cover.

Two scenarios are examined: in Scenario 1, the replacement rate of coal with wood pellets is equivalent to the actual supply of wood pellets, in order to examine the effectiveness of the reduction in emissions. In Scenario 2, the replacement rate is 100%, which allows for the examination of the required wood pellet supply in comparison to the current wood pellets capacity.

2.3.3. General multiple linear regression model

The general multiple linear regression model has been proposed by author like below:

$$\Delta E = \beta_0 + \beta_1 \Delta P_1 + \beta_2 \Delta P_2 + \beta_3 \Delta C + \beta_4 \Delta W$$

Where:

ΔE is the change in emission factors from power generation in Vietnam (tCO₂/mWh).

P_1 is the historical price of coal (measured dollars per ton).

P2 is the historical price of wood pellets (measured in dollars per ton).

C is the operating costs for each monthly output at time t (\$).

W is the dummy variable, equal 1 for war period and 0 for remaining period.

β_0 is the intercept, representing the base level emission factor.

β_1 is the coefficient for P1, representing the effect of coal price on emission factor.

β_2 is the coefficient for P2, representing the effect of wood pellet price on emission factor.

β_3 is the coefficient for C, representing the effect of operating cost on emission factor.

β_4 is the coefficient for war, representing the difference of emission factor during war period from peace time.

2.3.4. Hypotheses

The following research hypotheses have been formulated to test the economic viability of wood pellets as an alternative energy source for thermal power plants in Vietnam:

- Ha1: Substituting coal with wood pellets in thermal power plants will result in a decrease in the emission factor.

- Ha2: The operating costs associated with replacing coal with wood pellets will be higher, including the cost of co-firing technology.

- Ha3: The feasibility of using wood pellets as an alternative energy source in Vietnam will depend on the comparison between the required amount of wood pellets as input and the current export capacity of Vietnam.

- Ha4.1: The change in emission factor resulting from no wood pellet adoption will be influenced by various factors, such as price, supply, cost, and macro factors like war.

- Ha4.2: The change in emission factor resulting from wood pellet adoption will be influenced by various factors, such as price, supply, cost, and macro factors like war.

- Ha5.1: The dummy war variable is significant in the period 10/2021-12/2022 without wood pellet adoption.

- Ha5.2: The dummy war variable is significant in the period 10/2021-12/2022 with wood pellet adoption.

- Ha6.1: The structural change is not present in the model without wood pellet adoption.

- Ha6.2: The structural change is not present in the model with wood pellet adoption.

3. Result and Discussion

3.1. Descriptive statistic

Table 2. Table of descriptive statistics

	EF_CM	PRICE_COAL	PRICE_WOOD	COAL_FIRED_ THERMAL_POWER	COST
Mean	0.6158	181.2428	193.8314	4953291.	3.07*10 ⁸
Median	0.6081	140.9700	194.8900	5071082.	3.13*10 ⁸
Maximum	0.7576	430.8100	220.2400	6595943.	3.75*10 ⁸
Minimum	0.4321	50.1400	178.0500	2392342.	1.96*10 ⁸
Std. Dev.	0.0966	130.9798	10.5118	1101571.	47600325
Skewness	-0.0575	0.6785	0.1899	-0.4323	-0.6895
Observations	36	36	36	36	36

Source: compiled by the author

EF_CM: The mean emission factor is 0.6159 with a standard deviation of 0.0967, indicating that most of the values are clustered relatively close to the mean. The skewness of -0.0576 suggests a slightly left-skewed distribution.

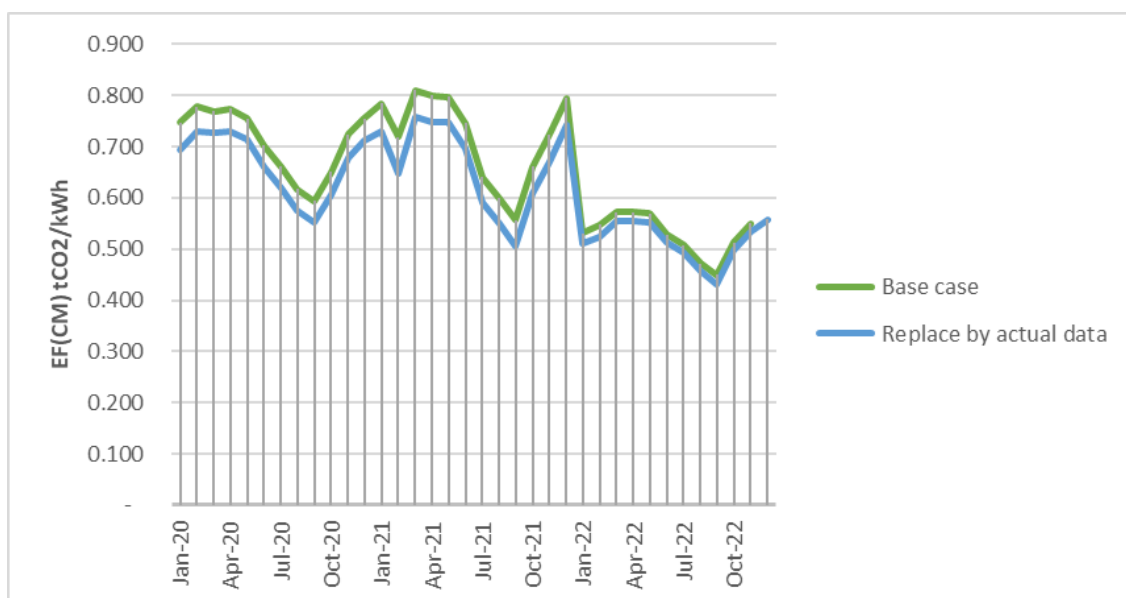
PRICE_COAL: The mean price of coal is \$181.24 with a standard deviation of \$130.98, indicating a relatively large variation in the data. The maximum price of \$430.81 is particularly high compared to the other values.

PRICE_WOOD: The mean price of wood is \$193.83 with a relatively small standard deviation of \$10.51. The maximum value of \$220.24 is only slightly higher than the median value of \$194.89.

COAL_CONSUMPTION: The mean coal consumption is 4.95 million metric tons with a standard deviation of 1.10 million metric tons. The minimum value of 2.39 million metric tons is particularly low compared to the other values.

COST: The mean cost is \$307 million with a large standard deviation of \$47.6 million, indicating a wide variation in the cost data. The minimum value of \$252 million is particularly low compared to the other values.

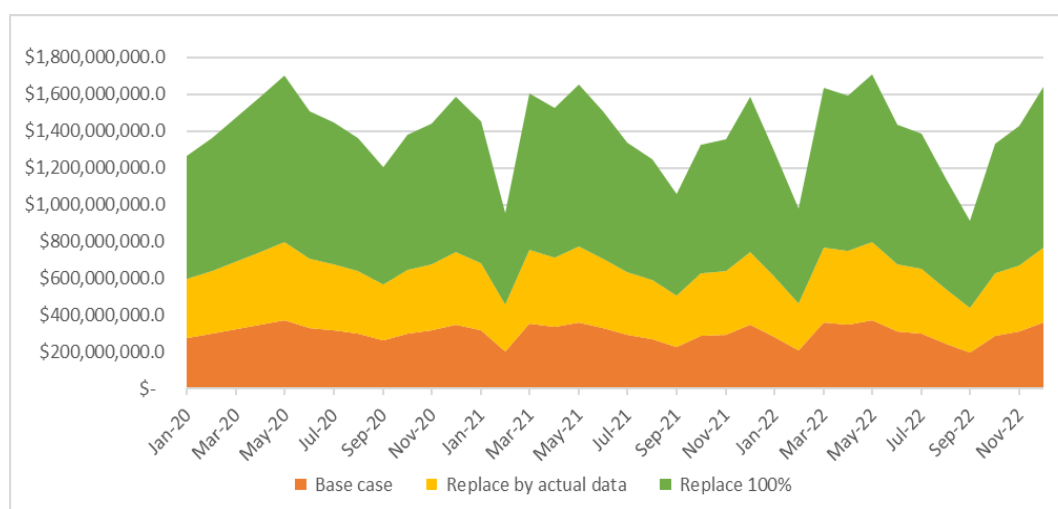
Figure 1. The estimated combined margin of emission factor in two cases.



Source: compiled by the author

The chart illustrates the changes in the emission factor value in Vietnam from January 2020 to October 2022, assuming the partial replacement of coal with the export volume of compressed wood. During the period from January 2020 to December 2021, the emission factor may decrease by 7%. However, the reduction in the emission factor is no longer significant in the following period. Additionally, the emission factor index in the early 2022 period also reduced significantly, attributed to the utilization of solar power plants, which helped reduce the operating capacity of coal-fired power plants.

Figure 2. The estimated operating cost for 3 cases.

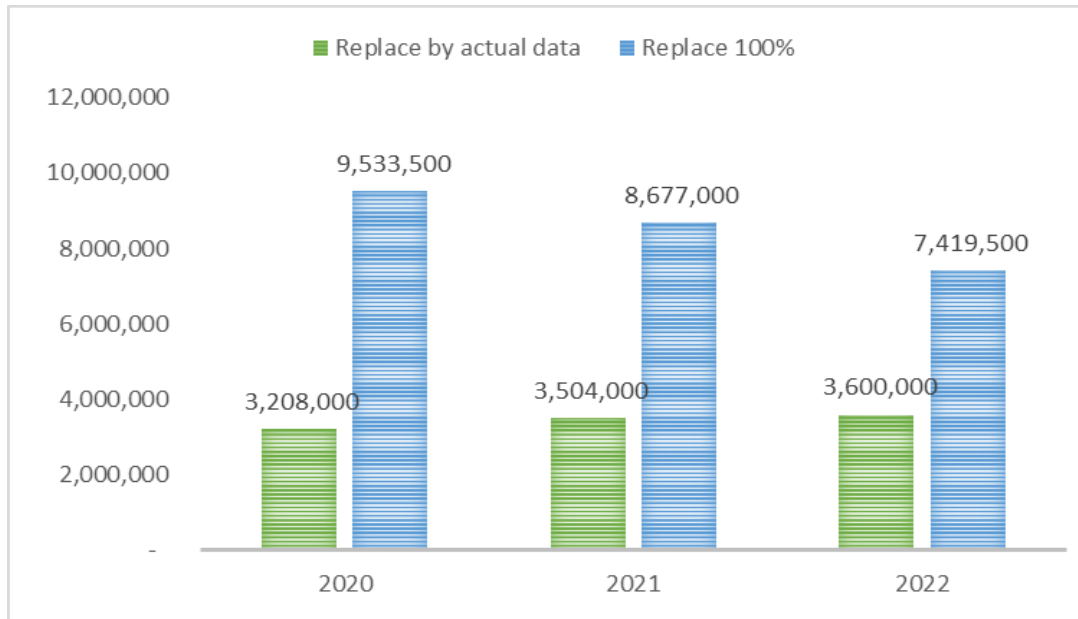


Source: Compiled by the author

The cost of the replacement, when equivalent to the actual exported volume, is slightly higher by 10%-20%, which is in line with the replacement rate that varies around 10%. The highest cost, which is \$424,328,604, is observed when the monthly required

output is at its maximum of 11,857 million kWh in May 2022. The obtained cost supports alternative hypothesis 2.

Figure 3. The estimated wood pellet input for power generation in two cases



Source: compiled by the author

In the case of 100% wood pellet usage, the volume required would be 9.5 million, 8.6 million, and 7.4 million tons for the years 2020, 2021, and 2022 respectively. However, if wood pellets were to become the primary supply for coal-based power plants, this would only meet less than 40% of the total requirement. In comparison to the maximum capacity of 4.5 million tons, the use of wood pellets would only meet 47%, 52%, and 61% of the requirement for the years 2020, 2021, and 2022 respectively.

3.2. Linear regression statistic

Multiple regression analysis for the base case:

Ha4.1: The change in emission factor resulting from no wood pellet adoption will be influenced by price of coal, price of wood, supply of coal, operating cost macro factors like war.

Yes, the change in emission factor resulting from no wood pellet adoption will be influenced by price of coal, price of wood, supply of coal, operating cost at 10% of significant level.

Equation 1: $\text{LOG}(\text{EF_CM_BASE}) = -1.3982 - 0.00077 * \text{PRICE_COAL} + 0.0029 * \text{PRICE_WOOD} + 1.4232 * 10^{(-7)} * \text{COAL_FIRED_BASE} - 9.2668 * 10^{(-10)} * \text{COST_BASE} + 0.1031 * \text{WAR}$

t-Statistic: -4.504, -3.003, 1.664, 4.632, -1.734*, 1.641

R-squared = 0.903; Adjusted R-squared = 0.888

*: The coefficient is significant at 90% level of confidence

In general, for every \$100 increase in coal price, the demand may be lessened

leading to a possible decrease of up to 0.77% in emission factor. In reality, power plants using coal contribute a small proportion to electricity production in 2022, as the main source of electricity is being converted to clean energy, including hydropower.

The emission factor may increase up to 29% for every \$100 increase in wood pellet price. When the wood pellet price increases too high, it may become less competitive compared to coal. However, in reality, the wood pellet price is usually stable with only about 10% variation from the mean value, while the coal price may vary up to 130%. At its highest point in September 2022, the coal price reached \$430/ton, which is nearly double the highest wood pellet price of around \$220/ton in December 2022.

As predicted, one million tons of coal could cause negative environmental impacts by increasing the EF up to 14.2%. On the other hand, investing more in co-firing technology with wood pellets may help reduce the EF by 9.26% for every \$100 million spent per month. However, cost is not the only decisive factor for reducing the EF, meaning that if costs can be eliminated, emissions may decrease. Wood pellet price is also a variable that explains EF but only has a significance level of 10%.

Assessing the impact of the war on the motivation to reduce EF, the conflict between Russia and Ukraine may cause a change of more than 10% in this index between February 2021 and the end of 2022 compared to the previous period. However, this variable is not significant. Overall, the equation has significant importance with an F-statistic of 56.24.

Multiple regression analysis for the simulated case with actual wood pellets export data:

Ha4.2: The change in emission factor resulting from wood pellet adoption will be influenced by price of coal, price of wood, supply of coal, operating cost macro factors like war.

Yes, the change in emission factor resulting from no wood pellet adoption will be influenced by price of coal, price of wood, supply of coal, operating cost and war at 10% of significant level

Equation 2: $\text{LOG}(\text{EF_CM}) = -1.4379 - 0.00073*\text{PRICE_COAL} + 0.0031*\text{PRICE_WOOD} + 1.3954*10^{(-7)}*\text{COAL_FIRED_THERMAL_POWER} - 7.2297*10^{(-10)}*\text{COST_1} + 0.1086*\text{WAR}$

t-Statistic: -4.542, -2.793, 1.821*, 4.157, -1.271, 1.798*

R-squared = 0.889; Adjusted R-squared = 0.871

The variables are, in order, coal price, wood pellet price, amount of coal consumption, and the war variable is significant at the 10% level. For every \$100 increase in coal price, EF decreases by 7.3%. The cost fluctuates greatly, but EF only decreases slightly because coal remains the main source of electricity production. In this case, coal still accounts for approximately 90%. The wood pellet price is proportional to EF, so a \$100 decrease in imported wood pellets prices can encourage people to reduce the index by up to 31% compared to before. This means that when wood pellets are a cheaper substitute for coal, people will prefer to use wood pellets instead. Coal consumption still increases EF

as in the base case model. The cost is still a variable that does not explain the decrease in EF. However, in general, for every \$100 million spent each month, EF can decrease by 7.2% compared to the previous month. The war variable is significant, indicating that EF will change more due to war than during peacetime.

Multiple regression analysis for the War variable in the period from October 2021 to December 2022

Ha5.1: The dummy variable war is significant in the period 10/2021-12/2022 without wood pellet adoption.

Yes, the dummy variable war is significant in the period 10/2021-12/2022 without wood pellet adoption at 5% of significant level

Equation 3: Base case: $\text{LOG}(\text{EF_CM_BASE}) = -1.172 - 0.0008 * \text{PRICE_COAL} + 0.0022 * \text{PRICE_WOOD} + 1.414 * 10^{(-7)} * \text{COAL_FIRED_BASE} - 8.2528 * 10^{(-10)} * \text{COST_BASE}$

t-Statistic: -13.296, -12.347, 4.479, 0.872, -7.234, 5.776

R-squared = 0.996; Adjusted R-squared = 0.994

The war variable is extremely significant in the period after October 2021 with a p-value of 0%, which is less than 0.05%. During the period without war EF is lower by 22% for each unit change in independent variables while during the war EF declines by only 17%, 7.6% lower.

Ha5.2: The dummy variable war is significant in the period 10/2021-12/2022 with wood pellet adoption.

Yes, The dummy variable war is significant in the period 10/2021-12/2022 with wood pellet adoption at 5% of significant level

Equation 4: Simulated case: $\text{LOG}(\text{EF_CM_}) = -1.141 - 0.00075 * \text{PRICE_COAL} + 0.0022 * \text{PRICE_WOOD} + 1.3215 * 10^{(-7)} * \text{COAL_FIRED_THERMAL_POWER} - 6.1183 * 10^{(-10)} * \text{COST_1}$

t-Statistic: -12.087, -11.222, 4.255, 6.887, -4.824, 5.493

R-squared = 0.995; Adjusted R-squared = 0.993

The war variable still plays a role as an explanatory variable for why EF changes less than 7.5% compared to the period without war. In both cases, the war variable is significant, indicating that the Russia - Ukraine war has a negative impact on changing the emissions from thermal power plants.

3.3. Testing for structural change

Ha6.1: The structural change is not present in the model without wood pellet adoption.

Yes, the structural change is not present in the model without wood pellet adoption at 5% of significant level.

Ha6.2: The structural change is not present in the model with wood pellet adoption.

Yes, the structural change is not present in the model with wood pellet adoption at

5% of significant level.

The author tested the stability of the model using an F-test for two periods: January 2020 to September 2021, and October 2021 to December 2022. Both the base case and simulated case results indicated that there was no structural change in the two models. Thus, the model was found to be stable during the research period.

3.4. Error checking

Firstly, the test below is an attempt to ensure that the variances are equal. The result shows that the variances are equal at a 5% significance level.

a. Hypotheses:

H07.1: Homoscedasticity exists in the model without wood pellet adoption.

Ha7.1: Heteroscedasticity exists in the model without wood pellet adoption.

H07.2: Homoscedasticity exists in the model with wood pellet adoption.

Ha7.2: Heteroscedasticity exists in the model with wood pellet adoption.

b. Significance level: $\alpha = 0.05$

c. Test statistic: The p-value of the model without wood pellet adoption: p-value 1 = 0.12. The p-value of the model with wood pellet adoption: p-value 2 = 0.11.

d. Decision rule: We reject H07.1 and H07.2 if the p-value $> \alpha$. Since p-value 1 = 0.12 and p-value 2 = 0.11 are both greater than 0.05, we do not reject H07.1 and H07.2.

e. Conclusion: At a 5% level of significance, the statistical results indicate that the residuals are homoscedastic.

Secondly, the following test attempts to ensure that there is no autocorrelation. As expected for time series data, autocorrelation exists in both models at a 5% significance level. By adding AR(1) and AR(2), it can be clearly seen in the table that in the model without wood pellet adoption, $2.334 < DW = 2.4 < 3.068$, and in the model with wood pellet adoption, $2.334 < DW = 2.4 < 3.068$, so the autocorrelation has disappeared in both cases.

a. Hypothesis

H08.1: No autocorrelation exists in the model without wood pellet adoption.

Ha8.1: Autocorrelation exists in the model without wood pellet adoption.

H08.2: No autocorrelation exists in the model with wood pellet adoption.

Ha8.2: Autocorrelation exists in the model with wood pellet adoption.

b. Significance level: $\alpha = 0.05$

c. Test statistic: The p-value of the model without wood pellet adoption: p-value 1 = 0.00.

The p-value of the model with wood pellet adoption: p-value 2 = 0.00

d. Decision rule: We reject H08.1 and H08.2 if the p-value $> \alpha$. Since the p-value of the model without wood pellet adoption: p-value 1 = $0.00 < 0.05$ and the p-value of the model with wood pellet adoption: p-value 2 = $0.00 < 0.05$, we reject H08.1 and H08.2.

e. Conclusion: At a 5% level of significance, the statistical result indicates that autocorrelation exists in both models.

4. Summary and Conclusion

The emission factor index changes proportionally to the replacement of coal with wood pellets. The higher the substitution rate, the lower the emissions. However, this figure will not decrease significantly if the substitution rate is too low while coal remains the main fuel source for electricity production in Vietnam and the number of coal-fired power plants continues to be built and operated according to Vietnam's Power Development Plan. At a substitution rate of 100%, the emission factor index still increases even though the input consumption of wood pellets increases. However, carbon capture technology promises to assist in CO₂ gas treatment. In addition, studies have shown that the amount of CO₂ emitted into the environment from burning wood pellets is comparable to the natural decomposition of wood waste.

Based on data on the volume of exported wood pellets in Vietnam, it is evident that the demand for fuel conversion for current coal-fired power plants in Vietnam has exceeded the actual production capacity of wood pellet factories, not to mention the commercial value of Vietnam's wood pellet exports to Japan and South Korea.

Through this study, the author recommends that Vietnam continue to develop forest plantations and related industries to ensure a supply of raw materials while utilizing agricultural waste. Moreover, by selectively cultivating input wood species, Vietnam can improve the quality and electricity production capacity of wood pellets to meet the European standards of 4.9 kWh/kg, thereby generating higher commercial value. Along with that the emission could be deducted by half due to the higher rate.

Co-firing technology of wood pellets and coal is a transitional step that can bring economic and environmental benefits, similar to what is being implemented in Europe, South Korea, and Japan. The replacement of co-firing technology may increase monthly costs by up to two times the current coal-firing technology, reaching up to \$900 million. This cost would be lower if the fixed cost of operating and maintaining is lower in the case when the transition is carried out in installed power plants and the capacity of the new plant is bigger.

This investment will significantly increase initial construction costs but will meet the requirements for sustainable development as Vietnam committed at the COP-26 Summit. Vietnam can also explore ecosystem models from forest plantations to wood production, wood pellet production, electricity production, and carbon capture like the Drax Power Station in Europe (Drax Group, n.d.).

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The Appendix can be accessed via the link: <https://tinyurl.com/2p999jhk>

ÁP DỤNG MÔ HÌNH KINH TẾ TUẦN HOÀN TRONG NGÀNH KHÁCH SẠN TẠI VIỆT NAM: NGHIÊN CỨU TRƯỜNG HỢP ĐIỂN HÌNH

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Tóm tắt: *Nền kinh tế tuần hoàn đang nổi lên như một mô hình kinh tế xanh của tương lai nhưng chưa được áp dụng triệt để và nghiên cứu kỹ lưỡng trong lĩnh vực khách sạn. Ngành khách sạn là một trong những ngành mang lại lợi ích kinh tế lớn nhưng cũng có nhiều tác động tiêu cực đến môi trường và xã hội. Sử dụng phương pháp nghiên cứu định tính và thu thập dữ liệu sơ cấp thông qua phỏng vấn bán cấu trúc, nghiên cứu này khám phá nhận thức của các nhà vận hành khách sạn, các yếu tố tác động, cơ hội tạo ra giá trị và rào cản của việc ứng dụng nền kinh tế tuần hoàn trong ngành khách sạn. Ý kiến phản hồi từ ba chuyên gia tới từ ba khách sạn điển hình thuộc ba tập đoàn khách sạn lớn cho thấy mức độ hiểu biết của họ về nền kinh tế tuần hoàn mới chỉ dừng lại ở khái niệm. Tuy nhiên trong chính sách của địa phương, tập đoàn và khách sạn đã có những hành động và sáng kiến cụ thể nhằm thay đổi chuỗi cung ứng, tuy chưa hoàn chỉnh nhưng đã có ứng dụng kinh tế tuần hoàn. Nghiên cứu cũng chỉ ra rằng, rào cản lớn nhất đối với việc triển khai kinh tế tuần hoàn trong ngành khách sạn đến từ các chi phí vận hành và nhận thức của khách hàng.*

Từ khóa: *Nền kinh tế tuần hoàn, phát triển bền vững, ngành khách sạn, chuỗi cung ứng, tái chế*

APPLYING CIRCULAR ECONOMY IN HOSPITALITY INDUSTRY IN VIETNAM: A MULTICASE APPROACH

Abstract: *The circular economy is emerging as a green economic model of the future but has not been thoroughly applied and studied in the hospitality sector. Hospitality is one of the industries that creates great economic benefits but also has many negative impacts on the environment and society. Using qualitative research methods and primary data collection through semi-structured interviews, this study explores hotel operators' perceptions, influencing factors, opportunities for value creation and barriers to the application of circular economy in the hospitality industry. Feedback from three experts from three typical hotels belonging to three major hotel groups shows that their understanding of the circular economy is only conceptual. However, local authorities, corporations and hotels have taken specific actions and initiatives to change the supply chain, which is incomplete but has shown some signals of applying circular economy. Research also shows that the biggest barrier to implementing circular economy in the hospitality industry comes from operating costs and customer perception.*

Keywords: *Circular economy, sustainability, hospitality, supply chain, recycling*

1. Giới thiệu

Trong suốt những thập kỷ qua, sự phổ biến của chủ nghĩa tư bản với tư cách là hệ thống kinh tế thống trị và được chấp nhận rộng rãi đã tạo ra các nền kinh tế thị trường trên khắp thế giới (Ferrell & Fraedrich, 2021). Những nền kinh tế này tập trung chủ yếu vào việc tạo ra các giá trị kinh tế nhằm gia tăng của cải vật chất, phục vụ cho nhu cầu tiêu thụ không có điểm dừng của con người. Milton Friedman - nhà kinh tế học nổi tiếng với quan điểm về thị trường tự do, cho rằng mục đích tối thượng của một doanh nghiệp là tối đa hoá lợi nhuận. Miễn là không làm gì trái pháp luật, doanh nghiệp không cần quan tâm tới những tác động của nó lên môi trường và xã hội (Friedman, 2007). Tuy nhiên, quan điểm này dường như đang ngày càng trở nên lỗi thời khi mà thế kỷ 21 chứng kiến những hậu quả của việc tiêu dùng quá mức lên môi trường và hệ sinh thái, ảnh hưởng nghiêm trọng tới chất lượng cuộc sống, thậm chí là sự tồn vong của loài người. Ngày nay, người ta nhắc nhiều hơn tới sản xuất và tiêu dùng bền vững, và khái niệm nền kinh tế tuần hoàn ra đời.

Trước đây, hoạt động kinh tế truyền thống thường được miêu tả bằng một mô hình tuyến tính, vận hành như một dòng chảy trong đó tài nguyên và các nguồn lực được lấy từ trái đất, sau đó đưa vào quá trình sản xuất để tạo ra thành phẩm. Thành phẩm sau khi đến tay người tiêu dùng sẽ được sử dụng, sau đó bị vứt bỏ và trở thành rác thải. Với mô hình này, các doanh nghiệp được coi là thành công khi cung cấp được càng nhiều sản phẩm mẫu mã đa dạng với mức giá ngày càng rẻ tới tay người tiêu dùng và cố gắng bán được nhiều nhất có thể. Tuy nhà sản xuất và người tiêu dùng hưởng lợi nhưng phúc lợi này dựa trên sự lãng phí tài nguyên và phá huỷ môi trường (Rodríguez & cộng sự, 2020). Đối trọng với mô hình kinh tế truyền thống là mô hình nền kinh tế tuần hoàn - một sáng kiến không những tạo ra các cơ hội kinh doanh mới và thúc đẩy tăng trưởng kinh tế, mà còn giúp giải quyết các vấn đề về môi trường như giảm khai thác tài nguyên và giảm lượng chất thải gây ô nhiễm, hướng tới phát triển bền vững. Kinh tế tuần hoàn đặc biệt chú trọng việc tái sử dụng các tài nguyên/sản phẩm đã được sử dụng, biến rác thải của hoạt động kinh doanh này thành đầu vào của một hoạt động kinh doanh khác hay tuần hoàn trong chính hệ thống một doanh nghiệp, dựa trên nguyên lý “mọi thứ đều có thể trở thành đầu vào để tạo nên một thứ khác” (Viện Nghiên cứu Phát triển Kinh tế Tuần hoàn, 2023).

Tại Việt Nam, dịch vụ khách sạn đóng góp không nhỏ vào việc tạo ra công ăn việc làm và tăng trưởng kinh tế, đặc biệt là phát triển kinh tế địa phương. Theo Công thông tin Bộ Tài chính (2020), ngay trước dịch Covid, trong giai đoạn 2015-2019, ngành du lịch đóng góp tới 9,2% tổng sản phẩm quốc nội, tạo ra hàng triệu việc làm và thu nhập cho người dân. Hiện tại, ở một số vùng trên cả nước, dịch vụ khách sạn chủ yếu sử dụng lao động địa phương đồng thời tạo ra một số ngành phụ trợ đi kèm, giúp hiện đại hoá nông thôn hoặc chống lại sự suy giảm lao động trong khu vực công nghiệp. Ở một góc độ khác, tác động của dịch vụ khách sạn lên môi trường và hệ sinh thái lại kém tích cực hơn nhiều, dựa trên hiện thực đây là ngành sử dụng rất nhiều tài nguyên địa phương, như đất đai, nguồn nước, năng lượng và thực phẩm, đồng thời tạo ra rác thải, ô nhiễm nguồn nước, ô nhiễm tiếng ồn và không khí. Theo Tổ chức Du lịch Thế giới của Liên hợp quốc (2017), riêng ngành khách sạn thải ra 1% lượng khí thải, cũng như tiêu thụ 5% lượng nước sử dụng trên toàn cầu. Những con số này bắt buộc các nhà quản lý khách sạn phải xem xét một

cách nghiêm túc các quy trình trong hoạt động kinh doanh của họ, sao cho cắt giảm tối đa mức tiêu thụ tài nguyên và lượng chất thải ra môi trường. Wood (2017) gợi ý các khách sạn cần tập trung vào việc tăng hiệu suất cũng như cắt giảm các chi phí liên quan đến khâu quản lý chất thải, tân trang và bảo trì cơ sở vật chất, chi phí đầu vào, chi phí vận hành và sản xuất. Điều này không chỉ giúp tối đa hoá lợi nhuận, làm hài lòng các cổ đông mà còn thân thiện với môi trường, duy trì lợi thế cạnh tranh dài hạn.

Thách thức trên dẫn tới khả năng sử dụng mô hình kinh tế tuần hoàn như một giải pháp giúp tối ưu hoá việc sử dụng các nguồn lực và tạo ra sự phát triển bền vững trong ngành dịch vụ khách sạn. Trên thực tế, kinh tế tuần hoàn đã được áp dụng rộng rãi trong lĩnh vực nông nghiệp tại Việt Nam từ cách đây 20 năm thông qua mô hình VAT (Vườn - Ao - Chuồng) và trong lĩnh vực công nghiệp thông qua việc xây dựng các khu công nghiệp sinh thái (Viện Nghiên cứu Phát triển Kinh tế Tuần hoàn, 2023). Việc triển khai nền kinh tế tuần hoàn trong những ngành này ngày càng được ghi chép kỹ lưỡng. Riêng đối với lĩnh vực khách sạn, kinh tế tuần hoàn dường như vẫn là một khái niệm hết sức mới mẻ, và việc áp dụng mô hình này mới chỉ dừng ở mức độ sơ khai. Theo đó, những nghiên cứu về kinh tế tuần hoàn trong ngành này vẫn còn rất hạn chế, hầu hết mới chỉ dừng lại ở việc định nghĩa kinh tế tuần hoàn và mô tả thực trạng áp dụng mô hình này tại các khách sạn ở giai đoạn đầu (Sorin & Sivarajah, 2021). Việc thiếu những nghiên cứu thực tiễn và học thuật về việc áp dụng kinh tế tuần hoàn trong ngành khách sạn đã tạo ra khoảng trống trong lĩnh vực này mà bài nghiên cứu muốn lấp đầy. Bên cạnh đóng góp về mặt học thuật, bài nghiên cứu còn có ý nghĩa thực tiễn trong việc đưa ra những gợi ý giúp những nhà điều hành khách sạn áp dụng mô hình kinh tế tuần hoàn một cách có hiệu quả, đem lại lợi ích cho khách sạn nói riêng và toàn thể xã hội nói chung.

Bài nghiên cứu nhằm mục đích trả lời các câu hỏi nghiên cứu sau: Các nhà quản lý khách sạn nhận thức như thế nào về nền kinh tế tuần hoàn? Việc áp dụng nền kinh tế tuần hoàn mang lại cơ hội tạo ra giá trị gì cho các khách? Đây là các yếu tố tác động và rào cản với việc áp dụng nền kinh tế tuần hoàn trong ngành khách sạn?

Mục đích cuối cùng của bài nghiên cứu là cung cấp một góc nhìn về thực trạng áp dụng kinh tế tuần hoàn trong ngành khách sạn tại Việt Nam, đồng thời đóng góp vào kho tàng nghiên cứu học thuật trong lĩnh vực này.

2. Tổng quan nghiên cứu

2.1. Cơ sở lý thuyết

2.1.1. Nền kinh tế tuần hoàn

Khái niệm kinh tế tuần hoàn lần đầu được giới thiệu vào cuối những năm 1990 bởi hai nhà kinh tế học môi trường Pearce & Turner. Trước đó, những học giả như Boulding (1966) hay Stahel & Reday (1977) đã mô tả một mô hình nền kinh tế giống như một vòng khép kín giúp kéo dài khả năng, thời gian sử dụng và độ bền của các tài nguyên. Theo thời gian, khái niệm kinh tế tuần hoàn ngày càng nhận được sự chú ý từ các học giả, được thảo luận rộng rãi, được phát triển mở rộng và ngày càng trở nên đa chiều hơn với việc sử dụng những thuật ngữ và cách tiếp cận khác nhau. Robert (1991) nhận ra nguồn gốc của các vấn đề môi trường đe dọa sức khoẻ loài người chính là mô hình kinh tế tuyến tính, nơi rất nhiều

tài nguyên bị lãng phí và một lượng khổng lồ rác thải được tạo ra từ các xã hội tiêu dùng vô trách nhiệm. Dù thừa nhận rằng các hoạt động kinh tế không thể tránh khỏi việc sử dụng các đầu vào, Greyson (2007) kiến nghị con người cần phát triển một hệ thống tuần hoàn nơi các nguồn tài nguyên được luân chuyển và tái tạo liên tục.

Tính cấp thiết của việc chuyển đổi từ nền kinh tế tuyến tính sang nền kinh tế tuần hoàn được lý giải như sau: Nền kinh tế tuyến tính với việc sản xuất hàng loạt đã tạo ra chủ nghĩa tiêu thụ mà hậu quả của nó là tài nguyên cạn kiệt và rác thải gây ô nhiễm môi trường. Nền kinh tế tuyến tính chỉ có thể được tiếp tục duy trì trong dài hạn nếu nguồn cung tài nguyên là vô tận và hệ sinh thái có thể hấp thụ một lượng không giới hạn các loại rác thải. Rất nhiều học giả cho rằng nền kinh tế tuyến tính sẽ sớm đạt đến giới hạn của nó trong tương lai (Van Dijk và cộng sự (2014), Mentink (2014)). Do vậy, một mô hình kinh tế tối ưu hơn cần được áp dụng, và nền kinh tế tuần hoàn ra đời như một giải pháp hoàn hảo giúp nhà sản xuất giảm thiểu chi phí sản xuất và giá thành sản phẩm, đồng thời giảm thiểu rác thải và các tác động tiêu cực lên môi trường. Như vậy, không chỉ người bán và người mua được lợi, mà phúc lợi của cộng đồng và toàn xã hội cũng được cải thiện.

Theo thời gian, có thêm nhiều định nghĩa về nền kinh tế tuần hoàn ra đời. UNEP (2006) định nghĩa nền kinh tế tuần hoàn một cách khá chung chung là một nền kinh tế đạt được sự cân bằng giữa tăng trưởng kinh tế và bảo vệ môi trường. Feng và các cộng sự (2007) nhấn mạnh rằng kinh tế tuần hoàn cần dựa trên nền tảng tuân thủ các quy luật sinh thái và sử dụng một cách có hiệu quả các nguồn tài nguyên thiên nhiên. Nền kinh tế tuần hoàn dựa trên nguyên tắc “khép kín vòng đời” sản phẩm, coi rác thải của ngành này như nguồn tài nguyên mới có khả năng tái sử dụng và trở thành đầu vào của ngành khác. Nếu như nền kinh tế tuyến tính dựa trên việc “lấy, sản xuất và thải bỏ” thì nền kinh tế tuần hoàn là một vòng khép kín nơi có rất ít rác thải (European Commission, 2014). Hu và các cộng sự (2011) bổ sung thêm phương pháp 4R giúp tránh lãng phí tài nguyên, bao gồm: giảm thiểu (reduce), tái sử dụng (reuse), tái chế (recycle) và phục hồi (recover). Geissdoerfer và cộng sự (2017) coi nền kinh tế tuần hoàn như một hệ thống tái tạo dựa trên các nguyên lý làm chậm, thu hẹp hoặc đóng lại các vòng lặp tài nguyên và nguyên vật liệu. Các nguyên lý này có thể được thực hiện thông qua chính các thiết kế ban đầu, hệ thống bảo trì, sửa chữa, tân trang và tái chế nhằm kéo dài khả năng và thời gian sử dụng sản phẩm. Ellen MacArthur Foundation (2013) đặc biệt nhấn mạnh vào việc sử dụng năng lượng tái tạo, loại bỏ việc sử dụng các hoá chất độc hại và tăng khả năng tái sử dụng sản phẩm thông qua thiết kế ưu việt của sản phẩm, coi nó là đặc trưng của một nền kinh tế tuần hoàn. Quỹ này cũng đề cao sử dụng các vật liệu dễ tiêu hao và thân thiện với môi trường, có thể đưa trở lại hệ sinh thái mà không phá huỷ môi trường sau khi đã hết hạn sử dụng. Kinh tế tuần hoàn có khả năng ứng dụng ở mọi quy mô, từ cấp vi mô (một hoạt động kinh doanh cụ thể), tới cấp ngành (một khu công nghiệp) đến cấp vĩ mô (nền kinh tế của một nước, một khu vực) và trên toàn cầu, giúp tạo ra những xã hội phát triển bền vững, cân nhắc tới lợi ích không chỉ của hiện tại mà của những thế hệ tương lai (Kirchherr và cộng sự, 2017).

Dù mỗi học giả nhấn mạnh những khía cạnh khác nhau của nền kinh tế tuần hoàn, họ đều coi đây là một mô hình giúp phát triển bền vững thông qua việc kéo dài thời gian và khả năng sử dụng của tài nguyên và nguyên vật liệu, qua đó làm giảm lượng rác thải ra môi

trường. Nền kinh tế tuần hoàn khi được áp dụng sẽ thay đổi hoàn toàn cách thức hoạt động và phương thức sản xuất của các doanh nghiệp và có tiềm năng to lớn trong việc giúp các chính phủ giải quyết những vấn đề cấp thiết về ô nhiễm môi trường.

2.1.2. *Mối liên hệ giữa khái niệm nền kinh tế tuần hoàn và phát triển bền vững*

Khái niệm nền kinh tế tuần hoàn thường được xem xét trong mối liên hệ với khái niệm tính bền vững. Dù hai khái niệm này thường đi đôi với nhau và đôi khi còn được sử dụng thay thế cho nhau, chúng vẫn có những khác biệt nhất định cần được làm rõ. Geissdoerfer và cộng sự (2017, 22) định nghĩa tính bền vững là “sự cân bằng giữa hiệu quả kinh tế, tính toàn diện xã hội và khả năng phục hồi môi trường, vì lợi ích của các thế hệ hiện tại và tương lai”. Liên hợp quốc (2019) coi phát triển bền vững là một kế hoạch giúp đạt được tương lai tốt đẹp hơn cho nhân loại thông qua việc giải quyết những thách thức toàn cầu, bao gồm ô nhiễm môi trường, công lý, hoà bình, bất bình đẳng và nghèo đói. Theo đó, bất kỳ hoạt động nào giúp đạt được kế hoạch này đều được tính là hoạt động hướng tới phát triển bền vững.

Nền kinh tế tuần hoàn rõ ràng cũng nhắm tới mục tiêu đạt được sự hài hòa giữa lợi ích kinh tế và bảo vệ môi trường. Tuy nhiên, nền kinh tế tuần hoàn xác định rõ các chủ thể tham gia và làm rõ trách nhiệm và lợi ích của các bên, đặc biệt là nhà sản xuất, cơ quan quản lý, nhà lập pháp và người tiêu dùng trong việc sản xuất, tiêu dùng, quản lý nguyên liệu đầu vào và rác thải. Đối với sự bền vững, trách nhiệm được chia sẻ nhưng không được xác định cụ thể, chỉ dừng lại chung chung ở sự đóng góp theo hướng tự nguyện của toàn bộ các thành phần xã hội. Theo Schröder & cộng sự (2020), nền kinh tế tuần hoàn là mô hình kinh tế ở cấp độ hệ thống nhằm tái tạo tài nguyên. Còn tính bền vững tập trung nhiều hơn vào việc giảm thiểu các tác động tiêu cực của hoạt động sản xuất lên môi trường như giảm lượng khí thải, giảm rác thải,... (Pforr, 2001). Ở một góc độ khác, nền kinh tế tuần hoàn tập trung nhiều hơn vào việc cải thiện hiệu quả sản xuất thông qua việc quản lý tài nguyên, đem tới lợi ích tài chính cho doanh nghiệp và có hiệu quả gần như tức thì so với phát triển bền vững. U.S. Chamber of Commerce Foundation (2023) so sánh kinh tế tuần hoàn như một sáng kiến có chủ ý của con người dựa trên công nghệ kỹ thuật để giải quyết những vấn đề môi trường và tăng hiệu quả sản xuất, trong khi việc thực hành phát triển bền vững lại dựa trên sinh thái học và khoa học môi trường. Hoạt động sản xuất và tiêu thụ vòng tròn trong kinh tế tuần hoàn cũng tạo ra nhiều chiến lược và ý tưởng kinh doanh linh hoạt và thông minh hơn.

Riêng đối với ngành khách sạn, phát triển bền vững là một khái niệm không còn mới. Những mô hình lưu trú bền vững đã được áp dụng không chỉ quan tâm tới lợi nhuận và tăng trưởng, mà còn hướng tới những đóng góp tích cực cho địa phương, cộng đồng và xã hội, đồng thời hạn chế tối đa các tác động tiêu cực lên môi trường. So sánh với nó, nền kinh tế tuần hoàn là một khái niệm mới mẻ hơn, thực tiễn áp dụng trong ngành còn chưa nhiều. Thông qua nghiên cứu này, người viết muốn biết liệu các nhà quản lý khách có thấy được sự khác nhau giữa kinh tế tuần hoàn và tính bền vững không, và họ có nhìn thấy được tiềm năng của nền kinh tế tuần hoàn trong việc tạo ra những lợi ích môi trường và xã hội từ chuỗi cung ứng của khách sạn họ hay không.

2.2. Tổng hợp các nghiên cứu về nền kinh tế tuần hoàn trong ngành khách sạn.

Nền kinh tế tuần hoàn vẫn còn là một khái niệm hết sức mới mẻ trong ngành khách sạn, và việc áp dụng nó trong ngành này mới chỉ dừng ở mức độ sơ khai. Dù đang có một lượng ngày càng nhiều các học giả quan tâm tới chủ đề này, những nghiên cứu về nó vẫn còn hạn chế, hầu hết mới dừng lại ở việc phát triển những mô hình lý thuyết về kinh tế tuần hoàn và mô tả thực trạng áp dụng kinh tế tuần hoàn trong các khách sạn ở giai đoạn đầu.

Zhang & Xiao (2015) cố gắng xây dựng mô hình kinh tế tuần hoàn cho một điểm đến du lịch tại Trung Quốc, nơi đang gặp vấn đề quá tải khách du lịch, tỷ lệ tái chế thấp và sự thiếu hiểu biết về du lịch bền vững. Trong mô hình của họ, chính phủ đóng một vai trò tiên quyết trong việc thúc đẩy các khách sạn - nhà hàng sử dụng nguyên liệu thân thiện với môi trường và quản lý chặt chẽ nguồn rác thải. Tương tự như thế, Lew (2013) đề xuất một ma trận bao gồm bốn bối cảnh của ngành du lịch và gợi ý các giải pháp để phục hồi ngành này trong từng bối cảnh, bao gồm các chương trình bảo trì cơ sở vật chất và đào tạo.

Khi nghiên cứu việc áp dụng kinh tế tuần hoàn tại chuỗi khách sạn Martin's của Bỉ, Taylor (2017) chỉ ra những giải pháp mà khách sạn này sử dụng để giảm thiểu tối đa nguyên liệu đầu vào, bao gồm ưu tiên các sản phẩm địa phương, sử dụng thực phẩm tự nhiên theo mùa và liên tục tái chế nguyên liệu. Sorin & Sivarajah (2021) tiến hành một nghiên cứu thực nghiệm dựa trên việc phỏng vấn mười nhà quản lý đến từ các chuỗi khách sạn Scandinavian để đánh giá mức độ nhận thức của họ về việc áp dụng kinh tế tuần hoàn trong ngành khách sạn, cũng như những khó khăn trong việc áp dụng mô hình này. Nghiên cứu cho thấy mức độ quan tâm và hiểu biết của các nhà quản lý đối với kinh tế tuần hoàn vẫn còn khá sơ cấp, đồng thời chỉ ra các rào cản của việc triển khai nền kinh tế tuần hoàn bao gồm chi phí quản lý chất thải, chi phí vận hành và sự ghi nhận từ phía khách hàng. Pongsakornrungsilp & Pongsakornrungsilp (2021) sử dụng phương pháp nghiên cứu theo chiều dọc để quan sát, giải thích các hiện tượng xảy ra trong quãng thời gian 7 năm tại Krabi, Thái Lan với mục đích phát triển kinh tế tuần hoàn ở điểm đến du lịch này dưới ba cấp độ: vi mô, vĩ mô và cấp giữa. Kết quả nghiên cứu của họ chỉ ra việc hợp tác giữa doanh nghiệp, địa phương, mạng xã hội, các hiệp hội và chính phủ giúp khai thác tốt lợi ích của kinh tế tuần hoàn trong phát triển du lịch tại khu vực này. Gần đây nhất, Del Vecchio & cộng sự (2022) tiến hành một nghiên cứu định lượng thông qua việc phân tích mô hình kinh doanh và quy trình tạo ra giá trị dựa trên các nguyên tắc của nền kinh tế tuần hoàn tại Ecobnb - một mạng lưới thúc đẩy việc cung cấp dịch vụ khách sạn theo hướng bền vững. Nghiên cứu đã chứng minh việc áp dụng kinh tế tuần hoàn giúp tăng khả năng cạnh tranh của các khách sạn, cũng như chỉ ra khả năng đóng góp của công nghệ kỹ thuật số và dữ liệu lớn trong việc xây dựng kinh tế tuần hoàn.

2.3. Phương pháp nghiên cứu

Về mặt bản chất, nghiên cứu này là nghiên cứu khám phá sử dụng phương pháp nghiên cứu định tính. Thông qua phỏng vấn bán cấu trúc, bài nghiên cứu muốn thu được dữ liệu sơ cấp về nhận thức của nhà quản lý, yếu tố tác động, cơ hội tạo ra giá trị cũng như những rào cản của việc áp dụng các sáng kiến kinh tế tuần hoàn trong lĩnh vực khách sạn.

Theo Lussier (2011), nghiên cứu khám phá thường được sử dụng khi chủ đề nghiên cứu còn mới, chưa có nhiều bài nghiên cứu về nó hoặc chưa có các mô hình sẵn có để

ngiên cứu nó. Tuy nền kinh tế tuần hoàn trong khách sạn là một chủ đề nghiên cứu đã được thiết lập, nghiên cứu khám phá được đề xuất cho bài viết này vì đây là một chủ đề mới, cần được khám phá và tìm hiểu sâu hơn. Nghiên cứu khám phá sẽ cung cấp những câu trả lời cụ thể cho những câu hỏi như cái gì, như thế nào, và tại sao, giúp khai thác một lượng thông tin tối đa về chủ đề nghiên cứu (Hoeber & cộng sự, 2017).

Lợi ích của việc phỏng vấn là nó tạo cơ hội để người phỏng vấn quan sát, ghi chép lại cảm xúc và thay đổi trong nhận thức của người trả lời, thông qua giọng điệu và ngôn ngữ cơ thể của họ (Sauder & cộng sự, 2015). Các bài phỏng vấn của nghiên cứu này được thực hiện dựa trên một danh sách các câu hỏi đã được thiết kế từ trước. Tuy nhiên, vì là phỏng vấn bán cấu trúc, người phỏng vấn có sự linh hoạt trong thứ tự đặt câu hỏi và cách đặt câu hỏi, hoặc có thể đặt thêm những câu hỏi khác mà không bị lệ thuộc vào bảng hỏi, nhằm khám phá tối đa những khía cạnh mới trong câu trả lời của đối tượng phỏng vấn. Theo Carter & cộng sự (2014), cách tiếp cận này bớt cứng nhắc hơn, cho phép người phỏng vấn theo đuổi câu chuyện đằng sau câu trả lời của người trả lời phỏng vấn, giúp khai thác sâu hơn chủ đề nghiên cứu.

Đối tượng được phỏng vấn là những nhà quản lý đến từ những chuỗi khách sạn hàng đầu tại Việt Nam, mục đích để khám phá việc áp dụng nền kinh tế tuần hoàn trên quy mô chuỗi hay hệ thống. Cụ thể, ba chuyên gia trong lĩnh vực khách sạn đã được phỏng vấn, mỗi người đại diện cho một thương hiệu khách sạn riêng, bao gồm Accor, Marriott và Melia, đều là những chuỗi khách sạn lớn và lâu đời. Những chuyên gia này giữ những vị trí khác nhau trong khách sạn, lần lượt là Giám đốc Quản lý một khách sạn thuộc Marriott miền núi phía bắc, Quản lý trải nghiệm khách hàng khách sạn 5 sao ở thành phố Hồ Chí Minh và chuyên viên phát triển bền vững của khu nghỉ dưỡng thuộc tập đoàn Melia. Trước đó, một bảng hỏi bao gồm toàn bộ các câu hỏi mở đã được gửi tới các chuyên gia này. Thời gian phỏng vấn mỗi chuyên gia trung bình là bốn mươi lăm phút. Bài phỏng vấn ngắn nhất kéo dài 40 phút và bài dài nhất kéo dài 60 phút, và toàn bộ cuộc trò chuyện đều được ghi âm lại với mục đích lưu trữ thông tin.

Có tất cả mười lăm câu hỏi đã được tạo ra, trong đó có ba câu đánh giá nhận thức của các nhà quản lý về nền kinh tế tuần hoàn, hai câu xem xét ảnh hưởng của các quy định pháp luật và báo cáo môi trường lên việc khuyến khích áp dụng kinh tế tuần hoàn, bảy câu khám phá thực trạng sử dụng các tài nguyên, nguồn năng lượng và đầu vào trong lĩnh vực khách sạn và một câu hỏi về việc tách biệt quyền sở hữu và điều hành khách sạn như một rào cản của việc áp dụng kinh tế tuần hoàn. Hai câu còn lại được thiết kế riêng để phù hợp với bối cảnh của từng chuỗi khách sạn và những dự án phát triển bền vững của họ. Bộ câu hỏi được xây dựng dựa trên việc tham khảo các bộ câu hỏi trong các nghiên cứu của Sorin & Sivarajah (2021), Davies & Egas (2022) và Del Vecchio & cộng sự (2022).

Ngoài phỏng vấn, việc thu thập dữ liệu còn dựa trên việc tìm kiếm các thông tin và sử dụng các báo cáo trên website của các tập đoàn mẹ của những chuỗi khách sạn trên.

Dữ liệu sau khi được thu thập đầy đủ sẽ được phân tích dựa trên phương pháp quy nạp. Hầu hết các việc phân tích dữ liệu phỏng vấn sẽ được thực hiện theo cách này (Patton, 2001). Phương pháp quy nạp cung cấp một phương thức hiệu quả và thuận tiện để phân tích dữ liệu định tính. Phương pháp này giúp cô đọng dữ liệu thô có được từ các biên bản

phòng vấn thành những phát hiện tóm tắt, đồng thời giúp nhóm dữ liệu thô thành các chủ đề và tìm ra mối liên hệ giữa chúng (Thomas, 2003). Kết quả nghiên cứu sẽ được tìm ra từ những mối liên hệ và phát hiện tóm tắt đó.

3. Kết quả và thảo luận

3.1. Kết quả thu được từ website và báo cáo của các tập đoàn

3.1.1. Tập đoàn Accor

Được thành lập từ 1967, tập đoàn Accor là một tập đoàn khách sạn và dịch vụ du lịch toàn cầu đang điều hành hơn 5,400 khách sạn, khu nghỉ dưỡng và căn hộ trên khắp thế giới. Là một tập đoàn lớn có tầm ảnh hưởng tới môi trường và xã hội, trong các cam kết của mình, Accor cũng khẳng định việc thúc đẩy phát triển bền vững, sử dụng tài nguyên thiên nhiên một cách có trách nhiệm hơn, thúc đẩy nền kinh tế tuần hoàn, bảo vệ hệ sinh thái địa phương và khuyến khích các khách sạn trong hệ thống kết nối với cộng đồng. Một số thành tựu đáng kể đến theo báo cáo mới nhất của tập đoàn năm 2022 vừa qua là việc loại bỏ việc sử dụng các đồ dùng, sản phẩm dùng một lần từ nhựa. Hiện nay, 84% khách sạn thuộc tập đoàn đã nói không với các đồ dùng, sản phẩm dùng một lần làm từ nhựa (Accor, 2022). Ngoài ra, tập đoàn cũng có riêng chương trình phát triển bền vững từ năm 2010 tới 2021 với những cam kết cụ thể và mục tiêu lượng hóa rõ ràng với tên gọi Planet 21. Chương trình của tập đoàn có những chiến dịch nổi bật như khuyến khích khách hàng tái sử dụng khăn để tiết kiệm nước và năng lượng, chi phí tiết kiệm đó đã và sẽ được dùng tài trợ cho việc trồng thêm cây. Các thiết kế và đồ dùng trong khách sạn đều bắt đầu được tái chế hoặc đạt được chứng chỉ thân thiện với môi trường. Ngoài ra, các nhà hàng của khách sạn ngoài việc sử dụng các nguyên liệu từ chính khu vườn trong khách sạn còn đồng thời áp dụng các sáng kiến giúp giảm 60% lượng thực phẩm dư thừa trong căn bếp, giúp tiết kiệm khoản chi phí khổng lồ.

3.1.2. Tập đoàn Melia Hotels International

Tập đoàn Melia Hotels International được thành lập từ năm 1956, là một trong những tập đoàn khách sạn hàng đầu thế giới hoạt động rộng khắp 4 châu lục, với hơn 380 khách sạn ở hơn 46 quốc gia. Bên cạnh việc cung cấp dịch vụ khách sạn chất lượng cao, Melia còn nỗ lực bảo vệ môi trường và phát triển bền vững thông qua những cam kết đối với du lịch có trách nhiệm. Điều này đã đưa tập đoàn trở thành tập đoàn phát triển bền vững hàng đầu ở Tây Ban Nha và châu Âu. Melia còn triển khai nhiều dự án bền vững như Soap for Hope (Xà phòng Hy Vọng) và Linens for Life (Vải cho Cuộc sống) mang sứ mệnh biến những đồ dùng cũ hoặc không còn sử dụng như xà phòng thừa và vải cũ thành các bánh xà phòng tiết trùng mới và những sản phẩm như túi đa năng, túi ngủ, đồ chơi trẻ em và đồng phục học sinh. Với trọng tâm cốt lõi là ưu tiên loại bỏ và thay thế nhựa, chương trình PlasticShreds tái chế rác thải nhựa và kết hợp chúng với bitum (một hợp chất hữu cơ lỏng, màu đen, có độ nhớt cao) hoặc nhựa đường thành các hỗn hợp sử dụng trong xây dựng đường sá, làm phẳng các loại bề mặt từ đường đi cho đến các sân cầu lông. Các khách sạn thành viên của Melia cũng đã rất tích cực trong việc hạn chế đồ nhựa sử dụng một lần kể từ năm 2018 và loại bỏ hoàn toàn một số sản phẩm như ống hút nhựa và chuyển sang sử dụng các loại ống hút làm từ chất liệu hoàn toàn tự nhiên (Melia, No date).

3.1.3. Tập đoàn Marriott

Tập đoàn Marriott là một trong những tập đoàn khách sạn và kinh doanh dịch vụ lưu trú lớn nhất thế giới. Được thành lập từ năm 1927 đến nay, tập đoàn này đã phát triển và sở hữu hơn 30 thương hiệu khách sạn và resort khác nhau trên khắp thế giới, với gần 8.000 khách sạn ở 139 quốc gia. Marriott International đã phát triển nền tảng “Serve 360: Doing good in every direction” (Phục vụ 360: Làm tốt trên mọi mặt trận) nhằm hướng dẫn các khách sạn tạo ra tác động tích cực, bền vững ở bất cứ nơi nào mà chúng có mặt. Kể từ năm 2007, tập đoàn đã giảm được 25% lượng khí thải carbon và cam kết tiếp tục giảm 30% lượng khí thải nhà kính vào năm 2025. Các khách sạn Marriott đã thực hiện các hoạt động có trách nhiệm với môi trường như sử dụng đèn LED, hệ thống sưởi ấm và làm mát tiết kiệm năng lượng cũng như các thiết bị ống nước lưu lượng thấp. Chỉ riêng năm 2021, với hệ thống cảm biến thông minh làm mát nước, tập đoàn đã tiết kiệm được 1 tỷ 6 lít nước (Marriott, 2022). Tập đoàn cũng đã đưa ra một số sáng kiến để giải quyết tình trạng lãng phí thực phẩm như theo dõi tình trạng thực phẩm và khuyến khích quyên góp thức ăn thừa cho các trang trại tại địa phương. Nhìn chung, Marriott International đã đạt được những bước tiến đáng kể trong việc tích hợp các hoạt động phát triển bền vững vào mô hình kinh doanh của mình.

3.2. Kết quả phỏng vấn

3.2.1. Nhận thức của các nhà quản lý khách sạn về kinh tế tuần hoàn

Những chuyên gia được phỏng vấn đều thừa nhận khái niệm kinh tế tuần hoàn là khái niệm mới khi được nghe đến. Nhưng khi tìm hiểu về khái niệm này thì họ thấy rằng một số đặc điểm của nền kinh tế tuần hoàn đã xuất hiện trong chủ trương hành động của khách sạn và tập đoàn nhưng chưa được định nghĩa rõ ràng. Mỗi tập đoàn có những tiêu chí khác nhau nhưng điểm chung là họ đều triển khai kinh tế tuần hoàn như một phần của phát triển bền vững thông qua các chương trình cụ thể như Planet 21 của Accor, Serve 360: Doing Good in Every Direction của Marriott hay Eco-Touch by Melia, PlasticShreds của Melia. Hiện tại các khách sạn này đều đang áp dụng các biện pháp và sáng kiến tái sử dụng, tái chế rác thải nhằm giảm thiểu các tác động tiêu cực tới môi trường địa phương nơi các khách sạn đang hoạt động. Ở các mức độ khác nhau, các nhà vận hành khách sạn được hỏi đều thừa nhận mối quan tâm lớn của họ là khắc phục sự không bền vững của mô hình kinh doanh và tăng cường hướng tới các giá trị tuần hoàn khép kín.

3.2.2 Những yếu tố tác động tới ứng dụng kinh tế tuần hoàn trong khách sạn

Chính sách của địa phương, tập đoàn và khách sạn

Các quy định pháp luật về môi trường rất quan trọng trong việc khuyến khích các sáng kiến áp dụng kinh tế tuần hoàn trong hoạt động của khách sạn ở Việt Nam. Các khách sạn không chỉ phải tuân thủ các quy định pháp luật liên quan đến bảo vệ môi trường và sử dụng tài nguyên tiết kiệm, hạn chế những tác động tiêu cực tới môi trường mà còn phải tuân theo chủ trương chính sách của tập đoàn mẹ. Bên cạnh việc báo cáo hàng năm hay hàng quý về những thành tựu và kết quả kinh doanh, các khách sạn còn cần báo cáo các chỉ

số về phát triển bền vững và tác động đến môi trường. Ngoài việc áp dụng các chương trình được triển khai theo tập đoàn, các khách sạn được phép tùy biến đường hướng phát triển theo phân khúc khách sạn và khu vực địa lý.

Trường hợp điển hình như khách sạn thuộc tập đoàn Marriott nằm ở vùng núi phía bắc Việt nam, nơi còn khá mới về du lịch nhưng tỉnh đã có những chủ trương như khuyến khích sử dụng các nhà cung cấp hay nguyên vật liệu đặc sản từ địa phương để đưa vào hoạt động kinh doanh nhằm quảng bá cho địa phương và giảm thiểu khí thải, chi phí vận chuyển và bảo quản. Trước đó, khi khách sạn vẫn nằm dưới sự quản lý của tập đoàn khác, khách sạn đã chủ trương sử dụng tối đa những sản phẩm có thể sử dụng nhiều lần, nói không với các sản phẩm, đồ dùng đến từ nhựa. Khi được tập đoàn Marriott tiếp quản, khách sạn vẫn duy trì các chủ trương cũ, đồng thời được khuyến khích tối ưu hóa, tận dụng tối đa đồ đạc cũ trong quá trình chuyển đổi hoặc áp dụng các sáng kiến mới như tái chế nhằm trang trí văn phòng, làm quà tặng nhỏ cho khách hàng.

Nằm ở trong vườn quốc gia, nơi trọng điểm bảo vệ môi trường thiên nhiên và di tích quốc gia, đặc biệt có cả di tích lưu lại dấu ấn lịch sử nằm ngay trong khu nghỉ, chuyên viên phát triển bền vững của khu dưỡng cho biết địa phương có những chính sách đặc biệt về môi trường với các đợt kiểm tra định kỳ của bên vườn quốc gia về việc khai thác sử dụng tài nguyên thiên nhiên và quy trình xử lý rác thải ở khách sạn. Tập đoàn Melia chưa có một đề án với tên cụ thể như Planet 21 như Accor hay Serve 360 của Marriott nhưng phát triển bền vững được ứng dụng trong tất cả các khía cạnh của các khách sạn thành viên Melia, mỗi khía cạnh có một bộ quy tắc dành cho từng đối tượng. Ví dụ như đối với nhà cung cấp, các đối tác cần cam kết tuân theo bộ quy tắc phát triển bền vững do tập đoàn đề ra. Một ví dụ của kết quả thực tế là không dưới 30% các sản phẩm trong tủ lạnh trong phòng khách sạn là các sản phẩm từ địa phương. Hàng năm, tập đoàn sẽ tạo cơ hội (thông qua các hội thảo lớn nhỏ) cho các khách sạn thuộc tập đoàn chia sẻ sáng kiến về thực hành phát triển bền vững, qua đó các khách sạn có thể chia sẻ, học tập, hỗ trợ và khuyến khích lẫn nhau. Phía khu nghỉ dưỡng cũng có các chiến lược phát triển bền vững theo từng giai đoạn, mỗi giai đoạn sẽ tập trung xử lý một vấn đề, hiện tại tập đoàn đang tập trung vào xử lý rác thải. Đây cũng là nơi đầu tiên có riêng một vị trí chuyên viên phát triển bền vững và khu nghỉ dưỡng rất chú trọng tới xử lý rác thải cũng như hướng tới tiêu chí không rác thải trong quá trình vận hành.

Một khách sạn khác nằm ở thành phố đầu tàu, trung tâm kinh tế - văn hóa lớn nhất của các nước, có chủ trương khôi phục và phát triển du lịch bền vững có trách nhiệm, đặc biệt sau dịch Covid-19. Ngay từ năm 1994, tập đoàn Accor đã có bộ phận chuyên phụ trách các vấn đề về môi trường và từ 2002, tập đoàn có bộ phận chuyên biệt để tổ chức và chỉ dẫn quy trình tạo ra các trải nghiệm bền vững. Hiện nay, nhiều khách sạn của Accor theo đuổi tiêu chí eco-design, thiết kế thân thiện với môi trường. Khách sạn được phỏng vấn đã chuyển đổi các đồ dùng, chai lọ nhỏ trong phòng tắm thành các chai to có thể sử dụng nhiều lần và các chai nước suối nhựa thành chai thủy tinh, đóng góp không nhỏ vào quá trình bảo vệ nguồn tài nguyên. Nhà hàng của khách sạn này đã dành tặng cho Mái Ấm Tre Xanh - ngôi nhà dành cho trẻ em đường phố tại địa phương các thực phẩm dư từ tiệc buffet. Khách sạn cũng thiết kế trải nghiệm bữa trưa thanh lọc để thực khách trao đổi trực

tiếp với chuyên gia dinh dưỡng và tự tay thu hoạch tại vườn các loại rau gia vị hữu cơ cho thực đơn của mình.

Chuỗi cung ứng

Các kết quả nghiên cứu cho thấy việc đổi mới chuỗi cung ứng là một yếu tố quan trọng cho ứng dụng kinh tế tuần hoàn vào khách sạn. Những người được hỏi hiện đang nhìn nhận nền kinh tế tuần hoàn như một bộ công cụ quản lý tài nguyên và chất thải và khẳng định rằng thay đổi chuỗi cung ứng sẽ góp phần hỗ trợ ứng dụng kinh tế tuần hoàn vào khách sạn.

Tiền thân của khách sạn thuộc tập đoàn Marriott ở vùng núi phía bắc trước đây thuộc một tập đoàn khác và nhà cung cấp đáp ứng yêu cầu khẩn cấp của của tập đoàn cũ thường đến từ các thành phố lớn. Tuy nhiên, khi nằm dưới quyền quản lý của Marriott thì việc mua sắm được chuyển về cho khách sạn tự quản lý. Từ đó, khách sạn đã cân nhắc và lựa chọn các nhà cung cấp thực phẩm từ địa phương. Còn tập đoàn Melia cũng khuyến khích khách sạn sử dụng các sản phẩm từ các nhà cung ứng địa phương được chỉ định, giá cả cạnh tranh hơn và giúp cắt giảm khoảng cách và chi phí vận chuyển. Ngoài ra, khu nghỉ dưỡng thuộc tập đoàn Melia cũng được tự chọn nguồn cung ứng cho mình theo bộ tiêu chuẩn tập đoàn đưa ra. Đa số các thực phẩm và đồ ăn ở khu nghỉ đều nhập từ địa phương. Ngoài ra, khu nghỉ dưỡng còn phục vụ khách hàng rau củ và trái cây theo mùa từ vườn hữu cơ của mình. Khu nghỉ dưỡng cũng khéo léo tạo ra các món ăn từ chính nguồn thực phẩm tự cung tự cấp của mình như kẹo lạc, bánh chuối, bánh từ trái và... để phục vụ khách hàng.

3.2.3 Cơ hội tạo ra các giá trị bền vững

Các chuyên gia khi được hỏi đều thấy được tiềm năng tạo ra giá trị cho khách sạn, tập đoàn, chuỗi cung ứng địa phương từ mô hình kinh tế tuần hoàn. Họ đều cho rằng việc ứng dụng kinh tế tuần hoàn sẽ mang lại nhiều lợi ích, đặc biệt thông qua việc mua sắm thực phẩm và hàng hóa tại địa phương, đồng thời giúp giảm chi phí năng lượng và nguyên liệu đầu vào. Các cuộc phỏng vấn cũng xác nhận tiềm năng tạo sự khác biệt và lợi thế cạnh tranh cho tập đoàn thông qua việc áp dụng nền kinh tế tuần hoàn. Thông qua các sáng kiến kinh tế tuần hoàn phù hợp với các khách sạn, các tập đoàn có thể xây dựng danh tiếng và hình ảnh có trách nhiệm trong mắt khách hàng, qua đó tăng giá trị thương hiệu.

Đối với tập đoàn

Người được phỏng vấn từ khách sạn thuộc tập đoàn Marriott khẳng định khách sạn cam kết giảm thiểu tác động tiêu cực của hoạt động kinh doanh tới môi trường bằng cách sử dụng các tài nguyên năng lượng tiết kiệm, tăng cường quản lý chất thải. Dựa trên các báo cáo định kỳ như báo cáo tiêu thụ năng lượng, điện, nước, số lượng rác thải, chi phí xử lý rác thải, giấy phép xả thải cùng các kiểm định nước, báo cáo đồ ăn thừa trong các nhà hàng và số lượng thực phẩm thừa khác sử dụng không hết, khách sạn sẽ lên chiến lược cụ thể để giảm sử dụng các loại đầu vào trên. Bên cạnh đó, trang thiết bị trong khách sạn cũng được chuyển sang dạng cảm biến. Đèn cảm biến tự động kích hoạt các chiếu sáng của khu vực khi có người sử dụng và vòi nước cảm biến tự động ngắt khi không được sử dụng nữa. Khách sạn cũng lần lượt thay mới các thiết bị có tuổi đời lớn và tiêu tốn nhiều năng lượng. Đồ nội thất và trang thiết bị cũ sẽ giữ và điều chỉnh cho phù hợp với khách sạn mới thay vì

bỏ đi hoàn toàn tạo ra rác thải. Còn các đồ dùng, nội thất không phù hợp thì chuyển lại cho tập đoàn cũ để sử dụng cho dự án mới hoặc thay thế cho những dự án cũ. Nếu tập đoàn cũ cũng không còn nhu cầu nữa thì thanh lý cho các doanh nghiệp khác hoặc công nhân viên để họ sử dụng với giá ưu đãi. Khách sạn cũng mở rộng việc ký hợp đồng thuê dịch vụ ngoài với các đơn vị vận tải địa phương để cung cấp dịch vụ đưa đón khách. Việc này sẽ mang lại nhiều lợi ích cho khách sạn như chi phí giảm, linh hoạt theo nhu cầu khách sử dụng mà không cần đầu tư vào các dịch vụ đó. Các chính sách liên quan tới cải tiến chuỗi cung ứng, tái chế, tái sử dụng đều trực tiếp hỗ trợ khách sạn giảm được chi phí vận hành đồng thời góp phần giảm tiêu thụ năng lượng. Việc tận dụng được nguồn thực phẩm có sẵn của địa phương với giá thành rẻ hơn và chất lượng được đánh giá là tốt hơn vừa giúp rút ngắn thời gian vận chuyển, vừa giúp tiết kiệm chi phí bảo quản.

Chuyên viên phát triển bền vững tự hào rằng khu nghỉ dưỡng thuộc tập đoàn Melia đã thành công loại bỏ những sản phẩm từ nhựa thay bằng các sản phẩm có thể tái chế được và thân thiện với môi trường từ năm 2021. Chuyên viên cũng cho biết rác thải thủy tinh và nhựa khó xử lý hay quy trình xử lý tạo ra nhiều các-bon gây hại cho môi trường sẽ được khu nghỉ dưỡng tận dụng triệt để làm đồ trang trí hay sử dụng trong các hội thảo nhỏ sáng tạo. Đặc biệt, khu nghỉ dưỡng hiện tại đã thành công trong việc đưa rác thải từ thực phẩm về con số 0, vì tất cả thức ăn thừa đã được sử dụng làm phân hữu cơ cho vườn rau hữu cơ hoặc vườn chăn nuôi các loại gia súc, gia cầm trong khu nghỉ dưỡng. Phát triển bền vững giúp khu nghỉ dưỡng của Melia hướng tới lợi nhuận bền vững. Các chính sách phát triển bền vững của khách sạn nhận được ủng hộ từ chính quyền, cộng đồng và khách hàng. Người được phỏng vấn cũng bổ sung rằng nhân viên làm việc ở khách sạn đều có niềm tự hào khi làm việc ở môi trường xanh, sạch, đẹp và công việc của họ góp phần tạo ra cuộc sống, tương lai tốt đẹp hơn cho bản thân, cộng đồng và hành tinh. Đó là giá trị và lý do níu giữ nhân viên ở lại lâu dài với khách sạn.

Đối với cộng đồng địa phương và xã hội

Thúc đẩy các hoạt động tương tác tích cực với cộng đồng địa phương để đáp ứng nhu cầu cộng đồng, xây dựng mối quan hệ tốt đẹp với cư dân, đảm bảo công bằng và đạo đức trong kinh doanh, tôn trọng quyền lợi của người lao động và khách hàng cũng là một tiêu chí phát triển bền vững của nhiều tập đoàn. Những người trả lời phỏng vấn khẳng định rằng việc được lựa chọn các nhà cung cấp địa phương cũng tạo ra cơ hội để người dân địa phương được tiếp xúc với các tiêu chuẩn đánh giá khắt khe của các khách sạn lớn. Từ đó, nhà cung cấp địa phương có thể nâng cấp dịch vụ của chính họ, từ đó tạo ra được thêm nhiều công ăn việc làm cho người dân địa phương. Đồng thời, người trả lời phỏng vấn cũng đồng ý rằng việc tận dụng các chuỗi cung ứng địa phương mang lại những câu chuyện chạm đến các trải nghiệm của khách hàng và gây ấn tượng với họ. Từ đó, khuyến khích khách hàng sử dụng sản phẩm địa phương nhằm quảng bá văn hóa và đẩy mạnh du lịch địa phương. Bên cạnh đó, các tập đoàn cũng khuyến khích khách hàng tham gia vào các hoạt động bảo vệ môi trường, tiết kiệm năng lượng thông qua các chiến dịch tặng điểm thưởng vào tài khoản thành viên khi khách hàng lựa chọn không dọn phòng, tái sử dụng khăn tắm để đổi đồ uống hoặc đồ ăn hay đêm nghỉ tại các khách sạn của tập đoàn.

3.2.4. Những rào cản của việc triển khai ứng dụng kinh tế tuần hoàn trong khách sạn

Chuỗi cung chưa sẵn có hoặc chi phí cao

Khi được phỏng vấn, các chuyên gia nhấn mạnh áp lực chi phí vận hành như chi phí tiêu thụ nước và năng lượng, chi phí quản lý chất thải, đặc biệt là chất thải thực phẩm là một rào cản lớn đối với việc triển khai kinh tế tuần hoàn. Bên cạnh việc chưa xây dựng được các hệ thống quản lý năng lượng, chất thải hay tái chế tốt, việc tìm được chuỗi cung ứng phù hợp và có sẵn ở địa phương hay tại Việt Nam cũng là một rào cản. Những người được phỏng vấn cho biết các chương trình phát triển bền vững được tập đoàn đưa ra có một số tiêu chí gần như không thể thực hiện vì chưa có nhà cung cấp hoặc giá thành rất cao để nhập khẩu. Các khách sạn cũng mong muốn phục vụ khách hàng theo tiêu chí thân thiện với môi trường và tận dụng sản phẩm có sẵn tại địa phương nhưng có nhiều sản phẩm do địa phương sản xuất chưa được đóng gói một cách thân thiện với môi trường. Một số sản phẩm đóng gói thân thiện với môi trường thì giá thành chưa hợp lý hay chưa đáp ứng tiêu chuẩn mà tập đoàn đưa ra. Ngoài ra, do nhà cung cấp chưa bàn giao các sản phẩm thay thế nên tiến trình chuyển đổi sang mô hình kinh tế tuần hoàn bị chậm, ví dụ nhà cung cấp nằm ở nước đang đóng cửa biên giới chưa mở lại sau dịch Covid-19. Các khách sạn cũng rất muốn kết hợp và sử dụng các thiết bị có thể mua sắm ở địa phương với chất lượng tương đương bởi nếu sử dụng đồ nhập khẩu, sau thời gian hết khấu hao, bị hư thì không thể sửa chữa được vì mẫu đó không còn bán hay sản xuất nữa, hoặc không tìm được linh kiện thay thế. Các nội thất cũ được nhập khẩu từ trước hiện muốn thay thế sang đồ dùng thân thiện với môi trường thì cần rất nhiều thay đổi, thậm chí phải thay đổi cả một hệ thống, điều này lại mang lại nhiều chi phí và hệ lụy khác. Có người trả lời phỏng vấn đã nhận định các khách sạn đã xây dựng và hoạt động thời gian dài rồi thì khó thay đổi hơn. Thường các khách sạn cố gắng tối đa hóa công năng sử dụng các đồ dùng, tái sử dụng đến khi không còn sử dụng được nữa nhưng việc thay đổi không liên mạch cũng ảnh hưởng đến trải nghiệm khách hàng. Ngoài ra, một số khó khăn về tái chế rác thải, ví dụ thay thế chai nhựa bằng chai thủy tinh thì rác thải thủy tinh lại là một vấn đề mới. Có khách sạn chưa tìm được đối tác giúp tái làm sạch các chai thủy tinh để tái chế hoặc biến thành sản phẩm mới. Hiện tại các đối tác miền bắc chưa có, chỉ có ở miền trung một cơ sở tái sử dụng các chai thủy tinh nhưng vì khoảng cách địa lý nên mất thời gian, chi phí vận chuyển tạo ra khí thải với môi trường. Hay một số khách sạn lại chưa chuẩn bị sẵn sàng không gian lưu trữ hay đào tạo nhân viên khi làm việc với các thay đổi mới nên vẫn chưa bắt đầu thay đổi.

Nhận thức của khách hàng

Tuy các chứng chỉ về tính bền vững là một phần không thể thiếu trong việc cung cấp sản phẩm khách sạn (Sorin & Sivarajah, 2021), các nhà vận hành khách sạn được hỏi đều có cùng quan điểm rằng khách hàng vẫn chưa quan tâm hoặc chưa sẵn sàng bỏ thêm tiền để trải nghiệm hoặc đổi sang sử dụng những sản phẩm thân thiện hơn với môi trường. Đây cũng là câu hỏi trăn trở của các nhà vận hành khách sạn, làm thế nào để khách hàng hiểu và đồng hành cùng doanh nghiệp vì các sản phẩm thân thiện với môi trường hiện tại giá thành rất cao, nguồn sản phẩm chưa có sẵn hoặc khó tiếp cận. Hiện tại, khu nghỉ dưỡng của tập đoàn Melia thiên về không gian xanh nên khách hàng đa số hiểu và dễ tiếp nhận hơn, thậm chí đánh giá cao những nỗ lực bảo vệ môi trường của khách sạn. Tuy nhiên,

khách hàng mới chỉ dừng lại ở tiếp nhận và đánh giá chứ chưa thể thay đổi thói quen tiêu dùng. Mặc dù, khách hàng có những tác động tích cực tới ứng dụng kinh tế tuần hoàn và phát triển xanh trong khách sạn (Bica và cộng sự, 2020).

4. Kết luận

Mục đích của bài viết này để khám phá các hoạt động ứng dụng kinh tế tuần hoàn trong ngành khách sạn ở Việt Nam. Ba khách sạn thuộc ba chuỗi khách sạn lớn tại 3 địa điểm khác nhau ở Việt Nam đã cho thấy họ tuân theo các cách tiếp cận khá giống nhau về đường lối và chính sách chiến lược phát triển bền vững, mặc dù các sáng kiến cụ thể và cách thức thực hiện là khác nhau. Trong các chiến lược được xác định từ các tập đoàn được phỏng vấn, chúng tôi đã tìm thấy một điểm chung là các tập đoàn tìm kiếm sự bền vững và tập trung nhất vào nỗ lực giảm tác động của họ lên môi trường. Các chính sách về môi trường đều hướng tới 4R như giảm thiểu (reduce), tái sử dụng (reuse), tái chế (recycle) và phục hồi (recover) (Hu & cộng sự, 2011). Đầu tiên là giảm tiêu thụ năng lượng và nước, giảm phát sinh chất thải và giảm sử dụng sản phẩm nhựa, sản phẩm dùng một lần. Tiếp theo là tái sử dụng, đặc biệt trong các khía cạnh liên quan đến năng lượng và chai lọ. Các khách sạn cũng nỗ lực tái chế các sản phẩm từ nhựa, thủy tinh thành đồ trang trí nội thất hay quà tặng khách hàng. Các tập đoàn cũng hướng tới việc phục hồi nhưng chưa có nhiều hành động cụ thể. Hơn nữa, các tác động của những chiến lược này vẫn chưa được đo lường đầy đủ, có thể được coi là tự phát và không đổi mới lắm.

Kết quả phỏng vấn cho thấy các khách sạn đã nhận ra lợi ích của việc tái chế, sử dụng năng lượng tái chế và sự phù hợp của nó trong xu hướng hiện đại. Họ đều tận dụng những đặc thù riêng để thực hiện các sáng kiến hướng tới sự bền vững. Dựa trên kết quả phỏng vấn và nghiên cứu từ trang web, các tập đoàn đều quan tâm và có tham vọng ứng dụng kinh tế tuần hoàn vào các khách sạn của mình nhưng các nguyên tắc và mô hình kinh tế tuần hoàn chưa được tìm hiểu, áp dụng một cách chính thức và triệt để. Ở nghiên cứu này chỉ khám phá quan điểm của một số nhà vận hành khách sạn mà chưa có phản hồi trực tiếp từ các nhà cung cấp, chuỗi cung ứng, khách hàng và chủ sở hữu khách sạn. Do đó, bài viết gợi ý hướng đi cho các nghiên cứu trong tương lai, với việc thăm dò góc nhìn của nhiều nhà vận hành khách sạn hơn, đồng thời phỏng vấn các đối tác, nhà cung cấp, khách hàng và các bên liên quan. Mở rộng nghiên cứu đến các thành phần này có thể cung cấp một bức tranh đầy đủ hơn về khả năng áp dụng nền kinh tế tuần hoàn, yếu tố hỗ trợ và rào cản của nó. Như đã được nhấn mạnh ở một số nghiên cứu trước (Koumparou, 2018; Murray và cộng sự, 2015; Verma & Chandra, 2018b; Bica và cộng sự, 2020), điều quan trọng là tìm ra những cách thức mới để đạt được tính bền vững toàn diện, bên cạnh tính bền vững không chỉ ở khía cạnh môi trường mà còn tìm được ứng dụng kinh tế tuần hoàn vào khía cạnh kinh tế và xã hội. Những nghiên cứu trong tương lai sẽ củng cố thêm hiểu biết về nền kinh tế tuần hoàn từ nhân viên đến các bên liên quan cùng với đó sự hỗ trợ ủng hộ và cam kết hành động của nhà cung cấp hay chuỗi cung ứng. Từ đó, đưa ra những gợi ý và sáng kiến cho các ứng dụng kinh tế tuần hoàn vào khách sạn ở Việt Nam bởi trên thực tế, kinh tế tuần hoàn hiện tại mới dừng lại ở các chiến lược phát triển bền vững và chưa liên kết được các chuỗi mắt xích tuần hoàn trong ngành khách sạn. Đặc biệt, việc tìm được các đầu ra của các mắt xích này là đầu vào của năng lượng, nguyên liệu, sản phẩm, dịch vụ

hay mất xích khác trong chuỗi giá trị của khách sạn để một nền kinh tế tuần hoàn thực sự thì cũng phải là một nền kinh tế tuần hoàn bền vững.

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A THEORETICAL MODEL OF BARRIERS TO E-MARKETPLACE ADOPTION BY VIETNAMESE SMALL AND MEDIUM-SIZED ENTERPRISES

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Abstract: *The COVID-19 pandemic is expediting the growth of e-marketplaces, paving the way for Vietnamese small and medium-sized enterprises (SMEs) to fulfil their digital transformation potential. Yet, Vietnamese SMEs usually lag behind their peers in e-marketplaces due to various barriers. Underpinned by the technology-organisation-environment framework, this paper aims to present a theoretical model of barriers to e-marketplace adoption by Vietnamese SMEs. The theoretical model reveals twelve critical barriers, including lack of benefits, lack of compatibility, complexity, perceived risks, costs, lack of top management support, lack of knowledge readiness, lack of financial readiness, lack of innovativeness, lack of customer support, lack of external support, and lack of government support. With the use of the theoretical model, the emerging adoption patterns of e-marketplace adoption can be identified. The critical barriers to e-marketplace adoption by Vietnamese SMEs can be analysed. The paper contributes substantially to e-marketplace research by offering a comprehensive review of potential barriers in the context of Vietnamese SMEs. It further provides useful guidelines on how to eliminate barriers and thus promote e-marketplace adoption among SMEs.*

Keywords: *Barriers, e-marketplace adoption, Vietnamese SMEs, innovation adoption, technology-organisation-environment framework*

MÔ HÌNH LÝ THUYẾT VỀ CÁC RÀO CẢN THAM GIA SÀN THƯƠNG MẠI ĐIỆN TỬ CỦA CÁC DOANH NGHIỆP NHỎ VÀ VỪA TẠI VIỆT NAM

Tóm tắt. *Đại dịch COVID-19 đang thúc đẩy sự phát triển của các sàn thương mại điện tử (TMĐT), mở đường cho các doanh nghiệp nhỏ và vừa (DNNVV) của Việt Nam phát huy hết tiềm năng chuyển đổi số của mình. Tuy nhiên, các DNNVV của Việt Nam thường tụt hậu so với các doanh nghiệp cùng ngành trên sàn TMĐT do nhiều rào cản khác nhau. Được củng cố bởi khung lý thuyết công nghệ-tổ chức-môi trường, bài viết này nhằm mục đích trình bày một mô hình lý thuyết về các rào cản tham gia sàn TMĐT của các DNNVV ở Việt Nam. Mô hình lý thuyết cho thấy có 12 rào cản quan trọng, bao gồm thiếu lợi ích, thiếu khả năng tương thích, phức tạp, rủi ro nhận thức, chi phí, thiếu sự hỗ trợ của quản lý, thiếu sẵn sàng về kiến thức, thiếu sẵn sàng về tài chính, thiếu tính đổi mới, thiếu hỗ trợ từ khách hàng, thiếu sự hỗ trợ từ bên ngoài và thiếu sự hỗ trợ của chính phủ. Với việc sử dụng mô hình lý thuyết, các mô hình tham gia sàn TMĐT có thể được xác định. Có thể phân tích các rào cản quan trọng đối với việc tham gia sàn TMĐT của các DNNVV ở Việt*

Nam. Bài viết đóng góp đáng kể cho nghiên cứu về sàn TMĐT bằng cách đưa ra đánh giá toàn diện về các rào cản tiềm ẩn trong bối cảnh các DNNVV ở Việt Nam. Bài viết cung cấp thêm các hướng dẫn hữu ích về cách loại bỏ các rào cản và do đó thúc đẩy việc tham gia sàn TMĐT hiệu quả của các DNNVV.

Từ khóa: *Rào cản, tham gia sàn thương mại điện tử, doanh nghiệp nhỏ và vừa ở Việt Nam, áp dụng đổi mới, khung lý thuyết công nghệ-tổ chức-môi trường.*

1. Introduction

Small and medium-sized enterprises (SMEs) play an important role in the national economy. SMEs often offer niche products and have simple corporate structures with few employees (Petraou et al. 2011). It is, thus, easy for SMEs to be flexible and innovative to adapt to changes in the business environment (Upadhyaya et al. 2013). However, due to the increasingly disruptive development and widespread application of technology in businesses and governments, SMEs need to develop an e-business strategy if they want to stay competitive or create competitive advantages. A particularly important application in e-business is participating in e-marketplaces (Ellawala & Sachitra 2021; Petraou et al. 2011).

An e-marketplace is an inter-organisational information system that enables many buyers and sellers, as well as other stakeholders, to communicate and transact through a centrally managed and dynamic market space which is supported by additional services (Stockdale & Standing 2004). Participating in e-marketplaces can bring many benefits to SMEs, including market expansion (Ellawala & Sachitra 2021), transaction cost saving (Petraou et al. 2011), profit increase (Nguyen & Nham 2012), inventory reduction (Loukis et al. 2011), 24/7 sales and customer support (Amornkitvikai et al. 2022; Stockdale & Standing 2004). With these important benefits, more and more SMEs are doing business on e-marketplaces.

The outbreak of the COVID-19 pandemic has created a new consumption trend among a large number of consumers, promoting the development of e-marketplaces in Vietnam. According to VECOM's report, the market size of Vietnam's e-marketplaces reached USD 13 billion in 2021 and is forecasted to grow rapidly to USD 39 billion in 2025 (VECOM 2022). In particular, shoppers through e-marketplaces have increased sharply, leading to the increase of many new sellers on the most popular domestic e-marketplaces in Vietnam, such as Shopee, Lazada, Tiki, and TikTok Shop (Metric.vn 2022). Cross-border e-marketplaces such as Alibaba, Amazon, and eBay help many SMEs to directly access foreign markets (Nguyen & Nham 2012). Thus, e-marketplace adoption is increasingly popular in Vietnam; and SMEs are considering e-marketplaces as a potential business model in the digital transformation era (Nguyen et al. 2021; Nguyen & Nguyen 2021). The rate of successful Vietnamese SMEs operating in marketplaces is still very low. In addition, SMEs in Vietnam often lag behind other peers when participating in e-marketplaces, possibly due to barriers such as lack of expertise, poor technology infrastructure, lack of financial resources and poor business planning (Nguyen et al. 2016; Nguyen & Nham 2012; Thuy 2022).

Studies on the barriers to e-marketplace adoption by SMEs have received much attention from scholars. These studies can be approached from developed countries (Loukis et al. 2011; Petrakou et al. 2011; Schmitt 2019) and developing countries (Agustiono et al. 2020; Ellawala & Sachitra 2021; Upadhyaya et al. 2013). Research from developed countries is difficult to apply or generalise to developing countries (MacGregor & Kartiwi 2010). This is because there are large differences in the cultural, economic, political and legal environments between these two groups of countries (Chau et al. 2020; MacGregor & Kartiwi 2010). Therefore, there is an urgent need to study the barriers to e-marketplace adoption by SMEs from developing countries in order to accurately identify and have an in-depth assessment of these barriers.

Many studies on e-marketplace adoption by SMEs have been done in developing countries. These studies have shown many barriers affecting e-marketplace adoption by SMEs in many different situations (Upadhyaya et al. 2013; Agustiono et al. 2020; Ellawala and Sachitra 2021). Most of the studies have used the technology-organisation-environment (TOE) framework (Depietro et al. 1990) to have a comprehensive view of the barriers to e-marketplace adoption by SMEs (Valmohammadi & Dashti 2016; Yadav et al. 2022; Zhu et al. 2003). Based on this theoretical framework, studies have identified three main groups of barriers as follows: technological, organisational, and environmental barriers. Research on barriers to e-marketplace adoption by Vietnamese SMEs is limited. Some studies focus on understanding the barriers to e-commerce adoption in general, not specifically to e-marketplace adoption (Rowe et al. 2012; Ha 2020). Some other studies mainly identify barriers to participating in e-marketplaces by enterprises in general, not focusing on SMEs (Nguyen and Nham 2012).

To address the above inadequacies, the current study draws on the TOE framework to propose a theoretical model for investigating barriers to e-marketplace adoption by Vietnamese SMEs. The proposed theoretical model is built on a comprehensive analysis of the existing research on barriers to e-marketplace adoption. This leads to the development of twelve hypotheses to be tested and validated for a better understanding of barriers to e-marketplace adoption by Vietnamese SMEs. The study will be a reference to help policymakers and managers have a comprehensive view of barriers to e-marketplace adoption by Vietnamese SMEs. In addition, it also helps policymakers and managers propose specific solutions to eliminate barriers and promote e-marketplace adoption by Vietnamese SMEs.

In what follows, Section 2 provides an overview of e-marketplace adoption by Vietnamese SMEs. Section 3 then presents the related literature review. Section 4 develops a theoretical model. Finally, Section 5 concludes the paper with a summary of the study, its limitations and a discussion of possible future research.

2. Overview of e-marketplace adoption by Vietnamese SMEs

E-commerce, short for electronic commerce, refers to the buying and selling of goods or services over the Internet (Chau et al. 2020). It involves the use of e-marketplaces, websites, mobile apps, and other digital platforms to conduct commercial

transactions (Upadhyaya et al. 2013). An e-marketplace is an e-commerce business model that allows organisations and individuals who are not website owners to conduct sales or provide services on it (Ministry of Industry and Trade 2010). The e-marketplace is one of two popular types of e-commerce stated in Decree 52/2013/ND-CP on E-commerce of the Vietnam Government (Vietnam Government 2013). This study focuses on the Business-to-consumer e-marketplace, which is the most popular type of e-marketplace and suitable for SMEs.

There are nearly 1,000 registered e-marketplaces in Vietnam (Ministry of Industry and Trade 2019). Product and service categories introduced and provided on the e-marketplaces are very diverse, ranging from simple items (books, newspapers, stationery, fashion, accessories, etc.) to complex products (cars, motorbikes, drugs, functional foods, etc.). However, the value of goods and services exchanged on e-marketplaces is quite small, when about 70.4% of goods and services valued at less than VND 1 million (Ministry of Industry and Trade 2021).

Participating in e-marketplaces has become a prominent trend in Vietnam. The proportion of enterprises participating in the e-marketplaces increased from 12% in 2018 to 22% in 2020 (VECOM 2022). In addition, the percentage of businesses receiving orders through e-marketplaces also increased from 19% in 2019 to 29% in 2020 (Ministry of Industry and Trade 2021). On the four biggest e-marketplaces, around 566,000 sellers have successful orders, with more than 1.3 billion product units successfully delivered in 2022. The growth rate of total market revenue in 2022 compared to 2021 is 18.4% (Metric.vn 2022).

Vietnam is witnessing fierce competition for market share among the four major e-marketplaces, namely Shopee, Lazada, Tiki, and Sendo (iPrice 2021). The total revenue on these four largest e-marketplaces in 2022 is VND 135 trillion, up 18.4% compared to 2021 (Metric.vn 2022). Shopee is currently the most popular e-marketplace in Vietnam, with nearly 73% of the total sales, corresponding to about VND 91 trillion. Lazada ranks second, accounting for 20% with revenue of VND 26.5 trillion; Tiki accounts for 5% with 5.7 VND trillion billion; and the last is Sendo, with 1% equal to 1 VND trillion (Metric.vn 2022).

Under the influence of the COVID-19 epidemic, business on e-marketplaces has undergone many significant changes. The e-marketplace was an important e-commerce channel for sellers (VECOM 2021). Results from 4 major e-marketplaces in Vietnam showed that there was a significant increase in the number of new sellers, up to 50% (VECOM 2021). One-third of digital sellers in Vietnam believed that it was hard to get through the pandemic without digital platforms (Google 2021). On average, each seller needs two digital platforms to access the online consumers (Google 2021). E-marketplace has become an effective sale channel for enterprises, especially SMEs, business households and individuals (VECOM 2021). Many new types of business tactics were deployed on e-marketplaces for sellers, for example, livestream and online promotions (VECOM 2021).

However, the percentage of enterprises participating in e-marketplaces is

significantly lower than that of websites and social networks. The proportion of enterprises having an online presence on e-marketplaces in 2020 was 22% and remained unchanged in 2022. In contrast, the proportion of enterprises having online business activities on social networks was 41% in 2020, and it significantly increased to 57% in 2021 (VECOM 2022).

There are still challenges for sellers on Vietnamese e-marketplaces. E-marketplace service providers tend to increase service fees, causing selling costs to increase significantly (Ministry of Industry and Trade 2022). Besides, 14.3% of sellers on Vietnamese e-marketplaces are from abroad, creating competitive pressure on Vietnamese sellers (Ministry of Industry and Trade 2022).

3. Literature review

E-marketplace adoption brings many benefits to businesses, such as reducing costs, expanding markets and increasing customer satisfaction, leading to increased competitive advantage (Cano et al. 2022). Therefore, e-marketplace adoption has been widely studied in the contexts of developed countries (MacGregor & Kartiwi 2010; Schmitt 2019) and developing countries (Valmohammadi & Dashti 2016; Yadav et al. 2022), large enterprises (Loukis et al. 2011; Upadhyaya et al. 2013) and SMEs (Agustiono et al. 2020; Chau et al. 2020; Misra et al. 2022; Stockdale & Standing 2004). These studies aim to understand the complexity of adopting e-marketplaces (Chien et al. 2012), the determinants of e-marketplace adoption (Collignon & Sternberg 2020; Misra et al. 2022), and identify ways to promote e-marketplace adoption (Cano et al. 2022; Petrakou et al. 2011; Sethi et al. 2021). E-marketplace adoption by enterprises from developing countries is often more complicated (Valmohammadi & Dashti 2016) and lagged behind developed countries (Yadav et al. 2022) due to various challenges such as the regulatory environment, inadequate management and weak infrastructure; hence, more studies need to be carried out in these countries. In addition, SMEs often faced more barriers when adopting e-commerce than large enterprises (MacGregor & Vrazalic 2005; Stockdale & Standing 2004). Although the number of SMEs registered to participate in e-marketplaces is quite large, the number of actual transactions on e-marketplaces is extremely limited (Upadhyaya et al. 2013). In order to effectively promote the adoption of e-marketplaces by SMEs, many studies on barriers have been conducted in different contexts.

Most of the studies apply the TOE framework (Depietro et al. 1990) to get a holistic view of the barriers to e-marketplace adoption by SMEs (Valmohammadi & Dashti 2016; Yadav et al. 2022; Zhu et al. 2003). Based on this theoretical framework, studies have shown three main groups of barriers as follows: technological, organisational, and environmental barriers.

Technological barriers-based research

Research on technological barriers involves identifying the characteristics of e-marketplaces that may hinder SMEs' adoption (Chau et al. 2020; Upadhyaya et al. 2013). There are five characteristics of an e-marketplace: relative advantage, compatibility, trialability, observability, and complexity (Rogers 2010). Among these, relative advantage, compatibility, and complexity are often identified as the most important characteristics.

Stockdale and Standing (2004) and Valmohammadi and Dashti (2016) point out that it is difficult for SMEs to find the relative advantage of e-marketplaces in the short term because the costs outweigh the actual benefits. High cost, therefore, is a major obstacle for SMEs to adopt e-marketplaces, especially those from developing countries (Upadhyaya et al. 2013; Valmohammadi & Dashti 2016). At the same time, many SMEs feel a tight squeeze on profits because they have to share a portion of the profits with e-marketplace service providers (Gulledge 2002). In addition, the incompatibility of technology with the current values or experiences of enterprises is also an obstacle to adopting e-marketplaces (Upadhyaya et al. 2013). For example, the lack of compatibility with enterprises' goods/services when adopting e-marketplaces is one of the major barriers (Mohan & Ali 2019; Valmohammadi & Dashti 2016). Remarkably, the complexity has greatly hindered e-marketplace adoption by SMEs (MacGregor & Vrazalic 2005). This is considered a matter of technical constraints when SMEs have to deal with a lot of standards and technologies related to the operation of e-marketplaces that are not consistent with their business practices (Gulledge 2002). An overview of topics related to technology application shows that risks (MacGregor & Vrazalic 2005; Mohan & Ali 2019), lack of trust in transactions (Upadhyaya et al. 2013; Valmohammadi & Dashti 2016) and lack of common standards on e-marketplaces (Mohan & Ali 2019) also affect the willingness of SMEs to adopt e-marketplaces. In summary, technological barriers are considered as one of the most important factors in e-marketplace adoption by SMEs based on the results of many previous studies.

Organisational barriers-based research

Research on organisational barriers focuses on discovering the characteristics of enterprises that may prevent SMEs from e-marketplace adoption. These characteristics are related to five key aspects: financial barriers, knowledge barriers, operational barriers, innovativeness, and managerial barriers. Stockdale and Standing (2004) and Valmohammadi and Dashti (2016) indicate that financial constraints in the operation, maintenance, and development negatively affect the participation of SMEs in e-marketplaces. To operate effectively on e-marketplaces, SMEs need to have enough financial resources to research and develop products, as well as participate in marketing activities (MacGregor & Vrazalic 2005; Upadhyaya et al. 2013). However, as SMEs are often small in scale, financial barriers are a big problem (Mohan & Ali 2019). The knowledge barriers are reflected in the lack of knowledge and skills of the staff about e-marketplaces (Mohan & Ali 2019), insufficient staff working on e-marketplaces, and the insufficient training and education for employees (Valmohammadi & Dashti 2016; Yadav et al. 2022). Barriers to operating e-marketplaces are reflected in poor operation planning, no standards for an efficient e-marketplace operation process, and a lack of constantly updated standards in accordance with the market conditions (Yadav et al. 2022). In particular, barriers to operating e-marketplaces were also reflected in the lack of connection between departments in the business. Innovativeness barriers were related to the slowness of change (Valmohammadi & Dashti 2016), limited innovation capacity, limited access to new management methods, and limited ability to continuously innovate

business processes (Yadav et al. 2022). Research on barriers related to managers plays an important role in decision-making to join e-marketplaces by SMEs. Most SMEs lack a formal decision-making process for participating in e-marketplaces. In other words, the responsibility for decision-making to participate in an e-marketplace often rests with the business owner (Upadhyaya et al. 2013). Therefore, lack of support from business owners (Valmohammadi & Dashti 2016; Yadav et al. 2022) and lack of capabilities and experience of managers (MacGregor & Vrazalic 2005) are considered as the factors limiting the adoption of SMEs in e-marketplaces. In general, organisational barriers have been shown to be able to limit SMEs from adopting e-marketplaces.

Environmental barriers-based research

Studies on environmental barriers involve exploring factors that were related to stakeholders such as suppliers, employees, competitors, governments, e-marketplace service providers, and customers who might negatively affect e-marketplace adoption by SMEs. MacGregor and Vrazalic (2005) survey 477 SMEs in Sweden and Australia to discover the barriers to e-marketplace adoption. Research results show that SMEs lack the investment to hire external consultants when they need expertise in the e-marketplace area, leading to their limited participation in this platform. Upadhyaya et al. (2013) survey 122 SMEs in India and identify three largest groups of environmental barriers. First, e-marketplace service providers do not understand the needs of businesses. Second, businesses depend on middlemen in transactions. Lastly, business partners are not ready to join e-marketplaces. The lack of supportive policies from e-marketplaces (Cano et al. 2022) and the lack of governmental regulations (Valmohammadi & Dashti 2016) will make businesses reluctant to do business on e-marketplaces. Regarding competitive pressures, SMEs were often concerned that counterfeit goods and imitations of lower or equal quality but with lower prices would discourage customers from buying genuine products (Mohan & Ali 2019). Lack of connection with customers and lack of training and education for customers are barriers when customer connection and training will increase relationships and improve customer satisfaction and customer loyalty to the business (Yadav et al. 2022).

Most of the studies in Vietnam focus on understanding the barriers to participating in e-commerce in general, not specifically to e-marketplaces. For instance, Rowe et al. (2012) use the TOE theory to examine internal and external factors affecting the participation in e-commerce by SMEs in Vietnam, revealing that the complexity of technology and perception of risk are two important factors hindering e-commerce participation. Nguyễn (2016) identifies some barriers for exporters when participating in e-commerce, including resistance to change and investment in e-commerce, limited investment in building and developing websites, lack of skills and experience in operating an online business model, difficulties verifying the reliability of partners on e-marketplaces, and regulatory and security restrictions. Nguyen et al. (2017) identifies ten major groups of barriers. Among them, the following five groups of barriers are considered to be the most influential: technical difficulties when using e-commerce websites, people who were responsible for services and payments, reliability of services, poor Internet

services and barriers to the security and privacy of customer information. Ha (2020) shows that shopping habits and traditional sales methods, the availability of human resources, investment costs, perceived benefits, and compatibility with current business methods are the main barriers preventing SMEs from participating in e-commerce. Tạ and Lê (2020) study the e-commerce participation of female-owned SMEs accessing the international market in Vietnam, showing that women-owned businesses often face difficulties in logistics, delivery, shipping, and building and managing website content. Nguyen et al. (2021) point out a number of barriers to participating in e-commerce of Vietnamese enterprises, including no website and own brand, long time required to build and operate the system, financial and human resource barriers and management capacity.

There are few studies that attempt to identify the barriers to participating in e-marketplaces by SMEs in Vietnam. Specifically, Nguyen and Nham (2012) point out that businesses in Vietnam face the following barriers preventing them from e-marketplace adoption: more sellers than buyers, trust, high participation costs, a small number of orders, difficulty in using the platform's tools, limited financial resources. In addition, when interviewing 15 businesses participating in Alibaba, the study shows that there were two barriers that make exporters feel disadvantaged when participating: business authentication and Alibaba's preference for Chinese businesses. However, this study does not focus on SMEs. Tạ and Lê (2020) indicate that barriers to participating in cross-border e-marketplaces by female-owned enterprises include the lack of human resources with foreign language skills and with specialised skills in e-commerce.

In summary, the review of related literature mentioned above shows that there is limited research on barriers to e-marketplace adoption by SMEs in Vietnam. To address these research voids, this paper presents a conceptual framework for investigating the barriers to e-marketplace adoption by Vietnamese SMEs.

4. A theoretical model

To investigate the barriers to e-marketplace adoption by Vietnamese SMEs, this study develops a theoretical model applying the TOE framework proposed by Depietro et al. (1990). The TOE framework is an organisational-level theory that can serve as a theoretical basis for examining the adoption of e-marketplace innovations (Ghobakhloo & Tang 2011; Tran et al. 2021). It identifies technological, organisational, and environmental barriers that may hinder e-marketplace adoption within organisations (Depietro et al. 1990). Technological barriers refer to the characteristics of e-marketplaces, including lack of benefits, lack of compatibility, complexity, perceived risk, and costs (Ghobakhloo & Tang 2011). Organisational barriers are about the characteristics of firms, such as lack of top management support, lack of knowledge readiness, lack of financial readiness, and lack of innovativeness (Nazir & Roomi 2020). Environmental barriers are related to the arena in which a firm operates its business activities (Depietro et al. 1990). They mainly concern about the lack of customer support, lack of e-marketplace provider support, and lack of government support. Those concerns could generate constraints for e-marketplace innovations (Chau & Tam 1997).

The applicability of the TOE framework for identifying barriers to e-marketplace adoption is well exemplified in the existing literature. Ghobakhloo and Tang (2011), for instance, deploy the TOE framework to investigate the adoption of e-marketplace by Iranian SMEs, revealing that the main barriers to such adoption include costs, lack of compatibility, perceived risks, lack of awareness, lack of knowledge, family intervention, lack of external support, lack of government support, and lack of business partners' readiness. Nazir and Roomi (2020) extend the TOE framework to examine the various barriers SMEs face in adopting e-marketplaces in emerging economies, highlighting four themes: technological, organisational, environmental and managerial characteristics. Amornkitvikai et al. (2022) leverage the TOE framework to conduct a study on the barriers to e-marketplace adoption by Thai SMEs, finding that technical, organisational, and environmental barriers are found to be significant in impeding e-marketplace adoption by Thai SMEs. These studies signify that the TOE framework is useful for investigating the barriers to e-marketplace adoption by Vietnamese SMEs.

Figure 1 presents a theoretical model of twelve hypotheses based on the TOE framework for examining the barriers to e-marketplace adoption by Vietnamese SMEs. The theoretical model is built on a comprehensive analysis of the existing research on barriers to e-marketplace adoption. Many models have been developed in other countries. However, in the context of a developing country with many unique characteristics like Vietnam and with almost no research conducted to assess the barriers to e-marketplace adoption by Vietnamese SMEs, the theoretical model of this study is critical for promoting e-marketplace adoption among these enterprises. A detailed discussion of these hypotheses in the theoretical model is presented in the following.

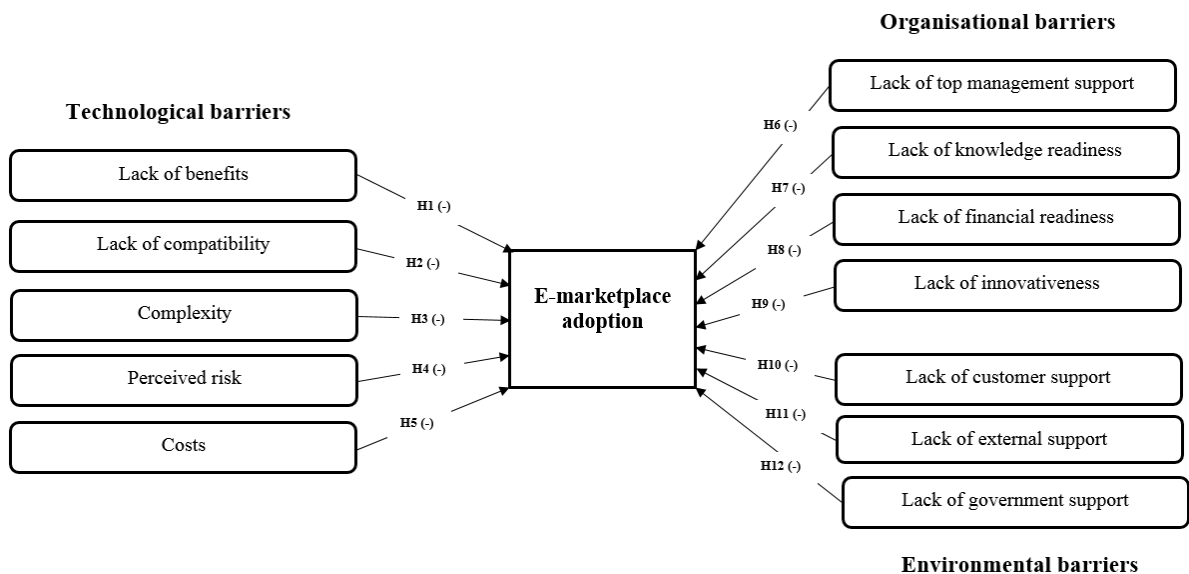


Figure 1. The theoretical model

Technological barriers

Lack of benefits refers to the disadvantages that can be gained when an e-marketplace is adopted (Nazir & Roomi 2020). They are reflected in the degree to which e-marketplace is not expected to bring better business performance and the extent to which

business activities could not meet expectations when e-marketplace is adopted (Al-Dmour et al. 2020; Kumar & Kaur 2019). E-marketplace adoption could generate various disadvantages for SMEs, including poor sales revenue, profit squeeze (Upadhyaya et al. 2013), poor distribution channel, poor reputation, poor market share, and poor competitive advantage (Al-Dmour et al. 2020).

Lack of benefits can be seen as a significant barrier to e-marketplace adoption by Vietnamese SMEs. According to the diffusion of innovations theory by Rogers (2010), relative advantage is the most common technological characteristic that promotes innovation adoption. Similarly, the technology acceptance model of Davis (1989) suggests that perceived usefulness is critical to innovation adoption. As such, e-marketplaces are more likely to be adopted in SMEs if their benefits are perceived to outweigh the risks and expenses (Yadav et al. 2022). VECOM (2022) indicated that about 22% of Vietnamese SMEs joined e-marketplaces. The low engagement towards e-marketplaces by Vietnamese SMEs is likely due to the fact that most firms are not very aware of the potential benefits exhibited by e-marketplaces. This argument leads to the following hypothesis:

H1: Lack of benefits negatively influences the adoption of e-marketplaces

Lack of compatibility refers to the degree to which the e-marketplace is inconsistent with the existing values and experience of a firm (Rogers 2010). It is measured by the poor fit of the e-marketplace with suppliers and customers, the poor fit with organisational structure, and the poor suitability of the business to adopt such an e-marketplace (Ghobakhloo & Tang 2011; MacGregor & Vrazalic 2005; Saif-Ur-Rehman 2016).

Lack of compatibility has an impact on e-marketplace adoption by Vietnamese SMEs. Ghobakhloo and Tang (2011), for example, indicate that an e-marketplace is more unlikely to be adopted when it is not compatible with the values and work cultures of firms. Upadhyaya et al. (2013) show that a lower level of perceived compatibility is associated with a decreased intention to adopt e-marketplaces. Saif-Ur-Rehman (2016) suggest the major barrier that is rooted in the poor fit between the way Malaysian SMEs do their business and the use of e-marketplace. These studies provide a critical opportunity to advance the understanding of the negative association between lack of compatibility and e-marketplace adoption by Vietnamese SMEs. The above arguments indicate the following hypothesis:

H2: Lack of compatibility negatively influences the adoption of e-marketplaces

Complexity is about the degree to which e-marketplace is perceived as relatively hard to understand and use (Rogers 2010). It is measured by the complicated procedures and processes, requirements of advanced IT-related skills, and the necessary knowledge of legal requirements when adopting e-marketplaces (Amornkitvikai et al. 2022; Upadhyaya et al. 2013).

As SMEs in developing countries often lack necessary knowledge and financial resources, complexity is expected to be significant for the limited number of SMEs participating in e-marketplaces. MacGregor and Vrazalic (2005) show that the complexity

of the e-marketplace is one of the most prominent barriers to the intake of e-marketplaces. Valmohammadi and Dashti (2016) find that the complexity of e-marketplace adoption is a major barrier. Thus, the following hypothesis is proposed on e-marketplace adoption by Vietnamese SMEs:

H3: Complexity negatively influences the adoption of e-marketplaces

Perceived risks refer to the awareness of a firm about the risks related to e-marketplace technologies (Yadav et al. 2022). It can be measured by payment risk, information risk, and lack of risk management. Payment risk is related to the loss of payment information and/or incorrect payment process (Ghobakhloo & Tang 2011). Information risk is associated with the loss of business information (Agustiono et al. 2020). Lack of risk management is about the concern that adopting e-marketplaces could make firms vulnerable to Internet hackers (Agustiono et al. 2020; Saif-Ur-Rehman 2016).

Perceived risks could be the main barrier to e-marketplace adoption by Vietnamese SMEs. Saif-Ur-Rehman (2016) show that a lack of risk management inhibits e-marketplace adoption by Malaysian SMEs. Ghobakhloo and Tang (2011) suggest the major barrier is the risks of e-marketplace adoption perceived by Iranian SMEs. SMEs are found to be more reluctant to take risks (Al-Dmour et al. 2020; MacGregor & Kartiwi 2010). This discussion suggests the following hypothesis:

H4: Perceived risks negatively influence the adoption of e-marketplaces

Costs of e-marketplace adoption are about the relative costs to the benefits of adopting e-marketplaces (Chau et al. 2020). They include the costs of implementing, maintaining and upgrading IT infrastructure, the operating costs, and the costs of training employees to implement e-marketplaces (Agustiono et al. 2020; Tran et al. 2021).

Costs are critical for SMEs, especially SMEs in developing countries, in adopting e-marketplaces. These businesses are frequently operating under severe financial resource constraints, leading to caution about the e-marketplace investment (Al-Dmour et al. 2020; Ghobakhloo & Tang 2011). Thus, only SMEs having adequate financial resources could consider e-marketplace adoption as a feasible project to undertake. It is expected that if Vietnamese SMEs perceive that e-marketplace adoption is not financially worthwhile, they will exhibit a less favourable willingness to adopt it (Chau et al. 2020). This study sets out to the following hypothesis:

H5: Costs negatively influence the adoption of e-marketplaces

Organisational barriers

Lack of top management support refers to the poor involvement, enthusiasm, motivation and encouragement by top managers towards e-marketplace adoption (Saif-Ur-Rehman 2016; Tran et al. 2021). It might hamper the willingness to provide adequate business resources for such adoption (Agustiono et al. 2020; Al-Dmour et al. 2020). This, lack of top management support is considered as a “too difficult” barrier which makes e-marketplace complicated to implement among Vietnamese SMEs. This study proposes the following hypothesis:

H6: Lack of top management support negatively influences the adoption of e-marketplaces

Lack of knowledge readiness is defined as the inadequacy of the necessary expertise in firms for e-marketplace adoption (Tran et al. 2021). It is reflected by a lack of top management capabilities, lack of top management experience, inadequate training, and inadequate in-house experts for such adoption (Al-Dmour et al. 2020; Saif-Ur-Rehman 2016). Lack of top management capabilities is about the insufficient knowledge, skills, and abilities of top managers in e-marketplace adoption (Agustiono et al. 2020). Lack of top management experience measures the low practical contact with e-marketplace adoption by top managers. Inadequate training refers to the lack of periodic provision of knowledge, skills, and abilities related to e-marketplaces for employees. Inadequate in-house experts examine the lack of dedicated staff in charge of adopting e-marketplaces (Agustiono et al. 2020).

Lack of knowledge readiness can significantly hinder Vietnamese SMEs from engaging in e-marketplaces. Ghobakhloo and Tang (2011) find that the most crucial limitation impeding e-marketplace adoption by Iranian SMEs is a lack of knowledge. Valmohammadi and Dashti (2016) conclude that having limited capabilities and a lack of experts in-house are considered as significant barriers that prevent Iran Khodro industrial group from engaging in e-marketplaces. Yadav et al. (2022) aim to explore the barriers hindering firms in India from e-marketplace engagement. They suggest that the main barrier is represented in the lack of expertise, lack of knowledgeable staff, and lack of proper training in e-marketplaces for employees. Based on the above arguments, the following hypothesis is proposed:

H7: Lack of knowledge readiness negatively influences the adoption of e-marketplaces

Lack of financial readiness refers to the inadequacy of financial resources for e-marketplace adoption (Valmohammadi & Dashti 2016). It is manifested in four aspects: lack of finance for implementing, maintaining, and improving, as well as lack of finance accessibility (Ghobakhloo & Tang 2011; Tran et al. 2021). Lack of finance accessibility is about the inadequacy of funds raised from financial institutions, non-governmental organisations, the government, and investors for e-marketplace adoption.

Lack of financial readiness can significantly impede e-marketplace adoption by Vietnamese SMEs. Various studies demonstrate that a lack of financial readiness is important in negatively affecting e-marketplace adoption (Ghobakhloo & Tang 2011; Yadav et al. 2022). Valmohammadi and Dashti (2016), for example, assert that e-marketplace adoption requires typically a large amount of money. SMEs need to have adequate funds to run and maintain such adoption. Meanwhile, the budget allocation by SMEs for e-marketplaces is very limited, leading to their low engagement towards e-marketplaces. A hypothesis is reflected as follows:

H8: Lack of financial readiness negatively influences the adoption of e-marketplaces

Lack of innovativeness is associated with the inadequacy of intentional introduction and application of new products, ideas, actions, and procedures in firms for better performance (Al-Dmour et al. 2020; Valmohammadi & Dashti 2016). Due to the rapid changes in technology, organisational innovativeness is critical to technology adoption by

firms. It enables an innovation climate where firms are open to solutions and strategies for performance improvements (Chau et al. 2020). Therefore, a lack of innovativeness can significantly hinder the engagement of Vietnamese SMEs in e-marketplaces. Based on the above discussion, this study proposes the following hypothesis:

H9: Lack of innovativeness negatively influences the adoption of e-marketplaces

Environmental barriers

Lack of customer support is related to the inappropriateness of customer support and incentives aimed at facilitating the institutionalisation of e-marketplaces within SMEs (Ghobakhloo & Tang 2011; Schmitt 2019). According to Ghobakhloo and Tang (2011), when Iranian SMEs perceive that their customers are not ready enough to engage in e-marketplaces, they will be less adopted e-marketplaces. Amornkitvikai et al. (2022) indicate that a significant number of customers are still unfamiliar with e-marketplaces. This unfamiliarity is the primary obstacle that could prevent Malaysian SMEs from adopting e-marketplaces. Therefore, the following hypothesis is proposed on e-marketplace adoption by Vietnamese SMEs:

H10: Lack of customer support negatively influences the adoption of e-marketplaces

Lack of external support is about the inadequacy of technical assistance and training provided by e-marketplace experts, consultants, and service providers (Ghobakhloo & Tang 2011). Most SMEs are limited in terms of experts in-house, hence, dependent on external experts to overcome e-marketplace sophistication and evolution. Furthermore, SMEs are frequently facing challenges as e-marketplace service providers tend to devote their efforts to larger firms and generally do not satisfy the unique needs of SMEs. Owing to the importance of external support and referring to those challenges, it is expected that the lack of support provided by external experts for Vietnamese SMEs could impede their e-marketplace adoption. As such, the following hypothesis is formed:

H11: Lack of external support negatively influences the adoption of e-marketplaces

Lack of government support refers to the lack of active push from the government for improving e-marketplace adoption among SMEs (Ghobakhloo & Tang 2011). It can be assessed through a lack of a favourable legal environment, lack of financial support, and lack of training and education programs (Saif-Ur-Rehman 2016; Tran et al. 2021).

Lack of government support can be an important barrier that inhibits e-marketplace adoption by Vietnamese SMEs. Amornkitvikai et al. (2022) find that a lack of a favourable legal environment is found to be the most critical barrier that negatively influences e-marketplace adoption by Malaysian SMEs. Furthermore, Malaysian SMEs perceive that government incentives are not enough, thus inhibiting them from engaging in e-marketplaces. Successful adoption of e-marketplaces requires substantial financial resources. It further needs qualified staff that are knowledgeable on technical aspects of e-marketplaces (Saif-Ur-Rehman 2016). Due to their size and lack of resources, SMEs are generally dependent on external support, such as assistance from the government (Amornkitvikai et al. 2022; Ghobakhloo & Tang 2011). In light of the findings discussed above, a hypothesis is stated as follows:

H12: Lack of government support negatively influences the adoption of e-marketplaces

5. Conclusion and future research

Understanding the barriers to e-marketplace adoption by Vietnamese SMEs is critical to better promoting such adoption, paving ways for businesses to fulfil their digital transformation potential. This paper presents a comprehensive review of related literature on barriers to e-marketplace adoption by SMEs. On the basis of this review, a theoretical model is proposed for investigating various barriers to e-marketplace adoption by Vietnamese SMEs. Twelve main barriers are identified in the theoretical model, namely lack of benefits, lack of compatibility, complexity, perceived risks, costs, lack of top management support, lack of knowledge readiness, lack of financial readiness, lack of innovativeness, lack of customer support, lack of external support, and lack of government support. Within this proposed theoretical model, the emerging adoption patterns of e-marketplace adoption by Vietnamese SMEs can be identified. The critical barriers to e-marketplace adoption can be examined.

The proposed theoretical model can be used for a better understanding of how to improve e-marketplace adoption by Vietnamese SMEs. It is expected to contribute significantly to e-marketplace theory and practice in several potential ways. Theoretically, the study provides an in-depth understanding of the barriers that negatively impact e-marketplace adoption. It further sheds insights into the use of the TOE framework for a holistic view of barriers to e-marketplace adoption. Practically, the theoretical model presents useful guidelines for managers, practitioners and policymakers to promote e-marketplace adoption among SMEs.

Nevertheless, this study still reveals several limitations that need further consideration. First, the study is mainly related to an initial stage of literature review and formulation of a theoretical model. It calls for a qualitative study using expert method, in-depth interviews or focus group discussions to identify the characteristics of the research model in the context of Vietnam and ensure the reliability and scientific validity of the proposed theoretical model. Furthermore, an empirical study is needed to test and validate the proposed theoretical model in the context of Vietnamese SMEs and/or in other industries and countries. Furthermore, the proposed theoretical model is specifically tailored for Vietnamese SMEs. There is an emerging need for future studies that assess the differences across demographic groups and countries.

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A QUALITATIVE STUDY ON THE IMPACT OF COVID-19 ON HUMAN CAPITAL IN HANOI HOTELS

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Abstract: *COVID-19 is a global health crisis that has caused devastating consequences for the global economy. It has affected all industries on an unprecedented scale, especially tourism and hospitality. This study was carried out during the peak of COVID-19 in Vietnam, from May till August 2020, to assess the preparedness of Hanoi hotels for such crises and their responses. Simultaneously, it aimed to explore COVID-19's impacts on hotel employees. A qualitative methodology was used by conducting semi-structured interviews with people working in Hanoi hotels. The findings show that most Hanoi hotels did not prepare any plans for crises and disasters. Therefore, numerous hotels could not keep the business running and laid off all their staff. The rest chose reactive responses to the crisis instead of taking the necessary steps before the crisis occurred. As a job-leading industry, its collapse has significantly impacted hotel employees. They were struggling with uncertainties, job insecurity, and financial stress, not to mention social stigma. It subsequently led to another serious repercussion: a staffing crisis, which would challenge the sustainable operations of hotels. This study also proposed some suggestions for hotel managers to be more well-prepared and ready for unexpected events like the COVID-19 pandemic. Besides that, some recommendations for future research to improve some limitations of this study.*

Keywords: *COVID-19, crisis management, hotel employee well-being, human resources management*

ẢNH HƯỞNG COVID-19 TỚI NGUỒN NHÂN LỰC TẠI KHÁCH SẠN Ở HÀ NỘI

Tóm tắt: *Đại dịch COVID-19 đã gây ra những ảnh hưởng nghiêm trọng chưa từng có tới mọi ngành kinh tế trên toàn cầu, đặc biệt là ngành dịch vụ du lịch và khách sạn. Nghiên cứu được thực hiện từ 05-07/2020, ngay giữa đỉnh dịch tại Việt Nam, tìm hiểu sự sẵn sàng cũng như các khách sạn tại Hà Nội ứng phó với khủng hoảng do COVID-19 gây ra. Đồng thời, nghiên cứu cũng tập trung vào tìm hiểu ảnh hưởng của COVID-19 và những chính sách của khách sạn tới tâm lý, cảm xúc của người lao động. Phương pháp nghiên cứu định tính được sử dụng trong nghiên cứu này. Thông qua phỏng vấn với những người làm việc tại khách sạn, nghiên cứu chỉ ra các khách sạn tại Hà Nội đều rất bị động và không hề chuẩn bị kịch bản ứng phó với bất kỳ khủng hoảng nào. Xa thải hàng loạt nhân viên được cho là phương án duy nhất các khách sạn áp dụng khi khủng hoảng xảy ra. Điều này ảnh hưởng nghiêm trọng tới tâm lý của người lao động, khiến họ phải vật lộn với gánh nặng tài chính, sự bấp bênh của công việc và cả kỳ thị của xã hội. Việc xa thải nhân sự hàng loạt cộng với sự mất niềm tin vào công việc của người lao động sẽ dẫn đến một hậu*

quả khác: khủng hoảng lao động hậu COVID-19. Đây sẽ là thách thức cho sự phát triển bền vững của các doanh nghiệp khách sạn. Nghiên cứu cũng đưa ra một số khuyến nghị để các nhà quản lý khách sạn sẵn sàng hơn cho những khủng hoảng trong tương lai và những gợi ý cho các nghiên cứu sau này.

Từ khóa: COVID-19, quản trị khủng hoảng, phúc lợi nhân viên, quản trị nhân lực

1. Introduction

The tourism industry has made a substantial contribution to global prosperity and employment. According to World Travel & Tourism Council (WTTC) (2022), the tourism industry is one of the largest contributors to the global economy. The total contribution of tourism hit a record high in 2019, with US\$8.9 trillion, accounting for 10.3% of the global GDP. Since COVID-19, the industry's GDP has fallen by 50.4% in 2020 and recovered by 21.7% in 2021. COVID-19 pandemic has posed challenges to all industries, in which tourism and hospitality are considered the worst affected. The tourism and hospitality industry has tremendously contributed to the global economy and generated millions of jobs worldwide over the past decade (Romei 2020). In 2019 only, it generated one in every ten jobs, creating 333 million worldwide (WTTC 2022). Romei (2020) discusses tourism in some parts of the world, including South Asia, contributes to 30% of the economy. Despite the significant role of human capital in such a labor-intensive industry like tourism, employees are the first to get rid of when the pandemic breaks out, resulting in 62 million laborers losing their jobs in 2020 (WTTC 2022). It has amplified how vulnerable hotel workers are (Baum et al., 2020) since they have limited alternative options for moving onto a new job due to their lower education.

The pandemic has ground tourism to a sudden halt due to several extreme travel restrictions to curb the rapid spread of the virus. COVID-19 has jeopardized the hospitality as human interaction is part of the product. Given the role of a leading job creator, the collapse of the hospitality industry will be detrimental to hotel employees. Maditinos and Vassiliadis (2006) affirm that preparation is vital for any organization in high-risk businesses to minimize crisis' possible damages. They also point out that there is little research on such crises' impacts on hospitality and how the industry responds to them. Additionally, World Tourism Organization (UNWTO) (2023) predicts that the number of international tourists could bounce back to 95% of pre-pandemic in 2023, in which human capital is essential to the industry's resilience. Those give a compelling rationale for this research study. After a period of reflection and reading, this research aims to understand the impact of COVID-19 on hotel employees and hotels' responses to the crisis. Data were collected from May to July 2020 in Hanoi, right at the peak of the pandemic in Vietnam. Findings can assist hotel managers in planning effectively for future crises that may happen.

2. Literature Review

2.1. The COVID-19 Pandemic

The third novel coronavirus causes the Coronavirus Disease 2019, which was later named COVID-19 by the WHO on 11th February 2020 (WHO 2020a). The most common

symptoms are fever, dry cough, and tiredness, while some rare presenting ones include nausea, sore throat, or diarrhea. Some people develop more severe symptoms such as dyspnea (difficulty breathing), anorexia (loss of taste), myalgia (muscle pain), and chest pain, which could lead to fatal complications (Nuki 2020; Siordia 2020; Sohrabi et al. 2020). In some cases, patients neither show any symptoms nor feel sick while carrying the virus (Nuki 2020).

It is indicated that the virus can be transmitted through direct contact with COVID-19 infected people and indirect contact with fomites in the immediate environment around them (WHO 2020b). Besides, available evidence shows that the incubation period of the COVID-19 varies from 2 to 10 days and maybe up to 24 days (Nuki 2020). It is reported that the virus is contagious and transmissible even during the incubation period when symptoms are yet to present (Siordia 2020). The elderly and people with underlying health conditions such as high blood pressure, heart problems, diabetes are more vulnerable to the virus (Nuki 2020) due to their weak immune system (Rothan and Byrareddy 2020). Empirically, the mortality rate among those aged over 65 is higher than in other age groups (Siordia 2020).

2.2. Impact of COVID-19 on Vietnam tourism

COVID-19 has dramatically shaken the national economy. Samuel (2020) highlights that Vietnam's GDP saw a sharp fall to 3.8% in the first three months of 2020, compared to 6.8% last year. Results of the survey conducted by the Vietnam Chamber of Commerce and Industry (VCCI) indicate that a record number of 35,000 businesses have withdrawn from the market in the first quarter of 2020 (Pham 2020). Travel restrictions and visa waiver suspension have contributed to the plunge of 18.1% in the number of international arrivals in the first quarter of 2020, compared to the same period last year (VNAT 2020).

Also known as a labor-intensive industry, the closure of hotels has led to a sharp rise in unemployment. Up to mid-April 2020, almost 5 million laborers have been severely affected by COVID-19, in which nearly 740 thousand are tourism employees (An 2020). According to Lee (2020), permanently unemployed and laid-off staff account for 20% of the total labor, the highest percentage in comparison with other industries. In the wake of COVID-19, hotels in Vietnam are struggling with a severe staffing shortage. While over 2.5 million laborers were working in the tourism industry in Vietnam in 2019, 80% of them were laid off in 2020 (Dien 2023). The article indicates that the number of full-time tourism employees in 2021 was a quarter of that in 2020.

2.3. Tourism crises and disasters

Faulkner (2001) claims that natural disasters happen more often due to population and prosperity growth. Though several writers have attempted to define a crisis, there is no universally accepted definition (Henderson 2007a). Keown-McMullan (1997 cited by Henderson 2007a) indicates that a crisis must possess three factors: a trigger event causing or potentially causing massive change, the perceived inability to handle the change and a threat to the survival of the organization. On the one hand, Faulkner (2001) makes an effort

to draw a line between crises and disasters. Accordingly, a crisis is self-inflicted as he refers to a situation caused by inept planning and incompetent management, whereas a disaster occurs due to sudden, unpredictable events over which an organization has little or no control. On the other hand, Henderson and Ng (2004) argue that a disaster will possibly evolve into a crisis, so the two terms can be interchangeably used.

In recent years, tourism has been noticed to be significantly affected by several crises and disasters from natural to human-made incidents (Sönmez et al. 1999; Faulkner 2001; Pennington-Gray et al. 2011; Hanna Salman Sawalha et al. 2013). The wave of adverse events has proved tourism vulnerable and prone to problems (Henderson and Ng 2004). Ritchie (2009) clarifies it is the unique characteristics of tourism, such as intangibility and perishability, that make it more vulnerable to crises and disasters. Another reason for its vulnerability and volatility is that the tourism industry is highly interdependent since it works closely to a range of businesses, from transport to retail to hotels and restaurants (Gee et al. 1994 cited by Ritchie 2009). That tourism businesses have swiftly expanded on a global scale has exposed this industry to a broader set of risks. Furthermore, the world is getting more connected due to globalization and advanced technology; therefore, crises in a part of the world could have spread far and wide and affected other parts of the world (Ritchie 2009). In 1999, Sönmez et al. described tourism crises as situations "which can threaten the normal operation and conduct of tourism-related businesses" since the negatively affected travelers' perceptions of the destination would discourage them from visiting that place, leading to local travel and tourism economic depression as well as business withdrawal and dissolution. Gurtner in 2007 cited a definition of tourism crisis given by UNWTO (2004) as "any unexpected event that affects a traveler's confidence in a destination and interferes with the ability to continue operating normally".

Being categorized under natural crises (Henderson 2007a; Ritchie 2009), health scares can inflict severe damage due to communicable diseases (Henderson 2007a). Health is commonly known as one of the major concerns of tourists when choosing destinations. For this reason, health hazards are a highly potential source of crises for organizations and destinations when the destination image and tourist arrivals are severely affected (Thompson et al. 2003). Henderson (2007a) notices that tourists face health risks as soon as they start their journeys and arrive at destinations. While traveling, apart from accidents related to mechanical failures, extreme weather, or terrorism, tourists also expose themselves to a range of diseases, including infections such as respiratory disease (Ritchie 2009). An article by Hall (2005) indicates that humans can be vectors carrying pathogens in or on their bodies or clothes when they travel. It then highlights the fact that increased human mobility has facilitated the spread of such diseases. Tracing back to 2003, when the SARS outbreak hit the world, Hall (2011) claims that the virus speedily spread worldwide was closely linked to international air transport. Henderson (2007b) concludes that virulent diseases like SARS know no boundaries due to international travel and other globalization processes. Mobility restrictions seem to be the only way to contain the rapid diffusion; however, they will dramatically affect the tourism industry because of massive falls in

tourist arrivals and accommodation rates, not to mention endless cancelations of events and exhibitions (Hall 2011). Eventually, governments of affected countries are caught in a real dilemma between the national economy or public health. In other words, though tourism has substantially contributed to the dispersal of virulent species, it also is affected severely and becoming a victim of these biosecurity threats.

2.4. Tourism crisis and disaster management frameworks

As mentioned above, this exceptionally turbulent world has made tourism organizations more prone to crises and disasters. Though Henderson (2007a) claims that there is no standard definition for crisis management, Santana (2003) defines crisis management as "an ongoing integrated and comprehensive effort that organizations effectively put into place" to understand and prevent crisis then handle it by considering planning and training activities without ignoring the interest of their stakeholders. In other words, crisis management is the planning for an organization to effectively deal with and recover from a crisis (Yu et al. 2005). Crisis planning is stated to be essential for any tourism business as the fundamental aim of planning is to guarantee the existence of the business (Glaesser 2003). Cavanaugh (2006) emphasizes the essential role of planning in managing a crisis when making it a factor, other than people, experience, decisiveness, and execution, which matters the most when any crises or disasters strike.

Santana (2003) advises that a crisis is a process that does not stay still but develops stage by stage. Therefore, understanding the crisis life cycle will help organizations figure out how a crisis evolves through phases and then design suitable strategies to manage it in each stage. Santana's model in 2003 argued that most of the crises would go through three phases:

1. Pre-crisis: Warning signal detection, preparation, and prevention
2. Crisis: Containment and damage limitation
3. Post-crisis: Business recovery and learning

Alternatively, having reviewed an enormous amount of the previous work about crisis management, Crandall et al. (2014) have proposed another framework highlighting internal and external landscapes throughout four stages:

1. Landscape survey: What crisis threats exist inside and outside of the organization?
2. Strategic planning: What planning has been done inside and outside the organization to ensure it is prepared for uncertainties?
3. Crisis management: How should internal and external stakeholders be managed during the crisis?
4. Organizational learning: What can be learned from the crisis?

Heath (1998 cited by Ritchie 2009) notes that crisis management is divided into two main approaches: traditional crisis management and risk management. While the traditional approach focuses on responding to the crisis and managing its impacts and leaves all actions related to risk assessment and crisis planning until the last stage, the risk

management approach initially begins with crisis planning, then crisis response, and ends with recovery plans. In 1994, Richardson advised managers to adopt a new concept called "double-loop" learned response alongside the traditional "single-loop" one to manage crises, by which he means the strategic management needs to be more concerned with crisis avoidance rather than just crisis management. It goes along with Heath's (1998) 4R model for crisis management cited by Ritchie (2009), in which he suggests Reduction can occur well before a real crisis strikes through implementing risk management strategies, followed by Readiness, Response, and Recovery.

In 2001, Faulkner established the first disaster management framework for tourism (Ritchie 2009), which has become one of the most frequently applied models (Henderson 2007a). Faulkner (2001) introduces a six-stage framework based on the crisis life cycle, in which he offers managers guidelines on feasible strategies for every single stage so that they might be able to prevent the crisis from developing to the next stage. Similar to Heath's model, Faulkner's (2001) commences with a pre-event stage when it is still possible to avoid a disaster or contain its potential impacts, followed by a prodromal stage when a crisis is imminently coming. It evolves to an emergency stage, a time to protect the company and its people, before moving on to intermediate and long-term recovery. The final stage is a resolution, which occurs when everything is back to normal or improved.

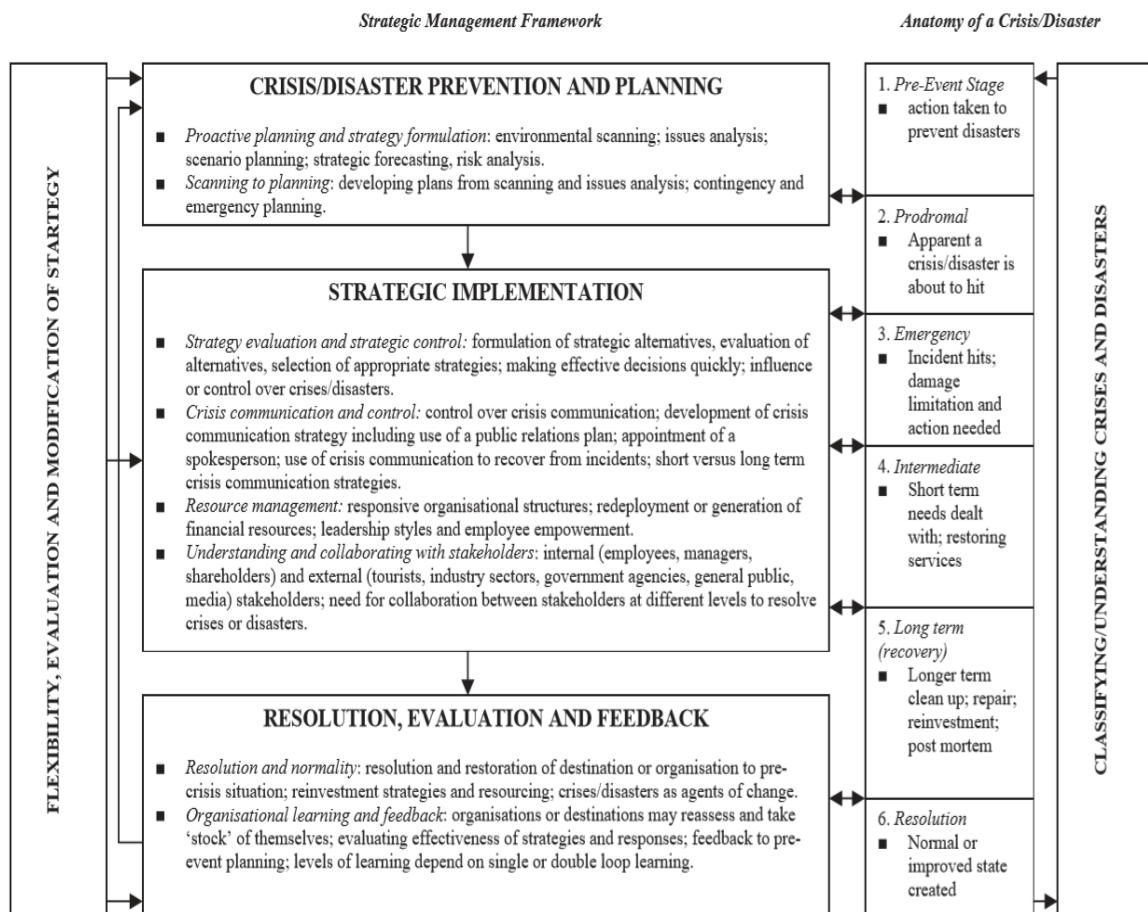


Figure 1: Crisis and disaster management: a strategic and holistic framework (Ritchie 2004)

In an article written by Ritchie in 2004, he introduced another framework developed from Faulkner's but was claimed to be more holistic. Accordingly, there are three primary phases in this model: prevention and planning, strategic implementation, and resolution, evaluation and feedback. Apart from classifying and understanding crises, which are explained in Faulkner's model, Ritchie (2004) indicates that flexibility, evaluation, and modification of strategy need to be considered at all stages of a crisis due to its complicated nature. Importantly, Ritchie includes resource management in the strategic implementation stage, which is clarified as either financial or human resources, which also is the focus of this paper.

According to Ritchie (2004), employees should be considered victims of crises and provided with support services. Nizamidou et al. (2019) argue that since Human Resources (HR) department is commonly known as the interactive link between the managers and the employees, it is their responsibility to take care of the primary needs and safety of the employees. The HR department needs to provide early training to offer employees guidance on how to cope with negative emotions such as stress, fear, and anxiety, which consequently happen if a crisis takes place. According to Lockwood (2005), the HR department plays a crucial part in crisis management as a matter of fact that "business recover cannot occur without employees". Premeaux and Breaux (2007) point out that HR managers have expertise in HR policies, labor law, employee training, and communication; therefore, it is valuable to get them involved in crisis planning, response, and recovery stages. Furthermore, when it comes to developing the human side of crisis management plans, Premeaux and Breaux (2007) raise a concern about including decision-making guidelines regarding labor cost reduction such as layoffs, furloughs, job sharing, unpaid leave, redundancy. Despite its strategic role in crisis management, business' labor seems to be the last thing to pay attention to when planning crises (Lockwood 2005; Premeaux and Breaux 2007).

There is no denying that tourism is highly susceptible to crises and disasters due to its high interdependent nature. It is noticed that little does business concern about the human's role when making a crisis management plan, which turns out to be a big mistake, especially for such a labor-intensive industry like tourism and hospitality.

3. Methodology

From the literature review, there is relatively little attention paid to crises in tourism and plans for tourism crisis management despite its critical role in the economy. Additionally, there is a gap in the current literature about this crisis' impact on hotel people. This research employs a qualitative approach to understand how COVID-19 affects hotel employees and their coping mechanism because of its exploratory nature.

According to Jennings (2012), qualitative research is a popular approach to studying social science phenomena. The application of this method in tourism studies has gained broader consensus since the early decades of the 21st century because of its ability to delve deep beneath the surface of a phenomenon to obtain rich knowledge from various perspectives. For that reason, he claims that both researchers and participants are co-constructing knowledge through interactions and mutual exchange. As this research

explores hotel employees' perceptions and opinions towards the COVID-19 pandemic, in-depth interviews are chosen to serve the purpose. First, this method is believed to "give voice to the experiences of participants" as people taking part in the interview are allowed to express their ideas, thoughts, and experiences in their own words, which will be treated as descriptive and exploratory data (McGehee 2012). Second, when discussing the advantages of in-depth interviews, Jordan and Gibson (2004) mention its ability to stimulate empathy between interviewers and participants, which essentially will create a more comfortable environment for both sides. Simultaneously, researchers can make the most of the interview to observe the participants' body language and non-verbal behaviors, which can significantly contribute to the findings. The interview is conducted with semi-structured questions since less structured and more open-ended questions enable researchers to explore respondents' worldview and welcome any new ideas on the topic. 15 participants of this research are working in different departments: Front Office (FO), Food and Beverage (F&B), Sales and Marketing (S&M) in hotels in Hanoi ranging from 3 to 5 stars. Besides that, their levels are ranging from staff to senior managers in order to obtain multiple perspectives.

A list of questions is prepared in advance for the participants to ensure the quality of each interview. These questions are revolving around the discussed aims of this study. Besides the preset topics, participants are encouraged to speak their minds that could go beyond the questions they are asked by using follow-up questions. Given that the research is semi-structured, questions are not necessarily asked in the order so that the participants' train of thought will not be interrupted.

Fifteen participants, who were staff and managers in 3-to-5-star hotels in Hanoi, agreed to take part in an online meeting:

Number	Pseudonyms	Position	Star rating
1	Dang	General Manager	3
2	Minh	General Manager	
3	Thanh	F&B Manager	4
4	Nguyen	Front Office Manager	
5	Phan	Business Development Manager	
6	Si	Sales Manager	
7	Man	Guest Relations Officer	5
8	Duc	Front Desk Supervisor	
9	Van	Executive Event Planner	
10	Mai	Fron Desk Supervisor	
11	Ha	Personal Assistant to General Manager	
12	Bich	Restaurant Manager	
13	Tuan	Chief Concierge	
14	Ngoc	Marcom Manager	
15	Linh	Rooms Division Assistant Manager	

Figure 2: Participants' information

A pilot test is considered to see how the real interviews would go. Magnusson and Marecek (2015) discuss some benefits of pilot testing that make it indispensable. Accordingly, a pilot interview is an excellent chance to fine-tune the interview questions, especially its wording, to make sure that they are understandable and reasonable. Another reason to conduct a pilot interview is to gain some experience in selecting language and tone of voice when speaking to the interviewees; therefore, researchers will sound more adept and confident in real interviews. Researchers can also time sections in the pilot interview and then reasonably adjust the allotted time for each section. The pilot interview took place on 21st June, just one day before the real interviews. The researcher started interviewing the rest of the participants in the following week from 22nd June to 5th July as it mainly depended on the participants' schedules.

Thematic analysis is an essential and popular approach to analyzing non-standardized data in qualitative research (Braun and Clarke 2006). Boyatzis (1998 cited by Braun and Clarke 2006) argues that thematic analysis helps identify, analyze, and report themes within data in detail. Likewise, Saunders et al. (2019) point out that the thematic analysis method's primary purpose is to look for themes that appear across a set of data by getting the data coded. These themes will then be deeply analyzed, and the results will be related to the research questions. All of the interviews were recorded with the participants' consent for the analysis purposes. As the interviews were conducted in Vietnamese to make the participants more confident and comfortable to share in their native language, the researcher subsequently has to transcribe and translate it into English before coding the data.

Given that the participants will share sensitive information related to hotel policies and strategies, not to mention participants' personal opinions about that information, a participant information sheet, in which a brief introduction about the project including its aims and purposes together with details about the privacy of their information and ethical consent is provided for participants to consider. The sheet was individually sent to participants before the actual interview so that they could have some time to read and decide if they are willing to participate. Upon the interview, a consent form was sent over to the participants to electronically sign their names and permit the researcher to use their information. When writing up the findings, the researchers used pseudonyms and removed hotels' names not to disclose personal information.

4. Findings and discussion

4.1. The trigger event

Crandall et al. (2014) indicate that a crisis seldom occurs out of the blue. There is a series of precondition events that eventually lead to a trigger event, which ultimately causes a crisis. It is noticed that the effects of COVID-19 emerged at different times for each hotel due to their main markets. Some hotels targeting Chinese tourists started being affected in January 2020, while other hotels whose markets are Korean and Japanese tourists were not hit until early March 2020. For other markets such as Europe and the Americas, only when Vietnam suspended international flights in late March 2020 were

hotels targeting those markets impacted. A sales manager in a 4-star hotel, who observed what happened during that time, shared:

Si: "[...] When COVID-19 broke out in China in late 2019, some 2-star and 3-star hotels in Old Quarter were shaken right off the bat. Korea and Japan subsequently became epicenters of COVID-19 in Asia. Those events resulted in a plunge in Hanoi's tourist arrivals as China, Korea, and Japan are three key markets of Vietnam. Several hotels in the Old Quarter were dead as they mainly depended on online intermediaries and walk-ins. They did not have a sales team. My hotel's main market is Europe; therefore, the occupancy at that time still stood at 50%. Only when the 17th case was confirmed on 6th March was my hotel truly really hit."

Recalling when the pandemic truly affected the business, a general manager in a 3-star hotel in the Old Quarter said:

Dang: "The outbreak in China only affects hotels whose main guests are Chinese. Most of our guests are Korean. Our business was seriously impacted when the pandemic hit Korea in March 2020."

In the case of more prominent hotels, not until Vietnam imposed travel bans and national lockdown did those hotels face a severe crisis. The following responses are shared by participants working in 4- and 5-star hotels:

Man: "[...] Though the hotel was not as busy as normal, it was still running at quite stable occupancy rates during February. The first confirmed case in Hanoi on 6th March suddenly made the situation even worse. All new cases confirmed after that were imported from abroad. The government then closed borders and suspended international flights. As a result, new guests could not come; in-house guests were asked to leave. Such a jam! In a day or two, the hotel became completely empty."

Thanh: "[...] After case 17 was reported on 6th March, a police officer frequently came to check if my hotel had followed the government's instructions to have all guests declare their temporary residence. [...] Four guests having stayed in one of E. hotels later tested positive for coronavirus. That hotel was forced to shut down immediately. The owner decided to shut down other E. hotels even before Vietnam closed borders to avoid possible risks from COVID-19."

4.2. Hotels' responses to the crisis

It seems that hotels in Hanoi failed to detect warning signals of the crisis during the pre-crisis stage. Based on Ritchie's (2004) model, most of Hanoi hotels skipped Crisis/Disaster Prevention and Planning phase. To date, the crisis is still ongoing; hence, it is in the second phase of the crisis management model of Ritchie (2004). The decrease in demand has put hotels under pressure to stay afloat during the crisis. Initially, hygiene measures to deal with the spread of the disease and protect their staff and guests have been adopted. Simultaneously, strategic cost-cutting measures have been put in place, including reducing unnecessary consumption, adjusting staff's working time, and closing unnecessary outlets:

Duc: "[...] Each staff gets three fabric masks every month. 100% of staff are

required to wear face masks throughout the shift. Complimentary disposable masks, hand sanitizers are left here and there in the hotel for guests. Before each shift, staff are required to disinfect their counters."

Tuan: *"[...] My hotel quickly set up fever detection cameras at the entrance. Also, hotel staff were required to wear face masks all the time. Hand sanitizers were left in public areas. [...] To save costs, we closed two restaurants, let one run reduced hours, shut floors, reduced employees' working days from 24 to 9 days a month, and rotated them between departments. Hotel engineers were requested to perform routine and preventative maintenance to protect the assets of a hotel."*

Ngoc: *"The budget for marketing has been reduced. We can spend a little on marketing on social media."*

Besides that, hotel managers have collaborated with the local authority to trace contacts. Some hotels were resourceful to look for additional sources of revenue:

Man: *"During the lockdown, restaurants were ordered to close, but hotel restaurants were allowed to open to serve in-house guests. Hotel M. made use of that policy and kept the LCB restaurant open. The hotel bent the rules by allowing outside guests to dine in the restaurant provided that they agreed to be checked in as "day-use" guests."*

Ngoc: *"We had to change the name from RT Bar to RT Lounge as bars were on the list to close, but lounges were not. We were terribly desperate for revenue. Opening RT Lounge could have been the safest option to go. It is an outdoor bar, so the chance of getting infected could be lower."*

Van: *"My hotel is one of the three 5-star hotels in Hanoi that are qualified for accommodating quarantined guests."*

In terms of managing the communication crisis, only one participant agreed that her hotel had prepared guidelines for staff to handle COVID-19-related questions from guests and outsiders. Others seemed to neglect the guidelines for their staff, resulting in great confusion:

Ngoc: *"As a Marcom manager, I decided not to wait for the group guidelines but worked on a communication plan for each department staff. [...] I have checked with the Marcom team in other hotels in the group to see if they have done anything, but sadly Marcom was got rid of quite early."*

Van: *"[...] There was no guideline as it should have been sent from the group. When they discovered positive cases in the hotel, there were hundreds of calls coming a day while there was no guideline from the hotel managers, which confused us. We were unconfident to answer those inquiries. Such a dilemma. Neither could we confirm nor deny."*

After lockdown, alongside preventative measures, hotels have quickly changed to target domestic tourists since travel bans are still in place in Vietnam. Although this time is high season for domestic tourism, Hanoi is not a go-to destination since tourists are looking for beaches and mountains. Therefore, some hotel managers focus on promoting F&B and making the most of the hotels' resources:

Van: *"The hotel is enthusiastically boosting F&B sales by promoting all-inclusive packages at never-before-seen prices. For example, a standard room was sold at US\$700++ without breakfast, but now guests can stay in the hotel with only US\$250++, including breakfast and lunch."*

Thanh: *"My hotel has not fully functioned. We have just reopened our restaurant. Our restaurant was popular with foreign tourists, not domestic guests. For at least 1 to 1.5 years, our main market will be Vietnamese; therefore, we need to revise our business strategies to suit the situation."*

Ngoc: *"We can only focus on pricing strategy as we can only rely on domestic clients, especially millennials, are seeking a cool and luxury hotel. For example, our hotel is very Instagram worthy, so we have promoted a photo shooting package in the hotel."*

4.3. Human resources management

Richie's (2004) model pays close attention to the HR department's role in managing a crisis as hospitality is such a labor-intensive industry, in which labor costs account for roughly half of total operating expenses (Mandelbaum 2017). Understandably, hotel owners during the tough times would take knee-jerk reactions such as laying off their staff; however, they should consult HR about steps to reasonably lower labor costs in order not to find themselves short-staffed during the recovery stage. In fact, small hotels in Hanoi that are privately owned and operated tend to lay off almost all of the operative staff as their owners believe that finding replacements would not be a trouble. Meanwhile, more prominent hotels, especially managed hotels, downsize their workforce step by step:

Dang: *"As a small hotel chain, we had to lay off our staff as many as possible. For example, only one room attendant was kept to take care of all hotels in our chain. Each hotel had only one receptionist performing multiple jobs and stopped serving breakfast. After all, hotels shut down, General Managers were furloughed and promised to get paid monthly, but only when the hotels reopen will we receive the money. I do not know if they would keep their word as hotels have no plans to reopen."*

Si: *"The hotel suddenly shut on 10th March without informing us in advance. Just a cold message in the group chat, and we have become unemployed until further notice."*

Ha: *"Initially, they terminated fixed-term contracts that had almost run their courses and all casual employees. After that, we were required to work reduced hours and receive less. I have heard that the hotel will make 50% of staff redundant in the worst-case scenario."*

When asked about how they perceived the role of HR, most of the participants expressed disappointment. In their opinion, HR did not do their job of disseminating official and necessary information to all staff. Alternatively, HR was not on the employees' side to protect them:

Mai: *"I am not satisfied with HR in my hotel. We were asked to sign a form that we were willing to take unpaid leave for two months. Honestly, I was not willing to but still signed my name as I did not want to lose my job."*

Man: *"A. Group selectively supported seriously affected employees an amount of*

US\$200. Not any one of us was informed about eligibility requirements. Little did we know about how to apply for it. I was luckily selected without knowing why. I know many were envious of me, and I feel so uncomfortable to receive the grant."

4.4. COVID-19's impact on hotel employees:

4.4.1. Negative impact

The COVID-19 pandemic has distressed hotel workers in many ways. As a health scare, it has caused them a relentless worry about keeping their family and themselves safe. Additionally, they have been financially impacted by cost-cutting measures. When asked about their biggest worry, participants living alone admitted finances stressed them out, whereas health greatly concerned participants who are living close with family. Some even voluntarily took unpaid leave to protect their family. However, participants with family admitted finding themselves more financially stressed recently:

Si: *"The virus did scare me. However, given the Vietnamese government's effort to contain the virus and my good health, I held a strong belief that I would not catch the virus. Instead, I was coping with money anxiety. I was laid off until when I did not even know. The feeling of job insecurity and uncertainty is absolutely horrible."*

Nguyen: *"My daughter was a few months old. Both my husband and I were working in a high-risk environment. I really worried about health, not mine but my family's. Overwhelming COVID-19 news on media significantly freaked me out. I could not imagine how terrible it could affect human health. It, however, has lasted too long. I have been laid off since 24th March. Now I really want to get back to work. Otherwise, I do not know how long I could manage it."*

Man: *"My income has been terribly affected. It used to be around 12 million or so. Last month I received 3 million, one-fourth of my normal income. I am the main income earner. I am also raising two teenagers. There are hundreds of bills to pay, whereas I could barely earn money. While the virus is invisible, financial anxiety is visible. It is fair enough to worry about money over health."*

On top of that, all participants stressed that they did not get any financial support from the hotels. They had to live off their savings or their parents and tighten their belts to survive the crisis. To get by, some even took side jobs to make money, such as delivery jobs and freelance insurance brokers. Some F&B staff opened online shops to sell home-made food. They even accepted manual labor jobs, such as cleaners and housemaids, as long as they could earn a little money. Regarding the government's financial support, hotel employees, in general, cannot benefit from the 62-trillion-dong financial aid package. Objectively, the package prioritized impoverished households. Subjectively, all participants found the application procedure exhausting, and the support was not worth the time they might have to spend.

Sudden changes in work and life have been an emotional roller coaster for anyone. They could be at the peak the other day but could be down the valley the day after. The fast-moving crisis gives hotel employees emotional whiplash. It is described as below:

Man: *"It used to be packed for 365 days a year. We were working so hard like*

mice running on the wheel. We were exhausted, of course, but we were happy. Suddenly came a day the hotel became empty. I got nothing to do, which is more exhausting. Days were dragging. I went to the floor and looked around, nobody, not a single sound. It was such an odd melancholy feeling. I wondered why everything could have collapsed all of a sudden. When will this nightmare end? How soon can the industry recover so that this uncertainty could be over? These thoughts are haunting me these days."

People working in hotels face social stigma, especially those working in hotels having confirmed cases, let alone those having contact with infected patients. Their neighbors stigmatize not only that person but also their family:

Mai: *"They sent a troop of health workers and police to my house to "escort" me to the hospital to quarantine. My house was disinfected. People living in my neighborhood avoided passing by my house and staying away from my family. I felt like I had done something wrong, like a criminal. It emotionally affected both my family and me."*

Tuan: *"Since China confirmed the first cases, my neighbors avoided visiting my house. My four-year-old was so sad as he said friends did not play with him."*

Employee resilience

Despite the challenges posed by COVID-19, hotel employees have realized some positive effects of the COVID-19 pandemic. Although the hotels did not financially support the employees, they looked on the bright side that at least they could manage to keep their jobs and considered that little monthly wage the hotel's support. Additionally, all participants agreed that they had had valuable time to stay with their family and do things they have always wanted to do but did not have a chance. It was a time for them to embrace a slower life and learn several awakening lessons:

Thanh: *"I graduated and went straight into work. In 12 years, I have not got any holiday for longer than three days. Now my wish comes true (laugh out loud). It is a chance to meditate, read books on the shelf for years, and take up learning to play the ukulele. Schools have closed since February. I have got more time playing with my sons. My older son used to wish to get sick so that mommy would stay home. Now he is sick of me (laugh out loud)."*

Nguyen: *"Since I was laid off, the whole family moved in with my in-laws in another province. Opposite to suffocating Hanoi, the new place is light and airy, which is better for my baby to develop skills. I am delighted to see her grow every day."*

Man: *"I was sent to support Engineering for two months as FO did not have enough work. I changed my elegant uniform to PPE. Looking at myself in the mirror, I felt upset. I was a guest relations officer assisting guests checking in the other day, but I could also be whatever they told me. I was cleaning the floor, painting the door, cleaning dirty air conditioners. At that moment, I realized that there would be practically nothing I could not do. I could not cling to the past. I should be ready for any uncertainty that may come in the future and be adaptable to any changes. I took a photo of me in the dirty PPE for my kids at home to show them that life is not always linear, there are times you would hit rock bottom, so you should not take anything for granted."*

5. Conclusion and recommendations for future research

The crisis has drastically impacted Hanoi hospitality. This research has revealed that most of the Hanoi hotels were not ready for any crisis like this. Hotels failed to realize early signals of the crisis leading to hundreds of closures. In the next stage of the crisis, some hotels tend to respond to it quickly; however, the unpredictability of this event has made hotel managers choose reactive responses instead of proactive ones. Hotel's moves made their employees feel insecure about their job and the hotel. The crisis has financially and emotionally affected every individual working in hospitality, in which job insecurity and social stigma are mentioned. Despite negative impacts, hotel employees still look on the sunny side to keep their spirits up and stay positive in these tough times. Money is not everything when it comes to choosing a career. Based on the findings above, the way hotel managers made their staff redundant immediately upset the employees more than getting a pay cut since it made them feel left out and betrayed.

The role of HR in managing the crisis is insignificant and not well-received by the staff. Hotels' poor preparation for crises led to ill-conceived plans for talent management. Those movements may solve the problems in the short term, but in the long run, it has led the industry to another crisis: the staffing crisis post COVID-19. The hotels are recommended to have plans for resource management when a crisis happens. Apart from short-term actions, hotel managers need to build scenarios and seriously take human resources into consideration to get ready for the recovery phase. As this research is only carried out in Hanoi, future researchers are recommended to study further its repercussions on a bigger scale, employing quantitative research methods to assess factors affecting employees' leaving job decisions.

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PHÂN TÍCH TÌNH HÌNH ÁP DỤNG CÁC CHUẨN MỤC BÁO CÁO TÀI CHÍNH QUỐC TẾ IFRS TẠI CÁC NƯỚC ĐÔNG NAM Á

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Tóm tắt: *Hiện nay trên thế giới, xu hướng áp dụng Chuẩn mực báo cáo tài chính quốc tế (IFRS) ngày càng trở nên phổ biến. Tại thị trường Đông Nam Á, một trong những thị trường tiềm năng và dự báo phát triển kinh tế mạnh mẽ những năm gần đây, tình hình áp dụng IFRS tại các nước trong khu vực vì thế cũng chuyển biến theo hướng tích cực và ngày càng nhiều các doanh nghiệp của các quốc gia và vùng lãnh thổ Đông Nam Á tự nguyện áp dụng IFRS trong bối cảnh gia nhập kinh tế toàn cầu.*

Trên cơ sở nghiên cứu tình hình áp dụng chuẩn mực báo cáo tài chính quốc tế IFRS tại 10 nước Đông Nam Á, nghiên cứu của nhóm tác giả đưa ra những phân tích, đánh giá về: thời gian áp dụng IFRS, cam kết theo chuẩn báo cáo tài chính toàn cầu IFRS, mức độ áp dụng IFRS đối với các doanh nghiệp (công ty niêm yết, công ty không niêm yết, doanh nghiệp nhỏ và vừa, doanh nghiệp nước ngoài niêm yết), mức độ áp dụng các chuẩn mực IFRS, mức độ luật hoá các chuẩn mực kế toán IFRS và tình hình công bố bản dịch chuẩn mực kế toán IFRS tại các nước Đông Nam Á. Từ đó, nghiên cứu đưa ra các kiến nghị giúp cho việc áp dụng IFRS tại Việt Nam trong thời gian tới được thuận lợi.

Từ khóa: *IFRS, áp dụng IFRS, các nước Đông Nam Á*

THE ANALYSIS OF IFRS ADOPTION IN ASSOCIATION OF SOUTHEAST ASIAN NATIONS (ASEAN)

Abstract: *Adopting the International Financial Reporting Standards (IFRS) is becoming increasingly popular globally. In the Southeast Asia market, one of the potential and strong economic development forecasted ones in recent years, IFRS adoption has changed positively. More and more companies in many jurisdictions have voluntarily adopted IFRS in the interconnected global economy.*

Regarding research on IFRS adoption in ASEAN, this study provides analysis and assessment on- time of IFRS adoption, commitments under IFRS adoption, the extent of IFRS adoption for enterprises (listed companies, unlisted companies, small and medium-sized enterprises, listed foreign enterprises), the extent of IFRS adoption, the degree of IFRS adoption legalization, and announcement of IFRS translation in ASEAN. The study, afterwards, makes recommendations for IFRS adoption in Vietnam in the coming time.

Keywords: *IFRS, IFRS adoption, ASEAN.*

1. Đặt vấn đề nghiên cứu

Hiện nay trên thế giới, xu hướng áp dụng Chuẩn mực báo cáo tài chính quốc tế (IFRS) ngày càng trở nên phổ biến. Trong xu thế hội nhập kinh tế toàn cầu, việc lập báo cáo tài chính (BCTC) theo IFRS ngày càng nhận được sự ủng hộ của các quốc gia và vùng lãnh thổ trên thế giới. Theo thống kê mới nhất từ Tổ chức Chuẩn mực Báo cáo tài chính quốc tế (IFRS Foundation), tính đến thời điểm tháng 07 năm 2022, trên thế giới có khoảng hơn 160 quốc gia và vùng lãnh thổ cho phép hoặc bắt buộc áp dụng IFRS khi lập BCTC của các công ty niêm yết trong nước (IASB, 2022).

Thị trường Đông Nam Á, một trong những thị trường tiềm năng và dự báo phát triển kinh tế mạnh mẽ những năm gần đây, đã trở thành một trong những thị trường thu hút vốn đầu tư lớn nhất trên thế giới. Bên cạnh đó, các quốc gia có nhiều khả năng áp dụng IFRS hơn nếu các đối tác thương mại hoặc quốc gia trong khu vực địa lý của quốc gia đó áp dụng IFRS (Karthik & Ewa, 2009). Đặc biệt, cùng với việc áp dụng IFRS mang lại những chuyển biến tích cực đối với các nước Đông Nam Á (ASEAN) (Zahratun & Ratna, 2019), ngày càng nhiều các doanh nghiệp của các quốc gia và vùng lãnh thổ Đông Nam Á tự nguyện áp dụng IFRS trong bối cảnh gia nhập kinh tế toàn cầu.

Với chiến lược phát triển Kế toán - Kiểm toán đến năm 2020, tầm nhìn 2030 của Việt Nam, việc áp dụng IFRS sẽ giúp Việt Nam đi đúng hướng các chính sách của ASEAN, cũng như theo kịp đà phát triển của những nền kinh tế thành công khác trong khu vực và trên thế giới (Quyết định số 480/QĐ-TTg, 2013). Khi Việt Nam bước vào giai đoạn hội nhập mạnh mẽ trong phạm vi khu vực và quốc tế, IFRS càng trở thành đề tài nổi bật và thu hút nhiều hơn sự quan tâm của các chuyên gia, các nhà hoạch định chính sách, đặc biệt là các doanh nghiệp. Thông qua áp dụng IFRS, nền kinh tế Việt Nam nói chung và doanh nghiệp Việt Nam nói riêng sẽ được hưởng lợi từ hội nhập kinh tế không chỉ trong khu vực mà còn trên toàn thế giới. Việc kế thừa những kinh nghiệm từ các nước trong khu vực đã áp dụng IFRS cũng như những lợi ích mà IFRS mang lại đã trở thành vấn đề cấp thiết cho Việt Nam trong tiến trình phát triển kinh tế nói chung và lĩnh vực kế toán - tài chính nói riêng.

Nhận thức được tầm quan trọng của việc áp dụng IFRS cũng như việc phân tích tình hình áp dụng cụ thể tại các nước trong khu vực Đông Nam Á đóng vai trò định hướng chiến lược cho Việt Nam trong tương lai, nghiên cứu *“Phân tích tình hình áp dụng Chuẩn mực Báo cáo tài chính quốc tế (IFRS) tại các nước Đông Nam Á”* nhằm tìm hiểu rõ thực tế áp dụng tại các nước trong khu vực, định hướng và những kinh nghiệm cần thiết cho Việt Nam trong tiến trình áp dụng IFRS đang trở nên phổ biến trên thế giới.

Nghiên cứu về tình hình áp dụng IFRS không phải là mảng đề tài mới và đã được thực hiện rất nhiều trên thế giới cũng như trong nước. Tuy nhiên, hướng nghiên cứu này luôn mang tính cấp thiết ở các thời điểm khác nhau, đối tượng nghiên cứu khác nhau. Bên cạnh đó, hầu hết các nghiên cứu trước đây đều tập trung vào việc áp dụng tại từng quốc gia riêng lẻ hoặc nhóm nhỏ các quốc gia. Về tình hình áp dụng chung cho các khu vực, đặc biệt là khu vực Đông Nam Á và phân tích so sánh giữa các quốc gia, chỉ có một số ít và hầu như không có các nghiên cứu. Kết quả nghiên cứu góp phần vào cơ sở lý thuyết cũng như cơ sở thực tiễn về tình hình áp dụng IFRS tại các nước trong khu vực Đông Nam Á,

trên cơ sở so sánh và phân tích để đưa ra các kiến nghị cho lộ trình áp dụng IFRS tại Việt Nam trong thời gian tới.

2. Tổng quan nghiên cứu, cơ sở lý thuyết và phương pháp nghiên cứu

2.1. Tổng quan nghiên cứu và cơ sở lý thuyết

Với sự bùng nổ của kinh tế toàn cầu sau Thế chiến thứ II và sự lớn mạnh của các Tập đoàn đa quốc gia dẫn đến nhu cầu phải có một ngôn ngữ kế toán áp dụng chung trên toàn cầu. Việc này đã dẫn đến sự thành lập của Ủy ban Chuẩn mực kế toán quốc tế (IASB) vào năm 1973, một liên minh của 09 quốc gia thành viên ban đầu gồm Úc, Canada, Pháp, Đức, Nhật Bản, Mexico, Hà Lan, Vương quốc Anh/Bắc Ireland và Hoa Kỳ. Cơ quan lãnh đạo của IASB là Hội đồng gồm 13 ủy viên đại diện của Úc, Canada, Pháp, Đức, Ý, Nhật, Hàn Quốc, Hà Lan, Liên đoàn kế toán Bắc Âu, Nam Phi, Anh, Mỹ và đại diện của Ủy ban phối hợp quốc tế của Liên đoàn phân tích tài chính. IASB xác định mục tiêu xây dựng, ban hành chuẩn mực kế toán (CMKT) phục vụ cho trình bày BCTC và thúc đẩy thừa nhận trên thế giới, cải tiến và hòa hợp quy định, chuẩn mực và quy trình kế toán về trình bày BCTC. IASB là sự công nhận của Tổ chức ủy ban chứng khoán quốc tế (IOSCO) vào năm 2000 khi đưa ra khuyến nghị cho các thị trường chứng khoán thành viên cho phép hoặc yêu cầu các công ty niêm yết phải tuân thủ theo 10 Chuẩn mực Kế toán quốc tế (IAS) cơ bản vào thời điểm đó. Điều này dẫn đến IAS trở thành một trong những yêu cầu bắt buộc cho việc niêm yết trên các thị trường chứng khoán lớn của thế giới.

Bộ IAS được IASB xây dựng và phát triển từ những năm đầu của thập kỷ 70 cho đến năm 2000. Năm 2001, Hội đồng Chuẩn mực kế toán quốc tế IASB được thành lập thay thế cho IASB, dựa trên nền tảng của Ủy ban IASB, nhưng với một cơ cấu tổ chức chặt chẽ và độc lập hơn. Mục tiêu của IASB là hình thành một hệ thống CMKT phục vụ cho lợi ích chung, chất lượng cao, dễ hiểu và có thể áp dụng trên toàn thế giới và yêu cầu thông tin trên BCTC phải rõ ràng, có thể so sánh, nhằm giúp những người tham gia vào các thị trường vốn khác nhau trên thế giới cũng như các đối tượng sử dụng thông tin khác ra quyết định kinh tế. IASB từ đó tiếp tục phát triển các Chuẩn mực mới và đặt tên là Chuẩn mực Báo cáo tài chính quốc tế IFRS. Sau sự công nhận của IOSCO vào năm 2000, một bước tiến quan trọng nữa trong lịch sử của IFRS là sự bắt buộc áp dụng IFRS tại Châu Âu theo Chỉ thị EC 1606, tất cả các thành viên của Liên minh Châu Âu và các thành viên của Khu vực Kinh tế Châu Âu (EEA) đều bắt buộc phải áp dụng IFRS trên Báo cáo tài chính của các doanh nghiệp niêm yết bắt đầu từ kỳ kế toán kết thúc ngày 31 tháng 12 năm 2005. Từ năm 2003, các CMKT mới ra đời được gọi là IFRS (Các chuẩn mực IAS được ban hành trước đó vẫn mang tên cũ). Tính đến thời điểm hiện nay, IASB đã xây dựng 42 chuẩn mực IFRS, trong đó có 25 IAS và 17 IFRS. Đồng thời, IFRS đã phát triển rộng khắp thế giới và theo số liệu được công bố bởi IASB, hiện đã có 159 trong số 167 khu vực pháp lý có cam kết áp dụng các Chuẩn mực Kế toán IFRS (chiếm tỷ lệ 95,21% các nước được IASB khảo sát) đã tuyên bố về việc cho phép áp dụng IFRS dưới các hình thức khác nhau. Tại nhiều nước, IFRS đã thay thế toàn bộ Chuẩn mực kế toán quốc gia để tạo điều kiện thu hút các nhà đầu tư toàn cầu (IASB, 2022).

Theo IASB (2022), IFRS được biên soạn theo định hướng thị trường vốn và

phương thức lập BCTC tập trung vào quan hệ DN với nhà đầu tư và thông tin đến thị trường vốn. Cơ quan nhà nước vẫn sử dụng BCTC như là hoạt động kinh tế, tuy nhiên BCTC lập cho mục đích của nhà đầu tư. Chuẩn mực IFRS do IASB ban hành gồm ba phần chính:

- *Khuôn mẫu về lập và trình bày BCTC quốc tế* (The Conceptual Framework - IFRS Framework) được IASB phê duyệt và phát hành vào tháng 09/2010 để thay thế cho Framework năm 2001.

- *Hệ thống chuẩn mực BCTC quốc tế (IFRS)*: bao gồm các IAS do IASC ban hành trước đây còn hiệu lực đến bây giờ và các IFRS do IASB ban hành. IASC ban hành IAS đầu tiên vào năm 1975. Năm 2000, IASC ban hành 41 IAS từ 1 đến 41. Qua thời gian phát triển, IASB xây dựng thêm mới các IFRS và loại bỏ một số IAS không còn hiệu lực, cho đến nay, IASB đã xây dựng 42 chuẩn mực báo cáo tài chính quốc tế, trong đó có 25 IAS và 17 IFRS

- *Hướng dẫn giải thích IAS và IFRS (IFRIC/SIC)* do IFRIC xây dựng, lấy ý kiến công chúng và sau đó gửi tới Hội đồng IASB soát xét và chuẩn y trở thành hướng dẫn chính thức. Các IFRIC/SIC bao gồm các hướng dẫn, giải thích ban hành để bổ sung nội dung chưa đề cập cụ thể trong IAS và IFRS. Khi chuyển từ IASC thành IASB, SIC đổi tên thành IFRIC và ban hành hướng dẫn IFRS. Hướng dẫn trước đây vẫn có hiệu lực cho các chuẩn mực còn hiệu lực đến khi được thay thế. Hiện nay, có tất cả 15 IFRIC và 05 IFC còn hiệu lực.

Trên thế giới đã có nhiều nghiên cứu về tình hình áp dụng IFRS, tuy nhiên hầu hết các nghiên cứu tập trung vào việc áp dụng tại từng quốc gia riêng lẻ. Về tình hình áp dụng chung cho các khu vực, đặc biệt là khu vực Đông Nam Á và phân tích so sánh giữa các quốc gia, chỉ có một số ít các nghiên cứu. Nhóm tác giả Joshi và cộng sự (2016) nghiên cứu về việc áp dụng IFRS ở các nước ASEAN dưới góc nhìn về nhận thức của các kế toán viên chuyên nghiệp từ Singapore, Malaysia và Indonesia về các vấn đề kinh tế xã hội liên quan đến việc áp dụng IFRS tại ba nước này. Nghiên cứu sử dụng phương pháp khảo sát và phân tích dữ liệu cho thấy các chuyên gia kế toán ở ba nước này ủng hộ mạnh mẽ việc áp dụng IFRS; ý kiến của họ không có sự khác biệt đáng kể về nơi đào tạo, kinh nghiệm hoặc trình độ chuyên môn. Các chuyên gia cũng đồng ý rằng, ba quốc gia này được hưởng lợi về kinh tế từ việc hài hòa với các chuẩn mực kế toán toàn cầu, và tin rằng áp lực từ các cơ quan quốc tế là yếu tố thúc đẩy việc áp dụng IFRS trong khu vực. Một nghiên cứu khác của Limijaya (2017) phân tích việc áp dụng IFRS ở các nước Đông Nam Á và đánh giá vị thế của Indonesia so với các nước ASEAN khác. Dựa trên phân tích của tác giả, Indonesia đứng thứ 09 trong số 10 thành viên ASEAN về việc thực hiện IFRS. Nguyên nhân chủ yếu là do việc lựa chọn áp dụng IFRS theo cách tiếp cận hội tụ (convergence approach), thay vì cách tiếp cận áp dụng (adoption approach). Phương pháp nghiên cứu được tác giả sử dụng là phương pháp định tính, đánh giá phê bình các tài liệu liên quan đến chủ đề nghiên cứu, tập trung chủ yếu vào tình hình áp dụng IFRS tại Indonesia, và khái quát cơ bản tình hình áp dụng tại các nước khác trong khu vực, ngoại trừ Đông Timor. Tuy nhiên nghiên cứu chỉ dừng lại ở việc khái quát ngắn gọn cách thức các nước áp dụng và áp dụng từ khi nào. Nhóm nghiên cứu thực hiện trong năm 2018 của Borhade và cộng sự bằng cách tiếp cận

các số liệu thứ cấp và chủ yếu tập trung vào việc nghiên cứu các tài liệu liên quan, đã đi sâu nghiên cứu việc áp dụng IFRS tại tám quốc gia thành viên của Hiệp hội Hợp tác Khu vực Nam Á (SAARC), hay còn gọi là các nước Nam Á. Nghiên cứu đã chứng minh rằng IFRS do Hội đồng Chuẩn mực Kế toán Quốc tế (IASB) trước khi được chấp nhận tại các nước này đã được thay đổi để phù hợp với tình hình của các nước. Các quốc gia SAARC cũng đã thực hiện các sửa đổi nhỏ trong IFRS và được chấp nhận theo từng giai đoạn. Nghiên cứu kết luận rằng các quốc gia SAARC đang phải đối mặt với một số vấn đề cần được giải quyết để việc hội tụ IFRS được tốt hơn, cụ thể: vấn đề về chuyên gia có trình độ, vấn đề về giá trị hợp lý và giá gốc, hay áp dụng phần mềm mới và chi phí liên quan, thiếu kiến thức kỹ thuật, cũng như chi phí đào tạo nhân viên...

Trong nước, các nghiên cứu về tình hình áp dụng IFRS cho khu vực Đông Nam Á khá hạn chế, hoặc chỉ nêu một vài khía cạnh của một số nước trong tổng số 10 nước trong khu vực. Điển hình có thể nhắc đến một trong những nghiên cứu đầu tiên từ khi ASEAN bắt đầu áp dụng IFRS của Trần Quốc Thịnh (2012), bằng phương pháp nghiên cứu định tính, tác giả đã đề cập đến tiến trình hội tụ kế toán quốc tế từ các nước Liên minh Châu Âu, Mỹ, Úc, Trung Quốc, và chỉ ra những kinh nghiệm cho Việt Nam trong tiến trình hội nhập kế toán quốc tế. Bài nghiên cứu chỉ dừng lại ở việc miêu tả tình hình khái quát việc áp dụng IFRS tại các quốc gia trên, chưa đi sâu vào phân tích các nội dung áp dụng của IFRS tại các quốc gia được nghiên cứu. Trịnh Lê Tân và Đào Thị Đài Trang (2017) nghiên cứu về thực tế áp dụng chuẩn mực kế toán quốc tế đối với báo cáo tài chính tại một số quốc gia, cụ thể: Mỹ, Pháp và liên minh châu Âu, Trung Quốc và một số quốc gia Đông Nam Á (Philippines, Thái Lan, Indonesia). Tuy nhiên, nhóm tác giả mới chỉ dừng lại ở việc trình bày tổng quát tình hình áp dụng tại các nước một cách ngắn gọn. Nghiên cứu cũng chỉ ra được những kinh nghiệm cần thiết cho Việt Nam trong quá trình hòa hợp với chuẩn mực kế toán quốc tế. Bên cạnh đó, báo cáo khảo sát của công ty TNHH Deloitte Việt Nam (2020) được thực hiện theo phương pháp bảng câu hỏi trực tuyến (online) trong giai đoạn từ ngày 20 tháng 07 năm 2020 đến ngày 15 tháng 08 năm 2020 cũng là một trong những nghiên cứu nổi bật trong nước về vấn đề áp dụng IFRS. Trên tổng số 515 phản hồi nhận được, 322 phản hồi hợp lệ đã được sàng lọc để thực hiện phân tích. Mỗi phản hồi hợp lệ được xem như là đại diện cho một doanh nghiệp tại Việt Nam. Khảo sát nhằm tìm hiểu tổng quan về mức độ sẵn sàng của doanh nghiệp trong việc áp dụng IFRS cũng như xác định những thách thức, khó khăn mà doanh nghiệp phải đối mặt trong việc áp dụng IFRS. Đồng thời, khảo sát cũng nêu ra tình hình áp dụng IFRS tại một số nước điển hình như Hàn Quốc, Nhật Bản, Singapore, Malaysia, Thái Lan, tuy nhiên chỉ dừng lại ở mức độ tổng quan về thời gian áp dụng và hướng áp dụng trong tương lai tại các quốc gia này. Một nghiên cứu gần đây nhất của Lê Thị Thu Hương (2021) bằng cách tiếp cận các số liệu thứ cấp và chủ yếu tập trung vào việc nghiên cứu các tài liệu liên quan, tác giả đã trình bày kinh nghiệm của các nước trong việc áp dụng chuẩn mực báo cáo tài chính quốc tế (Hoa Kỳ, Liên minh châu Âu, Nhật Bản, Hàn Quốc, Malaysia và Trung Quốc). Bên cạnh đó, bài viết nhận diện những vấn đề doanh nghiệp Việt Nam cần lưu ý trong quá trình lập và trình bày BCTC.

2.2. Phương pháp nghiên cứu

2.2.1. Phương pháp thu thập số liệu

- *Số liệu thứ cấp*: sử dụng nguồn số liệu thứ cấp từ các văn bản pháp luật của nhà nước; các báo cáo thống kê hàng năm của các cơ quan thống kê; các thông tin trên website chính thống về việc áp dụng IFRS tại 10 quốc gia Đông Nam Á, bao gồm: Brunei, Cambodia, Indonesia, Lào, Malaysia, Myanmar, Philippines, Thái Lan, Singapore và Việt Nam (không bao gồm Đông Timor vì hiện tại Đông Timor là quan sát viên, chưa phải thành viên của Hiệp hội các quốc gia Đông Nam Á); các nguồn tài liệu là sách, báo, bài nghiên cứu, bài trình bày báo cáo tại các hội thảo được công bố của các tác giả về lĩnh vực nghiên cứu liên quan làm tài liệu tham khảo nghiên cứu. Đây là nguồn số liệu chủ yếu mà nhóm tác giả sử dụng để thực hiện đề tài.

- *Số liệu sơ cấp*: Số liệu sơ cấp được thu thập thông qua khảo sát, phỏng vấn một số chuyên gia trong lĩnh vực liên quan ((kế toán, kiểm toán, các nhà quản trị...). Một bảng hỏi cơ bản được thiết kế để phỏng vấn và tham vấn một số chuyên gia trong lĩnh vực để thu thập ý kiến, làm nguồn tài liệu bổ sung cho những đánh giá, nhận định, xu hướng phát triển của đề tài.

2.2.2. Phương pháp tham vấn chuyên gia

Bài nghiên cứu có sự tham vấn của các chuyên gia trong lĩnh vực để thu thập ý kiến. Cụ thể, các chuyên gia là các kế toán trưởng, kiểm toán viên, các lãnh đạo của các công ty tài chính trong và ngoài nước. Ý kiến thu thập được sử dụng cho nội dung ở phần kết quả nghiên cứu cũng như phần kết luận và kiến nghị cho Việt Nam.

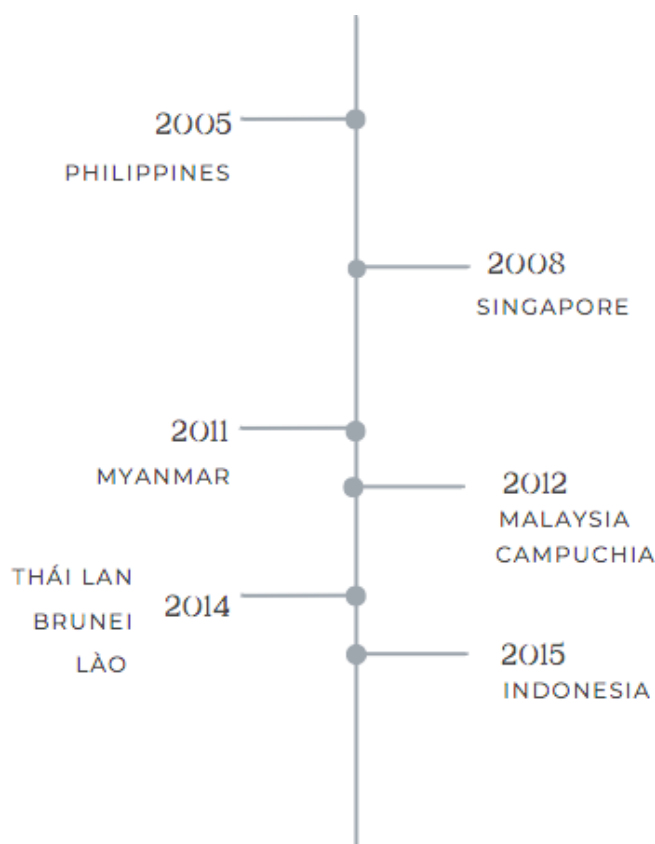
2.2.3. Phương pháp tổng hợp, phân tích và xử lý số liệu

Số liệu thu thập sẽ được xử lý bằng phần mềm Excel, phương pháp phân tích định tính sẽ được áp dụng bằng phương pháp phân tích, so sánh, thống kê mô tả các số liệu thu thập được.

3. Kết quả nghiên cứu

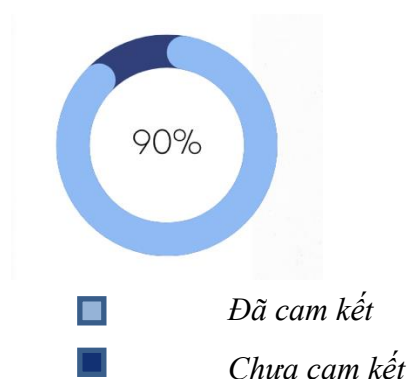
3.1. Thời gian áp dụng IFRS tại các nước trong khu vực Đông Nam Á

Mặc dù việc áp dụng IFRS tại các nước Đông Nam Á có thể xem là khá sớm (từ năm 2005), tuy nhiên thời gian áp dụng không đồng đều. Đa số các nước bắt đầu triển khai áp dụng kể từ sau 2010. Đến thời điểm hiện tại, trong khu vực, duy nhất chỉ có Việt Nam là chưa áp dụng IFRS. Tuy nhiên, trong việc xây dựng Chuẩn mực Kế toán Việt Nam VAS, Chính phủ Việt Nam đã xem xét IFRS và đang trong lộ trình để áp dụng IFRS trong thời gian tới.

Hình 1 - Sơ đồ mốc thời gian áp dụng IFRS tại các nước Đông Nam Á

3.2. Cam kết theo chuẩn báo cáo tài chính toàn cầu IFRS tại các nước Đông Nam Á

Việc cam kết theo chuẩn BCTC toàn cầu IFRS tại các nước Đông Nam Á, hay cụ thể hơn đó là việc các nước ASEAN cam kết công khai hỗ trợ hướng tới một bộ tiêu chuẩn kế toán toàn cầu chất lượng cao duy nhất, điển hình là Chuẩn mực Kế toán IFRS như một bộ chuẩn mực kế toán toàn cầu chất lượng cao. Trong 10 nước ASEAN, 9/10 nước đã cam kết theo chuẩn báo cáo tài chính toàn cầu IFRS, chiếm tỷ lệ 90%. Duy nhất chỉ có Việt Nam chưa có cam kết chính thức sẽ theo chuẩn báo cáo tài chính IFRS. Đại đa số các nước thể hiện cam kết của mình bằng thỏa thuận với IASB và thông qua các thông báo chính thức trên các phương tiện thông tin và trên các trang website chính thống của cơ quan nhà nước (Bộ Tài chính, Liên đoàn Kế toán...). Đối với Việt Nam, mặc dù đến thời điểm hiện tại, Việt Nam đã phê duyệt “Đề án áp dụng chuẩn mực báo cáo tài chính tại Việt Nam” theo Quyết định số 345/QĐ-BTC ngày 16 tháng 3 năm 2020, đề ra lộ trình cho việc áp dụng IFRS trong thời gian tới, tuy nhiên, cam kết với IASB vẫn chưa được thể hiện rõ bằng thỏa thuận.

Hình 2 - Tình hình cam kết theo chuẩn IFRS tại các nước Đông Nam Á

3.3. Mức độ áp dụng IFRS đối với các doanh nghiệp tại các nước Đông Nam Á

Mức độ áp dụng IFRS tại các nước Đông Nam Á đối với từng đối tượng doanh nghiệp khác nhau sẽ có mức độ áp dụng khác nhau. Ở đây bài nghiên cứu sẽ tập trung vào 04 đối tượng chính: công ty niêm yết, công ty không niêm yết, doanh nghiệp nước ngoài niêm yết, doanh nghiệp nhỏ và vừa.

3.3.1. Mức độ áp dụng IFRS đối với công ty niêm yết

Đa số các nước Đông Nam Á (ngoại trừ Indonesia và Việt Nam) đều yêu cầu áp dụng IFRS cho tất cả hoặc hầu hết các tổ chức chịu trách nhiệm công khai trong nước trên thị trường vốn của họ. Cụ thể, mức độ áp dụng IFRS của các nước được thể hiện trong bảng 1 dưới đây:

Bảng 1 - Mức độ áp dụng IFRS đối với công ty niêm yết

Quốc gia	Mức độ áp dụng IFRS đối với công ty niêm yết
Brunei	Mặc dù Brunei chưa có sàn giao dịch chứng khoán, nhưng áp dụng IFRS là bắt buộc đối với các tổ chức chịu trách nhiệm công khai như: ngân hàng, tổ chức tài chính, công ty bảo hiểm và công ty Takaful (Công ty Takaful tương tự như các công ty bảo hiểm tương hỗ)
Campuchia	Bắt buộc áp dụng cho tất cả
Indonesia	Không bắt buộc (Chỉ áp dụng chuẩn mực kế toán Indonesia SAK)
Lào	Chỉ bắt buộc đối với các tổ chức chịu trách nhiệm công khai như: ngân hàng, tổ chức TC
Malaysia	Bắt buộc áp dụng cho tất cả, ngoại trừ các Tổ chức chuyển đổi Transitioning Entities (TEs)
Myanmar	Bắt buộc áp dụng cho tất cả
Philippines	Bắt buộc áp dụng cho tất cả
Singapore	Bắt buộc áp dụng cho tất cả
Thái Lan	Bắt buộc áp dụng cho tất cả
Việt Nam	Không bắt buộc (Chỉ áp dụng chuẩn mực kế toán Việt Nam VAS)

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Nhìn chung, việc áp dụng IFRS đối với các công ty trong nước có giao dịch trên thị trường đại chúng là bắt buộc tại đa số các nước Đông Nam Á. Tuy nhiên, việc bắt buộc không áp dụng đối với các Tổ chức chuyển đổi Transitioning Entities (TEs) tại Malaysia. TE là các tổ chức áp dụng Chuẩn mực kế toán quốc tế Malaysia MFRS 141 - Nông nghiệp (tương ứng với IAS 41 - Nông nghiệp) hoặc Hướng dẫn giải thích MFRIC 15 - Thỏa thuận xây dựng bất động sản (tương ứng với IFRIC 15 - Thỏa thuận xây dựng bất động sản). Một tổ chức chuyển đổi hợp nhất hoặc sở hữu tổ chức chuyển đổi khác chọn áp dụng FRS (chứ không phải MFRS) có thể tự chọn áp dụng khung FRS. Trong trường hợp này, MASB cho phép tổ chức chuyển đổi đó tiếp tục sử dụng FRS cho đến khi Hội đồng IASB hoàn thành các dự án về ghi nhận doanh thu và tài sản sinh học.

Riêng với Việt Nam (quốc gia chưa áp dụng IFRS), và Indonesia (quốc gia đang dần hội tụ chuẩn mực của quốc gia với IFRS), việc áp dụng IFRS là không bắt buộc.

3.3.2. Mức độ áp dụng IFRS đối với công ty không niêm yết

Bảng 2 - Mức độ áp dụng IFRS đối với công ty không niêm yết

Quốc gia	Mức độ áp dụng IFRS đối với công ty không niêm yết
Brunei	Mặc dù Brunei chưa có sàn giao dịch chứng khoán, nhưng áp dụng IFRS là bắt buộc đối với các tổ chức chịu trách nhiệm công khai như: ngân hàng, tổ chức tài chính, công ty bảo hiểm và công ty Takaful (Công ty Takaful tương tự như các công ty bảo hiểm tương hỗ)
Campuchia	Chỉ bắt buộc đối với các tổ chức chịu trách nhiệm công khai, tổ chức tài chính và các tổ chức lớn (Các công ty khác có thể sử dụng Chuẩn mực IFRS hoặc Chuẩn mực IFRS cho SMEs)
Indonesia	Không bắt buộc (Chỉ áp dụng chuẩn mực kế toán Indonesia SAK.)
Lào	Chỉ bắt buộc đối với các tổ chức chịu trách nhiệm công khai như: ngân hàng, tổ chức tài chính
Malaysia	Cho phép chứ không bắt buộc
Myanmar	Cho phép chứ không bắt buộc
Philippines	Bắt buộc áp dụng cho trường hợp cụ thể
Singapore	Cho phép chứ không bắt buộc
Thái Lan	Cho phép chứ không bắt buộc
Việt Nam	Không bắt buộc

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Đối với các công ty không niêm yết, mức độ bắt buộc áp dụng IFRS tại đa số các nước Đông Nam Á mang tính tùy chọn. Riêng Brunei, Campuchia và Lào bắt buộc đối với các tổ chức chịu trách nhiệm công khai, còn lại các nước có thể tùy chọn áp dụng IFRS hoặc áp dụng chuẩn mực kế toán của quốc gia đó. Riêng Philippines, mặc dù việc áp dụng IFRS là cho phép chứ không mang tính bắt buộc, tuy nhiên, Ủy ban Chứng khoán và Hội

đoái Philippines SEC đã đặt ra các tiêu chí định lượng và định tính yêu cầu một số công ty trong nước không phải là những công ty có chứng khoán giao dịch trên thị trường đại chúng phải sử dụng PFRS, cụ thể:

- Công ty có tổng tài sản hơn 350 triệu PHP (7 triệu USD) hoặc có tổng nợ phải trả hơn 250 triệu PHP (5 triệu USD);
- Công ty có 200 cổ đông sở hữu từ 100 cổ phiếu trở lên của một loại chứng khoán vốn;
- Công ty đang trong quá trình nộp báo cáo tài chính cho mục đích phát hành bất kỳ loại công cụ nào trên thị trường đại chúng; và
- Chủ sở hữu có (các) giấy phép thứ cấp do cơ quan quản lý cấp.

3.3.3. Mức độ áp dụng IFRS đối với doanh nghiệp nhỏ và vừa

Đối với doanh nghiệp nhỏ và vừa, IASB triển khai hệ thống Chuẩn mực Báo cáo tài chính IFRS dành cho doanh nghiệp nhỏ và vừa, gọi là IFRS dành cho SMEs. Trong khuôn khổ bài nghiên cứu này, nhóm tác giả tập trung phân tích tình hình và mức độ áp dụng IFRS cũng như IFRS dành cho SMEs, không đi sâu nghiên cứu sự khác biệt giữa hai hệ thống chuẩn mực báo cáo tài chính quốc tế này.

Đối với việc áp dụng IFRS dành cho SMEs tại các nước Đông Nam Á, mức độ áp dụng được thể hiện ở bảng 3 dưới đây.

Bảng 3 - Mức độ áp dụng IFRS đối với doanh nghiệp nhỏ và vừa

Quốc gia	Mức độ áp dụng IFRS đối với DN nhỏ và vừa
Brunei	Chưa áp dụng
Campuchia	Chỉ bắt buộc đối với SMEs chịu sự kiểm toán theo luật định
Indonesia	Chưa áp dụng
Lào	Chưa áp dụng
Malaysia	Đã áp dụng, mang tính cho phép (đối với một số công ty cụ thể) chứ không bắt buộc
Myanmar	Bắt buộc áp dụng đối với các doanh nghiệp nhỏ và vừa
Philippines	Bắt buộc áp dụng đối với các doanh nghiệp nhỏ và vừa (mức độ bắt buộc tùy thuộc vào các quy mô doanh nghiệp)
Singapore	Bắt buộc áp dụng đối với các doanh nghiệp nhỏ và vừa (đối với doanh nghiệp đảm bảo đủ tiêu chí)
Thái Lan	Chưa áp dụng
Việt Nam	Chưa áp dụng

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Nhìn vào bảng trên, có thể thấy rằng, IFRS dành cho SMEs đa số chưa được áp dụng tại thị trường Đông Nam Á. Chỉ có 03 nước Myanmar, Philippines và Singapore, những nước đã áp dụng IFRS theo cách thức Big Bang Approach - công nhận IFRS là CMKT quốc gia thì mới có thể triển khai IFRS dành cho SMEs theo IASB theo hướng bắt buộc áp dụng. Tuy nhiên, mỗi thị trường lại có quy định riêng đối với từng doanh nghiệp đảm bảo đúng tiêu chí để áp dụng IFRS dành cho SMEs.

Tại Philippines, việc bắt buộc áp dụng IFRS dành cho SMEs sẽ áp dụng cho các doanh nghiệp có quy mô trung bình đáp ứng tất cả các tiêu chí sau: (trừ khi được phép sử dụng PFRS)

- Có tổng tài sản từ hơn 100 triệu PHP (khoảng 1,9 triệu đô la Mỹ) đến 350 triệu PHP (khoảng 7 triệu đô la Mỹ) hoặc nếu có tổng nợ phải trả từ hơn 100 triệu PHP đến 250 triệu PHP (khoảng 5 triệu đô la Mỹ). (Nếu đơn vị là công ty mẹ, số tiền đó dựa trên số liệu hợp nhất).

- Không bắt buộc phải nộp báo cáo tài chính theo Phần II của Quy tắc 68 của Mã Quy chế chứng khoán Philippines SRC (tức là không phải công ty có chứng khoán giao dịch trên thị trường đại chúng hoặc có ít nhất 200 cổ đông sở hữu 100 cổ phiếu trở lên thuộc một loại vốn chủ sở hữu của công ty chứng khoán).

- Không đang trong quá trình nộp báo cáo tài chính cho mục đích phát hành bất kỳ loại công cụ nào trên thị trường đại chúng.

- Không phải là chủ sở hữu giấy phép thứ cấp do cơ quan quản lý cấp.

Tại Singapore, tiêu chí doanh nghiệp đáp ứng đủ cho việc áp dụng IFRS dành cho SMEs cụ thể: không chịu trách nhiệm giải trình công khai, công bố báo cáo tài chính cho mục đích chung cho người dùng bên ngoài và đáp ứng định nghĩa về “doanh nghiệp nhỏ” cho mỗi trong hai kỳ báo cáo tài chính liên tiếp trước đó, với sửa đổi áp dụng cho các đơn vị mới thành lập. Một doanh nghiệp đủ điều kiện là một doanh nghiệp nhỏ nếu đáp ứng ít nhất hai trong số ba tiêu chí sau:

- Tổng doanh thu hàng năm không quá 10 triệu SGD (tương đương 7,5 triệu đô la Mỹ).

- Tổng tài sản không quá 10 triệu SGD (tương đương 7,5 triệu đô la Mỹ).

- Tổng số nhân viên không quá 50 người.

3.3.4. Mức độ áp dụng IFRS đối với doanh nghiệp nước ngoài niêm yết

Bảng 4 - Mức độ áp dụng IFRS đối với doanh nghiệp nước ngoài niêm yết

Quốc gia	Mức độ áp dụng IFRS đối với DN nước ngoài niêm yết
Brunei	Brunei chưa có sàn giao dịch chứng khoán
Campuchia	Bắt buộc áp dụng cho tất cả
Indonesia	Không bắt buộc (Chỉ áp dụng chuẩn mực kế toán Indonesia SAK)
Lào	Chỉ bắt buộc đối với các tổ chức chịu trách nhiệm công khai như: ngân hàng, tổ chức tài chính

Malaysia	Cho phép chứ không bắt buộc
Myanmar	Không có công ty nước ngoài nào có chứng khoán được giao dịch trên thị trường đại chúng ở Myanmar
Philippines	Bắt buộc áp dụng cho tất cả
Singapore	Cho phép chứ không bắt buộc (tuỳ công ty niêm yết sơ cấp hay thứ cấp)
Thái Lan	Cho phép chứ không bắt buộc
Việt Nam	Không bắt buộc

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Đối với các công ty nước ngoài có chứng khoán nợ hoặc chứng khoán vốn giao dịch trên thị trường đại chúng thì việc áp dụng IFRS không mang tính bắt buộc đối với hầu hết các thị trường tại các nước Đông Nam Á. Ngoài việc bắt buộc đối với thị trường Campuchia, Philippines, các thị trường còn lại mang tính tự nguyện nhiều hơn. Cụ thể, tại thị trường Malaysia, theo sửa đổi của Đạo luật báo cáo tài chính năm 1997, các công ty nước ngoài có giao dịch chứng khoán trên thị trường đại chúng ở Malaysia được phép lựa chọn giữa Khung MFRS (giống với Chuẩn mực IFRS) hoặc bất kỳ chuẩn mực kế toán quốc tế được chấp nhận nào do các cơ quan ban hành chuẩn mực kế toán được công nhận bởi MASB (bao gồm cả Hội đồng IASB). Đối với Singapore, không phải tất cả các công ty nước ngoài niêm yết trên Sàn giao dịch chứng khoán Singapore SGX đều bắt buộc áp dụng Chuẩn mực IFRS theo Quy tắc niêm yết của SGX. Cụ thể, chỉ những công ty nước ngoài có chứng khoán vốn được niêm yết sơ cấp phải áp dụng SFRS, IFRS hoặc US GAAP, còn những công ty có chứng khoán niêm yết thứ cấp chỉ cần yêu cầu đối chiếu báo cáo tài chính của họ với SFRS, IFRS hoặc US GAAP.

3.4. Mức độ áp dụng các chuẩn mực IFRS tại các nước Đông Nam Á

Đối với các công ty trong nước, mức độ áp dụng IFRS tại các quốc gia cũng khác nhau. Cụ thể:

Bảng 5 - Mức độ áp dụng chuẩn mực IFRS đối với các DN trong nước tại các nước Đông Nam Á

Quốc gia	Mức độ áp dụng các chuẩn mực IFRS
Brunei	Áp dụng tất cả các chuẩn mực IFRS do Hội đồng IASB ban hành, bao gồm các chuẩn mực cũng như các sửa đổi, bổ sung được thông qua/xác nhận và ban hành bởi Hội đồng IASB.
Campuchia	Các công ty trong nước không chịu trách nhiệm đại chúng thì có quyền lựa chọn giữa Chuẩn mực IFRS và Chuẩn mực IFRS cho SMEs do Hội đồng IASB ban hành, và việc áp dụng không có bất kỳ sửa đổi nào tương tự như CIFRS và CIFRS dành cho SMEs. Các công ty trong nước chịu trách nhiệm công khai phải sử dụng IFRS/CIFRS và áp dụng toàn bộ.
Indonesia	Chưa áp dụng (chỉ áp dụng chuẩn mực kế toán Indonesia SAK)

Lào	Chưa áp dụng (các doanh nghiệp đã áp dụng hoặc tự nguyện áp dụng thì áp dụng theo các chuẩn mực IFRS do Hội đồng IASB ban hành)
Malaysia	Các chuẩn mực IFRS do Hội đồng IASB ban hành, bao gồm các chuẩn mực cũng như các sửa đổi, bổ sung được thông qua/xác nhận và ban hành bởi Hội đồng IASB.
Myanmar	Áp dụng các phiên bản mới nhất của Chuẩn mực IFRS cho các kỳ báo cáo tài chính bắt đầu trong hoặc sau năm tài chính 2022-2023.
Philippines	Các chuẩn mực IFRS do Hội đồng IASB ban hành, bao gồm các chuẩn mực cũng như các sửa đổi, bổ sung được thông qua/xác nhận và ban hành bởi Hội đồng IASB. Tuy nhiên, việc áp dụng cũng có nhiều sửa đổi.
Singapore	Tất cả các Chuẩn mực IFRS có hiệu lực được áp dụng như SFRSs, ngoại trừ IFRIC 2 - Cổ phần của các thành viên trong các tổ chức hợp tác và các công cụ tương tự, cũng như một số sửa đổi chủ yếu liên quan đến điều khoản chuyển đổi và ngày có hiệu lực.
Thái Lan	Tất cả các Chuẩn mực IFRS có hiệu lực được áp dụng dưới dạng TFRSs.
Việt Nam	Chưa áp dụng

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Mức độ áp dụng các chuẩn mực IFRS tại thị trường Đông Nam Á chưa đồng đều giữa các nước, phần nhiều phụ thuộc vào thời gian và cách thức áp dụng IFRS của từng nước. Tại mỗi thời điểm, mức độ áp dụng tại các nước khác nhau tùy thuộc vào việc cam kết áp dụng IFRS đối với IASB và quan trọng hơn là tình hình thực tế áp dụng tại chính quốc gia đó.

Đến thời điểm hiện tại, có thể nói Singapore là quốc gia duy nhất ở Đông Nam Á áp dụng đồng bộ và gần như hoàn toàn hệ thống chuẩn mực IFRS dành cho các doanh nghiệp ở trong nước. Chỉ duy nhất khác biệt về việc Singapore chưa áp dụng IFRIC 2 - Cổ phần của các thành viên trong các tổ chức hợp tác và các công cụ tương tự, và một số khác biệt liên quan đến điều khoản chuyển đổi và ngày có hiệu lực. Tuy nhiên, việc không áp dụng IFRIC 2 không ảnh hưởng đến các công ty do Singapore thành lập (cả niêm yết và không niêm yết). Đồng thời, việc sửa đổi điều khoản chuyển đổi và ngày có hiệu lực đối với các yêu cầu của Chuẩn mực IFRS không ảnh hưởng đến các công ty đã niêm yết tại Singapore.

Bên cạnh đó, đối với Philippines, các doanh nghiệp trong nước khi áp dụng IFRS cũng có các sửa đổi, bổ sung. Cụ thể:

- Giảm tiết lộ báo cáo bộ phận
- Miễn áp dụng quy tắc hạn chế đối với bộ công cụ tài chính cụ thể
- Các công ty bảo hiểm được phép sử dụng một bộ nguyên tắc kế toán toàn diện khác (cũng được mô tả là Chuẩn mực báo cáo tài chính của Philippines)
- Đối với ngân hàng, lỗ do bán tài sản xấu được phép khấu hao trong một khoảng thời gian

- Một số thay đổi bổ sung đối các tiêu chuẩn của IASB về lương hưu, ngoại hối và cho thuê

Các quốc gia còn lại vẫn còn đang trong lộ trình áp dụng và hoàn thiện hệ thống chuẩn mực kế toán của quốc gia mình theo hướng Big Bang Approach (Công nhận IFRS là CMKT quốc gia) hoặc Convergence Approach (Phê duyệt áp dụng từng chuẩn mực của IFRS) nên trong các tài liệu chính thức từ các quốc gia vẫn chưa công bố mức độ khác biệt đối với IFRS.

3.5. Mức độ luật hoá các chuẩn mực kế toán IFRS tại các nước Đông Nam Á

Bảng 6. Mức độ luật hoá các chuẩn mực IFRS tại các nước Đông Nam Á

Quốc gia	Mức độ luật hoá các chuẩn mực IFRS
Brunei	Chưa luật hoá
Campuchia	Được đưa vào luật và được công bố trên trang website chính thức của Hội đồng kế toán quốc gia Campuchia (NAC)
Indonesia	Chưa luật hoá
Lào	Chưa luật hoá
Malaysia	Mục 7 của Đạo luật Báo cáo Tài chính 1997 Malaysia (FRA) trao quyền cho Hội đồng Chuẩn mực Kế toán Malaysia ban hành các chuẩn mực kế toán đã được phê duyệt để áp dụng tại Malaysia. Do đó, các chuẩn mực kế toán do MASB ban hành có hiệu lực pháp luật.
Myanmar	Các chuẩn mực IFRS đã được MAC thông qua thành MFRS, được tạo ra vào năm 1972 theo Luật Hội đồng Kế toán Myanmar và có thẩm quyền pháp lý để ban hành các chuẩn mực kế toán bắt buộc ở Myanmar.
Philippines	Các Chuẩn mực IFRS được FRSC thông qua dưới dạng PFRS được xuất bản trên Official Gazette (Công báo - tạp chí công cộng và ấn phẩm chính thức của chính phủ Philippines). Những tuyên bố này sau đó được Ủy ban Chứng khoán và Giao dịch SEC thông qua như một phần của các quy tắc và quy định về báo cáo tài chính.
Singapore	Được đưa vào luật và được công bố trên trang website chính thức của Hội đồng chuẩn mực kế toán Singapore (ASC).
Thái Lan	Tất cả các Chuẩn mực IFRS có hiệu lực được áp dụng dưới dạng TFRSs và được công bố trên trang website chính thức Federation of Accounting Professions của Thái Lan.
Việt Nam	Chưa luật hoá

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Ngoại trừ Brunei, Indonesia, Lào và Việt Nam chưa luật hoá các chuẩn mực IFRS vào hệ thống pháp luật của quốc gia, các nước còn lại đều đã ban hành luật liên quan đến

việc áp dụng IFRS tại các quốc gia đó, và được công bố trên các trang website chính thức của mỗi nước.

3.6. Công bố bản dịch chuẩn mực kế toán IFRS tại các nước Đông Nam Á

Bảng 7. Tình hình công bố bản dịch chuẩn mực kế toán IFRS tại các nước Đông Nam Á

Quốc gia	Đã công bố bản dịch	Chưa công bố bản dịch	Ngôn ngữ kinh doanh là tiếng Anh
Brunei		✓	
Campuchia	✓		
Indonesia		✓	
Lào		✓	
Malaysia	✓		✓
Myanmar		✓	
Philippines	✓		✓
Singapore	✓		✓
Thái Lan	✓		
Việt Nam	✓		

(Nguồn: IASB (2022) và các trang website chính thức của các quốc gia Đông Nam Á)

Đối với Malaysia, Philippines và Singapore, ngôn ngữ kinh doanh chính thức của các quốc gia này là tiếng Anh, chính vì thế việc áp dụng IFRS tuân theo ngôn ngữ trong các chuẩn mực do IASB soạn thảo, ban hành và công bố. Những sửa đổi, bổ sung (nếu có) cũng được các quốc gia này cập nhật theo IASB và hầu như không mất thời gian để đưa vào áp dụng tại các nước này.

Đối với các quốc gia còn lại khi ngôn ngữ kinh doanh không phải là tiếng Anh thì sẽ mất một khoảng thời gian để có thể công bố bản dịch cho thị trường trong nước. Trong đó, Brunei, Indonesia, Lào và Myanmar đang trong lộ trình công bố bản dịch. Thái Lan đã công bố bản dịch sang tiếng Thái Lan và được đăng tải chính thức trên trang website của Liên đoàn Ngành Nghề Kế toán Thái Lan (TFAC). Việt Nam cũng đã công bố bản dịch sang tiếng Việt và đã được công bố trên trang website chính thức của Bộ Tài chính Việt Nam.

4. Kết luận và kiến nghị chính sách cho Việt Nam

Từ thực trạng tình hình áp dụng IFRS tại các quốc gia khu vực Đông Nam Á, đặc biệt là từ những nước đã áp dụng IFRS và đang trong quá trình hoàn thiện hệ thống chuẩn mực kế toán quốc gia, nghiên cứu đưa ra các kiến nghị chính sách giúp cho việc áp dụng IFRS tại Việt Nam trong thời gian tới được thuận lợi. Cụ thể:

Đối với các DN Việt Nam

Thứ nhất là, cần có kế hoạch áp dụng IFRS cụ thể và đưa ra lộ trình theo các mốc thời gian tuân thủ theo mốc thời gian của Bộ Tài chính. Việc này đòi hỏi các DN cần rà soát và xác định khoảng cách giữa Chuẩn mực Kế toán Việt Nam và Chuẩn mực IFRS dựa trên thực tế hoạt động của DN mình để đưa ra kế hoạch phù hợp. Bên cạnh đó, cần dựa vào thực tế của DN (về quy mô, ngành nghề hoạt động, mức độ phát triển...) để xác định đúng và ưu tiên mức độ đầu tư cho việc áp dụng IFRS một cách hợp lý, tránh lãng phí và không tập trung.

Thứ hai là, tổ chức đào tạo đội ngũ kế toán có kiến thức chuyên sâu về IFRS. Đội ngũ nhân lực là then chốt, là chìa khoá thành công của bất kỳ một DN nào. Tuy nhiên, nhân lực kế toán tại Việt Nam đa số chưa được đào tạo về IFRS, số lượng các chuyên gia am hiểu, có kinh nghiệm và kỹ năng lập BCTC theo IFRS còn ít. Chính vì thế, đây là một yếu tố quan trọng các DN cần tập trung đầu tư có trọng điểm trong thời gian tới.

Thứ ba là, nâng cấp hệ thống thông tin kế toán để bảo đảm tính phù hợp và ổn định khi chính thức áp dụng IFRS. Việc lập BCTC theo IFRS sẽ rất khác về nhiều mặt (về ghi nhận, đo lường giá trị, trình bày và công bố thông tin...), vì vậy doanh nghiệp cần thực hiện rà soát và thực hiện những thay đổi (nếu cần thiết) để phù hợp với việc áp dụng IFRS. Để mang lại hiệu quả cao trong công tác này, các DN cần phối hợp với các cơ quan quản lý cũng như doanh nghiệp nên có những chuyên gia về IFRS hỗ trợ và tư vấn nội dung này để bảo đảm tính hiệu quả.

Thứ tư là, làm việc với các công ty tư vấn, kiểm toán có nhiều kinh nghiệm về kiểm toán báo cáo tài chính hoàn thiện theo IFRS để có được sự hỗ trợ kịp thời đối với những vấn đề kỹ thuật trọng yếu khi lập báo cáo tài chính theo IFRS.

Thứ năm là, cần có sự kết hợp chặt chẽ và đồng bộ với các doanh nghiệp cùng ngành cũng như với các cơ quan Nhà nước, cơ quan quản lý trong quá trình áp dụng IFRS. Điều này sẽ giúp cho DN giảm được các khó khăn cũng như giải quyết được các vướng mắc trong các khâu thực hiện trong lộ trình áp dụng IFRS.

Đối với cơ quan quản lý Nhà nước

Thứ nhất là, phối hợp với các đơn vị liên quan để nhanh chóng hoàn thiện bản dịch IFRS từ tiếng Anh sang tiếng Việt và công bố hướng dẫn thực hiện chính thức cho các đối tượng áp dụng. Đồng thời, cơ quan quản lý cần phối hợp với các công ty kiểm toán, các trường đại học, cũng như các chuyên gia về IFRS tổ chức các buổi tập huấn, hội thảo, tọa đàm từ cơ bản đến chuyên sâu để truyền tải nội dung IFRS đến các DN cũng như các đối tượng quan tâm.

Thứ hai là, phối hợp chặt chẽ với IASB trong lộ trình áp dụng IFRS sắp tới, tham vấn IASB trong việc áp dụng IFRS tại thị trường Việt Nam. Nhanh chóng cập nhật và điều chỉnh những sửa đổi, bổ sung từ IASB sao cho phù hợp với thị trường và tình hình áp dụng IFRS trong nước.

Thứ ba là, học hỏi kinh nghiệm từ thực tiễn áp dụng IFRS từ các nước thành công trên thế giới, đặc biệt là các nước trong cùng khu vực Đông Nam Á. Đồng thời, nhận thức được những bất cập cũng như những khó khăn, thách thức có thể gặp phải trong lộ trình áp

dụng IFRS để chuẩn bị sẵn những phương án, những kế hoạch phù hợp với thị trường Việt Nam.

Thứ tư là, nâng cao trách nhiệm của các cơ quan quản lý Nhà nước trong việc bình ổn thị trường, cũng như tạo ra môi trường kinh doanh lành mạnh, xây dựng hệ thống luật pháp, chế tài phù hợp đối với các vấn đề liên quan đến việc áp dụng IFRS.

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FAST FASHION GOING SUSTAINABLE - WHAT FACTORS INFLUENCE CONSUMERS' INTENTION TO PURCHASE

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Abstract: *Fast fashion manufacturing, which is one of the most polluting industries in the world, are moving forward to more sustainable practices. This study examines what factors are the most significant in driving their intention to purchase the sustainable driven fast fashion products. This study adds to existing knowledge about sustainability by employing descriptive and exploratory research. Findings revealed that the consumers' intention to purchase fast fashion goods are affected by a number of aspects. Environmental concerns and personal values were found influencing factors of consumers' intention to purchase.*

Key words: *Sustainability, fast fashion, purchase intention*

THỜI TRANG NHANH HƯỚNG ĐẾN BỀN VỮNG - NHỮNG YẾU TỐ ẢNH HƯỞNG ĐẾN Ý ĐỊNH MUA HÀNG CỦA NGƯỜI TIÊU DÙNG

Tóm tắt: *Ngành sản xuất thời trang nhanh, một trong những ngành gây ô nhiễm nhiều nhất trên thế giới, đang dịch chuyển hướng đến các giải pháp bền vững. Nghiên cứu này xem xét các yếu tố có ảnh hưởng nhiều nhất đến ý định mua các sản phẩm thời trang nhanh được áp dụng các giải pháp bảo vệ môi trường. Nghiên cứu này đóng góp vào cơ sở lý thuyết hiện tại về bền vững bằng việc sử dụng nghiên cứu mang tính chất khám phá sơ bộ và mô tả. Kết quả nghiên cứu chỉ ra rằng ý định mua hàng thời trang nhanh của khách hàng bị ảnh hưởng bởi nhiều yếu tố, trong đó có sự quan tâm về môi trường và các giá trị cá nhân.*

Từ khóa: *Bền vững, thời trang nhanh, ý định mua hàng*

1. Introduction

The fashion industry is considered to put massive severe pressures on the environment (Chen & Burns, 2006). These environmental pressures and challenges require the fashion industry to restructure their organizational activities in order to gain long-term prosperity.

Fast fashion point to a phenomenon that as a number of consumers consider shopping for clothes a leisure shopping experience, the rapid increase in the supply of new fashion at low prices has led to significant increase in the disposal of used clothes. In order

to be profitable, fashion brands need to speed to market to capitalize on fashion designs that are not in the competitors stores. Retailers such as Zara, H&M, Mango, quickly respond to the runway design and adopt them in a few weeks. The essence of the fast fashion phenomenon lies in two essential aspects: short time gap between production and distribution, and trendy affordable fashion (Cachon & Swinney, 2011).

Facing the widely criticized environmental impacts, manufacturers and retailers in fashion industry have realized the need for fundamental changes in the fashion business, including the introduction of sustainable practices through supply chain, as well as a shift in consumer behavior, i.e. decreasing their clothing purchase volume and increase the garment lifetime. As the concerns towards environmental changes have been growing, along with the increasing consumer awareness on sustainability, more and more fast fashion brands have redirected themselves to adapt with the situations. Popular fast-fashion brands are pioneers in the transformation towards sustainability (McConnell, 2021; Shen, 2014). In recent years, H&M has started to carry out campaigns to reduce its negative impacts on the environment by offering development strategies coupled with sustainability goals. According to Forbes magazine (2018), H&M's goal before 2020 is to use only sustainable cotton; by 2030, the company commits to only use recycled or sustainable materials, and the following goal in 2040, is to become climate positive. To accomplish these goals, H&M has launched a number of green campaigns, such as the “Conscious Action” program. With this program, H&M promises to bring consumers a product that is friendly to people, the planet and pocket money.

Globally, there have been a large number of research papers concerning the influences of consumer's choices and behaviors on environmental quality. These studies have dealt with the sustainability concern, as well as examining sustainable practices of fast fashion brands in the fashion industry. Although fashion manufacturers invest in sustainable production practices and engage in environmental protection, Papadopoulou et al. (2022) found that European consumers ignore their initiatives and not yet think of them-as sustainable brands. Besides, few research about consumers' perception of sustainable fashion products has been done in developing countries context except India or China. Vietnamese population of 100 million people presents huge opportunity to fashion manufacturers. This study, therefore, take a consumer-based approach to understand what determine Vietnamese consumers' intention to purchase fast fashion products. This will be helpful to the fast fashion companies in building their consumer-driven approach to production, distribution and marketing to their target markets.

Findings of this study contributes to the understanding of the perception of consumers towards fast fashion products, consequently contribute to a big picture about sustainability, at the same time help businesses adjust their strategies for sustainable development. This research is conducted with the aim of providing insights into consumer perspectives about fast fashion. With the study's scale being in big cities in Vietnam, the research team examines the significant influences toward people's buying decisions of products made by sustainability-driven apparel manufacturers. The analysis is based on data gathered from a questionnaire survey conducted with 150 responses of people in

different age ranges, lifestyle and behaviors. A quantitative research method is used to indicate and analyze factors influencing purchasing intention of sustainable products, with five factors, namely Environmental concerns, Personal values, Social influence, Price, and Habits considered as variations that motivate consumers to make more conscientious decisions.

2. Theoretical framework

2.1 The concept of sustainability within the business context

Sustainable fashion requires increased consumer awareness of the real meaning of sustainability. Before we define sustainability and what criteria determine sustainable fashion, one should acknowledge that the terms green, ethical, and sustainable are frequently used interchangeably to describe the same concept (De Pelsmacker et al., 2005; Gulati, 2022; Moisander, 2007).

The term “sustainability” has emerged recently as an addition to existing popular vernaculars (Bañon Gomis et al., 2011). However, in fact, its concept and practices have been around for a long time. In 1987, The United Nations’ World Commission on Environment and Development defined sustainable development as development that “meets the needs of the present generation without compromising the ability of future generations to meet their own needs.” This definition of sustainability focus on human development which is tied to environmental issues across generations, thus has gained substantial influence and widespread use (Heinberg & Lerch, 2010). Over the years, sustainability movement has come of age to reflect a sustained interest in many areas including the organic, green, fair trade, unfair business practices. Generally, the concept of sustainability is understood as a long-term goal for humanity, and it reflects how people's actions at present will determine their fate in the future.

The concept of sustainability has been researched in multiple disciplines, such as supply chain management (Rezaee, 2018), waste management (Zan et al., 2022), consumer behavior (Alam et al., 2019; Penz & Drewes, 2022). In the business context, sustainability means that every business needs to take into account three factors, namely economic growth, social equity and environmental responsibility for sustainable development (Cuccia, 2015). Hassan et al. (2022) found the key influencing factors of sustainable fashion consumption were personal norms, social norms, and environmental awareness. Also, according to Bansal (2002), the practices of sustainability have increasingly reinforced the interconnecting relationship between these three essential principles. Meanwhile, Carter and Rogers (2008) introduce the “triple bottom line” approach, which also refers to the need of balancing these three factors in the pursuit of business sustainability. Marques et al. (2015), on the other hand, define sustainability as “a social objective with a keen focus on achieving the triple bottom line performance of profit, planet, and people”.

From tracing the evolution of sustainability movement, sustainable fashion can be defined as clothing that incorporate fair trade principles with sweatshop-free labor conditions; that does not harm the environment or workers by using biodegradable and organic cotton, and designed for a longer lifetime use; that is produced in an ethical

production system, perhaps even locally; that which causes little or no environmental impact and makes use of eco-labeled or recycled materials (Joergens, 2006b).

2.2 Fast fashion

The phenomenon of fast fashion has been extensively discussed in the fashion literature. However, interest in sustainability insist research in the consumer behavior towards fast-fashion brands which claim to be moving toward sustainability.

There is a contradiction in the consumer behavior of sustainable fashion products. Saha et al. (2019) point out that there are a number of customers who are sensitive to the environment, yet do not actively support the sustainable fashion industry. On the other hand, researchers point out that consumers have a rather positive attitude towards fast fashion Cook and Yurchisin (2017) and their awareness of sustainable fashion has increased significantly Cervellon and Carey (2011). These consumers have been used to the fast-fashion style, and they do not expect a product to be too durable, and they like it. McNeill and Moore (2015) also support this view with the argument that one of the problems concerning the move towards more sustainable fashion is the “fast fashion-loving customers”, who are “hungry for goods... and coupled with exciting shopping leisure shopping experience”. Researchers have pointed out the significant gap between what consumers say about the importance of ethical issues and what they do, i.e. continue their traditional purchase behavior (Berberyan et al., 2018). While there have been increasing number of people to be motivated by ethical consumption, in purchase situations, price, convenience, style and other product related factors overweigh their ethical concerns.

The emergence of sustainability-driven fast fashion has been fueled by both pull and push factors (Nguyen et al., 2021). On the push side, fast fashion brands are moving voluntarily toward the common interest and benefits of the society (Drucker, 1998). Besides, they are forced by the regulations to comply with ethical standards. On the pull side, corporate social responsibility (CSR) in both developed and developing countries is on the rise trend. The CSR practices are important for fast fashion companies to build their public image, although these are not necessarily done for the social well-being and environmental benefits. If companies want to retain and enhance their prestige and reputation, they need to respect and practice CSR.

2.3 Consumer intention to purchase

According to Chen and Chung’s (2012), understanding buyer’s intention plays an indispensable role in developing strategies for businesses. According to these authors, the solid part in major purchases is a direct consequence of companies' value creation and performance. Customer intention to buy green products are driven by many factors, including price (Park & Lin, 2020; Sun & Wang, 2020), environment concerns (Wijaya & Paramita, 2021; Yue et al., 2020). Among a variety of factors, the environmental concerns was recognized as the top predictor of green purchasing intention followed by the social influence (Choshaly, 2017). Choshaly argues that consumer’s knowledge about green products that they are healthier, safer, better for the environment, such as recycled bags, is translated into their willingness to pay for these products. Sun and Wang (2020) found that

price consciousness negatively affects consumers' intentions to purchase green products. In Sun et al. (2022), social pressure was found to positively moderate the relationship between price sensitivity and consumers' green purchasing intention.

2.4 Hypotheses development:

This section synthesizes the key contributions from the literature about the influence of certain determinants on the purchase intention of sustainable driven fashion products and provides a basis for the development of research hypotheses. The researchers elaborated a related conceptual framework to examine whether the proposed factors have an impact on consumer purchase intention toward sustainable fashion.

2.4.1 Environmental concerns

Environmental concerns play an important role in consumers intention to purchase (Hassan et al., 2022; Wijaya & Paramita, 2021). Customers who are concerned about the environment are more likely to buy green products (Yue et al., 2020). Hutchins and Greenhalgh (1997) also support this view that customers who have a greater environmental concern level tend to consume sustainable products. In a study about European fast-fashion clothing industry from the perspectives of Generation X and Y, Apaolaza et al. (2022) investigate whether consumers' level of environmental consciousness impacts their purchase decision. Findings revealed the perceptions, attitudes, and purchase behavior of Gen X and Y consumers toward two Europe's leading fashion firms. Despite participating the two leading brands' initiatives for environmental protection, consumers did not view them as sustainable brands. Studying the Australian consumers' perspective on sustainable clothing, Apaolaza et al. (2022) confirm the significant positive influence of environmental concern and trust in the sustainable clothing brand. Therefore, our first hypothesis is proposed that:

H1: There is a significant and positive association between environmental concerns and intention to buy sustainable driven fashion.

2.4.2 Price

Consumers commonly make their purchasing decisions based on their perceived price of a product (Chiang & Jang, 2007). Price is a factor that has significant effect on consumer attitude for sustainable products and their intention to purchase (Park & Lin, 2020). Price perception was found to significantly influence the intention to purchase for gifting and self- use (Saepudin et al., 2023). When sustainable products are offered at reasonable prices, consumers are motivated to buy sustainable products (Ansar, 2013).

Previous literature shows that consumers, though having favorable attitudes toward sustainability, do not always support the sustainability movement, evidenced by their hesitation and resistance to buy. For example, even though 50% of European consumers claim that they are willing to pay a higher price for sustainable products, the final market share is less than 1% (De Pelsmacker et al., 2005).

However, recent studies show that environmentally conscious consumers still accept high prices to be able to buy eco-labelled products (Bigsby & Ozanne, 2002) with the notion that their contribution is significant enough towards the sustainable environment (Kumar &

Mohan, 2021) and proud themselves after purchasing sustainable fashion products, evidenced by the positive and significant influence of price on customer satisfaction and loyalty (Ranaei Kordshouli et al., 2015). These all suggest that there is an effect of price on sustainable fashion products. For that reason, another hypothesis is developed:

H2: There is a significant association between price and intention to buy sustainable driven fashion

2.4.3 Habits

The appeal of cheap chic is tempting to young adults looking for something different to wear while socializing. As the fashion retailers have quick turnaround at competitive prices, young consumers seek something new to wear every week.

During the last decade, there has been a change in consumer behavior resulting from the fact that more households and individuals are routinely engaged in sustainable practices (Lavelle et al., 2015). On the other hand, consumers who have got used to the habit of consuming fast fashion, and they don't expect a product with much durability (Cook & Yurchisin, 2017). While the habit of consuming sustainable products is expected to have a positive impact on consumer's intention to buy sustainable fashion, fast fashion product consuming habits can have an adverse effect on the intention to buy sustainable ones. This raises a question on how the habit can truly affect consumer's intention regarding sustainable fashion consumption. Therefore, the hypothesis is expected to be as follow:

H3: There is a significant association between habits and intention to buy sustainable driven fashion

2.4.4 Personal values:

The role a consumer's personal values play in consumption behavior is well documented throughout the literature (Stringer et al., 2020). Research has found that consumers' needs for green products are affected by their lifestyle (Connolly & Prothero, 2003) or their view of self, i.e. some consumers concern only with personal needs and their own desire for acquisition of certain products while some others felt strongly that personal needs and wants should come second to the well-being of humanity (McNeill & Moore, 2015). People engage in activities or consumption patterns providing them a feeling of being different. Other consumers purchase an item of clothing that aligns with their values. For instance, they believe that the consumption of sustainable fashion would contribute to the reduction of unethical practices, like sweatshops. Forever 21 in Los Angeles factory has been known for paying workers less than minimum wage and no overtime pay (Lynch, 2009). Consumers also value the happiness of thinking about their contribution in terms of environmental protection by buying clothes that specifically distinguish them from those that are not environmentally friendly. Along with that, some people with high environmental values construct their lifestyle based on environmental attachment, resulting in their beliefs that they should seek harmony between nature and humans by fulfilling their material needs (Thompson & Barton, 1994). It suggests the idea that personal values have great influence on consumer's intention to support sustainable fashion, corresponding to the fourth hypothesis of the research:

H4: There is a significant and positive association between personal values and intention to buy sustainable driven fashion

2.4.5 Social influence:

Consumers tend to make purchasing decisions not only to satisfy their non-social needs, but also to establish and nurture relationships within their social circle and to assert their position in the society (Choshaly, 2017; Salazar et al., 2013). Additionally, Chen- Yu and Seock (2002) also state that when one wants to buy a certain type of clothing in their teenage years, the peer's conformity is an important factor (Sharaf, 2015). At the same time, considering social influence through digital platforms, many scholars have shown that social media marketing has a significant impact on intention to engage in pro-environmental consumer behaviors (Sun & Wang, 2020).

Therefore, this study provides a hypothesis that:

H5: There is a significant and positive association between social influence and intention to buy sustainable driven fashion

3. Methods

3.1. Descriptive research design

The main objective of this study is to identify and analyze the factors influencing purchasing intention for sustainable driven fashion products. Therefore, the descriptive research design was chosen to be employed in this study. This section briefly discusses methodological issues such as data collection & sampling process, the statistical analysis techniques used.

3.1.1 Data collection & sampling process

Our research employs mixed method, which consist of an online survey for and interviews of consumers about their attitude toward fast fashion and behavior in fast fashion consumption. The use of multiple methods of data collection in a mixed method design, is a form of triangulation which costs more but produces greater reliability (Abowitz & Toole, 2010). Within marketing discipline, mixed method has been applied in different research including sustainability research stream (Gomes de Oliveira et al., 2022; Gwozdz et al., 2013). This paper presents the outcome of the quantitative research that helps achieve the research aim. A survey can produce a large amount of data in a short time for a fairly low cost. A survey consisted of closed questions with pre-coded response options, designed on Google Forms had been sent to people with a passion for fashion and sustainable products on Facebook platform. We used random sampling, which is generally preferable because they enable the use of inferential statistics (Gilbert & Stoneman, 2015). The selected group is H&M customers or non-customers who care about sustainability. The sample size depends on the population, but as we do not know the exact population size, i.e. of the fast fashion consumers in Vietnam, we based on Roscoe (1975) that in multivariate research, sample size should be at least ten times larger than the number of variables. Therefore, 150 responses from survey participants were obtained. The survey was designed with questions aimed to find out factors having the most impact on

consumers in terms of making purchasing decisions on sustainable clothes. The questionnaires are formed in Likert scale. Additionally, they are designed to be easy for understanding and appropriate to the respondents. Data gathering and cleaning began after the amount of data obtained had reached the appropriate level for achieving statistical significance. The responses of from people under the age of 18 and incomplete questionnaires were eliminated.

3.1.2 The statistical analysis techniques used

3.1.2.1 Reliability Analysis

Reliability analysis for each factor was performed using Cronbach's Alpha. Cronbach's alpha is a measure of internal consistency, or how closely a group of things is related to one another (Hajjar, 2018). Because it is noted that in most social science study scenarios, a dependability coefficient of 0.6 or above is deemed "appropriate". Therefore, for items in each element with a value of Corrected Item - Total Correlation < 0.3 , that variable will be excluded for the above factor to be reliable. However, if the excluded variable plays an important role and the value is not too small, it is considered to be kept.

3.1.2.2 Correlation Analysis and Linear Regression

Correlation coefficient analysis was performed by Pearson on SPSS to measure the strength of a relationship between two variables. The Analyze -Correlate -Bivariate method was utilized to perform the correlation on SPSS. The researchers utilized a two-tail test that allowed for either a positive or negative association and the strength of the relationship. As a general principle, p (Sig.) < 0.05 indicates a significant correlation, while p (Sig.) > 0.05 implies an insignificant relationship. Linear regression, then, is utilized anticipate the value of a variable based on the value of another variable at 95% level of confidence interval. The probability level of 0.05 has been established as a generally acceptable level of confidence in most behavioral sciences (Frankfort-Nachmias & Nachmias, 2007).

3.1.2.3 Multiple Regression analysis

Multiple regression is a statistical technique which can be obtained to examine the relationship between a single dependent variable and independent variables. We can estimate how much each independent variable in the theoretical framework contributes to the dependent variable. Moreover, we can compare the relative strength of the relationship of each independent variable to the dependent variable and estimate the contribution each makes to the overall amount of variance explained.

We carry out multiple regression in this study to better understand the weight of each factor towards the change of the dependent variable, as well as examining the relationship between those five independent variables and the dependent one.

4. Research findings and discussion

4.1.1 Socio-Demographic of the sample

About the survey, a total of 150 respondents took part in this with a sex distribution of 81% female and 19% male. The demographic characteristic of age reveals that 74.2% of

the respondents were in the age group of 18-23. While the age group of 24-35 accounted for 18.4% with 13 respondents and people who were above 35 only made up 8.6% of the respondents.

4.1.2 Reliability of scale

The table below demonstrates that the information gathered from the respondents is accurate and dependable. Cronbach's Alpha was run twice to produce this table; the first time, due to the factors "Habit" and "Price" there was an item with a value of Corrected Item - Total Correlation 0.3, which was found not to play a significant role, and that it was eliminated. Thus, the next run of Cronbach's Alpha value is reliable, slightly over 0.6 for Habit and Price, and Environment Concerns, Personal Values and Social Influence with 0.786, 0.744 and 0.755, respectively.

No.	Variables	Cronbach's Alpha
1	Environment Concerns	0.786
2	Habit	0.608
3	Price	0.635
4	Personal Values	0.744
5	Social Influence	0.755

Table 1: Reliability of Scale

4.1.3 Results

Findings from this research suggest that consumers' environmental concern and personal values positively impact their intention of purchase the fast fashion. Findings also demonstrate little evidence that price, shopping habit, and social influences have any effect on consumers' fast fashion to purchase.

Firstly, all factors are tested in Pearson's correlation and linear regression, the results are summarized in the table below.

Hypothesis Testing	Factors	Mean	Pearson's correlation	R Square	Sig.	Hypothesis supported/rejected
Linear Regression	Environmental Concerns	3.55	0.51	0.262	0.000	Supported
	Habit	3.22	0.08	0.006	0.329	Rejected
	Price	2.81	0.25	0.066	0.002	Supported

	Personal Values	3.66	1	0.60	0.361	0.000	Supported
	Social Influence	3.13	4	0.50	0.254	0.000	Supported

Table 2: Results of Pearson’s Correlation & Linear Regression

Overall, most of the hypotheses proposed are supported by the data, except “Habit” - since its level of significance was greater than standard p-value. Hence, the relationship between “Environmental Concerns”, “Price”, “Personal Values”, “Social Influence” and “Buying Intention” are positively correlated. The statistics also allow the researchers to measure the relative importance of five independent variables with respect to their support for Vietnamese consumer’s intention to buy sustainable fashion. The most influential determinant influencing Buying Intention is “Personal Values”. The table also shows that “Price” is the least important factor in this case.

The results of the study show significant differences in the ranking between the variables when compared to other previous research.

While the factor was usually one of the major hindrances encountered by consumers making efforts to buy sustainable clothing (Connell, 2010; Hustvedt & Dickson, 2009; Joergens, 2006a; Xu et al., 2014), this research reveals a contradictory view of point in Vietnamese consumers. With p-value = 0.002 (< 0.05), it can be concluded that Price has a significant relationship with the Intention to purchase. However, when looking at the Pearson Correlation value, a value of 0.257 indicates that Price has a weak correlation to Intention to purchase. In other words, if a customer already has a need to buy sustainable products, price is not a factor that has much impact on their demand. When going deeper into the regression test, it can be seen that the R-square value shows that Price affects only 6.6% the intention to buy which is quite low compared to the ideal index. This reinforces the argument made above that price has an ambiguous impact on the dependent variable.

Personal values were observed to have the highest scores in all tests. With the p-value equals 0.000 and correlation equals 0.601, it can be seen that the relationship between these two factors is significant, strong and positive. Since life becomes more developed, people pay more attention to their own values and always try to build the best values for themselves. Personal Value was thus included and examined as a factor influencing consumers’ purchasing decisions in many studies. According to Ajzen (2001), values are central to individual cognitive structure that explains a theoretic basis for attitude & behavior analysis. Other researches have suggested that personal values of consumers could help elucidate the ethical purchasing gap as interesting correlations have been detected (Doran, 2009; Niinimäki, 2010). Participants involved in this research also had identical attitudes towards values and ethical purchasing. With a mean of nearly 4.0 in several questions of factor “Personal Values” (see Appendix 3), most people agree that buying sustainable fashion products helps them at least get more value themselves as a person who cares about the environment, a topic of great concern today, or as someone

who cares about the human rights of workers. In addition, by not following the trend, going against the crowd could be one way to free themselves over prejudice & standard, and shape their own style.

Except Habit, the rest of variables stay logically true with the mindset of people consuming sustainable clothing and other studies. Environmental Concerns and Social Influence have an impact of 26.2% and 25.4% respectively, towards the intention to make ethical purchases in the Vietnamese community.

Findings about the impact of environmental factor on Intention to purchase are interesting. Firstly, environmentally conscious consumers are likely to be more interested in consuming sustainable fashion. This supports Kim and Damhorst (1998) about environmental concern and apparel consumption. Secondly, when asked whether or not they pay more attention to sustainable fashion items or read the clothes tag's description before purchasing, consumers were slightly vague and unclear. This was proved by the neutral mean values in several first factor's questionnaires with scores of 3.23, 3.11, 3.02 respectively (see Appendix 3). It led to a conclusion that eco-labelling got somewhat significant attention from consumers. Shoppers still had the right attitude and did look out for sustainable fashion items. This finding supports D'souza et al. (2006) that consumer awareness or knowledge about sustainability or environment affected the intention to buy eco-friendly fashion products.

For Social influence variable, these above statistics reflect the reality in Vietnamese context. Vietnamese society hasn't familiarized themselves with sustainable consumption practices nor been encouraged to use green products in daily life, explained by a weak mean score of 2.93 and 2.83 in question 2 and question 3 respectively (see Appendix 3). However, when being asked to buy a sustainable fashion item which was recommended by a trusted source, positive belief consumers would say yes as indicated by a high mean score at 3.62 in question 4. This claim is consistent with the idea of previous research that social influencing is one of the vital predictors of purchase intention (Kamariah & Muslim, 2007). With all statistical evidence, it can be concluded that the relationship between two variables is significant and society does have a substantial influence on the intention of purchasing sustainable products, which is aligned with previous studies of (Ajzen, 2001; Suh et al., 1998).

Finally, as its Pearson correlation = 0.08 and $p > 0.005$, Habit hypothesis has been rejected as the statistics demonstrated no significant relationship between Habit and Intention to purchase. Consumers also admitted that they bought clothes by trend and were so familiar with traditional normal fashion product lines. This is contrary to the concept of sustainable consumption, thus, leads to an irrelevant connection between two variables.

To have a deeper understanding about the relationship between five independent variables and dependent variables, multiple regression is employed in the next stage but eliminates "Habit" since it is qualified. Four factors including "Environmental concerns", "Price", "Personal values", "Social influence" will be tested the relationship between them and the dependent variable - "Buying Intention". The results are shown below:

Factor	R Square	Sig.	t	Standardized Coefficients (Beta)
Environmental Concerns	0.455	0.005	2.876	0.227
Price		0.281	1.082	0.070
Personal Values		0.000	5.576	0.412
Social Influence		0.080	1.766	0.145

Table 3: Results of Multiple Regression

With the first run including the above factors, the results bring out an insignificant p-value of Price (0.281) and Social (0.08). These variables, hence, are eliminated in the second run of the multiple regression.

Factor	R Square	Sig.	t	Standardized Coefficients (Beta)
Environmental Concerns	0.435	0.000	4.392	0.304
Personal Values		0.000	6.710	0.465
Multiple Regression	<u>Estimated Buying Intention = 0.304*Environmental Concerns + 0.465*Personal Values</u>			

Table 4: Results of Multiple Regression Rerun

The R² in the table shows that 43.5% of the dependent variable (Buying Intention) is affected by two independent variables (Environmental Concerns, Personal Values). This led to a conclusion that two factors drive the intention to buy sustainable fashion items for Vietnamese consumers.

For the standardized coefficient, it is evident that the Environmental concerns and Personal values are positively related to the dependent variable. Especially, Personal values accounts for the highest Beta (0.465) which means it affects Intention to purchase the most. Environmental concerns had a second position with a standardized coefficient of 0.304. Thus, it can be concluded that these two factors have a significant relationship with the dependent variable and the hypotheses H1 and H4 are supported.

Based on the significant positive relationship between these factors, Vietnamese people care for the environment and their personal values the most when buying clothes. On one hand, this reveals the truth that people are more conscious about their responsibility in

dealing with the current environmental situation and thus, they not only advocate to consume sustainable fashion but also consider the values of products. The significant and positive relationship between environmental concerns and consumers' intention to purchase support the study by Nguyen et al. (2020) investigating the factors affecting intention to purchase green products in Vietnam. The results also appear aligned with existing literature that argues consumer personal values are influential factor of their consumption intention (Choshaly, 2017; McNeill & Moore, 2015; Stringer et al., 2020). On the other hand, this demonstrates a shift in the thinking process in Vietnamese society when buying clothes. Today, fashion is not only a way to sign a successful financial status, it also reflects the personal values, the aspirations and the concern of consumers towards the future they want to have.

However, while a significant relationship between Habits, Price, and Social influence with the consumer intention to purchase were hypothesized, the study's results posit a non-significant result. H&M's price was still implied as an obstacle when people made a buying decision. Thus, the brand needs to prove clearly all the tangible and intangible advantages of its products to create a feeling of worthiness in the consumer mind. From the tangible aspects, it's important to indicate an ambitious desire to always improve and enhance the product quality to match consumer expectation of sustainable fashion products. Consumers need to be aware that price is a value of sustainable fashion products as well as corresponds to the valuable elements of the eco-friendly items. When they choose to purchase at that price, they choose to be responsible for the environment and society. Therefore, giving customers the needed knowledge or information may encourage them to have a more favorable attitude toward ethics and sustainability, as well as potentially impact their purchasing decisions. Only a true dedicated desirable action can help H&M to succeed in this ethical production and retailing practices. Besides, price has a potential influence on consumer's purchase decisions as it needs to be affordable and reasonable. Findings of this research are not in line with existing research (Eckhardt et al., 2010; Gomes de Oliveira et al., 2022) that even though fashion consumers say they care about environment, they do not want to pay more for products of cleaner production and retailing practices.

This research highlights some implications which might help formulating strategies towards sustainability to increase more buying intention from consumers. The findings suggest that fast fashion manufacturers can further enhance their image as a sustainable-driven fashion brand in order to gain further blooming success in Vietnam market. The sample's profile in this research was quite young but their knowledge about environment and the advocate for sustainable products were high. Fast fashion retailers should run more promoting campaigns that stress on the underlying benefits of consuming eco-friendly clothes, turning the brand into something that connects and encourages the whole society to act responsibly for a better world. This recommendation is made based on the observation of the significant relationship between social influence and buying intention from research findings.

Limitations

Due to budget and time restrictions, the empirical findings of this study represent the responses from a small sample size with 150 participants in Vietnam for the survey. Larger sample gives a better estimate of the population (Bateson & Martin, 2021) but it can be more costly and take more time to obtain a higher number of responses. Budget is as much a consideration as statistical one, and budget refers to all resources (time, space and energy) not just money.

Future research is expected to be conducted on larger and broader populations, specifically nations outside of Vietnam, in order to generalize the findings. Additionally, with respect to five given factors used to construct the research framework, there are others such as environmental knowledge, behavioral control... are hoped to be investigated regarding their influences on consumer's intention to buy sustainable fashion. Furthermore, future research can clarify the influence level of components on each other, rather than on the intention only as in this study. Also, future studies might potentially dive deeper into this topic comprehensively based on demographic segments, with the goal of examining the correlation between each segment (age, gender, or income level) and the purchase intentions of H&M's sustainable products.

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Appendices:

https://drive.google.com/file/d/1OaJOHQrcIw_Hx7GcV1Nkw6of0RpG_ZZl/view?usp=sharing

FORMAL CREDIT ACCESS AND RURAL HOUSEHOLD INCOME IN VIETNAM: A PROPENSITY SCORE MATCHING APPROACH

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Abstract: *This study examines the impact of formal credit access on household income in rural Vietnam. The study applies propensity score matching (PSM) method to Vietnam Household Living Standard Survey (VHLSS) 2020 dataset to estimate the impact of credit access on income per capita and income from agriculture of rural households. The study has specific contributions when considering forms of credit in rural Vietnam through formal, semi-formal, and informal credit sectors. In addition, this study employs the PSM approach on an updated VHLSS dataset to control the selection bias problem. Results indicate that formal credit access improves household income per capita and income from agriculture in rural areas. Meanwhile, evidence of a positive effect of credit access from informal and semi-formal channels is not found.*

Keywords: *Formal Credit, Rural credit, Income, Propensity Score Matching*

TIẾP CẬN TÍN DỤNG CHÍNH THỨC VÀ THU NHẬP HỘ GIA ĐÌNH NÔNG THÔN: BẰNG CHỨNG TẠI VIỆT NAM KHI ÁP DỤNG PHƯƠNG PHÁP SO SÁNH ĐIỂM XU HƯỚNG

Tóm tắt: *Nghiên cứu này xem xét tác động của tiếp cận tín dụng chính thức đối với thu nhập hộ gia đình ở nông thôn Việt Nam. Nghiên cứu áp dụng phương pháp so sánh điểm xu hướng (PSM) cho bộ dữ liệu Khảo sát mức sống hộ gia đình Việt Nam (VHLSS) 2020 để ước tính tác động của tiếp cận tín dụng đến thu nhập bình quân đầu người và thu nhập từ nông nghiệp của các hộ gia đình nông thôn. Nghiên cứu có những đóng góp cụ thể khi xem xét các hình thức tín dụng ở nông thôn Việt Nam thông qua khu vực tín dụng chính thức, bán chính thức và phi chính thức. Ngoài ra, phương pháp PSM được sử dụng trên bộ dữ liệu VHLSS cập nhật góp phần cung cấp các ước tính đáng tin cậy vì nó khắc phục được vấn đề sai lệch trong lựa chọn. Kết quả chỉ ra rằng tiếp cận tín dụng chính thức giúp cải thiện thu nhập bình quân đầu người của hộ gia đình và thu nhập từ nông nghiệp ở khu vực nông thôn. Trong khi đó, chưa có bằng chứng về tác động tích cực của việc tiếp cận tín dụng từ các kênh phi chính thức và bán chính thức.*

Từ khóa: *So sánh điểm xu hướng, Thu nhập, Tín dụng chính thức, Tín dụng nông thôn*

1. Introduction

Rural credit, particularly microcredit, has been a topic of great attention in recent decades. Basically, credits or loans are given to households to target the socioeconomic goals of a country, especially those related to poverty alleviation policies and, ultimately,

an improvement of the household's living standards objective. In developing countries, an efficient allocation of credits to those in need in society is expected to be an important policy instrument contributing to socioeconomic development goals. In fact, poor people have much difficulty becoming self-employed and undertaking productive employment due to a lack of savings and capital. Providing credits seems to be one of the most effective ways to facilitate income-generating self-employment opportunities for people experiencing poverty (Khandker, 1998). Microcredit programs become a poverty reduction instrument. Microcredit brings improvement for people with low incomes through deriving benefits such as income, employment, and consumption. Grameen Bank in Bangladesh is the pioneer provision of microcredit services to rural households. The Grameen model has been a great success in poverty reduction and inspired the government in many low-income countries to provide credit for people experiencing poverty in rural areas (Li et al., 2011). However, each country has different credit models. Vietnam is an agricultural country, with two-thirds of the population living in rural areas. This country has made outstanding achievements in economic development in the last two decades. The rural credit market in Vietnam comprises three main sectors, including formal, semi-formal, and informal credit, dominated by the formal credit sector. The formal credit sector is the focus of national economic development policies. The remaining two sectors, semi-formal and informal, have small market sizes. Despite that, the existence of these two sectors is still documented. This is explained by the simplicity and better suitability of the borrower's individual situation of the informal credit channel. For instance, borrowers accessing credit through informal channels may be more comfortable. It is because borrowing processes, in this case, are shorter and more straightforward, borrowing costs can be lower, or credit terms are more flexible than the formal ones if lenders are relatives or friends of the borrower

A growing body of research has gained empirical evidence on the impact of credit access on poverty. It was carried out for many developing countries in Asia, Latin America, and Africa. It presents mixed empirical results. Several studies provide a significant effect of microcredit on household welfare improvement and poverty reduction (Li et al., 2011; Khandker and Samad, 2014; Attanasio et al., 2015; Islam, 2015). However, other studies point out contrasting results, rural households become poorer due to debt (Augsburg et al., 2015; Banerjee et al., 2015; Crépon et al., 2015). Several studies in Vietnam also indicate microcredit is an effective way to generate employment and reduce poverty (Phan et al., 2014; Thanh et al., 2019; Phan et al., 2023). In contrast, some studies confirm that credit access does not improve household income. Most of the previous studies assessing the impact of credit in rural areas focused mainly on loans from the Vietnam Bank for Social Policies (VBSP), the largest rural credit provider. The effects of this formal credit channel have not been thoroughly studied since other credit providers in the formal sector other than VPSB have not been taken into account. At the same time, the role of formal credit in comparison with the other two sectors (semi-formal and informal) remains unexamined.

The impact of credit access in general or formal credit, in particular, has not been

studied comprehensively. Our paper focuses on the impact of formal credit access on income of rural households in Vietnam. The paper differs from others in the literature and is significant in scientific research. The study represents the country, assessing and showing the impact of formal credit access in rural areas when studying multiple credit distribution channels. The Propensity Score Matching (PMS) method used to solve the problem of selection bias gives more reliable results. The paper provides empirical research on the relationship between formal credit and household income, considering types of credit in rural areas. The article is organized as follows. Section 2 provides information related to the rural credit market in Vietnam. Section 3 reviews the current literature on microcredit, and its role in poverty reduction, followed by an introduction of the data and methodology in Section 4. Section 5 presents the empirical results. And the last section discusses policy implications and concludes.

2. Rural credit market in Vietnam

Until this study was conducted, credit to rural areas in Vietnam has been divided into three categories: formal, semi-formal, and informal. The formal credit providers are the Vietnam Bank for Social Policies (VBSP), the Vietnam Bank for Agriculture and Rural Development (Agribank), commercial banks, the People's Credit Fund, and licensed microfinance institutions. Mass organizations, non-governmental organizations (NGOs), and other government poverty reduction programs carry out the semi-formal credit sector. Five mass organizations include Women's Union, Veterans' Association, Farmers' Union, Elderly Association, and Youth Union. The informal credit providers mainly come from freelance loan sharks, relatives, friends, and Rotating Saving and Credit Associations (Duong & Nghiem, 2022).

Among the formal credit groups, VBSP is the largest microfinance institution in scale to reach customers in rural areas of Vietnam, with more than 7 million customers accessing bank services (including deposit and lending). There are more than 6 million customers from poor households. VBSP is a government bank, with the predecessor being a bank for people with low incomes, operating not for profit but instead aiming to serve the elite in the economy. VBSP has a network of branches covering a wide range of Vietnam. Branches of this bank are available in all 64 provinces in Vietnam and cover more than 99% of the communes in the country (Truong, Le & Phan, 2020). In the formal sector, Agribank also plays a vital role in allocating credit in rural areas. This bank is a state-owned bank. In addition, the formal credit channel in rural Vietnam also includes the participation of several other commercial banks, such as Lien Viet Post Bank or Bank for Investment and Development of Vietnam. In addition, the People's Credit Fund is also a vital credit distribution channel in rural areas. The People's Credit Funds network aims to provide microfinance services to communes in rural areas of Vietnam. As of 2010, People's Credit Funds had a network of more than 1,000 branches, covering about 10% of communes in Vietnam (Nguyen & Le, 2013). In 2003, the central People's Credit Fund was transformed into a cooperative bank model, while the local People's Credit Fund model was still operating as usual. For the semi-formal sector, mass organizations play an essential role in connecting with a wide range of priority customer groups through their

extensive community connections. Moreover, these institutions also support social policy banks and other microfinance institutions to connect customers based on their network. In general, NGOs, due to their relatively small size, have barely contributed to the credit market in rural areas (Khoi et al., 2013). Finally, the informal credit sector exists based on personal relationships such as friends and relatives. In addition, informal credit activities in rural areas of Vietnam still exist with the activities of spontaneous individual lenders, loan sharks, and Rotating Saving and Credit Associations named “Hoi/Phuong” (Nguyen & Le, 2013).

In rural Vietnam, the formal credit sector plays a vital role in allocating microcredit, accounting for the highest customer market share compared to the other two regions’ semi-formal and informal sectors. According to the authors’ calculation based on VHLSS 2020 data, credit allocation from formal suppliers in rural Vietnam accounts for nearly 85% of the rural market. This ratio for semi-formal and informal credit channels is around 4% and 11%, respectively.

3. Literature review

Many empirical studies have been done to examine the impact of microcredit on rural household welfare. Microcredit is a part of microfinance, which refers to small loans serving people experiencing poverty, lacking collateral requirements, and lower interest rates. Household welfare is usually measured by consumption or income.

The impact of microcredit on household welfare is always one of the most concerning topics in economic development in the developing world, particularly in low and middle-income countries. Several studies indicate that microcredit benefits borrowers in rural areas. For instance, a study of Li et al. (2011) applies the difference-in-difference approach to examine the microcredit effects in rural China. The results provide a piece of solid evidence for the improvement of households’ living standards in China associated with microcredit. Attanasio et al. (2015) examine the impact of microcredit programs in rural Mongolia. The study confirms a positive connection between microcredit and food consumption. Khandker and Samad (2014) apply panel data regression methods in Bangladesh. The findings present a significant increase in income and consumption from microcredit. Similarly, Islam (2015) uses a fixed effects model for the research in Bangladesh and finds a positive impact on household welfare. In contrast, several studies present adverse or zero effects of microcredit on household welfare. Augsburg et al. (2015) conduct a study in Bosnia and Herzegovina. Authors find an increase in self-employment activity and business ownership. However, the empirical results show a reduction in consumption and savings. Banerjee et al. (2015) apply a randomized evaluation method to examine the connection between microcredit and household welfare in Hyderabad, India. They did not find statistically significant evidence of an average per capita consumption improvement. Crépon et al. (2015) use a quasi-experimental approach to evaluate the impact of microcredit on consumption in Morocco. Authors present a zero effect of microcredit on consumption and a negative impact on self-employment.

In the context of Vietnam, several studies have been conducted to capture the

impact of microcredit. Most studies rely on data from Vietnam Access to Resource Household Surveys (VARHS), and the system generalized method of moments (S-GMM) is conducted to investigate the impact of microcredit. For example, Thanh et al. (2019) study the micro-impact of microcredit on rural households and the macro-impact on economic growth. Thanh et al. (2019) use two methods to examine the above objectives as follows: matched difference in difference and input-output analysis. The paper uses the survey data from VARHS in 2012 and 2014. The empirical results indicate microcredit positively affects self-employment to households rather than other economic activities. However, microcredit did not gain economic growth not too much as expected. Thanh et al. (2019) confirm microcredit benefits in diversifying income and restructuring the rural economy. Phan et al. (2023) examine microcredit's impact on reducing household vulnerability to poverty. The research sample is collected from VARHS from 2008 to 2016. The paper uses the system generalized method of moments (S-GMM). The results indicate that microcredit has a significant effect on reducing vulnerability to poverty. These existing studies are mainly based on microcredit from Vietnam Bank for Social Policies. Other credit distribution channels in rural have not been taken into account. Duong & Nghiem (2022) apply panel-data analysis for the sample collected from the VHLSS during 2002-2008. They confirm the different impacts on consumption, income, and poverty reduction. The result indicates that loans for trade or service provision deliver higher income and better poverty reduction for households than other purposes. Duong & Thanh (2015) find a positive impact of microcredit on households' income and consumption. The data was constructed by using the VHLSS in 2006 and 2008. They employ the PSM and Difference in Difference (DID) to examine the impact of the microcredit program.

Although much research has been done in this field, the diversification of findings in this topic encourages studies with quality, updated data, and appropriate methodology is still needed. Our paper will provide significant evidence on the impact of credit access, which serves as a guide for policy implications. The effects of credit access on Vietnamese rural households have not been well documented in recent times. This paper uses the propensity score matching (PSM) approach to analyze the credit access effects on household income. Data is obtained from Vietnam Household Living Standards Survey (VHLSS) 2020. The current study is conducted to fill in this gap in the literature.

4. Data and methodology

4.1. Data

The study uses information obtained from the Vietnam Household Living Standards Survey (VHLSS), a survey conducted by the General Statistics Office (GSO) of Vietnam since 1993, to gather information on living standards in Vietnam. The survey's initial two rounds in 1993 and 1998, called VLSS (Vietnam Living Standard Survey), were completed with support from the United Nations Development Programme (UNDP) and the Swedish International Development Cooperation Agency (SIDA) and with assistance from the World Bank. In 2002, GSO established a new strategy to gather data for the

VHLSS, with financial backing from the Japan Bank for International Cooperation (JBIC) and technical assistance from the World Bank. The survey has been conducted biennially (i.e., every two years) in even-numbered years since 2002. This empirical study uses VHLSS 2020, which is the most updated data.

The VHLSS 2020 involves conducting two separate surveys at the household level: an income-only survey and an income and expenditure survey. A total of around 46,000 households were interviewed for the income-only survey and above 9,000 for the income and expenditure survey in each survey round. Income-only survey is used in this study to figure out the relationship between access to credit and income of rural households in Vietnam. The survey covered a wide range of topics related to household activities, such as education, employment, health, income, assets, housing, and poverty reduction programs. Additionally, this study utilized data from the commune survey of the VHLSS 2020, which collected information on the primary socioeconomic conditions of rural communities where VHLSS 2020 participants resided during the survey period. The commune survey provided data on various commune characteristics, including demography, ethnicity, social order, basic socioeconomic infrastructure, and economic situation, which may impact the living standards of households in the area. Therefore, this survey offers valuable information for the study.

4.2. Methodology

4.2.1. The fundamental issue in impact evaluation

In the social sciences, impact evaluation aims to measure the effects of a specific intervention, such as a program, policy, or project, on the subjects involved. In particular, regarding evaluating the impact of credit access on a population, individuals affected by credit access are considered the treatment group, while those not affected are the control group. A binary variable called D_i is used to indicate whether someone is part of the treatment group (D_i equals 1) or not (D_i is 0). The outcome of interest, represented by Y_i is assessed to determine whether it is influenced by credit. To answer this question, researchers must consider what might have happened to individuals in the treatment group if they had not been affected by credit and vice versa. Therefore, each individual can have two potential outcome variables based on their D as follows.

$$\text{Potential outcomes} = \begin{cases} Y_{1i} & \text{if } D_i = 1 \text{ (received treatment)} \\ Y_{0i} & \text{if } D_i = 0 \text{ (did not received treatment)} \end{cases} \quad (1)$$

The potential outcomes of an individual can be divided into two categories: Y_{0i} represents the outcome if the individual was not impacted by credit, regardless of whether they actually were affected or not, while Y_{1i} represents the outcome if the individual was impacted by credit. Therefore, for any given individual i , the potential outcomes can be expressed as:

$$Y_i = Y_{i0} + D_i(Y_{i1} - Y_{i0}), \quad (2)$$

The causal effect for an individual, denoted by $(Y_{i1} - Y_{i0})$, is a term used in research. However, it is not possible to observe both potential outcomes simultaneously for any single person, creating a challenge. As a result, social science researchers must

compare the average outcomes of those in the treatment group to those in the control group to understand the effects of accessing credit.

In the field of treatment effects, the most used parameters for measuring average causal effects are the Average Treatment Effect (ATE) and the Average Treatment Effect on the Treated (ATT). These two parameters are connected by a formal equation as follows.

$$(3) \quad E(Y_i|D_i = 1) - E(Y_i|D_i = 0) = [E(Y_{i1}|D_i = 1) - E(Y_{i0}|D_i = 1)] + [E(Y_{i0}|D_i = 1) - E(Y_{i0}|D_i = 0)]$$

The symbol $E(\cdot)$ represents the operator for taking an expectation. The expression on the left-hand side of the equation represents the average treatment effect (ATE), which is the observed difference in the outcome. On the other hand, the expression $[E(Y_{i1}|D_i = 1) - E(Y_{i0}|D_i = 1)]$ represents the average treatment effect on the treated (ATT), which highlights the hypothetical nature of a causal effect. This expression measures the average difference between the outcome of individuals who were affected by credit $E(Y_{i1}|D_i = 1)$, and what their outcome would have been if they had not been affected by credit $E(Y_{i0}|D_i = 1)$. Unfortunately, the term $E(Y_{i0}|D_i = 1)$ cannot be directly observed. The selection bias term, denoted as $[E(Y_{i0}|D_i = 1) - E(Y_{i0}|D_i = 0)]$, represents the difference in the average outcome of those who were affected by the policy versus those who were not. If the selection bias term is significant, it can influence estimating a policy's treatment effect. As a result, most empirical economic research aims to address this term and reduce its impact on the estimates.

To address the issue of selection bias, randomized controlled trials (RCTs) are a critical tool. Banerjee and Duflo (2017) noted that in an RCT, individuals are randomly assigned to different treated groups. This process ensures that there is no expression of unobservable characteristics in the selection of individuals. Consequently, any differences in outcomes between the treated and control groups can be attributed to the actual impact of the treatment, policy, or program. As a result, RCTs are regarded as the gold standard in impact evaluation. However, RCTs' implementation in studies can be complex and costly. As a result, social scientists have been exploring alternative methods to estimate the effects of policies or programs using survey data, census data, or observational data. Researchers have been particularly interested in developing consistent and efficient estimators of program effectiveness, which involves estimating average treatment effects under various assumptions. Econometricians (Heckman, 1978) and (Heckman, 1979) and statisticians (Rosenbaum & Rubin, 1983) have played an important role in developing and enhancing new techniques for estimating causal effects from observational data, which are commonly referred to as Propensity Score Analysis. This method has gained significant popularity among researchers as an approach for estimating causal treatment effects using observational or non-experimental data.

4.2.2. Analytical strategy

This study applies propensity score matching (PSM) to figure out the impact of accessing credit on income of rural households in Vietnam with data from VHLSS. The PSM is one of the models of propensity score analysis created by Rosenbaum and Rubin (1983). The core concept of PSM involves computing the propensity score for each individual to generate a counterfactual group. Essentially, PSM aims to address selection bias and provide accurate estimates of the Average Treatment Effect on the Treated (ATT). The propensity score refers to the likelihood of being assigned to the treatment group based on observable baseline characteristics, denoted as $Pr(D = 1 | X)$. This score is relevant not only in randomized experiments but also in nonexperimental studies. However, in the case of randomized experiments, $Pr(D = 1 | X)$ is known because each individual is randomly assigned to either the treatment or control group, giving everyone an equal chance of being in the treatment group. Thus, $Pr(D = 1 | X)$ is 0.5. On the other hand, $Pr(D = 1 | X)$ is unknown in non-experimental data, so it must be estimated. The propensity score matching method can tackle this issue, allowing researchers to simulate some of the features of a randomized controlled trial in an observational study.

Figure 1 illustrates an analytical strategy to figure out the impact of access to credit on rural household income in Vietnam by using propensity score matching method.

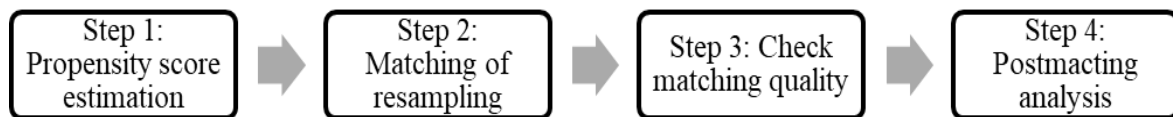


Figure 1: Procedure for estimating treatment effects by PSM

Source: Authors' summary

Step 1: Propensity score estimation

The first step involves determining the likelihood of rural households accessing credit based on independent variables that are assumed to influence credit participation. In accordance with the approach proposed by Caliendo and Kopeinig (2005), two decisions must be made when estimating propensity scores. Firstly, an econometric model needs to be selected, and secondly, the independent variables that will be included in the chosen model must be identified. Since this study involves two groups (those with access to credit and those without), a binary logistic regression model was chosen. For the selection of independent variables, variables were chosen that are believed to simultaneously affect both the decisions of accessing credit and the outcome variables, as per the methodology proposed by Caliendo and Kopeinig (2005). The model can be described as follows.

$$Y_i = \alpha_0 + \beta_1 X_{1i} + \beta_2 X_{2i} + \dots + \beta_k X_{ki} + \varepsilon_i \quad (4)$$

where Y_i denotes the dependent variable of household i . Y is a dummy variable. Y equals 1 if a household has access to credit. Otherwise, Y equals 0 if a household does not access to credit. Meanwhile, X is a vector of explanatory variables that can affect the

probability of access to credit of rural households. It consists of household characteristics, poor status variables, and community characteristics. The definition of all independent variables is shown in Table A1. The last part ε_i is the error term.

Step 2: Matching or resampling

In the second step, various matching approaches are applied to balance the data based on the estimated propensity score by the logit model. They consist of one-to-one, one-to-one with no replacement, k-nearest neighbors, radius with caliper = $0.25 * \sigma_p$ (σ_p is the standard deviation of propensity score estimated), epanechnikov kernel, biweight kernel, gaussian kernel, and local linear regression matching.

Step 3: Check the matching quality

The third important step when applying the PSM model is to test the quality of the matching process. As Caliendo and Kopeinig (2005) suggest, the matching quality should be assessed to ensure that the distribution of relevant variables is balanced across both groups. To test the matching quality, various mechanisms have been proposed in the literature, including standard bias, the number of insignificant variables in the t-test, the balance of data after matching, and pseudo-R².

Step 4: Postmatching analysis

Once the optimal matching algorithm has been selected, the next step involves computing the average treatment effects (ATTs). This calculation is done by taking the average effect for sampled households with a particular value of the explanatory variables. Precisely, it is estimated by taking the difference between the treatment and control averages that are matched through the propensity scores.

5. Results and discussions

The main findings of the study are presented in detail in this section. First, descriptive statistic of the sample households from VHLSS 2020 data are introduced. Following that, assessments of the impact of credit access in rural areas are presented.

5.1. Descriptive statistic of the sample households

Table 1. Sample distribution by types of credit sources

	Frequency	Percentage
Formal credit	7,486	23.91
Semi-formal credit	392	1.25
Informal credit	948	3.03
No access credit	22,479	71.81
Total	31,305	100

Source: Author's calculation based on VHLSS 2020

First, Table 1 provides information on the distribution of households in the sample by three types of credit sources. According to that table, 28.19% of rural households have access to credit. In detail, nearly 24% of rural households have loans from the formal credit sector, the number of semi-formal and in-formal credit sectors are 1.25% and 3.03%, respectively. More importantly, the information from the Table shows the dominance of the formal credit sector in rural Vietnam.

Table 2. Household characteristics (Continuous variables)

	Observations	Mean	Std. Dev.	Min	Max
Age of head (year)	31,305	50.96	14.11	15	105
Household size (person)	31,305	3.72	1.63	1	14
Education of head (year)	31,305	7.45	4.00	0	24
Asset value (million Dong)	31,305	792	2,281	0	361,000
Share of dependents (percent)	31,305	0.33	0.28	0	1
Share of remittance (percent)	31,305	0.02	0.09	0	1

Source: Author's calculation based on VHLSS 2020

Table 2 and Table 3 present descriptive statistics of the demographic variables of the households in the sample. From the VHLSS 2020 dataset, the study selected rural Vietnam with a total of 31,305 observations. Table 2 provides information regarding the descriptive statistics of the characteristics variables that are continuous. Specifically, Table 2 offers important descriptive statistics on household characteristics, including those related to the age of the household head, family size, the education level of the household head, the value of owned assets, the proportion of dependent members, and the ratio of contributions from remittances to income. Meanwhile, descriptive statistics of dummy variables such as the marital status of the head of household, ethnicity, and permanent residence status are shown in Table 3.

Table 3. Household characteristics (Dummy variables)

		Frequency	Percentage
Gender of head	Female	6,846	21.87
	Male	24,459	78.13
	Total	31,305	100
Marital status of head	Not married	5,922	18.92
	Married	25,383	81.08
	Total	31,305	100
Ethnicity of head	No	6,851	21.88
	Kinh	24,454	78.12
	Total	31,305	100

Resident document	No	685	2.19
	Yes	30,620	97.81
	Total	31,305	100

Source: Author's calculation based on VHLSS 2020

The characteristics derived from the descriptive statistics of the demographic variables in Tables 2 and 3 show the characteristics of households in rural Vietnam recently. According to Table 2, the average age of household heads in rural Vietnam is around 50 years old, and the basic family size in rural areas is four people. On average, the head of household in rural areas has seven years of schooling. In addition, the percentage of dependent members of rural households is 33%. The contribution of remittances to family income is small at 2%.

As seen from Table 3, 78% of rural households in the sample have a male household head. In addition, the percentage of married household heads is 78.13%. Out of 31,305 observed samples, the vast majority of households in rural areas include 24,454 households whose heads are Kinh people, accounting for 78.1%. Finally, the majority of households in rural Vietnam have permanent residence in the locality, accounting for 97.2%.

5.2. Impact analysis of formal credit on income of rural households

This section presents the quantitative results obtained regarding the impact of credit access from the formal, semi-formal, and informal sectors on income per capita and income from agriculture of households in rural Vietnam.

5.2.1. Estimation of propensity score

Table 4. Logistic regression result of propensity score determination

Explanatory Variables	Formal	Semi-formal	Informal
Age of head	-0.552*** (0.057)	-0.418** (0.208)	-1.253*** (0.130)
Household size	0.665*** (0.036)	0.656*** (0.132)	0.450*** (0.087)
Gender of head	-0.058 (0.045)	-0.266 (0.155)	0.141 (0.106)
Education of head	0.006 (0.004)	-0.004 (0.015)	-0.036*** (0.010)
Marital status of head	0.106**	-0.026	-0.249**

	(0.053)	(0.183)	(0.121)
Resident document	0.474***	0.060	-0.286
	(0.128)	(0.387)	(0.215)
Asset value	0.029*	-0.122**	0.021
	(0.015)	(0.051)	(0.035)
Ethnicity of head	0.062	0.781***	0.400***
	(0.046)	(0.196)	(0.123)
Share of dependents	-0.717***	-0.718**	0.164
	(0.060)	(0.219)	(0.138)
Share of remittance	-0.228	0.564	0.453
	(0.178)	(0.527)	(0.360)
Poor status (dummy variables)	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Commune variables	<i>Yes</i>	<i>Yes</i>	<i>Yes</i>
Pseudo-R²	0.082	0.023	0.030
Observations	31,305	31,305	31,305

Notes: The full set of results for all of the independent variables is shown in Table A2 of the Appendix.

Standard errors are in parentheses. Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: Author's calculation based on VHLSS 2020

As explained in the description of the research method, estimating the propensity score is the first step of applying PSM to assess the impact of a policy or, in this case, to determine the impact of access to credit in rural areas. Specifically, to do this, a logistic regression model is used to estimate the propensity score of households. In detail, nine explanatory variables related to household characteristics are included in the logistic model to estimate the probability of accessing credit from formal, semi-formal, and informal channels. Besides, the study has added some variables related to the characteristics of the commune where rural households live to obtain better estimation.

Although the main objective of this study is to assess the impact of credit access on household income, the estimates in the first step of this logistic regression show some significant findings. The results of the logistic regression in step 1 are presented in Table 4. The results show that the age of the household head has an inverse relationship with the ability of households to access formal, semi-formal, and informal credit. In detail, the age variable is significant at the 1% level in the three regressions corresponding to three credit

sectors (formal, semi-formal, and informal) in rural areas. As the age of the household head increases, the household's ability to access credit decreases. This is consistent with the fact that older people are less actively seeking new income-generating opportunities and have a lower ability to repay loans, resulting in a decrease in their access to credit. This finding is consistent with the conclusion found in the study of (Ming Qin, 2018), (Alemu & Ganewo, 2022). In contrast, the variable family size has a positive relationship with credit access. This variable is statistically significant at the 1% level in all three research models. This observation implies that a family with a larger number of members will more likely have access to credit than a family with a smaller size. For the education level variable, the results show an inverse relationship of this variable with the ability to access informal credit. Meanwhile, there is no evidence for the association of this variable with the ability to access formal and semi-formal credit. It implies that the higher the education level, the lower the probability of participating in the informal credit channel. This is consistent with the fact that household heads with higher education levels are more likely to be aware of the advantages, disadvantages as well as potential risks of borrowing from the informal sector. The results in Table 4 also show that the marital status of the household head can affect the ability to access formal and informal credit, while this factor does not affect the ability to participate in the semi-formal credit sector of rural households in Vietnam. As for the residence document variable, this variable affects the ability to join the formal credit sector but does not affect the credit access of the other two sectors. Accordingly, a household with a local permanent residence will have higher access to credit from formal suppliers than others. In addition, asset value is found to have a link with formal and semi-formal credit access but has no relationship with informal credit access. Meanwhile, the ethnicity variable affects the probability of households participating in the semi-formal and informal sectors. In addition, there is an inverse relationship between the proportion of dependent members and the household's ability to get loans from the formal and semi-formal sectors. Finally, the results do not find any link between the variables related to the gender of the household head, remittance share to income, and the household's ability to access credit.

5.2.2. *Testing the matching quality*

After obtaining the propensity score of rural households by using the regression models, this study applies different matching methods to balance data. This section shows how to select a suitable matching algorithm from a set of options, including one-to-one, one-to-one with no replacement, k-nearest neighbors, radius, local linear regression, and three types of kernel matching algorithms. The selection process takes into account two criteria recommended by Deheja and Wahba (2002), including a balancing test and pseudo- R^2 for each matching algorithm. The ideal matching algorithm should balance all explanatory variables and minimize the pseudo- R^2 value.

Table 5. Performance criteria of matching algorithms

Matching algorithm	Formal Credit		Semi-formal Credit		Informal Credit	
	(1)	(2)	(1)	(2)	(1)	(2)
One-to-one	25	0.002	30	0.018	31	0.006
One-to-one (no replacement)	25	0.002	31	0.015	31	0.006
k-Nearest neighbors (k=3)	26	0.001	31	0.005	31	0.003
Radius (0.25* σ)	25	0.001	31	0.000	31	0.000
Local linear regression	24	0.002	30	0.018	31	0.006
Epanechnikov Kernel	22	0.001	23	0.044	18	0.041
Biweight Kernel	23	0.001	25	0.043	23	0.033
Gaussian Kernel	17	0.004	22	0.044	14	0.050
(1) Number of insignificant variables			(2) Pseudo-R ²			

Source: Author's calculation based on VHLSS 2020

Table 6. Explanatory variables balance test

Variables	Formal Credit			Semi-formal Credit			Informal Credit		
	Mean		% bias reduction	Mean		% bias reduction	Mean		% bias reduction
	Treated	Control		Treated	Control		Treated	Control	
Age of head									
• Unmatched	3.831	3.911	97.3	3.858	3.892	95.4	3.809	3.894	97.0
• Matched	3.831	3.829		3.858	3.859		3.809	3.812	
Household size									
• Unmatched	1.334	1.163	97.2	1.301	1.203	95.6	1.306	1.201	97.6
• Matched	1.334	1.340		1.301	1.297		1.306	1.309	
Gender of head									
• Unmatched	0.821	0.769	97.5	0.763	0.782	90.6	0.812	0.780	98.7
• Matched	0.821	0.823		0.763	0.765		0.812	0.813	
Education of head									
• Unmatched	7.188	7.528	91.6	7.301	7.448	95.7	7.675	7.439	98.7
• Matched	7.188	7.159		7.301	7.295		7.675	7.678	
Marital status of head									
• Unmatched	0.865	0.794	96.2	0.821	0.811	89.1	0.841	0.810	96.5
• Matched	0.865	0.868		0.821	0.820		0.841	0.842	

Permanent resident document									
• Unmatched	0.989	0.975		0.980	0.978		0.969	0.978	
• Matched	0.989	0.991	87.1	0.980	0.980	96.4	0.969	0.970	90.1
Asset value									
• Unmatched	12.861	13.053		12.889	13.008		13.109	13.004	
• Matched	12.861	12.871	94.7	12.889	12.894	96.4	13.109	13.109	99.9
Ethnicity of head									
• Unmatched	0.663	0.818		0.819	0.781		0.830	0.780	
• Matched	0.663	0.666	98.1	0.819	0.822	92.7	0.830	0.830	98.7
Share of dependents									
• Unmatched	0.309	0.337		0.305	0.330		0.345	0.330	
• Matched	0.309	0.300	69.5	0.305	0.308	89.4	0.345	0.344	90.3
Share of remittance									
• Unmatched	0.014	0.022		0.021	0.020		0.019	0.020	
• Matched	0.014	0.013	89.9	0.021	0.021	70.3	0.019	0.019	71.9

Source: Author's calculation based on VHLSS 2020

As can be seen from Table 5, in access to formal credit, the k-nearest neighbors matching (with k=3) method shows the lowest level of pseudo-R² (0.001) as well as the highest number of insignificant variables (26 variables) in comparing treatment and control groups. Similarly, according to these criteria, radius matching is determined to be the best option for semi-formal and informal credits.

As can be seen from Table 6, the balance of the household characteristic variables before and after matching scenarios was checked by the selected matching algorithms. The result of this analysis shows that before matching, there were significant differences between the groups in household characteristics, including the age of the head, household size, gender, education, marital status, ethnicity, and asset value. However, the selected matching algorithms are able to balance these differences between the groups, as shown in Table 6. Especially as for formal credit, the k-nearest neighbors matching estimator reduces bias that could have arisen from explanatory variables, and the range of bias reduction is 69.5%-98.1%. These ranges of semi-formal credit and informal credit are 70.3%-96.4% and 71.9%-99.9%, respectively.

Table 6. Insignificant likelihood ratio test

Sample	Pseudo-R ²	LR chi ²	p>chi ²
Formal Credit			
• Unmatched	0.083	2,855.07	0.000
• Matched	0.001	28.78	0.581
Semi-formal Credit			
• Unmatched	0.023	95.37	0.000
• Matched	0.000	0.17	1.000

Informal Credit

• Unmatched	0.030	256.75	0.000
• Matched	0.000	0.240	1.000

Source: Author's calculation based on VHLSS 2020

In addition, Table 7 demonstrates that the pseudo- R^2 values are extremely low after matching. This, along with the likelihood ratio test's insignificance, suggests that households with access to credit and those without had similar covariate distributions after matching. These results illustrate that the matching process successfully balanced the characteristics of the treated and comparison groups and confirm that the propensity score models are appropriately specified. In other words, the balancing tests show that the control group is a suitable counterfactual for the treated group, as Rehman et al. showed in 2021. All of these tests together suggest that the k-nearest neighbor and radius matching algorithms are the most effective for this study's data, therefore, will be used for the impact analysis in subsequent steps.

5.2.3. Calculating Average Treatment Effect on Treated

PMS is a method that solves the problem of selection bias in studying policy impacts, which is the impact of credit access on household income in this study. This section presents the results of estimating the impact of credit access from the formal, semi-formal, and informal sectors on household income in rural Vietnam. Accordingly, the results of that impact on the income per capita and income from agriculture of households are presented in Table 8 and Table 9, respectively.

Table 8. ATT estimation result of household income per capita

Income per capita (Output variable)	Access		Difference	
	(Treated Group) (,000 VND)	No access (Control Group) (,000 VND)	(,000 VND)	(%)
Formal Credit				
• Unmatched	3,160.00	3,622.87	-463.87	-12.75
• Matched	3,160.00	3,110.88	49.12	1.58
Semi-formal Credit				
• Unmatched	3,198.22	3,516.17	-317.95	-9.04
• Matched	3,198.22	3,380.80	-182.58	-5.40
Informal Credit				
• Unmatched	3,253.95	3,520.25	-266.30	-7.56
• Matched	3,253.95	3,599.38	-345.43	-9.60

Source: Author's calculation based on VHLSS 2020

The results estimated by PMS show that formal credit access improves household income in rural areas. The results indicate a positive effect of formal loans on household

income per capita and income from agriculture. The impact of formal credit access on income per capita is small (around 1%), but its impact on income from agriculture is larger (13.9%). This can be explained by the fact that credit obtained from formal suppliers can supplement an important source of finance to support farming households to invest in agricultural production, thereby improving income from agriculture. This observation of the positive impact of credit is consistent with the targeted orientations of formal credit institutions, which aim to provide capital to improve the living standards of households in rural areas. This result provides additional evidence to support previous studies in developing countries such as (Ghalib, Malki & Imai, 2015), and (Alemu & Ganewo, 2022).

Table 9. ATT estimation result of household income from agriculture

Agricultural income per capita (Output variable)	Access (Treated Group)	No access (Control Group)	Difference	
	(,000 VND)	(,000 VND)	(,000 VND)	(%)
Formal Credit				
• Unmatched	865.50	671.47	194.03	28.90
• Matched	865.50	761.80	103.70	13.61
Semi-formal Credit				
• Unmatched	585.20	719.55	-134.35	-18.67
• Matched	585.20	687.57	-102.37	-14.89
Informal Credit				
• Unmatched	607.60	721.31	-113.71	-15.76
• Matched	607.60	641.02	-33.42	-5.21

Source: Author's calculation based on VHLSS 2020

For the semi-formal and informal credit channels, the results show that receiving loans from the semi-formal and informal sectors reduces income per capita and income from the agriculture of households in rural Vietnam. In detail, access to semi-formal credit reduces rural households' income per capita and agricultural income per capita by 5.4% and 14.9%, respectively. Similarly, borrowing from informal channels reduces household income per capita by 9.6% and income from agriculture by 5.2%, respectively.

6. Conclusion

This study applies propensity score matching method to the Vietnam Household Living Standard Survey 2020 dataset to assess the impact of credit access on household income in rural Vietnam, corresponding to three types of credit (formal, semi-formal, and informal). In rural Vietnam, formal credit channels play an important role in allocating credit to households compared to the remaining two areas. The study's results show that access to formal credit is determined by factors related to household characteristics. In

particular, age, family size, marital status, as well as assets value, and the proportion of dependents in the family are factors that affect the ability of households in rural areas to access formal credit. In addition, other characteristics factors such as gender, education level, ethnic characteristics, and share of remittance are not shown to be related to the ability of households to access credit through formal providers. As for the informal and semi-formal credit sectors, factors affecting the probability of households joining these two sectors are somewhat different from the estimates of the formal sector case. The ability of households to access credit from semi-formal channels is influenced by factors such as age, family size, asset value, ethnic characteristics, and remittance share. Meanwhile, for the informal sector, in addition to the two elements of age and family size, as in the previous two cases, the ability of rural households to obtain loans from informal providers is also determined by factors: education level, household status, and ethnicity. More importantly, the results of this study also reveal that accessing credit from the formal channel improves household income per capita as well as income from agriculture. In contrast, credit from the semi-formal and informal sectors has not been shown to positively affect household income per capita or income from agriculture.

This study assesses the impact of rural credit at the country level. The study has contributed to addressing the research gap when considering virtually all forms of credit in rural Vietnam. Most previous studies focused on the form of credit provided by the Vietnam Bank for Social Policies. Furthermore, the impact of credit coming from the semi-formal and informal sectors is assessed. The estimates derived from applying PSM to evaluate the effect of credit access in rural areas are shown to be better by limiting differences in demographic and geographical residence characteristics of the two control groups and the treatment group.

The results of the study on the impact of formal credit on household income are quite similar to many conclusions related to the positive impact of microcredit on household well-being in developing countries of previous studies. However, in addition to the existing findings, this study contributes more evidence on the magnitude of the impact of formal credit in rural areas. In particular, in Vietnam, most of the previous research on credit in rural areas only focused on a certain form of credit or a specific microcredit program. This study complements previous studies that have taken into account many types of credit in rural areas. The positive impact of formal credit access on household income is clearly demonstrated through comparisons with cases of the other two sectors (semi-formal and informal). The magnitude of this effect of formal credit is greater on the impact on agricultural income than on per capita household income. As a result, the main formal credit institutions in rural areas, such as the Vietnam Bank for Social Policies, Vietnam Bank for Agriculture and Rural Development, some commercial banks, and the People's Credit Fund, have proven to be an effective credit supply channel for rural households in Vietnam. This model of providing credit through formal credit institutions promises to make important contributions to the national economic development policy. Meanwhile, the semi-formal sector, mainly through social organizations, does not seem to be able to effectively provide credit to rural households. Similarly, the assessment of the

impact of informal credit on income also shows that although the formal sector has a significant market (larger than the semi-formal sector), its positive effect on household living standards is not found.

Finally, the study has certain limitations when it has not studied the impact of formal credit access on other household welfare indicators such as expenditure, health expenditure, and education expenditure. Future studies can study the combined effects of different forms of credit on the multidimensional welfare indicators of households to better clarify the impact of credit channels in rural areas of Vietnam.

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Appendix

Table A1. Definition of explanatory variables

Variable name	Definition
Household characteristics	
Age of head	Age of household head (take logarithm)
Household size	Number of family members (take logarithm)
Gender of head	Gender of household heads (0/1 dummy, 1 for male)
Education of head	Year of schooling of household head (take logarithm)
Marital status of head	Whether the head is married (0/1, 1 for married)
Resident document	Whether having a permanent resident document (0/1, 1 for yes)
Asset value	The total value of house, lands, and durables (take logarithm)
Ethnicity	Whether the head is from the majority group (0/1, 1 for Kinh)
Share of dependents	The proportion of members who are 15-65 years of age to total members (%)
Share of remittance	The share of remittance (domestic + foreign) to total income (%)
Poor status variables 2016-2020	
Poor 2016	Whether household classify the poor status (0/1, 1 for poor status)
Poor 2017	Whether household classify the poor status (0/1, 1 for poor status)
Poor 2018	Whether household classify the poor status (0/1, 1 for poor status)
Poor 2019	Whether household classify the poor status (0/1, 1 for poor status)
Poor 2020	Whether household classify the poor status (0/1, 1 for poor status)
Community characteristics	
Size	The size of commune where the household lives (take logarithm)
No of households	The number of households in commune (take logarithm)
Sea commune	Whether commune classify sea (0/1, 1 for sea community)
Midland commune	Whether commune classify midland (0/1, 1 for midland community)
Mountain commune	Whether commune classify mountain (0/1, 1 for mountain community)
Poor commune	Whether commune classifies the poor in Program 135 (0/1, 1 for poor status)

Remote commune	Whether the commune is located in a remote area (0/1, 1 for remote area)
Income commune	Whether main income source comes from agriculture (0/1, 1 for yes)
Poor households	The number of poor households in commune (take logarithm)
Benefits	The number of households receiving benefits in communes (take logarithm)
Access to road	whether there is a road passable by car to this commune (0/1, 1 for access)
National electricity	0/1 dummy, 1: access for access national electricity net
Bank branch	0/1 dummy, 1: bank branch in commune
Primary school	0/1 dummy, 1: primary school in commune
Secondary school	0/1 dummy, 1: secondary school in commune
High school	0/1 dummy, 1: high school in commune

Source: Author's explanation.

Table A2. Empirical models of propensity score determination (all variables)

Explanatory Variables	Formal	Semi-formal	Informal
Age of head	-0.552*** (0.057)	-0.418** (0.208)	-1.253*** (0.130)
Household size	0.665*** (0.036)	0.656*** (0.132)	0.450*** (0.087)
Gender of head	-0.058 (0.045)	-0.266 (0.155)	0.141 (0.106)
Education of head	0.006 (0.004)	-0.004 (0.015)	-0.036*** (0.010)
Marital status of head	0.106** (0.053)	-0.026 (0.183)	-0.249** (0.121)
Resident document	0.474*** (0.128)	0.060 (0.387)	-0.286 (0.215)
Asset value	0.029* (0.015)	-0.122** (0.051)	0.021 (0.035)
Ethnicity of head	0.062 (0.046)	0.781*** (0.196)	0.400*** (0.123)
Share of dependents	-0.717*** (0.060)	-0.718** (0.219)	0.164 (0.138)

Share of remittance	-0.228 (0.178)	0.564 (0.527)	0.453 (0.360)
Poor 2016	0.298*** (0.101)	0.453 (0.366)	-0.027 (0.278)
Poor 2017	0.128 (0.120)	0.046 (0.439)	-0.048 (0.333)
Poor 2018	0.321** (0.109)	0.064 (0.393)	-0.291 (0.321)
Poor 2019	0.312** (0.128)	-0.086 (0.470)	0.812*** (0.330)
Poor 2020	-0.527*** (0.112)	0.222 (0.410)	-0.983** (0.288)
Size	0.244*** (0.019)	-0.041 (0.069)	-0.225*** (0.047)
No of households	-0.241*** (0.035)	-0.292** (0.129)	0.153* (0.083)
Sea commune	0.084 (0.065)	0.503** (0.189)	-0.128 (0.157)
Midland commune	0.113 (0.087)	0.130 (0.304)	0.353* (0.182)
Mountain commune	0.226*** (0.042)	-0.002 (0.156)	0.295* (0.099)
Poor commune	-0.145** (0.052)	-0.368* (0.214)	-0.149 (0.143)
Remote commune	-0.111** (0.049)	0.089 (0.188)	0.097 (0.131)
Income commune	0.339*** (0.047)	-0.033 (0.154)	-0.191** (0.090)
Poor households	0.120*** (0.015)	0.039 (0.055)	0.022 (0.034)
Benefits	0.042*** (0.007)	0.005 (0.024)	-0.002 (0.016)
Access to road	-0.316*** (0.072)	-0.082 (0.266)	0.257 (0.233)
National electricity	0.723*** (0.171)	1.461 (1.004)	1.172** (0.583)
Bank branch	-0.230*** (0.060)	-0.489** (0.241)	-0.731*** (0.158)
Primary school	-0.827**	0.336	-0.277

	(0.276)	(1.039)	(0.747)
Secondary school	-0.108	-0.310	0.111
	(0.071)	(0.223)	(0.181)
High school	-0.016	-0.071	-0.109
	(0.036)	(0.137)	(0.087)
Constant	-0.085	-1.438	-0.916
	(0.488)	(1.947)	(1.272)
Pseudo-R²	0.082	0.023	0.030
Observations	31,305	31,305	31,305

Notes: Standard errors are in parentheses.

Significance levels: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Source: Author's calculation based on VHLSS 2020

DETERMINANTS OF HOUSEHOLD'S LIVELIHOOD DIVERSITY IN LAGOON AREA IN QUANG DIEN DISTRICT, THUA THIEN HUE PROVINCE

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Abstract: *This study aims to determine the factors affecting the livelihood diversity of households in the lagoon area in Quang Dien district, Thua Thien Hue province. Data was collected from the survey of 150 households in Quang Cong and Quang Ngan communes, Quang Dien district. Tobit regression model was used to analyze the factors affecting the livelihood diversity of households. The estimation results reveal 5 factors that have positive impact on the household's livelihood diversity index, including: number of household' people, the educational level of household heads, total farmland area, participation in unions and associations, and household's livelihood strategies. Therefore, the policy implications have been proposed to improve household's livelihood sustainability in the coming year.*

Keywords: *The livelihood diversity, Household, Quang Dien*

YẾU TỐ ẢNH HƯỞNG ĐẾN ĐA DẠNG SINH KẾ CỦA NÔNG HỘ Ở VÙNG ĐÀM PHÁ HUYỆN QUẢNG ĐIỀN, TỈNH THỪA THIÊN HUẾ

Tóm tắt: *Nghiên cứu nhằm tìm hiểu các yếu tố ảnh hưởng đến đa dạng sinh kế của nông hộ vùng đầm phá huyện Quảng Điền, tỉnh Thừa Thiên Huế. Thông tin dữ liệu nghiên cứu được thu thập thông qua khảo sát 150 nông hộ tại xã Quảng Công và xã Quảng Ngạn, huyện Quảng Điền. Mô hình hồi quy Tobit được sử dụng để phân tích các yếu tố ảnh hưởng đến đa dạng sinh kế của hộ. Kết quả ước lượng cho thấy, trong 9 yếu tố đưa vào mô hình, có 5 yếu tố có ảnh hưởng có ý nghĩa thống kê đến chỉ số đa dạng sinh kế của hộ, bao gồm: số nhân khẩu, trình độ học vấn của chủ hộ, diện tích sản xuất, tham gia tổ chức đoàn, hội và chiến lược sinh kế của hộ. Từ đó, một số khuyến nghị được đề xuất nhằm giúp các nông hộ phát triển sinh kế bền vững trong thời gian tới.*

Từ khóa: *Đa dạng sinh kế, nông hộ, Quảng Điền*

1. Introduction

Quang Dien is a coastal delta, lagoon district located in the north of Thua Thien Hue province. The district accounts for fairly large area of Tam Giang Lagoon with a water surface area of 2,292 hectares. The district's natural endowments offer numerous advantages to develop aquaculture activities, particularly the cultivation of high-value aquatic products. Owing to these favorable conditions, over the past years, Quang Dien's seafood industry has progressed remarkably, and thus contributed significantly to the local economy and ensuring a stable source of income for its inhabitants [1].

Fishery is the main livelihood activity for most residents in the lagoon area [1]. However, households also engage in other livelihood strategies such as agricultural production, non-agricultural activities, and services to optimize the family's livelihood resources and stabilize their income. Livelihood diversification is as a crucial strategy to mitigate risks from natural hazards and socio-economic fluctuations, increase efficiency, and promote sustainable livelihood development for households.

Therefore, the present study aims to identify the determinants that influence the livelihood diversity of farmers in the lagoon area of Quang Dien district, Thua Thien Hue province.

2. Theoretical framework and Methods

2.1. Theoretical framework

Livelihood: Livelihood is simply understood as a means to ensure people's lives. According to Ellis, a livelihood consists of assets (natural, physical, human, financial, and social capital), activities and opportunities to engage in these resources and activities (achieved through institutions and social relations), that collectively determine the standard of living attained by individuals or households [2].

Livelihood strategies: For Ellis, livelihood strategies refer to a set of activities that was undertaken to create means and sources of income for the survival and development of farmers [2]. In other words, livelihood strategies are the ability to coordinate multiple options and activities to optimize the use of the household's existing livelihood assets in order to fulfill its objectives, such as production, investment, and reproduction activities [3]. Livelihood strategies play a crucial role in farmers' livelihood. Strategies are implemented through a range of livelihood activities based on the available livelihood capital sources to generate income to meet the diverse needs of farmers. Livelihood strategies reflect the variety and fusion of livelihood options selected by households. Scoones believes that households always use diverse livelihood strategies as a result of variations in their access to livelihood capital as well as their variances in livelihood capital, income, gender, age, and other factors [4]. In general, household livelihood strategies are diverse and may change over time in order to adapt to the opportunities and challenges created by changes in the livelihood environment [3].

Livelihood diversification: According to Ellis, household livelihood diversity is the process by which households construct an increasingly diverse portfolio of livelihood activities and assets in order to survive or improve living standards [2]. This means that livelihood diversification entails building a portfolio of income consisting of farm, off-farm, and non-farm income that is less reliant on agriculture. The identification of livelihood diversification strategies to be developed depends on the household's ability to access livelihood assets [5]. In order to achieve desired livelihood outcomes, households adopt methods to diversify their income-generating activities using sources of livelihood capital. In addition, this strategy is also considered as one of the livelihood methods for lowering risks from socioeconomic volatility and natural disasters, towards the sustainable

growth of households. When livelihood activities are diversified, the resilience of livelihoods to adverse impacts of natural and socio-economic factors will increase [2].

Based on the findings from Key Informant Panel (KIP) and the Participatory Rapid Appraisal (PRA), the study defined household's livelihood strategies from two key aspects, namely: revenue-producing activities and household income structure. These strategies were divided into four groups as follow: (1) Fishery livelihood strategy; (2) Livelihood strategy combining fisheries and agricultural production; (3) Livelihood strategy combining fisheries and service industries and (4) Mixed livelihood strategy.

2.2. Research Methods

2.2.1. Data Collection methods

First of all, the study approach officers of the Department of Agriculture and Rural Development in Quang Dien district using KIP interview in order to determine information about the situation of aquaculture, the indicators to measure livelihood assets, and the livelihood activities of farmers. Afterwards, based on the location and characteristics of livelihood activities, households were selected and surveyed through stratified random sampling method. In the end, Quang Cong and Quang Ngan commune, the two aquatic communes of Quang Dien district, were chosen. In total, the study interviewed directly 160 households out of the two using a pre-designed survey. Following data collection and processing as well as removing unsatisfactory questionnaires, 150 households satisfied the study requirements, hence, were selected for analysis.

2.2.2. Livelihood diversity index of households

In rural livelihood studies, an inverse Herfindahl-Hirschman index (IHHD) is used to construct income diversity index that reflects the level of livelihood diversification at the household level [6],[7]. The IHHD is measured using the following equation:

$$IHHD = \frac{1}{\sum_{i=1}^n p_i^2}$$

In which: p_i : The proportion of income from activity i in total household income.

n : Number of income-generating activities in the household.

Thus, the value of IHHD depends on the number of income-generating activities and the household's income structure. The minimum value of the IHHD equals to 1 if the household has only one source of income. The more sources of income will result in the larger the value of the IHHD of that household and the larger the income gap between income-generating activities will lead to a smaller the value of the IHHD. The dependent variable in the Tobit regression model is the livelihood diversity index.

2.2.3. Multivariable regression model

In this study, the livelihood diversification index of farmers fluctuated from 1 to 4. The Tobit regression model is an appropriate option to determine the elements that influence them because the diversity index swings within the bounds. The form of the Tobit regression model is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_i X_i + e_i$$

In which: Y: the dependent variable, representing the household's livelihood diversity index; β_0 : a constant; β_i : the regression coefficients; e_i : the random error; X_i : independent variables, affecting the livelihood diversity of households, shown in Table 1.

Table 1: Explain the variables in the regression model

Name of variables	Unit	Explain the variables	Expected
Member	People	Number of members in the household	+/-
Labor	People	Number of laborers in the household	+
Age	Year	The age of the household head	+/-
Education	Year	The education level of the household head	+
Production area	M ²	The total production area of the household	+
Capital	Million VND	The total investment capital for the production of households	+
Participate in unions	Number	Participate in local unions and associations.	+
Livelihood strategies		The household's livelihood strategies (1: The fish livelihood strategy; 2: The livelihood strategy of fisheries and agriculture; 3: The livelihood strategy of fisheries and service and 4: The mixed livelihood strategy)	+

3. Results and discussion

3.1. Descriptive statistics of the variables in the regression model

The statistical values in Table 2 describe in detail information about the variables in the model related to the surveyed households.

Table 2. Descriptive statistics of the variables

Variables	Mean	Minimum	Maximum	Std. deviation
Member	4,6	3,0	8,0	1,240
Employee	2,9	2,0	6,0	1,076
Age	50,5	29,0	71,0	8,698
Education	7,5	2,0	12,0	2,615
Experience	14,8	5,0	32,0	5,197

Production area	11.663,5	0,0	29.500,0	6.184,797
Capital	18,0	0,9	96,8	9,090
Participate in unions	2,54	1,0	4,0	0,909

(Source: Survey data and calculation in 2022)

Table 2 shows that the average number of household members is 4,6 people, the minimum is 3 and the maximum is 8 people. A majority of surveyed households have from 3 to 5 members, which makes up 78,0% of all surveyed households.

On average, surveyed households have 2,9 employees. Of which, households with the lowest number of employees have 2 people and the highest have 6 people. Most of the surveyed households, which representatively 93,7%, have 2 - 4 workers, while only 6,3% have 5 or 6 workers. The average age of the household head is 50,5 years old, the youngest is 29 years old and the oldest is 71 years old. The survey's findings indicate that there is little variation in household ages based on the variety of their activities.

The average years of education were 7,5 years. The highest literacy of household head is up to grade 12, and the lowest is at grade 2. This finding suggests that the majority of household heads have a low level of education, with up to 81,3% having no more than a ninth-grade education.

In term of experience, the study revealed that the surveyed households had an average of 14,8 years working in production activities. Among the surveyed households, 26,0% had less than 10 years of experience, 36,0% had between 10 and 15 years of experience, 23,3% had between 15 and 20 years of experience, and 14,7% had over 20 years of experience.

It can be observed that the surveyed households have varying levels of production areas and production area including cultivated land and aquaculture land. The average production area of the household is 11,663 m². The largest household in term of production areas owns 29.000 m². In the meantime, there are 3 households, which accounts for 2% of the surveyed households, do not have any production land. The average investment capital for the production of surveyed households is 18 million VND, with the lowest investment being 0,9 million VND and the largest being 96,8 million VND.

Regarding participation in local unions and associations: The survey results show that 76,0% of farmers participate in local unions, mainly the Farmers' Union and the Women's Union. 24,0% of farmers do not participate in local unions. On average, each household participates in 2,5 unions, which is the least 1 and the highest 4.

3.2. Livelihood activities of households

The survey results show that agricultural production and fishery activities are two key groups of livelihood activities in Quang Dien district. Fishery ranks as the most important activity in Quang Dien due to its favorable location to develop. Of which, most households choose fishing and aquaculture as their main livelihood activities of the family. In agricultural production, activities undertaken by households include rice cultivation, cash crops (vegetables, melons, beans of all kinds, etc.), and animal husbandry.

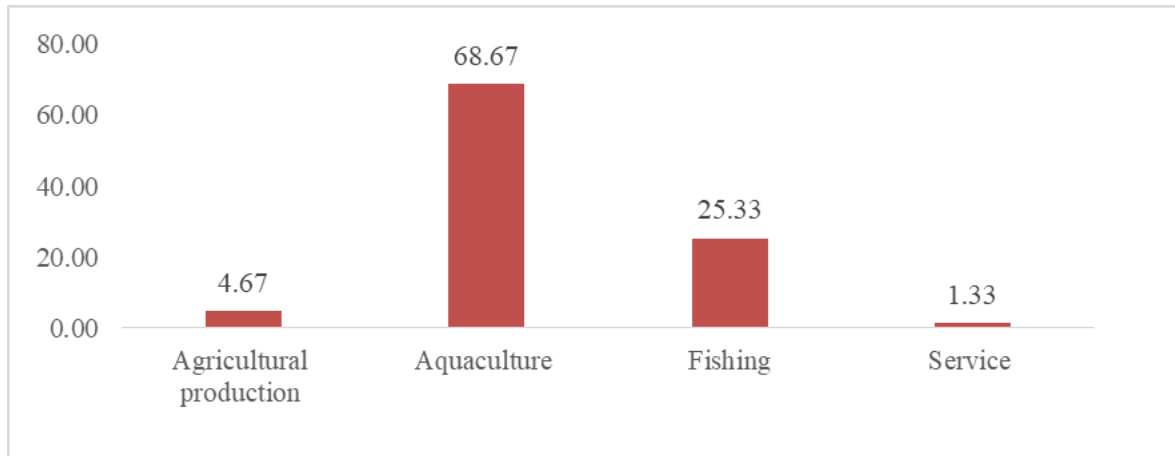


Figure 1: The main livelihood activities of surveyed households (Unit: %)

Source: Survey data in 2022)

Figure 1 shows that most of the surveyed households choose fisheries as their livelihood activity with 68,67% of households engaged in aquaculture and 25,33% in fishing activities. This result is similar to the research results of Bui Hong Ha [10], which showed that most of the coastal communities in the Central region choose aquatic livelihoods as their main livelihood activities. In addition to agricultural and fishery production, 1,33% of surveyed households choose service business or occupation as a livelihood activity for the family.

Besides, households often integrate different activities in order to maximize the usage of resources, especially labor resources. Figure 2 below demonstrate the volume of households divided by the number of livelihood activities that are being carried out at the same time.

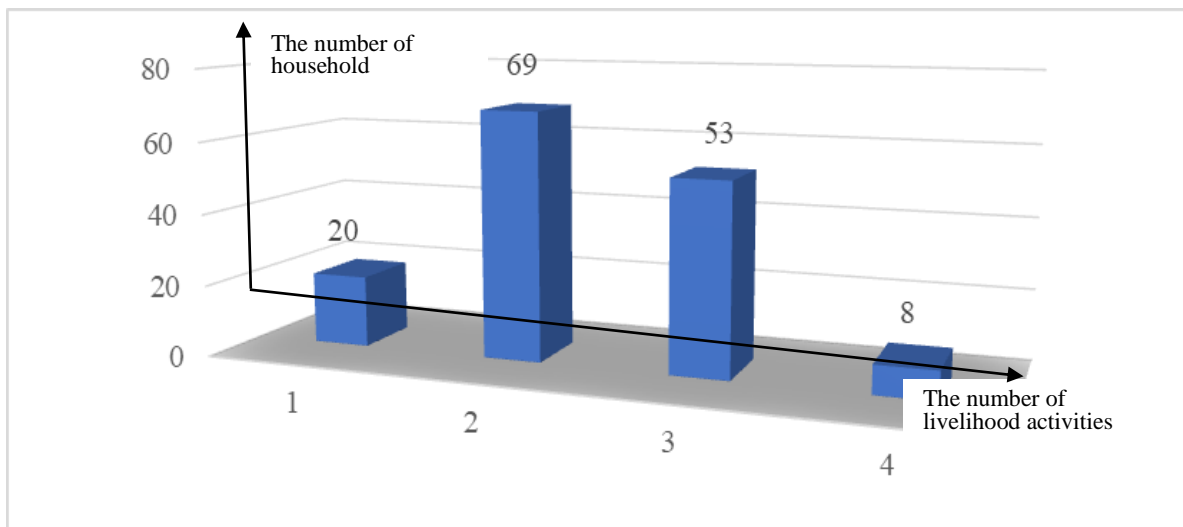


Figure 2: The number of household by livelihood activities

(Unit: Household)

Among 150 surveyed households, it was found that the most prevalent scale of livelihood activities engaged by the respondents is comprised of two activities, with a total of 69 households representing 46.0% of the surveyed population. Furthermore, 53 households (35.3%) reported engaging in three livelihood activities, while 20 households (13.3%) reported engaging in only one livelihood activity. Finally, 8 households (5.3%) reported carrying out four livelihood activities.

3.3. Livelihood diversity index of households

It is calculated that the average livelihood diversity index (the IHHD index) of farmers in the lagoon area of Quang Dien district values of 1,98. The smallest value is 1 and the maximum value is 3,88. Based on the IHHD index, the analysis of the frequency distribution shows that the percentages of households with IHHD that ranges between 1-2, 2-3, and greater than 3, are 62,0%, 30,0%, and 8,0% respectively (See Figure 3)

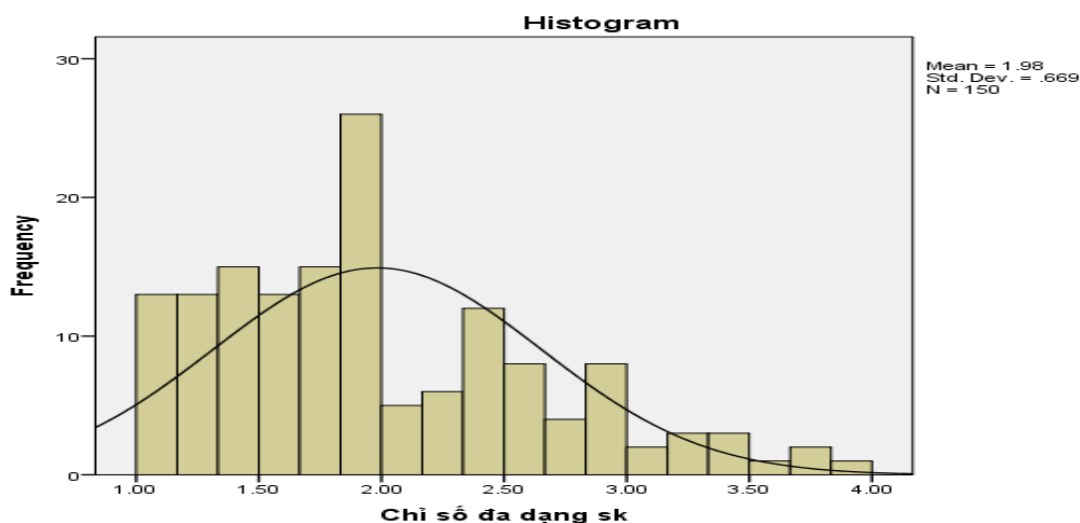


Figure 3: Frequency of the Livelihood diversity index of households

When examining the four groups of households that were classified based on their livelihood strategies, it was found that households with a fishery livelihood strategy had the lowest IHHD index, with an average value of 1,55. In contrast, households with a mixed livelihood strategy had the highest IHHD index, with an average of 2,85. Furthermore, households with a combined livelihood strategy of fisheries and agriculture had an IHHD index of 2,03, while those with a combined livelihood strategy of fisheries and service occupations had an IHHD index of 1,98.

3.4. Determinants of the household's livelihood diversification

The estimated findings indicate that the research model has statistical significance at a confidence level of 99%, and the Pseudo R2 value is 0,5126. These results suggest that the variables included in the model are appropriate and meaningful, explaining 51,26% of the influence of factors on household's livelihood diversity. The estimated coefficients of the independent variables affecting the livelihood diversity of households are shown in Table 3.

Table 3: Results of Tobit regression model on factors affecting the household's livelihood diversification

Independent variables	B	P -value
Constant	.312	.919
1. Member	.080	0.079
2. Employee	.010	0.835
3. Education	.030	0.034
4. Age	.002	0.694
5. Experience	-.003	0,722
6. Production area	9.66e ⁻⁶	0.091
7. Capital	-.0002	0.462
8. Participate in unions	.208	0.000
9. Livelihood strategies	.314	0.000
R ²	0,5126	
Prob	0,000	
Log likelihood	-76.076	
LR chi2 (9)	160.02	

(Source: Survey data and calculation in 2022)

The estimated results show that 5 out of 9 independent variables in this research significantly affect livelihood diversification strategies at different probability levels. These significant variables include: members, household head's educational level, production area, participation in unions, and livelihood strategies. On the other hand, the independent variables of labor, experience, age of household head and physical capital have no significant affecting on household's livelihood diversity.

As hypothesized, the variable of household members was found to have a statistically significant impact on livelihood diversification strategies at a 10% probability level. The odds ratio suggests that, holding other factors constant, the probability of a household choosing livelihood diversity increases by a factor of 0,08 with each additional household member. This finding implies that having more household members can lead to increased opportunities to engage in diverse production activities and thus diversify the household's income. This result is consistent with the findings of a prior study by Khuc Van Quy et al. [8].

The education level of the household head (Education) has a positive influence on the household's livelihood diversity, which is statistically significant at the 5% level of significance. The result of the odds-ratio depicts that, as the educational level of the household head increases by 1 year, the household's ability to diversify income also

increases 0,03 when keeping other factors constant. This result is similar to the study of Nguyen Dang Hao [3]. It is explained that people with a high level of education will diversify their livelihood options through the choice of production activities while households with a low level of education only carry out activities that small-scale production or low-cost labor. Relatively, farmers with a high level of education will have conditions to access and apply technological advances in production to improve the efficiency of using resource factors, especially labor. From there, they will have more time and resources to carry out other productive activities to increase their family's income.

The variable of production area was found to have a statistically significant impact on livelihood diversity at a 10% level of significance. This finding is consistent with the results of a previous study on livelihood diversity conducted by Nguyen Van Tam et al. [9]. The results shows that the production area of the household includes the cultivation area and the water surface area for aquaculture. Households with large acreage usually cover the area for both of these activities. Households with larger acreage tend to engage in multiple income-generating activities, whereas households without productive land tend to rely primarily on fishing activities for income.

Participation in local unions and associations has an effect on the livelihoods diversity of farmers at the 1% statistical significance level. This finding suggests that joining unions and associations can provide households with valuable information and support to carry out production activities, access services, and consume products. Thus, participation in unions and associations can influence the decision-making process of households when choosing and pursuing income-generating activities.

Livelihood strategy has a statistically significant impact on household livelihood diversity at a 1% level of significance. The results of the analysis in Section 2 indicate that there is a difference in the livelihood diversity index based on the household's chosen livelihood strategy. For instance, households adopting a mixed livelihood strategy have a significantly higher diversity index of 2,85 compared to households pursuing a fish-based livelihood strategy, which has a diversity index of only 1,55.

Thus, the analysis results show that the factors belonging to the characteristics of resources, livelihood strategies and participation in associations of farmers have an influence on the level of livelihood diversity of farmers household. This has implications for farmers and management agencies in proposing policies to diversify income-generating activities for rural households as well as in formulating economic development policies. countryside.

4. Conclusions

Based on collected data from a survey of 150 farmers in the lagoon area of Quang Dien district, the study results showed that: (i) The livelihood activities of the households are quite diverse, with 4 main production activities including: agricultural production, aquaculture, fishing, services and industries; (ii) The average livelihood diversity index of farmers is 1.98, with more than 90% of surveyed households having a livelihood diversity index of 1-3. Livelihood diversity index varies among households according to livelihood

strategies. (iii) Factors affecting the livelihood diversity index of farmers are number of people, education level of household head, production area, participation in unions and livelihood strategies.

Based on the research results, the author recommends that farmers and local authorities should take measures to improve the education and knowledge levels of citizens. This is an important factor in promoting capacity building activities, such as encouraging farmers to participate in local unions and training courses. In addition, local authorities should implement policies to help farmers expand their production land area and encourage land restructuring associated with economic restructuring to improve efficiency and promote sustainable development of household livelihoods.

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Ý ĐỊNH MUA THỰC PHẨM HỮU CƠ - NGƯỜI DÙNG TÌM KIẾM GÌ Ở SẢN PHẨM NÔNG NGHIỆP XANH?

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Tóm tắt: *Nền kinh tế xanh đã được khái niệm hóa như một phong trào hướng tới việc áp dụng các công nghệ bền vững với môi trường và tiết kiệm tài nguyên giúp giảm lượng khí thải carbon và tác động khí hậu. Bằng sự phối hợp hiệu quả từ sản xuất đến thị trường, nông nghiệp hữu cơ và sản phẩm của nó, thực phẩm hữu cơ, có thể là một thành phần tích cực của nền kinh tế xanh. Nhóm tác giả đã tiến hành phân tích định lượng với 409 đáp viên để khám phá động cơ mua thực phẩm hữu cơ của người Việt Nam. Phân tích tải hệ số chéo và hồi quy bội cho thấy ba thuộc tính chất lượng thực phẩm hữu cơ có liên quan, đó là Lợi ích sức khỏe, Lợi ích về môi trường và Quy trình sản xuất. Trong đó, Quy trình sản xuất có khả năng dự đoán mạnh nhất đối với ý định mua hàng của người tiêu dùng, tiếp theo là Lợi ích sức khỏe và Lợi ích về môi trường. Phát hiện này cho thấy các thuộc tính Cảm quan và Giá cả không ảnh hưởng đến việc ra quyết định của người tiêu dùng. Nghiên cứu mở rộng các tài liệu trước đây về thực phẩm hữu cơ ở Việt Nam và đưa ra gợi ý cho các hoạt động tiếp thị.*

Từ khóa: *Thực phẩm hữu cơ, Chất lượng thực phẩm, Kinh tế xanh, Tiêu dùng xanh*

ORGANIC FOOD BUYING INTENTION - WHAT DO USERS LOOK FOR IN GREEN AGRICULTURE PRODUCTS?

Abstract: *The green economy has been conceptualized as a movement towards the adoption of environmentally sustainable and resource-efficient technologies that reduce carbon emissions and climate impact. With synergy from production to market, organic agriculture and its product, organic food, can be an active part of the green economy. The authors conducted a quantitative analysis with 409 respondents to uncover the motivation for Vietnamese organic food purchases. Cross-factor loading analysis and multiple regression reveal three relevant organic food quality attributes, namely Health Benefits, Environmental Benefits s, and Production Factors. Out of which, the Production factor has the strongest predictive power over consumer purchase intention, followed by Health Benefits and Environmental Benefits s. The finding indicates Sensory and Price attributes do not influence consumers' decision-making. The study extends previous research on organic food consumption in Vietnam and provides implications for marketing practices.*

Keywords: *Organic foods, Foods quality, Green Economy, Green Consumption*

1. Introduction

The Vietnamese Green Growth Strategy 2021-30, with a vision to 2050 in October 2021 has established a strategic orientation to “develop modern, clean, organic and sustainable agriculture; raise the quality, the added value and the competitiveness of agricultural production” and promote a green lifestyle and green consumption practice (Prime_Minister, 2021). However, in Vietnam, the retail value sales of organic food and beverages were only \$130 million in 2019, compared to the overall market size of \$5 billion for health and wellness products (M. Nguyen, 2021). This may owe to the absence of a guiding principle on organic agriculture production to meet market demand. Mr Trần Thanh Nam, Deputy Minister of Agriculture and Rural Development stated that Vietnam must improve the quality and standard of organic foods to attract both local and international consumers (Vietnamnews, 2022). Therefore, this study aims to explore the quality factors that influence consumers' intention to purchase organic food in Vietnam and develop practical solutions to promote organic food consumption.

2. Literature Review

2.1. Product quality

There is no universal definition for quality. Quality can exist in the form of product attributes, consumer perception, or information stimuli (I.e. Price, product design, etc) (Petrescu, Vermeir, Burny, & Petrescu-Mag, 2022). The cue utilization theory regards quality as an array of information cues on which consumers can base their impression about a product (Brečić, Mesić, & Cerjak, 2017; Olson & Jacoby, 1972). The satisfaction theory introduced the angle of time into quality theory by separating the occasion in which consumer would form their quality perception at pre or post-consumption stages. Grunert (2002) considered quality occur prepurchase as “expected quality”. On the other hand, Zeithaml (1988)'s concept of perceived quality posits that quality is the "consumer's judgment about a product's overall excellence or superiority" based on perceptions of what is received and what is given (post-purchase). The fact that consumers' judgment of a product's quality is changing also implies that quality is also based on consumers' beliefs and attitudes and field of experience. Therefore, quality is both multifacet and subjective.

2.2. Food quality

Food quality can be divided into intrinsic and extrinsic attributes in which intrinsic refers to attributes that are inherent to the food itself such as appearance, size, and price while extrinsic refers to the attributes that are associated but not a part of the food itself such as packaging, price, country of origin (Petrescu et al., 2022). Lago et al. (2020) argued that an attribute's significance is dependent on the profile of the consumer and food type. As consumers' value systems, beliefs, and related food behavior are largely culture-based, it is difficult to generalize and determine which quality factors are most important for users (Schröder, 2003).

2.3. Organic foods quality

Organic foods are food naturally produced to maximize the biological cycle,

reducing pollution and enabling animals and farmers a safe and healthy environment (Winter & Davis, 2006). The majority of study on organic food has applied the Theory of Planned Behaviour (TPB), a cognitive theory, to analyze the reason for consumers' intention to purchase the product. Theory of Planned Behaviour (TPB) is a theory that explained the consumers' intention to purchase based on two pillars: their attitude towards the product, and the social attitude towards the product (subjective norm) (Fishbein, Ajzen, & Belief, 1975). Therefore it is more fitting for predicting the consumers' organic foods choice based on their cognitive process rather than based on consumers' motivation. As such, they are less valuable for the goal of increasing the standard of organic food production. However, these researches are still included because they also analyze the consumer attitude toward the organic product and their influence on their intention to purchase. As food quality is a subjective concept, some product-related attitude constructs in TPB empirical research are useful to locate and verify the perceived quality attributes influencing organic food consumers' decisions.

Generally, the key attributes that set organic foods apart from conventional foods are those related to production practice (Seyfang, 2007), nutrition level, and unique taste (Truong, Yap, & Ineson, 2012a). The key attributes of organic food quality are ecological welfare and nutritional content (Lee & Yun, 2015); health benefits, and environmental benefits (Aertsens, Verbeke, Mondelaers, & Van Huylenbroeck, 2009; Hoppe, Vieira, & Barcellos, 2013; Lee & Yun, 2015; Maloney, Lee, Jackson, & Miller-Spillman, 2014)

2.4. Research gap:

The global body of research on organic food quality is still underdeveloped with few theoretical development and validation on both the general food quality attributes as well as the green/ sustainable food quality attributes (Petrescu et al., 2022). On the other hand, there is no research focusing on organic food quality factors affecting purchase decisions in Vietnam. The most relevant research applied a theoretical framework that glossed over these motivators (TPB theory). Therefore this research aims to combine all the major organic food quality attributes found in the Vietnam context and develop a framework reflecting how these factors contribute to Vietnamese users' intention to purchase organic food.

2.5. Organic food quality attributes

2.5.1. Health factors

Health and safety are repeatedly identified as the strongest motivator for organic food purchases in Vietnam (Dang & Tran, 2020b; Hai, Moritaka, & Fukuda, 2013; T. M. Nguyen, Park, & Choi, 2021). This may be due to the persisting food safety issues in Vietnam (Dang & Tran, 2020b; Truong, Yap, & Ineson, 2012b). In the Vietnam context, T. M. Nguyen et al. (2021) have identified food safety, health benefits, and nutritional value as the attributes predicting consumers' organic consumption. Health factors also signify the perceived absence of chemicals and toxicity to enhance and improve consumers' health. (Kühn, Krikser, Issa, & Profeta, 2023; Miftari, Haas, Meixner, Imami, & Gjakaj, 2022; Rodríguez - Bermúdez et al., 2020)

H1: Health consciousness positively affects the purchase intention of organic foods.

2.5.2. Environmental factors

Consumer purchase food for altruistic reasons (Mesić, Petljak, Borović, & Tomić, 2021) in the sense that they both consciously and emotionally purchase organic food to protect the environment. Kühn et al. (2023); (Maloney et al., 2014) (Miftari et al., 2022). However, this runs contrary to T. M. Nguyen et al. (2021) finding about Vietnamese consumers' motivation.

H2: Environment benefits positively affect the purchase intention of organic foods.

2.5.3. Sensory factors

Sensory appealing foods give consumers a pleasurable experience thus directly influencing purchasing intention (Lee & Yun, 2015). The sensory appeal includes factors such as taste, appearance, and freshness (Petrescu et al., 2022; Rodríguez - Bermúdez et al., 2020)

H3: Sensory positively affects the purchase intention of organic foods.

2.5.4. Production factors

The use of cleaner production positively affects purchase intention, especially related to food behavior as found in (Sama, Crespo-Cebada, Díaz-Caro, Escribano, & Mesías, 2018) (Lago et al., 2020). Dang and Tran (2020b) raised the importance of product origin and producer trust as the key factors that affect Vietnamese consumers' attitudes toward traceable meat while the production process shows no effect. However, considering that traceable meat already implies a sustainable production process, it is necessary to retest the effect of this factor in a more neutral context.

H4: Production positively affects the purchase intention of organic foods.

2.5.5 Price factors

There is a price dimension to organic food due to the indirect ecological, social, and other costs associated with the production process. Maloney et al. (2014); Mesić et al. (2021) argued that since household income is positively related to consumers' willingness to spend more on the organic product, price is a factor influencing consumers' purchase intention. Kühn et al. (2023) cautioned researchers about the 'perceived price barrier' that consumers face when considering organic food consumption. This is particularly relevant in Vietnam, where consumers often associate the high price of organic food with premium quality and prioritize purchasing it for their loved ones rather than themselves (Ehlert & Faltmann, 2019). Despite this attitude, price barriers can still hinder actual organic food purchases for Vietnamese consumers (Hai et al., 2013).

H5: Price benefits negatively affect the purchase intention of organic foods.

3. Theoretical framework

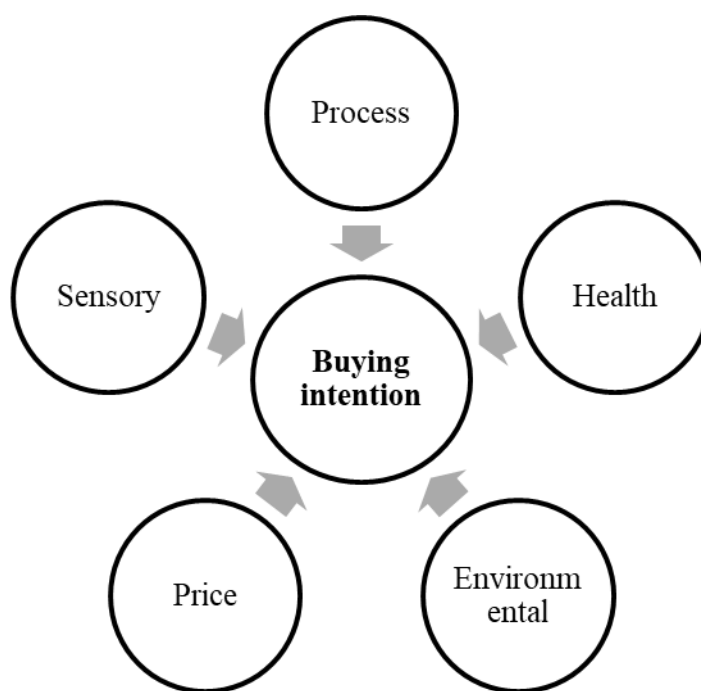


Figure 1: The proposed framework

4. Sampling and methodology

The study collected data from 421 respondents through a survey distributed online and in organic shops. After excluding 14 incomplete responses, 32 questions were analyzed across three sections: screening, influencing factors (health, sensory, environment, production, and price), and willingness to buy organic food. A 5-point Likert scale (1 - totally disagree, 2- disagree, 3- neutral, 4- agree and 5 - totally Agree) was used to rate responses. The data was analyzed using SPSS and Eview, including internal consistency reliability, exploratory factor analysis, and multiple regression analysis to predict consumer intentions to buy organic food based on the five influencing factors.

Variables	Code	Items	Source
HEALTH FACTORS	HF1	OF are safer to eat than CF	(Magnusson, Arvola, Koivisto Hursti, Åberg, & Sjäodén, 2001)
	HF2	OF have lower levels of pesticide and chemical residue than CF	(Truong et al., 2012a)
	HF3	Can help humans to reduce the risk of contracting disease (are more healthy than non-OF) than CF	(Magnusson et al., 2001)
	HF4	OF have more nutritional values than CF	(Truong, Yap, & Ineson, 2012)
SENSORY	SF1	OF have better taste than CF	(Magnusson, Arvola, Koivisto

FACTORS			Hursti, Åberg, & Sjärdén, 2001)
	SF2	OF have a better appearance than CF	Author
	SF3	OF has a longer shelf-life than CF	(Magnusson et al., 2001)
ENVIRONMENTAL FACTORS	EF1	Use methods to improve soil fertility	(Truong, Yap, & Ineson, 2012)
	EF2	foods that do not deplete natural resources	(Truong, Yap, & Ineson, 2012)
	EF3	Can help to achieve biological equilibrium in nature	(Truong, Yap, & Ineson, 2012)
	EF4	To be produced in a sustainable way	(Truong, Yap, & Ineson, 2012)
PRODUCTION FACTORS	FF1	OF can be traced back to the origin	(Dang & Tran, 2020a)
	FF2	OF are produced under strict control	(Dang & Tran, 2020a)
	FF3	OF is certificated by trustworthy organizations over the world	(Dang & Tran, 2020a)
PRICE FACTORS	PF1	OF is more expensive than CF	(Magnusson et al., 2001)
	PF2	OF are worth buying at a premium price	(Magnusson et al., 2001)

Table 1: Summary of variable constructs.

5. Data analysis

5.1. Demographic

The demographic section of the data analysis provides insights into the characteristics of the respondents. Most respondents are female (73.2%). The largest age group of respondents is between 20-27, comprising 47% of respondents, while the smallest group is aged between 18-20, accounting for only 6%. In terms of marital status, single people comprise the largest group, at 42%, while 71% of respondents have received a college or university education. Additionally, 37% of respondents work in private companies,

5.2. Organic food behavior practices

Most respondents know about organic food, with 90% of respondents being aware of the concept, while 79% have bought organic food. Respondents generally consider organic food safe to use, with 82% agreeing, and the majority buy organic food for the whole family, at 68%. The primary reason for using organic food is that it is safer than

conventional foods, with 289 answers, while reducing the risk of contracting diseases is the second reason. Other reasons include the friendliness of organic food to the environment and its potential for sustainable development.

5.3. Measurement model:

All five factors, including Health, Sensory, Environment, Production, and Price factors, demonstrated high internal consistency reliability with Cronbach's Alpha levels of 0.767, 0.809, 0.790, 0.797, and 0.707, respectively. Based on these results and established standards, none of the factors should be removed from the measurement scale (Nunnally, 1978; Peterson, 1994).

5.3.1. Explanatory Factor Analysis

Before conducting an Explanatory Factor Analysis, it is crucial to assess the Kaiser-Meyer-Olkin (KMO) and Bartlett's tests to determine the sampling adequacy for each variable and the complete model. KMO value of 0.911 and a statistically significant Bartlett's test (Sig. <0.05) indicate that factor analysis is appropriate.

Principal Component Analysis extraction method and Varimax rotation were used to analyze five proposed factors influencing consumers' intention to purchase organic foods: Health factors (HF), Sensory factors (SF), Environment factors (EF), Production factors (FF), and Price factors (PF) with a total of 16 variables. Only three factors had eigenvalues greater than one, and the cumulative percentage was above 50%, meeting the accreditation requirement. Variables with a rotated factor loading of at least 0.3 were retained, resulting in 10 variables being kept while six were cut off.

Price factors were removed as neither of the two variables met the convergence and exceeded loading factor requirements. Production factors and environmental factors were combined and relabeled as Production & Environmental Benefits factors (FF), while Sensory factors (SF2, SF3) and Health factors (HF1, HF2, HF3) remained as separate factors. The changes made to the model involved removing variables and relabeling factors based on their factor-loading values. After cutting off some variables, EFA is run again. The result shows all factors meet the requirement of EFA.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.			.852
Bartlett's Test of Sphericity	Approx. Chi-Square		1246.757
	df		45
	Sig.		.000

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.219	42.186	42.186	4.219	42.186	42.186	2.812	28.121	28.121
2	1.263	12.626	54.812	1.263	12.626	54.812	2.162	21.621	49.742
3	1.122	11.219	66.031	1.122	11.219	66.031	1.629	16.289	66.031
4	.696	6.958	72.989						
5	.568	5.677	78.666						
6	.503	5.033	83.698						
7	.468	4.681	88.379						
8	.427	4.268	92.647						
9	.396	3.960	96.608						
10	.339	3.392	100.000						

Extraction Method: Principal Component Analysis.

Rotated Component Matrix

	Component		
	1	2	3
FF2	.824		
FF3	.799		
FF1	.745		
EF4	.701		
EF1	.502	.316	
HF1		.807	
HF2		.784	
HF3		.781	
SF2			.858
SF3			.856

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table 2: Final Explanatory Factor Analysis results*5.3.2. Multiple linear regression*

Multiple linear regression was used to test if Production & Environmental Benefits, Health Benefits, and Sensory factors significantly predicted the Purchase Intention of Organic Foods. According to Table 3, the overall regression was statistically significant, ($R^2 = 29.4\%$), $F(3, 363) = [50.292]$, $p < .0005$). H_1 , H_2 and H_4 is accepted ($p < 0.0005$), H_3 is rejected ($p = 0.177$). The estimated equation is $1.780 = 0.195*HF + 0.498*FF$, $p < .0005$.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.780	.211		8.436	.000	1.365	2.195
	HF	.195	.051	.198	3.839	.000	.095	.294
	SF	-.056	.042	-.066	-1.354	.177	-.138	.026
	FF	.498	.061	.440	8.133	.000	.377	.618

a. Dependent Variable: Q4

Table 3: Multiple regression results for HF, SF, and FF

Multiple regression is re-run to produce an estimation model. ($R^2= 29.0\%$), $F(2, 364) = [74.351]$, $p < .0005$). Since R^2 is low, the plot of regression standardized residual is conducted. Figure 2 shows that most residuals focus near the line with a small distance indicating a strong correlation between the model’s predictions and its actual results.

Normal P-P Plot of Regression Standardized Residual

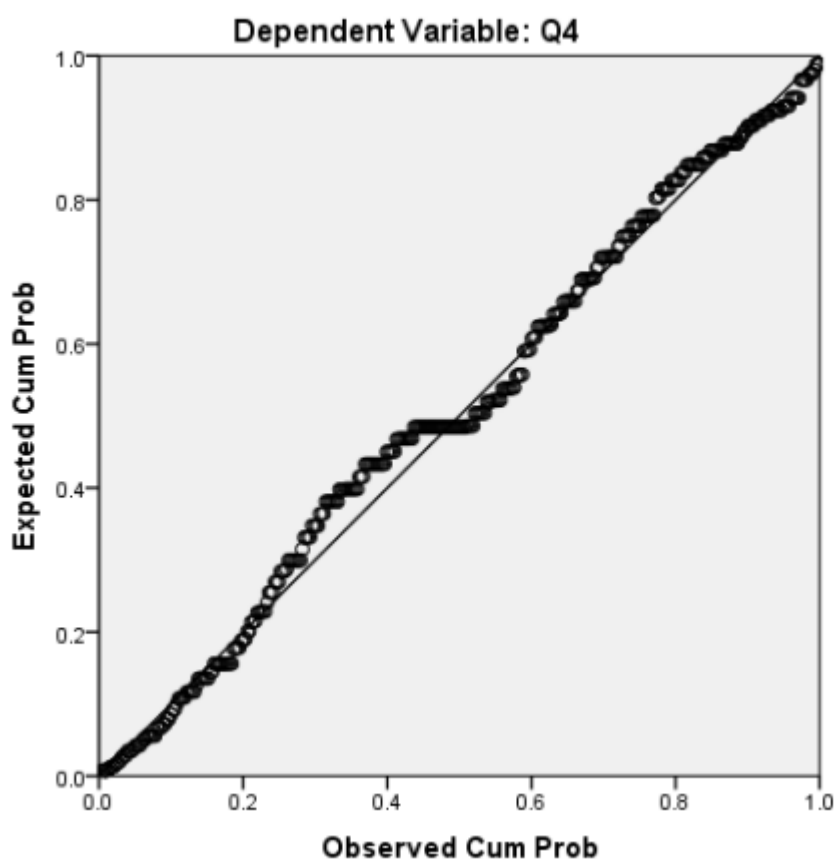


Figure 2: Normal P-P Plot of Regression Standardized Residual

Based on Table 4, the estimated equation is: $Q4 = 1.737 + 0.187*HF + 0.471*FF$

Based on the equation, the beta-coefficients for Health factors and Production & Environmental benefit factors are both positive, suggesting a positive impact on consumer

intention to purchase organic food. Moreover, the beta coefficient for production factors is higher than that for health factors, indicating that the former has a stronger effect on buying intention.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1 (Constant)	1.737	.209		8.317	.000	1.326	2.147
HF	.187	.050	.190	3.714	.000	.088	.287
FF	.471	.058	.416	8.127	.000	.357	.585

a. Dependent Variable: Q4

Table 4: Multiple regression results for HF and FF

The final results support H1, H2, and H4. The final framework is illustrated as:

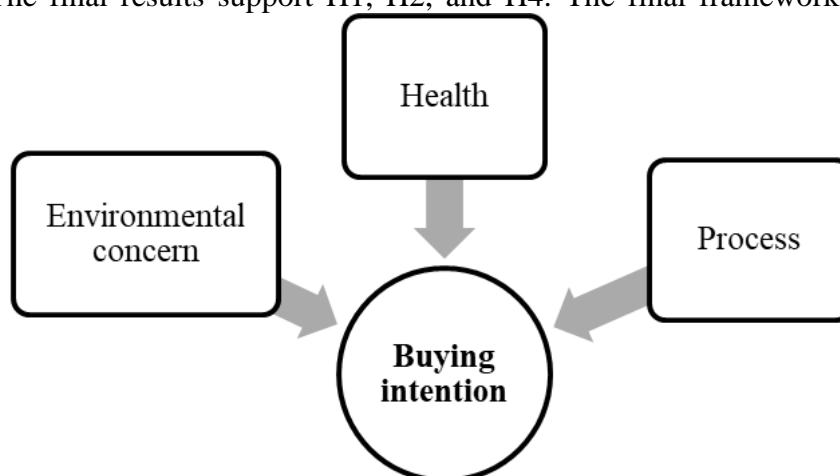


Figure 3: The final framework

6. Discussion of findings

The results of the study indicate that Health, Production, and Environment factors have a positive impact on customer's intention to buy organic foods, which is consistent with previous studies. Moreover, the study found that sensory factors, such as appearance, taste, and nutrition, did not significantly influence purchasing intention, which is in contrast to most food research. Lin, Payson, and Wertz's (1996)'s finding posited that as organic product awareness and consumption practices increase, consumers will no longer care about the difference in appearance. Therefore, the disparity in respondents' awareness, personal experiences, and geographic locations could explain these differences. The study also revealed that Production factors had the strongest influence on customers' intention to buy organic foods, although few studies have investigated this factor. The strict control in production, food traceability, and certification to ensure quality are essential factors for customers to choose organic food shops, particularly in Vietnam's food market, where food safety and ethical issues are major benefits for consumers.

7. Conclusion and implication.

The study revealed that consumers in Vietnam are driven to purchase organic food due to their belief in the superior production process, including traceable origin, strict production control, and reliable certification. Health factors, such as safety and lower pesticide residue, also play a role in purchasing decisions. The inclusion of environmental impact as a factor in purchasing decisions is a new development, signifying a change in consumers' awareness of food consumption's biodiversity impact. However, caution is advised since the study focused on highly educated urban citizens who were already invested in green products.

Interestingly, the study found that sensory factors did not significantly influence customers' purchasing decisions, indicating that customers are less influenced by peripheral cues when spending more on food. Instead, customers are motivated by the extrinsic benefits of organic food production and are willing to pay extra for these benefits. This emphasizes the importance for organic food producers to focus on their core competency of sustainable green production and improving their accreditation and periodic audit of the implementation process by reputable international institutions.

To better appeal to consumers, organic food producers should highlight the health and environmental benefits of organic products as the outcome of green agriculture practices in their marketing communications. The synergy of production with market presentation will help strengthen the communication message for consumers.

Overall, the study highlights the importance of meeting consumers' demand for transparency and systematic management in agriculture through both communication and practice while mitigating environmental issues caused by modern farming practices such as groundwater pollution and biodiversity loss.

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MEASURING THE IMPACT OF ELECTRONIC WORD-OF-MOUTH ON TOURIST PREFERENCE FOR HUE DESTINATION

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Abstract: *This study aims to evaluate the influence of electronic word-of-mouth (eWOM) on the tourist preference for the Hue tourism destination. From the surveyed data of 298 domestic tourists, we conduct Logistic Regression analysis to investigate the relationship between eWOM about the destination, the destination's image (eWOM_IM), facilities (eWOM_FA), and tourists' preference for the destination (PREF). The findings indicate that two out of three factors, eWOM_IM and eWOM_FA, have a positive impact on the tourists' attitudes towards the destination, with eWOM_FA exhibiting a more robust influence on increasing tourist preference. These research outcomes serve as a basis for proposing recommendations on leveraging positive eWOM for the Hue tourism destination.*

Keywords: *eWOM, destination preference, Hue tourism destination, Binary Logistic.*

ĐO LƯỜNG ẢNH HƯỞNG CỦA TRUYỀN MIỆNG ĐIỆN TỬ ĐẾN SỰ YÊU THÍCH ĐIỂM ĐẾN DU LỊCH HUẾ CỦA DU KHÁCH

Tóm tắt: *Nghiên cứu này nhằm mục đích đo lường ảnh hưởng của truyền miệng điện tử đến sự yêu thích điểm đến du lịch Huế của du khách. Từ dữ liệu thu thập 298 du khách nội địa, kết quả phân tích hồi quy Logistic mối quan hệ giữa truyền miệng điện tử về điểm đến (eWOM), truyền miệng điện tử về hình ảnh điểm đến (eWOM_IM), truyền miệng điện tử về tiện nghi điểm đến (eWOM_FA) và sự yêu thích điểm đến (PREF) cho thấy: hai trong ba nhân tố là eWOM_IM và eWOM_FA ảnh hưởng đến thái độ tích cực của du khách đối với điểm đến, trong đó eWOM_FA có tác động mạnh mẽ hơn đến việc gia tăng khả năng PREF của du khách. Kết quả nghiên cứu là cơ sở đề xuất ba khuyến nghị khai thác eWOM tích cực đối với điểm đến du lịch Huế.*

Từ khóa: *eWOM, sự yêu thích điểm đến, điểm đến du lịch Huế, Binary Logistic.*

1. Introduction

Electronic word of mouth (eWOM) is how information is exchanged over the Internet. With its fast spreading and diffusion speed, convenience and wide reach of users, eWOM has become an informal communication channel exploited by consumers and business organizations (Yang, 2017).

In tourism, products with a service element are physically unavailable to buyers, so travel decisions are often high-risk. With the vigorous development of the Internet, online interactions between tourists have become increasingly popular for making safe travel

decisions, which is also a valuable source of information for destination managers. Therefore, eWOM becomes a vital information channel for actual and potential tourists and suppliers of tourism products and services (Litvin et al., 2008; Jalilvand et al., 2012).

It can be said that the Internet has provided a great opportunity for those who have experienced free travel to share their insights and feelings and even give recommendations and advice about their journey on different routes, travel websites, forums, blogs, or social media. Prospective travellers can freely explore, exchange and discuss tourism-related information on these platforms. Numerous research studies have indicated that electronic word-of-mouth (eWOM) is the preferred source of information for tourism purposes, as it provides current, captivating, unbiased, and interactive information without any commercial objectives (Zhu and Lai, 2009).

On the part of tourism managers, all the information about the destination online is of great value. Positive eWOM is created from a satisfactory experience at a destination from related factors such as hotel, transportation and entertainment (Jalilvand and Samiei, 2012). Understanding the experiences from their sharing on the Internet to enable active eWOM is very useful for destinations. From this "understanding", destinations actively improve service elements and quality to enhance visitor satisfaction, leading to the effective exploitation of eWOM from visitors who have experienced the destination (Cheung, 2010).

As eWOM gains a strong foothold in the tourism industry, there is a growing interest in examining its impact on tourists' attitudes, intentions, and decisions towards destinations (Jalilvand and Samiei, 2012; Sotiriadis and Van Zyl, 2013...). Essentially, this relationship refers to how the source of information about a destination affects tourists' behavioural intentions. Before arriving at a destination, individuals' perceptions of it are heavily influenced by the information sources they have been exposed to (Um and Crompton, 1990). A more favourable perception of the destination leads to a more positive attitude towards it (Kim and Morrison, 2005), which in turn drives positive behaviours towards it (Setiawan et al., 2014; Prayogo et al., 2016). Therefore, understanding tourists' information search behaviour, particularly with respect to word-of-mouth information on the Internet, is increasingly important. The information search process can be broken down into three steps: starting with a desire or interest in a destination, seeking out and evaluating information about it on the Internet, and synthesizing this information to form attitudes, emotions, and behaviours towards the destination.

The utilization of the Internet and online resources by tourists to satisfy their information needs is increasing rapidly, and it has become increasingly crucial to effectively utilize this information source to ensure the sustainable growth of destinations (Gursoy and McCleary, 2004). This study employs a theoretical approach to investigate the correlation between electronic word-of-mouth (eWOM) information sources about tourist destinations and the attitudes of tourists, specifically in the context of Hue tourist destinations. Using the Logistic Regression model, the research measures the likelihood of tourists favouring the destination (like or dislike) and makes predictions based on the eWOM information source factor proposed in the model. The obtained outcomes are used to advocate for the active utilization of eWOM for the researched destination.

2. Theoretical background

2.1. *Electronic Word-Of-Mouth*

The process of consumers sharing information about a product or service with others, such as friends and family, through direct, face-to-face communication is known as "word of mouth" (WOM). This is considered to be a more reliable and compelling source of information than traditional advertising methods, as it is seen as trustworthy by consumers (Gruen et al., 2006). In the tourism industry, where products and services are not physically present to the buyer, consumers often rely on WOM to gather information, make purchasing decisions, and share their personal travel experiences.

The rapid development of the Internet has increased online communication through social media, websites, blogs, Facebook, Instagram, etc. Consequently, word-of-mouth (WOM) through these media has become popular, known as electronic word-of-mouth (eWOM) (Yang, 2017; Hussain et al., 2020). The emergence of eWOM communication has led to changes in consumer behaviour, specifically through eWOM, where unfamiliar consumers still impact each other by collecting or sharing information about companies, products or brands (Jalilvand and Samiei, 2012, Gómez-Suárez et al., 2017)

In essence, eWOM is an extension of word-of-mouth communication conducted over the Internet. With fast dissemination speed, wide coverage, and the ability to reach a large number of users, information from eWOM increasingly significantly influences all aspects of social life. Regarding tourism, Park et al. (2011) argue that through eWOM, online reviews from those who have experienced actual tourism activities will provide potential tourists with indirect experiences and offer recommendations for those seeking travel destinations. Therefore, eWOM can meet the reliable information needs of tourists.

2.2. *The relationship between eWOM and destination preferences*

Baloglu and McCleary (1999) confirmed that, among sources of information such as advice, word-of-mouth (WOM), advertising, and books/movies/news... WOM has the most positive and significant influence on the destination image formation process - one of the key factors shaping tourists' intentions to travel. Kim and Morrison (2005) emphasized that tourists' destination choices are often based on the most favourable image, and WOM is an effective way to promote such selection. In the rapidly developing and widespread trend of eWOM, this source of information plays an increasingly decisive role in shaping the destination image in tourists' minds (Setiawan et al., 2014; Prayogo et al., 2016).

The destination image (DI) refers to the perceptions and impressions that an individual or a group of individuals hold about a place that is not their residence (Hunt, 1975). Many studies have confirmed that information sources are the first basis for forming the tourism DI (Gartner, 1993; Gunn, 1998; Echtner and Ritchie, 2003). Information from official sources (advertising, marketing...) and unofficial sources (WOM, eWOM...) directly influence tourists' perceptions of the image of a tourism destination. The more positive the perception of the DI, the more positive the attitude towards the destination, thereby increasing tourists' positive intentions towards the destination (Setiawan et al., 2014; Prayogo et al., 2016).

Clarify how information sources impact the formation process of tourism destination image (TDI). Echtner and Ritchie (2003) argue that this is a complex process in which tourists develop perceptions based on selecting a few impressions from a multitude of impressions encountered from various channels. Specifically, it is the continuous aggregation of multiple information sources about a destination, over time, that is chosen, constructed, and embellished to exist meaningfully in the tourist's mind (Martin and Bosque, 2008). Through information sources, TDI is shaped in the tourist's mind even before they have experienced the destination (Gunn, 1998).

Examining the potential tourists' perception of destination image from eWOM, Setiawan et al. (2014) and Prayogo et al. (2016) suggest that the level and mode of internet usage to search for information about the interested destination (reading reviews, exchanging information, attractiveness and attention of the destination from that information) need to be measured, and the obtained information analyzed to determine how they form the tourists' perception of the destination image.

For the formation of the destination image perception from eWOM, it mainly focuses on the information that is heard, read, and exchanged, so it often concentrates on some common images such as characteristics of the destination (historical and cultural destinations, natural attractions, cultural heritage, landscapes, etc.) and facilities of a destination (accommodation facilities, entertainment activities, transportation, tourist environment, cuisine, etc.). Among these, the facilities of a destination are often commented on, reviewed, and advised the most by experienced individuals when providing information on the Internet (Prayogo et al., 2016).

In reality, eWOM is a source of information that helps readers shape their perception of a tourism destination image, including both positive and negative information. Both types of information create interest for potential tourists, with negative information often being more attractive and spreading faster than positive information. From eWOM about a destination, it will evoke tourists' liking or disliking attitude towards that destination (Cheung, 2010).

The attitude of tourists is a psychological tendency expressed by their positive or negative evaluations when engaging in certain behaviours (Ajzen, 1991). Zarrad and Debabi (2015) argue that attitude towards a destination is the extent to which an individual evaluates a favourably or unfavourably destination based on the information they receive (such as perception of attractiveness/unattractiveness, beauty/ugliness, impressive/not impressive, like/dislike, etc.). The more favourable the attitude towards a destination, the stronger the individual's intention to engage in the behaviour. Tourists' attitudes effectively predict tourists' decisions towards a particular destination (Ragheb and Tate, 1993; Jalilvand and Samiei, 2012).

It can be seen that, in relation to the preference for travel destinations, eWOM information about the Hue tourism destination is the first step and plays a very important role in shaping the attitude of tourists towards the destination. The attitude of liking or not liking the destination is the basis for driving various decisions of tourists. In the context of the strong development of the Internet, to examine the role of eWOM in shaping the

attitude of tourists towards Hue as a destination, the article measures the relationship between electronic word-of-mouth information about the destination (eWOM), electronic word-of-mouth information about the destination image (eWOM_IM), electronic word-of-mouth information about the destination's facilities (eWOM_FA), and tourists' preference for the destination (PREF). Based on this, recommendations are proposed for exploiting positive eWOM for the research area.

3. Methodology

Questionnaire design: The scales for eWOM, eWOM_IM, eWOM_FA, and PREF factors were identified in the proposed research model for questionnaire design. Feedback from 5 experienced experts in teaching, researching, and managing tourism in Hue was used to adjust the measured variables in the model.

The survey design consisted of two parts. In Part 1, tourists evaluated 17 contents related to eWOM, eWOM_IM, eWOM_FA, and PREF using a 5-level Likert scale ranging from completely disagree to completely agree. Part 2 provided information on tourists' travel experience, such as the number of visits to Hue, length of stay, types of tourism activities, and demographic characteristics like gender, age, and education level.

Sample design and data collection: To perform the validity test of the scale using the Exploratory Factor Analysis (EFA) method, the study applied Hair's (2010) proposed ratio of 1:10, which means that at least 10 observations are needed for each measuring variable to achieve the best sample size. With 17 proposed variables, the minimum sample size required for the study is $17 \times 10 = 170$ samples.

During the survey period from June to September 2022, due to the impact of the Covid-19 pandemic, most of the visitors to Hue were domestic tourists. Therefore, information was collected for this group of visitors. Information was collected from various locations, including the Imperial City, Toa Kham Boat Station, and tourists on tour using the convenient sampling method. During the survey, 342 questionnaires were obtained, of which 298 had complete information that ensured proper analysis. The sample ratio achieved was 87.13% of the total samples collected.

Data analyses: descriptive statistical methods (frequency, percentage, mean, standard deviation), evaluation of the reliability of measurement scales, mean testing, and exploratory factor analysis are combined in research data analysis. The Binary Logistic Regression model is used to measure the probability of tourists' preference based on eWOM information. This is a suitable tool for measuring a dependent variable that has only two expressions (binary) (Pallant, 2005).

The logistic regression equation about the relationship between eWOM and PREF:

$$\text{Log}_e = \left[\frac{P_i}{1-P_i} \right] = \beta_0 + \beta_1 * X_1 + \beta_2 * X_2 + \beta_3 * X_3$$

In which: $\text{Log}_e = \left[\frac{P_i}{1-P_i} \right]$: the Odd of tourists' preference (PREF) for Hue as a destination (PREF is a dependent variable with two expressions: 0 and 1).

Using a 5-level Likert scale to measure PREF, the study converted the values to 0 and 1 by using the Median value). Specifically:

Rating score \geq Median (Me = 4): 1 - liked

Rating score $<$ Median (Me = 4): 0 - disliked

x_1 , x_2 , and x_3 are independent variables eWOM, eWOM_IM, and eWOM_FA

$\beta_1, \beta_2, \beta_3$: regression coefficients corresponding to independent variables x_1 , x_2 , and x_3 .

From the results of the Binary Logistic Regression, the probability of the occurrence of event Y (PREF) can be estimated with two values: 0 - not liking the destination and 1 - liking the destination when knowing the values of x_1 (eWOM), x_2 (eWOM_IM), and x_3 (eWOM_FA). From this characteristic, the likelihood of liking the destination ($Y = 1$) can be evaluated if the predicted probability is ≥ 0.5 and conversely, the likelihood of not liking the destination ($Y = 0$) if the predicted probability is < 0.5 .

The prediction is based on the probability function:

$$P_i = P(Y=1) = E(Y=1/X) = \frac{e^{(\beta_0 + \beta_1 \cdot X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3)}}{1 + e^{(\beta_0 + \beta_1 \cdot X_1 + \beta_2 \cdot X_2 + \beta_3 \cdot X_3)}}$$

Where: $P_i = P(Y = 1) = E(Y = 1/X)$ is the probability of the event occurring ($Y = 1$)

$1 - P_i$: the probability that the event will not happen ($Y = 0$)

Research data was compiled and analyzed on SPSS 22.

4. Results

4.1. Profiles of the respondents

Among the 298 study samples, there were 167 female tourists, accounting for 56%. Tourists aged 18-35 accounted for 70.5%, and those aged 36 - 45 accounted for 17.1%. Tourists with postgraduate and undergraduate degrees accounted for 63.7%, and those with other educational backgrounds (college, vocational, etc.) accounted for 36.3%. About 65.4% of the participants in this survey were married.

Information was collected from tourists searching the Internet for travel information. The results from multiple choice answers showed that the usage rate of Facebook was 93.7%, travel forums were 43.6%, domestic websites were 40.6%, international websites were 23.8%, and other channels (Zalo, Instagram) were 17.7%. Therefore, the characteristics of the survey sample are pretty suitable for providing information on eWOM for this research.

4.2. Reliability and validity testing

The research model consists of 4 factors with 17 corresponding measurement variables, specifically: information about the tourism destination of Hue on the Internet (eWOM) (4 variables), information on the Internet about images of the destination (eWOM_IM) (4 variables), information on the Internet about the amenities of the destination (eWOM_FA) (6 variables), and the preference for the destination (PREF) (3 variables).

Table 1 shows that the factors in the research model have average evaluation scores ranging from 3.59 to 3.99. The results of the One sample T-test with a value of 3 show that

the average values of the factors are greater than 3 (Sig < 0.05), indicating that tourists' evaluations of eWOM, eWOM_IM, eWOM_FA, and PREF are positive. The percentage of evaluations at levels 4 and 5 (agree and strongly agree) for the corresponding measurement variables of the factors is over 50%, in which the 4 PREF measurement variables have the highest agreement ratings ranging from 77.18% to 87.58%, and the six eWOM_FA variables reach 65.44% to 76.85%. However, for eWOM_IM, one of the four measurement variables, which is diverse natural resources (HA3), has an agreement rate below 50%, indicating that the information about the tourism destination of Hue on the Internet does not provide enough information about the natural resources at this destination.

According to data, the neutral rating (3) given by tourists for the measured variables holds a significant portion, similar to the four and five-star ratings. This suggests that eWOM information concerning the Hue tourism destination produces minimal unfavourable impressions regarding its factors.

Using Cronbach's Alpha to preliminarily evaluate the measurement scale, the results show that eWOM, eWOM_IM, eWOM_FA, and PREF have Cronbach's Alpha coefficients of 0.816, 0.818, 0.856, and 0.794 respectively; Corrected Item-Total Correlation of 17 observed variables is greater than 0.3; Cronbach's Alpha if Item deleted of the factors hardly improves compared to the initial state. These standards demonstrate that the research scale ensures reliability and is a good measurement scale (Hair, 2010), so the variables are continued to be included in the EFA.

Table 1. Descriptive statistics and Reliability Testing for the Constructs

Variables	Mean	Neutral (%)	Agree (%) (4 and 5)
1. Searching for destination information on the Internet (eWOM) (Cronbach's alpha = 0.816)	3.82		
Reading reviews about the destination on the Internet before traveling (eWOM1)	3.78	34.90	60.07
Exchanging information about the destination on the Internet (eWOM2)	3.85	31.21	62.75
Internet information suggests travel destinations (eWOM3)	3.88	29.53	64.77
Internet reviews draw attention to the destination (eWOM4)	3.79	36.91	56.38
2. Electronic word-of-mouth about destination images (eWOM_IM) (Cronbach's alpha = 0.818)	3.59		
Culture and history are attractive (eWOM_IM1)	3.57	27.52	60.74
Destination of world cultural heritage (eWOM_IM2)	3.74	18.79	73.15
Diverse natural resources (eWOM_IM3)	3.37	39.93	48.99
Beautiful scenery (eWOM_IM4)	3.70	20.47	69.46

3. Electronic word-of-mouth about destination facilities (eWOM_FA) (Cronbach's alpha = 0.856)	3.81		
Convenient accommodation facilities (eWOM_FA1)	3.78	24.83	71.14
Rich cuisine (eWOM_FA2)	3.92	17.79	76.17
Many entertainment venues (eWOM_FA3)	3.82	24.16	72.15
Competitive prices (eWOM_FA4)	3.70	27.52	65.44
Convenient transportation (eWOM_FA5)	3.91	20.47	76.85
Safety and security (eWOM_FA6)	3.78	22.82	71.48
4. Destination preference (PREF) (Cronbach's alpha = 0.794)	3.99		
Attractive tourist destination (PREF1)	4.01	9.73	87.58
Positive impression of the destination (PREF2)	3.86	19.13	77.18
Favorite tourist destination (PREF3)	4.10	15.37	82.62

Source: survey data analysis, 2022

The exploratory factor analysis (EFA) method using Principal components analysis and Varimax orthogonal rotation was performed on three independent variables, eWOM, eWOM_IM, eWOM_FA, and one dependent variable PREF, with results shown in Table 2.

Table 2. EFA test results

Factors	Variables	Factor Loading	Eigenvalue	% of variance explained
1. eWOM_FA	eWOM_FA5	0.832	4.792	67.299
	eWOM_FA1	0.828		
	eWOM_FA6	0.796		
	eWOM_FA3	0.779		
	eWOM_FA2	0.694		
	eWOM_FA4	0.568		
2. eWOM_IM	eWOM_IM4	0.887	2.565	67.299
	eWOM_IM2	0.881		
	eWOM_IM3	0.876		
	eWOM_IM1	0.856		
3. eWOM	eWOM2	0.849	2.065	67.299
	eWOM3	0.837		
	eWOM4	0.784		

	eWOM1	0.735		
<i>KMO = 0.850; Bartlett's Test (Chi-Square = 2152.004; df = 91; sig < 0.000)</i>				
	PREF1	0.874		
PREF	PREF2	0.731	2.136	71.2
	PREF3	0.725		
<i>KMO = 0.697; Bartlett's Test (Chi-Square = 278.323; df = 3; sig < 0.000)</i>				

Source: survey data analysis, 2022.

KMO = 0.850 ($0.5 \leq \text{KMO} \leq 0.1$), Bartlett's Test = 2152.004 and Sig = 0.000 < 0.05, indicating that the data is suitable for factor analysis. Three factors ((eWOM, eWOM_IM, and eWOM_FA) have Eigenvalues > 1 and the sum of variance explained = 67.299% > 50%, indicating that these factors explain 67.299% of the data variation; 14 variables have factor loadings > 0.35 (sample size ≥ 250) and the difference in factor loadings between variables across factors > 0.3, indicating that the scale ensures convergence and discriminant validity (Hair, 2010).

The EFA results for the PREF scale show that 1 factor was extracted with an Eigenvalue > 1 and the sum of variance extracted = 71.2%, KMO = 0.697 and Sig < 0.05, indicating that this scale also ensures convergence and discriminant validity.

4.3. Results of Binary Logistic Regression model

After evaluating and validating the research scale, a logistic regression model was used to measure the probability of tourists' preference (PREF) for Hue as a destination. Using a Likert scale with five levels, the PREF was converted into two expressions: 1- Liked destination and 0- Not liked destination. The results of the logistic regression analysis are shown in Table 3.

Table 3. Binary Logistic Regression analysis results

Independent variables	B	S.E.	Wald	Sig.	Exp(B)
eWOM_IM	0.593	0.197	9.044	0.003	1.810
eWOM_FA	1.625	0.326	24.759	0.000	5.076
eWOM	-0.207	0.172	1.437	0.231	0.813
Constant	-6.184	1.379	20.103	0.000	0.002
<i>Omnibus Tests of Model Coefficients: Chi-square = 61.093, sig = 0.000 < 0.05</i>					

Source: survey data analysis, 2022

The Omnibus Tests were conducted with a Chi-square value of 61.093 and sig = 0.000 < 0.05, indicating that the logistic regression model has statistical significance.

Measuring PREF based on actual observations and predictive ability showed that out of 75 tourists who did not have PREF for the destination, 26 were predicted correctly,

with a prediction accuracy rate of 34.7%. Out of 223 tourists who had PREF, 211 were predicted correctly, with a prediction accuracy rate of 94.6%. Thus, the average prediction accuracy rate was 79.5%.

The Wald test results for independent variables show that 2/3 of the factors are statistically significant (Sig < 0.05); specifically, eWOM_IM and eWOM_FA have a positive impact on Destination preference (PREF). This means that the more positive eWOM about the destination's image and facilities, the higher the level of destination preference.

Exp(B) indicates the change in predicted odds of the outcome (in this case, PREF) for a unit increase in the predictor (in this case, eWOM_IM and eWOM_FA). Specifically, for eWOM_IM, the odds of PREF increase by a factor of 0.593 for each rating level increase in eWOM_IM; and for eWOM_FA, the odds of PREF increase by a factor of 1.625 for each rating level increase in eWOM_FA.

The logistic regression equation on the relationship between eWOM and PREF is:

$$\text{Log}_e \left[\frac{P_i}{1-P_i} \right] = -6.184 + 0.593 * X_2 + 1.625 * X_3$$

Using the probability function to predict the destination preference based on two variables, eWOM_IM and eWOM_FA, the results in Table 4 show the likelihood of liking the destination (Y=1) with a predicted probability $P_i > 50\%$ and an accuracy rate of 79.5% for correct predictions.

Table 4. Prediction results of PREF based on the Binary Logistic Regression model

Score		P _i (Y=1)	Score		P _i (Y=1)
x ₂	x ₃	(%)	x ₂	x ₃	(%)
1	4	71.28	4	3	74.33
1	5	92.65	4	4	93.63
2	4	81.79	4	5	98.68
2	5	95.80	5	2	50.77
3	3	61.54	5	3	83.97
3	4	89.04	5	4	96.38
3	5	97.63	5	5	99.27

Source: survey data analysis, 2022

The prediction results from the data reflect the important role of x₃ (eWOM_FA) in the PREF prediction. Specifically, in cases where the rating for x₂ only reaches levels 1 and 2 (unfavourable direction), but the rating for x₃ is at levels 4 and 5, the probability of tourists' PREF scores still achieving between 71.28% and 95.89%. Even if x₂ is rated as neutral (3), but x₃ reaches levels 4 and 5, the probability of PREF scores reaching between 89.04% and 97.63%. In the case where x₂ is rated at level 5 and x₃ is rated at level 2, the probability of PREF only reaches 50.77%. The probability of achieving the best PREF

score (>90%) occurs when both eWOM_IM and eWOM_FA factors are rated at levels 4 and 5.

Thus, the prediction results show that, among two factors affecting tourists' Hue destination preference, eWOM_FA (x_3) has the ability to create a greater tourist destination preference than eWOM_IM (x_2).

4.4. Recommendations

Based on the research findings on the relationship between electronic word-of-mouth (eWOM) and tourists' preference for Hue destination, it is confirmed that among the three eWOM factors - eWOM about the destination, eWOM about the destination's image (eWOM_IM), and eWOM about the destination's amenities (eWOM_FA), eWOM_IM and eWOM_FA have a significant impact on PREF. In particular, eWOM_FA has a stronger influence on PREF than eWOM_IM.

The analysis results have demonstrated the role of eWOM in creating positive perceptions about a destination, which is an important basis for forming tourists' travel intentions. Moreover, detailed information about the destination, such as images and amenities, that tourists receive from eWOM is also significant in increasing their preference for the destination. Therefore, the recommendations of the article focus on exploiting this information source.

Firstly, regularly improve the factors of the tourist destination

eWOM has been confirmed to have a positive and significant impact on the perception of the destination for those seeking related travel information. The knowledge gained from eWOM communication affects the perception and attitude of potential tourists towards a destination (Jalilvand et al., 2012). This knowledge is obtained through interaction between tourists and potential tourists on online media and includes all information related to different aspects (accommodation, transportation, security, facilities, etc.) of a destination that is shared, commented on and evaluated by people who have experienced tourism. The reliability of information from eWOM is highly regarded due to the objectivity and voluntary nature of the writers.

Regarding destination management, in the strong development trend of internet applications, eWOM is becoming increasingly important and necessary. eWOM helps destination managers be proactive with information, thereby leveraging advantages and adjusting operations to create positive eWOM. To achieve this, it must start with the role of destinations. Jalilvand et al. (2012) assert that positive eWOM is generated from a satisfactory experience at a destination, from factors such as hotels, transportation, and entertainment. Providing an enjoyable experience for tourists has a significant impact on developing positive images for non-tourists from information on eWOM, thereby forming attitudes (liking or disliking) towards the destination. Thus, creating an enjoyable experience for tourists from the actual images of the destination is the responsibility of destination managers. Specifically, regularly improving tourism services, products, and amenities to attract tourists, make them return, and especially carry out positive eWOM for the destination.

Secondly, attracting writers and readers on eWOM channels.

Setiawan et al. (2014) states that tourism destinations can use eWOM through popular social media channels to promote their brand effectively, as information from eWOM can quickly reach a large number of potential tourists over a wide range. Additionally, the benefits gained from eWOM promotional activities are cost-effective and have stability. To leverage the advantages of eWOM, along with improving destination factors, it is necessary to attract users to these channels.

Hamdani et al. (2019) argue that the quantity and quality of information about a destination are two fundamental indicators for attracting online writers and readers. The quantity is expressed as communication intensity, visit frequency, review frequency, interest in reviews, interest in benefits, and the desire to write reviews among experienced tourists. The more reviews a destination has, the more widely-known information there is, the more attention and access potential tourists have, and the greater the chance of choosing that destination. Quality of eWOM refers to the persuasive power embedded in the message (positive or negative) sent by the provider, whereby the perception of potential tourists is determined about the destination, and ultimately, it will stimulate or impede their decision-making.

Electronic word-of-mouth (eWOM) quality and quantity have a close relationship, as potential tourists need a lot of reference information from eWOM to reinforce their trust while minimizing risks in their travel decisions. Cheung (2010) emphasizes that the more positive evaluations about a destination, the more trust readers have, and vice versa. Therefore, the next recommendation for Hue tourist destinations is to use a combination of methods to stimulate and encourage tourists to share their own travel experiences (such as discounting destination services, creating review forums, and awarding prizes for the influence of evaluation information). At the same time, increasing the convenience (such as accessibility, usefulness, and ease of use) of an online travel community, travel forums, etc., will attract those seeking related information.

Thirdly, actively exploit and control eWOM information sources

Through eWOM, any positive or negative statements from potential tourists, tourists to a destination, or factors of the destination are conveyed to many people through the Internet. Therefore, opportunities and threats to destinations can both increase from this form of word-of-mouth. In the trend of Internet development, exploiting and controlling eWOM information sources is something that destinations need to do.

On travel forums or websites, in addition to collecting information about accommodations, attractions, prices, transportation, etc., which are pre-designed and related comments are expressed by the writers, demographic and travel experience information of the sharers can also be provided. One point to note for eWOM is that negative information often attracts and spreads faster than positive information. Therefore, actively exploiting and controlling this information source regularly helps destination managers obtain more useful information, from which they can make appropriate responses to better meet the needs of tourists and ensure continuous tourism development at a destination.

Based on that, the recommended proposals include: building a website for the destination, creating review forums and attracting participants; building online travel communities to collect and provide information related to the tourist destination; regularly purchasing relevant information about the destination from reputable travel websites at home and abroad; recruiting a team of professional data analysts to serve the destination.

5. Conclusion

eWOM in the tourism industry has become an important source of information for potential travellers to search and learn. Effectively exploiting this information source is a way to contribute to the continuous development of tourism at a destination. Approaching the study of the role of eWOM in tourists' preference for the Hue tourist destination, the proposed model includes four factors: eWOM, eWOM_IM, eWOM_FA, and PREF, consisting of 17 corresponding measuring variables. The logistic regression analysis results showed that eWOM_IM and eWOM_FA influence destination preference (PREF), with eWOM_FA having a stronger impact on the increase in tourist preference for the destination. In the relationship between the factors, eWOM about the destination's image and convenience is the source that promotes tourists' positive attitude towards the destination. Therefore, the three recommendations focused on eWOM are: constantly improving the destination's factors to create positive eWOM, attracting writers and readers on eWOM channels, and proactively exploiting and controlling eWOM information sources.

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**ĐỀ XUẤT TIÊU CHÍ ĐÁNH GIÁ PHÁT TRIỂN DU LỊCH
THEO HƯỚNG TĂNG TRƯỞNG XANH
NGHIÊN CỨU TẠI VÂN LONG (NINH BÌNH)**

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Tóm tắt: *Phát triển du lịch theo hướng tăng trưởng xanh đang là xu hướng cần thiết nhằm mục đích phát triển DL bền vững. Dựa trên mục tiêu đề xuất bộ tiêu chí để đánh giá phát triển du lịch theo hướng tăng trưởng xanh được xây dựng dựa trên các trụ cột tiêu chí chính về kinh tế, văn hóa - xã hội, môi trường, sự tiến bộ của công nghệ trong du lịch, thể chế chính sách và tiến hành khảo nghiệm các tiêu chí tại điểm khảo nghiệm; từ đó, đánh giá độ phù hợp của các tiêu chí này khi áp dụng tại một địa phương thực tế. Điểm du lịch Vân Long là điểm đến phát triển du lịch sinh thái và địa điểm khảo nghiệm phù hợp để đánh giá các tiêu chí trên.*

Từ khóa: *Du lịch theo hướng tăng trưởng xanh, bộ tiêu chí, điểm du lịch Vân Long*

**PROPOSING ASSESSMENT CRITERIA FOR TOURISM
DEVELOPMENT TOWARDS GREEN GROWTH
A STUDY IN VAN LONG (NINH BINH)**

Abstract: *Currently green tourism is a necessarily emerging trend towards sustainable development. The set of criteria to evaluate the growth of green tourism is built based on the advance level of economy, culture, society, environment, technology applied in tourism, and local policies. Van Long Wetland Nature Reserve is an eco-tourism destination and also an ideal experimental site to assess such set of criteria.*

Key word: *Tourism in the direction of green growth, set of criteria, Van Long tourist destination*

Lý do lựa chọn chủ đề nghiên cứu

Phát triển du lịch theo hướng tăng trưởng xanh (TTX) là một trong những xu hướng đang được tập trung nghiên cứu. Phát triển du lịch theo hướng này giải quyết được những xung đột giữa phát triển DL và phát triển văn hóa - xã hội; môi trường; định hướng du khách vào quỹ đạo du lịch bền vững; ổn định.

Cho đến nay, vẫn chưa có bộ tiêu chuẩn thống nhất ở Việt Nam về du lịch theo hướng TTX ở cấp độ vùng và địa phương. Những bộ tiêu chí về du lịch theo TTX được ở bình diện quốc tế đa phần đề cập toàn diện các mặt hoạt động của du lịch từ góc độ nguyên

tắc bền vững và nguyên tắc xanh hóa nhưng có trở ngại lớn trong áp dụng vì có quá nhiều chỉ tiêu, trong khi đó khả năng đo lường và đánh giá của các tiêu chí rất khó xác định. Trong nước, một số công trình nghiên cứu cũng đã đưa ra một số tiêu chí về phát triển du lịch theo hướng TTX ở mức khung nghiên cứu

Khu Bảo tồn đất ngập nước (KBTĐNN) Vân Long (Ninh Bình), cách Hà Nội khoảng 80 km. Có diện tích gần 3.500 ha, được xem là KBTĐNN lớn nhất của khu vực vịnh Bắc Bộ với hệ sinh thái phong phú và độc đáo. Đây là một trọng điểm du lịch nằm trong ưu tiên về phát triển sản phẩm du lịch chuyên biệt theo hướng TTX. Hiện nay, hoạt động du lịch tại khu bảo tồn đang được diễn ra và đang có định hướng tập trung phát triển loại hình du lịch sinh thái, du lịch xanh.

Vấn đề nghiên cứu: Tiêu chí đánh giá phát triển du lịch theo hướng tăng trưởng xanh tại một địa phương cụ thể (Điểm du lịch Vân Long - Ninh Bình).

Mục tiêu nghiên cứu: đề xuất và khảo nghiệm độ phù hợp của bộ tiêu chí đánh giá phát triển du lịch theo hướng TTX áp dụng cho địa phương cụ thể.

Nội dung nghiên cứu:

- Đề xuất các tiêu chí đánh giá phát triển du lịch theo hướng tăng trưởng xanh tại một địa phương cụ thể.
- Thử nghiệm tiêu chí đã đề xuất tại điểm du lịch Vân Long (Ninh Bình).

Tổng quan vấn đề nghiên cứu và khung nghiên cứu

UNEP và UNWTO (2011) nhận định, du lịch là một trong mười ngành kinh tế chìa khóa để thúc đẩy các xu hướng chuyển đổi sang nền kinh tế xanh, bao gồm tăng cường phúc lợi xã hội và con người, và giảm thiểu rủi ro môi trường và khan hiếm sinh thái.

Theo nghiên cứu UNEP (2011) khi nghiên cứu DL bền vững, DL xanh, ưu tiên đánh giá các tiêu chí về nhóm chỉ số kinh tế, chỉ số đảm bảo xã hội, công an việc làm và môi trường, a) năng lượng và xả thải GHG; b) nước sinh hoạt; c) quản lý chất thải; d) mất đa dạng sinh học; e) quản lý hiệu quả di sản văn hóa. (UNEP, 2011, UNEP và UNWTO, 2011; OECD, 2006; 2008).

Theo UNEP, 2011; OECD và UNEP, (2011), phát triển DL xanh tạo ra mối liên kết mạnh mẽ hơn với nền kinh tế địa phương, xem xét đến yếu tố tăng tiềm năng phát triển địa phương và giảm nghèo, gia tăng việc làm cho người dân địa phương: khả năng khai thác đa dạng sinh học, cảnh quan và di sản văn hóa ở các nước đang phát triển; bản chất sử dụng nhiều lao động của ngành DL, với các hoạt động đặc biệt phù hợp với phụ nữ và các nhóm thiệt thòi; tận dụng nhiều lao động nữ và thanh niên hơn hầu hết các ngành khác.

Đáng chú ý, Hội đồng DL bền vững toàn cầu (GSTC), đã phát triển một bộ tiêu chí cơ bản để các doanh nghiệp DL đáp ứng nhằm bảo vệ và duy trì các nguồn tài nguyên tự nhiên và nhân văn của thế giới, đồng thời đảm bảo DL được coi như một công cụ cho xóa đói, nghèo đói giảm nhẹ. Các tiêu chí được tổ chức xoay quanh *lập kế hoạch bền vững hiệu quả; tối đa hóa lợi ích kinh tế và xã hội cho cộng đồng địa phương; tăng cường bảo tồn di sản văn hóa; và giảm tác động tiêu cực đến môi trường* (GSTC, 2011).

Đồng thời, thực tiễn chỉ ra cần nỗ lực hơn nữa áp dụng khung chính sách TTX để

chuyển đổi bền vững trong lĩnh vực DL. Các chính phủ và các bên liên quan cần xác định các nguyên tắc TTX, nghiên cứu thực tiễn và cho phép tích hợp các nguyên tắc TTX và chương trình liên quan vào chính sách hành động quốc gia và địa phương về phát triển DL. Điều này, nhấn mạnh việc cải cách chính sách phát triển DL để thúc đẩy và duy trì nhu cầu, thúc đẩy tạo việc làm, góp phần tái c n bằng và tăng trưởng bền vững.

Đối với lĩnh vực DL, năm 2012, Tổ chức DL thế giới (UNWTO) và Chương trình Môi trường của Liên hợp quốc (UNEP) đã phối hợp nghiên cứu và công bố báo cáo liên quan đến phát triển DL theo hướng TTX; các quốc gia phải chú trọng đến: tiêu dùng trong DL; sự hưởng lợi của người lao động DL và liên quan đến DL; lợi ích về môi trường;) bảo tồn và phát huy giá trị di sản văn hóa; và yêu cầu phải mô hình hóa phát triển DL theo hướng TTX.

Trong nước, việc phát triển DL xanh gắn với xu hướng phát triển bền vững được nhắc đến trong “Chiến lược phát triển du lịch đến năm 2030” là “tối đa hóa sự đóng góp của DL cho các mục tiêu phát triển bền vững của Liên Hợp Quốc”. Bộ Văn hóa, Thể thao và DL được sự hỗ trợ của Cơ quan Hợp tác phát triển Quốc tế Tây Ban Nha (AECID) xây dựng các Bộ tiêu chí Nhân DL xanh, trong đó, đặc biệt chú trọng đến: sử dụng năng lượng tái tạo và nâng cao hiệu quả sử dụng năng lượng trong hoạt động DL; kiểm soát phát thải khí nhà kính từ các cơ sở DL; kiểm soát phát sinh rác thải, chất thải và tái sử dụng cho sản xuất DL xanh hơn; khuyến khích các hệ thống sử dụng đất bền vững và thông minh với BĐKH; Bảo tồn tài nguyên thiên nhiên nước và đa dạng sinh học; Phát triển dịch vụ DL xanh và bền vững; Khuyến khích hình thành lối sống xanh và tiêu dùng bền vững trong DL.

Trong nghiên cứu của Nguyễn Anh Tuấn (2020), về phát triển du lịch hướng tới TTX đã đề cập đến các tiêu chí về Giá trị gia tăng về kinh tế, Văn hóa - xã hội, Giảm phát thải khí nhà kính (thấp cac-bon), Sử dụng hiệu quả tài nguyên nước, Đổi mới sinh thái. Các tiêu chí này được cụ thể hóa bằng các chỉ tiêu về tài nguyên du lịch, Quy mô thị trường khách và nhu cầu sản phẩm du lịch, Khả năng tạo việc làm trong hoạt động du lịch, Bảo tồn các giá trị tài nguyên, di sản văn hóa, Rào cản tiếp cận thị trường lao động thấp, Chính sách xã hội thích hợp, công bằng, Phát triển năng lượng tái tạo (điện gió, mặt trời...), Sử dụng tiết kiệm năng lượng, Ứng dụng công nghệ sử dụng nước hiệu quả, Đổi mới quy trình và ứng dụng công nghệ trong khai thác và sử dụng tài nguyên du lịch hiệu quả... Các gợi ý và nghiên cứu này cũng tạo cơ sở để xác định các tiêu chí đánh giá mô hình phát triển du lịch theo hướng TTX ở đơn vị cấp địa phương.

Phương pháp nghiên cứu:

- *Phương pháp phân tích, tổng hợp:* Thu thập, tổng hợp, phân tích, đánh giá, kế thừa có chọn lọc những tài liệu nghiên cứu trong và ngoài nước có liên quan đến vấn đề nghiên cứu. Thu thập, nghiên cứu kết quả nghiên cứu, đánh giá tiêu chí mô hình DL theo hướng TTX.

- *Phương pháp khảo sát thực địa:* được sử dụng trong việc tiêu chí đánh giá mô hình DL theo hướng TTX thông qua việc quan sát trực tiếp, trao đổi với các đối tượng có liên quan tại địa bàn thực địa, thu thập thông tin, dữ liệu sơ cấp, thứ cấp, hình ảnh... tại địa

bàn nghiên cứu. Nhóm nghiên cứu tiến hành khảo sát địa bàn Vân Long (Ninh Bình). Khảo sát các địa bàn lân cận có điều kiện tự nhiên tương tự (Tam Cốc - Ninh Bình, Tràng An - Ninh Bình; Vườn quốc gia Xuân Thủy (Nam Định), Diêm Thụy (Thái Bình)...

Phương pháp điều tra xã hội học: Việc phỏng vấn được thực hiện thông qua việc trao đổi và thảo luận về nội dung của phiếu khảo sát và các câu hỏi của các chỉ báo theo phần mềm phân tích số liệu SPSS. Kết quả được tổng hợp từ phân tích các nội dung (Content Analysis) chủ yếu là đánh giá của các chuyên gia về hoạt động du lịch tại Vân Long. Đối tượng: khách DL, cộng đồng, nhân viên kinh doanh DL, người quản lý KBTĐNN Vân Long. Số lượng: 200 phiếu điều tra (180 phiếu điều tra của các đối tượng trực tiếp tham gia mô hình thử nghiệm; 20 bảng phỏng vấn sâu dành cho các đối tượng như nhà quản lý, nhà khoa học, doanh nghiệp DL). Kết quả điều tra là cơ sở cho phương pháp cận thực nghiệm; phương tiện xử lý thông qua phần mềm SPSS phiên bản 22;

- *Phương pháp cận thực nghiệm (quasi - experiment):* Thiết kế nghiên cứu trong thực địa đã được lựa chọn là phương thức cận thực nghiệm (quasi- experiment). Đây là thu thập và dự báo dữ liệu chuyên sâu, sử dụng số liệu thống kê của địa phương về DL, phát triển kinh tế và môi trường.

Các bước triển khai nội dung thực nghiệm:

Bước 1. Xác định giả định nghiên cứu bộ tiêu chí ban đầu: Giả định nghiên cứu tăng trưởng xanh tại Khu bảo tồn đất ngập nước Vân Long sử dụng với 37 chỉ tiêu qua đó, xem xét tính phù hợp để hiểu rõ về đặc tính mô hình du lịch tăng trưởng xanh của vùng DHBB.

Bước 2. Thiết kế nghiên cứu: Mục đích thiết lập mối liên kết giữa việc thu thập dữ liệu, phân tích và kết quả nghiên cứu với đầy đủ các bước công việc cần thiết trình tự triển khai thực nghiệm thống nhất trong suốt hoạt động nghiên cứu để đánh giá giả định nghiên cứu đã đặt ra, do vậy cần lựa chọn một thiết kế nghiên cứu phù hợp. Áp dụng phương pháp cận thực nghiệm (quasi - experiment) để khảo sát người dân địa phương và khách du lịch và cơ quan quản lý.

Bước 3. Tổ chức thực hiện thu thập và phân tích số liệu: Dữ liệu sơ cấp và thứ cấp được thu thập phục vụ nghiên cứu. Dữ liệu sơ cấp quá trình thực địa, thông qua phương pháp chính phỏng vấn sâu. Đối tượng: cán bộ quản lý của Trạm kiểm lâm KBTĐNN Vân Long, cán bộ quản lý xã Gia Vân và các đại diện của HTX kinh doanh du lịch từ thôn Phù Long, Chi Lễ, Mai Trung, Tập Ninh, Trung Hoà trong việc kết nối tại điểm đến. Đặc biệt, trong chuyến đi thực địa, còn có cán bộ địa phương thông thuộc địa bàn dẫn đường. Thông tin thu thập được kết hợp với dữ liệu thứ cấp để kiểm tra chéo thông tin (triangulation) xây dựng nên khung nghiên cứu.

Để đảm bảo yêu cầu thực hiện theo đúng thiết kế nghiên cứu, nhóm nghiên cứu cũng chú trọng đồng thời thu thập dữ liệu thông qua phương pháp nghiên cứu định tính và định lượng được thực hiện như sau:

Phương pháp nghiên cứu định tính: Nhằm xây dựng các thuộc tính đánh giá, nghiên cứu xây dựng bảng hỏi định tính cho phù hợp cho phỏng vấn sâu tại điểm du lịch, nhóm thực hiện đề tài tập trung kỹ thuật phỏng vấn trực tiếp và thảo luận thông qua thư điện tử

đối với các chuyên gia trong lĩnh vực du lịch (gồm 10 người: 7 cán bộ quản lý lĩnh vực du lịch; 3 giảng viên chuyên ngành) kết hợp với thảo luận nhóm với cán bộ quản lý xã, HTX hoạt động du lịch (gồm 10 người).

Phương pháp nghiên cứu định lượng: Nghiên cứu định lượng được tiến hành thông qua việc phát phiếu khảo sát trực tiếp các đối tượng khách du lịch, cư dân địa phương, cán bộ quản lý, cán bộ nghiên cứu trong mẫu nghiên cứu. Mục đích của bước nghiên cứu này là xem xét và đo lường các tiêu chí. Chọn mẫu: Chọn mẫu theo phương pháp thuận tiện (đến trực tiếp khảo sát; đối tượng là khách du lịch, cư dân địa phương, cán bộ quản lý). Quy mô mẫu: Mẫu nghiên cứu 200 phiếu.

Bước 4. So sánh kiểm tra chéo (triangulation) thông tin với các giả định nghiên cứu. Việc thực hiện này là cần thiết khi nghiên cứu một vấn đề giống nhau hoặc tương tự nhưng điều kiện nghiên cứu (không gian, thời gian) và đặt biệt mẫu nghiên cứu khác nhau dẫn đến kết quả của các nghiên cứu không thuần nhất, đôi khi còn cho kết quả trái ngược nhau, vì vậy cần phải so sánh, kiểm tra chéo nhiều thông tin với các giả định nghiên cứu trước đây về vấn đề này để tìm sự tương đồng và khác biệt. Qua đó, tạo điều kiện giải thích kết quả hợp lý và có độ tin cậy cho các bước tiếp theo.

Bước 5. Kết luận nghiên cứu: là câu trả lời cuối cùng của giả định được đề ra có ý nghĩa hay không, thông qua áp dụng kiểm tra chéo từ nhiều nguồn dữ liệu, nhiều phương pháp áp dụng, để suy diễn kết quả cho cả một quần thể.

Kết quả nghiên cứu

Kết quả 1: xác định tiêu chí đánh giá phát triển du lịch theo hướng TTX

Dựa trên nghiên cứu của Nguyễn Anh Tuấn (2020), nhóm nghiên cứu đề xuất bộ tiêu chí đánh giá phát triển du lịch theo hướng TTX có thể phù hợp hơn trong điều kiện thực tế của các địa phương thuộc vùng duyên hải Bắc Bộ, Việt Nam, bao gồm 5 nhóm tiêu chí. Khung đo lường xác định 37 chỉ số để nắm bắt các đặc điểm chính của hoạt động du lịch theo hướng TTX và được quan sát trong 5 khía cạnh chính. Đó là 1) góc độ về kinh tế; 2) góc độ về văn hóa - xã hội; 3) góc độ về môi trường 4) góc độ về khoa học - kỹ thuật và 5) góc độ cơ chế chính sách. Các chỉ số trên phác họa bối cảnh kinh tế, môi trường, xã hội, cơ chế chính sách để làm rõ các đặc điểm của tăng trưởng về du lịch của địa phương.

Nhóm kinh tế bao gồm các tiêu chí về doanh thu (Tốc độ tăng trưởng doanh thu du lịch, tốc độ tăng trưởng lượng khách du lịch, Tốc độ phát triển các đơn vị kinh doanh, hoạt động trong lĩnh vực du lịch, Tính đa dạng của sản phẩm du lịch, dịch vụ du lịch, Chất lượng sản phẩm du lịch, dịch vụ du lịch, Chất lượng sản phẩm du lịch, dịch vụ du lịch...

Nhóm văn hóa - xã hội: Số lượng, chất lượng nguồn lao động, Mức độ tạo việc làm cho cộng đồng địa phương từ du lịch, Đóng góp cho xóa đói giảm nghèo và nâng cao thu nhập cho cộng đồng địa phương...

Nhóm môi trường bao gồm tỷ lệ các khu, điểm có tài nguyên du lịch được quy hoạch, đầu tư; Tỷ lệ các điểm du lịch có xử lý thu gom rác thải; Sức chứa, cường độ hoạt động và áp lực lên môi trường tại các khu, điểm du lịch; Chất lượng môi trường (nước sạch, không khí, rác thải, tiếng ồn...). Ba vấn đề liên quan đến đánh giá phát triển du lịch theo hướng TTX cần gắn với nâng cao nhận thức của người dân và khách du lịch trong bảo

vệ môi trường là: (1) khai thác, sử dụng hợp lý gắn với bảo vệ các nguồn tài nguyên du lịch trong cộng đồng; (2) khai thác sử dụng tài nguyên du lịch gắn với bảo vệ môi trường sinh thái và (3) quản lý tốt vấn đề rác thải, nước thải trong cộng đồng.

Nhóm “Tiền bộ công nghệ” giúp xem xét và đánh giá quá trình tổng thể về phát minh, sáng tạo đổi mới và phổ biến công trong hoạt động du lịch của địa phương.

Nhóm Thể chế và chính sách được cụ thể hóa bằng các tiêu chí sau: mức độ phù hợp của những quy hoạch phát triển kinh tế địa phương đối với vấn đề phát triển du lịch kết hợp với vấn đề môi trường; Vai trò của chính quyền địa phương đối với vấn đề phát triển du lịch kết hợp với bảo vệ môi trường; Phát triển thương hiệu độc đáo và ý nghĩa của du lịch xanh địa phương...

Bảng 1: Đề xuất tiêu chí đánh giá phát triển du lịch theo hướng TTX

TT	Chỉ tiêu	Căn cứ đánh giá	Nguồn tham khảo
Nhóm nhân tố về kinh tế			
1	Tốc độ tăng trưởng doanh thu du lịch	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá. Tốc độ tăng trưởng phải liên tục tăng và phải cao hơn tốc độ tăng trưởng bình quân của Quốc Gia (Khoảng 7%/năm)	OECD (2017); Dương Hoàng Hương (2017)
2	Tốc độ tăng trưởng lượng khách du lịch	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá. Chỉ tiêu này tăng và không dưới 7%/năm	OECD (2017); Vũ Văn Đông (2014); Dương Hoàng Hương (2017); Nguyễn Anh Dũng (2018)
3	Tốc độ phát triển các đơn vị kinh doanh, hoạt động trong lĩnh vực du lịch	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá. (Số lượng cơ sở kinh doanh lưu trú, số lượng phòng, cơ sở kinh doanh dịch vụ lữ hành tăng và phù hợp với nhịp độ tăng của lượng khách.)	OECD (2017); Nguyễn Anh Dũng (2018)
4	Thời gian lưu trú bình quân của du khách	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá. (Thời gian lưu trú phải tăng dần, không thấp hơn 2 ngày/1 khách.)	OECD (2017); La Nữ Ánh Vân (2012); Dương Hoàng Hương (2017)
5	Công suất sử dụng cơ sở vật chất kỹ thuật du lịch	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá. (Công suất sử dụng hợp lý, không bị quá tải hoặc quá vắng khách.)	OECD (2017); Dương Hoàng Hương (2017)
6	Tính đa dạng của sản phẩm du lịch, dịch vụ du lịch	Sử dụng phiếu khảo sát khách du lịch. (Mức độ ghi nhận tính đa dạng, phong phú > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	OECD (2017); Nguyễn Đức Tuy (2004)

7	Chất lượng sản phẩm du lịch, dịch vụ du lịch	Sử dụng phiếu khảo sát khách du lịch. (Mức độ ghi nhận chất lượng sản phẩm du lịch, dịch vụ du lịch > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	
8	Mức độ hợp lý về giá các loại hàng hóa, sản phẩm và dịch vụ du lịch	Sử dụng phiếu khảo sát khách du lịch (Mức độ không hài lòng được ghi nhận <20% - PT theo TTX, >20% - Chưa PT theo TTX)	OECD (2017); Nguyễn Anh Dũng (2018)
9	Mức độ hài lòng của du khách	Sử dụng phiếu khảo sát khách du lịch (Mức độ không hài lòng, không quay trở lại điểm du lịch được ghi nhận <20% - PT theo TTX, >20% - Chưa PT theo TTX)	OECD (2017); La Nữ Ánh Vân (2012); Dương Hoàng Hương (2017)
10	Chi tiêu bình quân của du khách	Sử dụng số liệu khảo sát khách du lịch (Cơ cấu chi tiêu hợp lý cho một chuyến đi: Tiền phòng, tiền đi lại, tiền vé thăm quan, tiền chi cho ăn uống....)	OECD (2017); La Nữ Ánh Vân (2012); Dương Hoàng Hương (2017)
11	Tổng lượng vốn đầu tư cho du lịch	Sử dụng số liệu để phân tích, đánh giá. (Nguồn vốn lớn và đa dạng.)	OECD (2017); Dương Hoàng Hương (2017)
12	Cơ cấu nguồn vốn đầu tư cho du lịch	Sử dụng số liệu để phân tích, đánh giá. (Cơ cấu vốn cần phân bổ hợp lý và đầy đủ cho các hạng mục đầu tư phát triển du lịch.)	
Nhóm nhân tố về Văn hóa- Xã hội			
13	Số lượng, chất lượng nguồn lao động	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá. (Số lượng lao động tăng phù hợp với nhịp độ tăng trưởng lượng khách và đáp ứng nhu cầu sử dụng lao động của các cơ sở KDDL. Chất lượng nguồn lao động đánh giá bằng số lượng lao động có trình độ chuyên môn phù hợp > 50%)	OECD (2017); Vũ Văn Đông (2014); Dương Hoàng Hương (2017)
14	Mức độ tạo việc làm cho cộng đồng địa phương từ du lịch	Sử dụng phiếu khảo sát cư dân địa phương (Mức độ tạo việc làm được ghi nhận > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	Bùi Thanh Hương và cộng sự (2007); OECD (2017); Nguyễn Anh Dũng (2018)
15	Đóng góp cho xóa đói giảm nghèo và nâng cao thu nhập cho cộng đồng địa phương	Sử dụng phiếu khảo sát cư dân địa phương (Mức độ xóa đói giảm nghèo, nâng cao thu nhập ghi nhận mức > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	Bùi Thanh Hương và cộng sự (2007); OECD (2017); Dương Hoàng Hương (2017)

16	Diễn biến an ninh trật tự tại địa phương khi có hoạt động du lịch	Sử dụng phiếu khảo sát cư dân địa phương, khách du lịch (Diễn biến ANTT được ghi nhận ở mức không tốt <10% - PT theo TTX, >10% - Chưa PT theo TTX)	OECD (2017); Nguyễn Anh Dũng (2018)
17	Sự xuất hiện tệ nạn xã hội tại địa phương khi có hoạt động du lịch	Sử dụng phiếu khảo sát cư dân địa phương (Sự xuất hiện tệ nạn xã hội được ghi nhận ở mức nhiều < 10% - PTBV, > 10% - Chưa BV)	
18	Mức độ nhận thức của người dân về chủ trương chính sách phát triển du lịch	Sử dụng phiếu khảo sát cư dân địa phương (Tỷ lệ được nhận thông tin, lấy ý kiến về quy hoạch được ghi nhận >90% - PT theo TTX, <90% - Chưa PT theo TTX)	Bùi Thanh Hương và cộng sự (2007); OECD (2017); Dương Hoàng Hương (2017)
19	Công tác tuyên truyền nâng cao nhận thức về ý thức bảo vệ môi trường, sử dụng tài nguyên và phát triển du lịch	Sử dụng phiếu khảo sát cư dân địa phương (Công tác tuyên truyền được ghi nhận mức > 90% - PT theo TTX, < 90% - PT theo TTX)	Bùi Thanh Hương và cộng sự (2007); OECD (2017); La Nữ Ánh Vân (2012)
20	Mức độ hài lòng của cộng đồng địa phương đối với hoạt động du lịch	Sử dụng phiếu khảo sát cư dân địa phương (Mức độ hài lòng được ghi nhận > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	Bùi Thanh Hương và cộng sự (2007); OECD (2017); Vũ Văn Đông (2014); Dương Hoàng Hương (2017)
Nhóm nhân tố về môi trường			
21	Tỷ lệ các khu, điểm có tài nguyên du lịch được quy hoạch, đầu tư	Sử dụng số liệu để phân tích, đánh giá. (100% - Pt theo TTX, <100% Chưa PT theo TTX)	OECD (2017); Nguyễn Đức Tuy (2004); La Nữ Ánh Vân (2012); Vũ Văn Đông (2014)
22	Tỷ lệ các điểm du lịch có xử lý thu gom rác thải.	Sử dụng số liệu để phân tích, đánh giá. Tỷ lệ có khu xử lý rác thải, tỷ lệ doanh nghiệp có hồ sơ đánh giá tác động môi trường. Công suất xử lý rác thải có đảm bảo hay không,	OECD (2017); Nguyễn Đức Tuy (2004); La Nữ Ánh Vân (2012)
23	Sức chứa, cường độ hoạt động và áp lực lên môi trường tại các khu, điểm du lịch	Sử dụng số liệu để phân tích, đánh giá Không vượt quá sức chứa tối đa và không gây quá tải áp lực lên môi trường tại các khu, điểm du lịch	OECD (2017); Andereck và cộng sự (2005). Liu & Var (1986) Dương Hoàng Hương (2017)
24	Chất lượng môi trường (nước sạch, không khí, rác thải, tiếng	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương (Chất lượng môi trường được cư dân địa phương, khách du lịch ghi	OECD (2017); Andereck và cộng sự (2005). Liu & Var (1986) Dương Hoàng

	ôn...) tại các khu, điểm du lịch	nhận mức > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	Huong (2017)
25	Ý thức của Du khách trong tham gia bảo vệ môi trường, sử dụng tài nguyên và phát triển du lịch	Sử dụng phiếu khảo sát cư dân địa phương, các cơ quan QLNN & đơn vị kinh doanh du lịch (Ý thức của du khách được cư dân địa phương, các cơ quan QLNN & đơn vị kinh doanh du lịch ghi nhận mức > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	OECD (2017);; Andereck và cộng sự (2005). Liu & Var (1986) Dương Hoàng Hương (2017)
26	Nhận thức trách nhiệm trong tham gia bảo vệ môi trường, sử dụng tài nguyên và phát triển du lịch	Sử dụng phiếu khảo sát khách du lịch, các cơ quan QLNN & đơn vị kinh doanh du lịch. (Ý thức của cư dân địa phương được du khách, các cơ quan QLNN & đơn vị kinh doanh du lịch ghi nhận mức > 70% - PT theo TTX, < 70% - Chưa PT theo TTX)	
Nhóm nhân tố về tiến bộ công nghệ			
27	Áp dụng các biện pháp tiết kiệm điện, quản lý nước thải trong sản xuất kinh doanh và sinh hoạt	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương, doanh nghiệp	OECD (2017);
28	Ứng dụng năng lượng sạch (như năng lượng mặt trời, năng lượng gió,) trong kinh doanh du lịch và khách sạn	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương, doanh nghiệp	OECD (2017);
29	Kiểm soát mức độ ô nhiễm môi trường tại địa phương	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương về lắp thêm các trạm đo đặc khí hậu và cảnh báo mức độ ô nhiễm môi trường tại địa phương	OECD (2017);
30	Mức độ ứng dụng công nghệ thông tin trong du lịch	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương	OECD (2017);
31	Mức độ nhận thức và áp dụng chứng nhận xanh về an toàn thực phẩm và bảo vệ môi trường	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương	OECD (2017);
Nhóm nhân tố về thể chế chính sách			
32	Mức độ phù hợp của những quy	Sử dụng phiếu khảo sát cán bộ quản lý, cư dân địa phương	OECD (2017);

	hoạch phát triển kinh tế địa phương đối với vấn đề phát triển du lịch kết hợp với vấn đề môi trường		
33	Vai trò của chính quyền địa phương đối với vấn đề phát triển du lịch kết hợp với bảo vệ môi trường	Sử dụng phiếu khảo sát cán bộ quản lý, cư dân địa phương	OECD (2017);
34	Đầu tư vào các ngành dịch vụ du lịch khách sạn tại địa phương	Sử dụng phiếu khảo sát cán bộ quản lý, cư dân địa phương	OECD (2017);
35	Khó khăn khi thực hiện phát triển du lịch kết hợp với vấn đề môi trường	Sử dụng phiếu khảo sát cán bộ quản lý, cư dân địa phương	OECD (2017);
36	Tập huấn về các hoạt động du lịch gắn với tăng trưởng xanh	Sử dụng phiếu khảo sát cán bộ quản lý, cư dân địa phương	OECD (2017);
37	Phát triển thương hiệu độc đáo và ý nghĩa của du lịch xanh địa phương	Sử dụng phiếu khảo sát cán bộ quản lý, cư dân địa phương	OECD (2017);

(Nguồn: Nhóm nghiên cứu tổng hợp và phát triển)

Kết quả 2: Khảo nghiệm tại điểm du lịch KBTĐNN Vân Long (Ninh Bình).

+ Xác định điểm thử nghiệm: KBTĐNN Vân Long (Ninh Bình):

KBTĐNN (Ninh Bình), thuộc vùng Duyên hải Bắc Bộ, Việt Nam. Việc áp dụng nghiên cứu điển hình thực nghiệm là phù hợp vì điểm đến Vân Long với 2 lý do sau: *i)* Xuất phát từ giá trị đặc thù vốn có về tài nguyên du lịch sinh vật đặc sắc, hấp dẫn; với loài động vật đặc hữu (Voọc quần đùi) *ii)* Ngày 18/9/2020, Tổ chức Bảo tồn Thiên nhiên Quốc tế (IUCN) đã chứng nhận Danh lục Xanh cho KBTĐNN Vân Long, tỉnh Ninh Bình.

+ Nội dung thử nghiệm: xem xét các nhóm tiêu chí đánh giá phát triển du lịch theo hướng TTX. Nội dung thử nghiệm kết hợp với nhiều bước làm rõ hoạt động du lịch theo hướng TTX tại KBTĐNN Vân Long, tỉnh Ninh Bình thông qua các cách tiếp cận khác nhau, từ các nguồn dữ liệu khác nhau.

Bảng 2: Kết quả thực nghiệm khảo sát tiêu chí đánh giá mô hình phát triển DL theo hướng TTX tại Khu BTĐNN Vân Long (Ninh Bình).

TT	Chỉ tiêu	Kết quả thực nghiệm mô hình		Mức độ phù hợp để sử dụng của tiêu chí
		Nghiên cứu định tính thông qua phỏng vấn cán bộ, nhà quản lý	Nghiên cứu định lượng thông qua phiếu điều tra khách du lịch, cư dân địa phương	
Nhóm nhân tố về kinh tế				
1	Tốc độ tăng trưởng doanh thu du lịch	Các ý kiến cho rằng đều có doanh thu du lịch của địa phương tăng	Các ý kiến cho rằng đều có doanh thu du lịch của địa phương tăng	Phù hợp vì thống nhất giữa định tính và định lượng
2	Tốc độ tăng trưởng lượng khách du lịch	Việc phát triển du lịch dựa vào cộng đồng đã mang lại lợi ích thiết thực cho bà con nông dân và chính quyền địa phương. Với khoảng 50.000 lượt khách mỗi năm, du lịch Vân Long đã giải quyết việc làm thường xuyên cho trên 700 lao động.	Sử dụng số liệu thống kê để phân tích, so sánh, đánh giá khách du lịch liên tục tăng (Khoảng 7%/năm)	Phù hợp đánh giá giữa định tính và định lượng
3	Tốc độ phát triển các đơn vị kinh doanh, hoạt động trong lĩnh vực du lịch	Sử dụng số liệu thống kê của dữ liệu thứ cấp từ các báo cáo và đánh giá hiện trạng cho thấy lượng cơ sở kinh doanh lưu trú, số lượng phòng, cơ sở kinh doanh dịch vụ lữ hành tăng và phù hợp với nhịp độ tăng của lượng khách.	Các cơ sở kinh doanh lưu trú, số lượng phòng, cơ sở kinh doanh dịch vụ lữ hành tăng.	Phù hợp đánh giá giữa định tính và định lượng
4	Thời gian lưu trú bình quân của du khách	Thời gian lưu trú, không thấp 1 ngày/1 khách.	Sử dụng số liệu thống kê báo cáo từ thực trạng để phân tích, so sánh, đánh giá.	Phù hợp đánh giá giữa định tính và định lượng
5	Công suất sử dụng cơ sở vật chất kỹ thuật du lịch	Công suất sử dụng chưa hết, đôi khi vắng khách.	Công suất trung bình sử dụng hợp lý, không bị quá tải.	Phù hợp đánh giá giữa định tính và định lượng

6	Tính đa dạng của sản phẩm du lịch, dịch vụ du lịch	KBT hiện đang ở giai đoạn đầu về phát triển các sản phẩm du lịch, dịch vụ. Có thêm nhiều dự án đầu tư và khu du lịch sẽ đa dạng sản phẩm du lịch hơn	Sử dụng số liệu thống kê báo cáo từ thực trạng để phân tích, so sánh, đánh giá. Mức độ ghi nhận	Phù hợp đánh giá giữa định tính và định lượng
7	Chất lượng sản phẩm du lịch, dịch vụ du lịch	Đáp ứng nhu cầu của khách du lịch và tham quan trong ngày nhưng chưa đa dạng và đáp ứng nhu cầu đặc biệt.	Mức độ ghi nhận tính đa dạng, phong phú chưa đạt mức độ < 70% - Chưa PT theo TTX).	Phù hợp đánh giá giữa định tính và định lượng
8	Mức độ hợp lý về giá các loại hàng hóa, sản phẩm và dịch vụ du lịch	KBT chủ yếu cung cấp các dịch vụ cơ bản tham quan và học tập nghiên cứu cho du khách quốc tế và nội địa. Cơ bản giá cả phù hợp với nhu cầu. Lưu trú ngắn ngày. Chủ yếu du lịch sinh thái, cộng đồng, homestay.	Sử dụng phiếu khảo sát khách du lịch (Mức độ không hài lòng được ghi nhận <20%.	Phù hợp giữa đánh giá giữa định tính và định lượng
9	Mức độ hài lòng của du khách	Hài lòng đến thăm quan tại KBT. Đã có hợp tác bước đầu giữa các nhà quản lý và hoạt động du lịch để tăng trải nghiệm cho du khách và duy trì các giá trị của KBT	Sử dụng phiếu khảo sát khách du lịch (Mức độ không hài lòng, không quay trở lại điểm du lịch được ghi nhận <20%	Phù hợp giữa đánh giá giữa định tính và định lượng
10	Chi tiêu bình quân của du khách	Chưa có thông tin đầy đủ	Sử dụng số liệu khảo sát khách du lịch nhưng chưa đủ để phân tích cơ cấu chi tiêu	Chưa đủ thông tin để đối sánh
11	Tổng lượng vốn đầu tư cho du lịch	Chưa có thông tin đầy đủ	Sử dụng số liệu để phân tích, đánh giá. (Nguồn vốn lớn và đa dạng.)	Chưa đủ thông tin để đối sánh
12	Cơ cấu nguồn vốn đầu tư cho du lịch	Có kế hoạch quản lý, nhưng nó chỉ được thực hiện một phần vì lý do kinh phí. Có ý kiến nêu rõ cấp vốn không theo đúng tiến độ của Dự án đầu tư	Ko có thông tin	Đánh giá chủ yếu từ định tính
Nhóm nhân tố về Văn hóa- Xã hội				

13	Số lượng, chất lượng nguồn lao động	Có ý kiến cho rằng chủ trương đường lối và chính sách phát triển nguồn nhân lực lao động nói chung và du lịch nói riêng được quan tâm và đầu tư thúc đẩy về xây dựng cơ sở vật chất và hạ tầng cũng như hoạt động đi vào thực tiễn đời sống của địa phương. Số lượng qua đào tạo tăng lên và chất lượng cũng ngày càng được quan tâm để phục vụ cho phát triển kinh tế - xã hội địa phương.	Sử dụng phiếu khảo sát cư dân địa phương cho thấy có nhu cầu được giáo dục đào tạo là rất lớn.	Phù hợp đánh giá giữa định tính và định lượng
14	Mức độ tạo việc làm cho cộng đồng địa phương từ du lịch	Các ý kiến tập trung vào việc phát triển du lịch dựa vào cộng đồng đã mang lại lợi ích thiết thực cho bà con nông dân và chính quyền địa phương. Với khoảng 50.000 lượt khách mỗi năm, du lịch Vân Long đã giải quyết việc làm thường xuyên cho trên 700 lao động, thu nhập bình quân của những người tham gia đón tiếp và phục vụ khách lưu trú tại gia đạt từ 1-2 triệu đồng/tháng.	Sử dụng phiếu khảo sát cư dân địa phương cho thấy có mức độ tạo việc làm từ du lịch chưa đáp ứng kỳ vọng cao của người dân	Phù hợp đánh giá giữa định tính và định lượng
15	Đóng góp cho xoá đói giảm nghèo và nâng cao thu nhập cho cộng đồng địa phương	Cộng đồng được giao khoán QLVR rừng và tham gia vào các hoạt động khuyến lâm của KBT để tăng thu nhập Hoàn thiện dự án DLST của KBT. CQ xúc tiến các thủ tục pháp lý trong hợp tác đầu tư du lịch với Pháp.	Sử dụng phiếu khảo sát cư dân địa phương, phần lớn đáp viên đều nhận thức đúng về mức độ nhận thức được du lịch giúp xoá đói giảm nghèo, nâng cao thu nhập	Phù hợp đánh giá giữa định tính và định lượng
16	Diễn biến an ninh trật tự tại địa phương khi có hoạt động du lịch	Các diễn biến được kiểm soát chặt chẽ bởi Trạm kiểm lâm và các Tổ hợp tác xã và cơ chế khoán lâm nghiệp	Sử dụng phiếu khảo sát cư dân địa phương, khách du lịch (Diễn biến ANTT được ghi nhận ở mức tốt	Phù hợp đánh giá giữa định tính và định lượng
17	Sự xuất hiện tệ nạn xã hội tại địa phương khi có hoạt động du lịch	Rất ít và được kiểm soát chặt chẽ	Sự xuất hiện tệ nạn xã hội được ghi nhận ở mức không nhiều	Phù hợp đánh giá giữa định tính và định lượng

18	Mức độ nhận thức của người dân về chủ trương chính sách phát triển du lịch	Các ý kiến cho rằng người dân nhận thức các hoạt động du lịch sinh thái của KBT hoạt động sẽ lôi kéo sự tham gia của cộng đồng vào hoạt động này để tăng thu nhập Những người dân địa phương sống lâu năm ở đây tham gia trực tiếp vào một số thảo luận thích hợp liên quan đến việc quản lý nhưng sự tham gia của họ cần được cải thiện.	Sử dụng phiếu khảo sát cư dân địa phương, tỷ lệ được nhận thông tin, lấy ý kiến về quy hoạch được ghi nhận >90% đáp viên nhận thức đúng về chủ trương chính sách phát triển du lịch.	Phù hợp đánh giá giữa định tính và định lượng
19	Công tác tuyên truyền nâng cao nhận thức về ý thức bảo vệ môi trường, sử dụng tài nguyên và phát triển du lịch	Công tác GDMT cho cộng đồng dân cư rất được quan tâm và làm tốt (các làng và trường học) từ năm 2006 do VCF tài trợ. Nghiên cứu phục hồi các loài thực vật đặc hữu, quý hiếm và đánh giá tác động môi trường Xây dựng dự án vùng đệm và tiếp tục tìm kiếm các chương trình, dự án hỗ trợ sinh kế người dân Xây dựng kế hoạch và kinh phí cho các hoạt động giáo dục và nâng cao nhận thức từ nguồn ngân sách và các dự án Hoàn thiện nội dung GDMT cho cán bộ truyền thông của KBT	Sử dụng phiếu khảo sát cư dân địa phương (Công tác tuyên truyền được ghi nhận mức > 90% đáp viên có được thông tin và có tham gia vào các hoạt động GDBV MT	Phù hợp đánh giá giữa định tính và định lượng
20	Mức độ hài lòng của cộng đồng địa phương đối với hoạt động du lịch	Hài lòng thông qua việc tạo điều kiện tăng thu nhập và sinh kế	Sử dụng phiếu khảo sát cư dân địa phương (Mức độ hài lòng được ghi nhận cao và kỳ vọng được tham gia nhiều hoạt động hơn nữa	Phù hợp đánh giá giữa định tính và định lượng
Nhóm nhân tố về môi trường				
21	Tỷ lệ các khu, điểm có tài nguyên du lịch được quy hoạch, đầu tư	100% có qui hoạch	100% có biết và nghe nói đến về quy hoạch phát triển du lịch tại địa phương	Phù hợp đánh giá giữa định tính và định lượng

22	Tỷ lệ các điểm du lịch có xử lý thu gom rác thải.	Xã Gia Vân đang gặp một số khăn như kết cấu hạ tầng phục vụ du lịch chưa hoàn thiện: một số đoạn đường còn khó đi, chưa có vệ sinh công cộng; dịch vụ lưu trú chỉ đáp ứng được một bộ phận nhỏ nhu cầu của khách... Nhiều gia đình ở đây mong muốn được hỗ trợ vốn để đầu tư cải tạo lại các phòng ở đủ tiêu chuẩn để đón khách.	Có biết nhưng không chắc về mức độ có khu xử lý rác thải là bao nhiêu	Phù hợp đánh giá giữa định tính và định lượng
23	Sức chứa, cường độ hoạt động và áp lực lên môi trường tại các khu, điểm du lịch	Các ý kiến cho rằng chưa vượt quá sức chứa tối đa và không gây quá tải áp lực lên môi trường tại các khu, điểm du lịch	Sử dụng số liệu để phân tích, đánh giá Không thấy quá tải khách tại các khu, điểm du lịch	Phù hợp đánh giá giữa định tính và định lượng
24	Chất lượng môi trường (nước sạch, không khí, rác thải, tiếng ồn...) tại các khu, điểm du lịch	Một số giá trị đa dạng sinh học, sinh thái hay văn hóa bị suy thoái một phần nhưng các giá trị quan trọng nhất chưa bị tác động đáng kể Ảnh hưởng của khu công nghiệp Gián Khẩu và hoạt động khai thác đất đá khu vực giáp ranh đã làm suy thoái các giá trị ĐDSH của KBT và tạo hiệu ứng biên đối với các loài động vật..	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương Chất lượng môi trường được cư dân địa phương, khách du lịch ghi nhận tốt và rất tốt	Phù hợp đánh giá giữa định tính và định lượng
25	Ý thức của Du khách trong tham gia bảo vệ môi trường, sử dụng tài nguyên và phát triển du lịch	Các hoạt động nâng cao nhận thức để duy trì các giá trị chính về đa dạng sinh học, sinh thái và văn hóa là một phần chính và cơ bản trong công tác quản lý KBT.	Sử dụng phiếu khảo sát cư dân địa phương ghi nhận nắm chắc tốt giữa chủ trương, chính sách và hành động cụ thể.	Phù hợp đánh giá giữa định tính và định lượng
26	Nhận thức trách nhiệm trong tham gia bảo vệ môi trường, sử dụng tài nguyên và phát triển du lịch	Có thu phí nhưng không có đóng góp cho KBT Xây dựng cơ chế khuyến khích cộng đồng địa phương tham gia vào quá trình lập kế hoạch quản lý KBT và hoạt động bảo tồn. Xây dựng mạng lưới bảo vệ rừng cộng đồng làm đầu mối liên lạc để cộng đồng tham gia vào công tác quản lý KBT.		Phù hợp đánh giá giữa định tính và định lượng

Nhóm nhân tố về tiến bộ công nghệ				
27	Áp dụng các biện pháp tiết kiệm điện, quản lý nước thải trong sản xuất kinh doanh và sinh hoạt	Đã có các dự án đầu tư vùng đệm hỗ trợ chuyển giao khoa học kỹ thuật, tạo công ăn việc làm để nâng cao đời sống cộng đồng dân cư vùng đệm và đạt được mục tiêu bảo tồn Thiếu tài chính để duy trì trang thiết bị hiện có. Do đó, trang thiết bị chỉ được sửa chữa khi bị hỏng.	Chưa có thông tin này	Phù hợp đánh giá giữa định tính và định lượng
28	Ứng dụng năng lượng sạch (như năng lượng mặt trời, năng lượng gió,) trong kinh doanh du lịch và khách sạn	Các ý kiến cho rằng đã làm tốt thảo luận rộng rãi tất cả các hoạt động của KBT với chính quyền và cộng đồng địa phương. Chính quyền và cộng đồng địa phương đã tham gia xây dựng Kế hoạch Quản lý Hoạt động.	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương về việc có thấy một số lấp đặt thêm các trạm đo đặc khí hậu và cảnh báo mức độ ô nhiễm môi trường tại địa phương	Phù hợp đánh giá giữa định tính và định lượng
29	Kiểm soát mức độ ô nhiễm môi trường tại địa phương	Đã có các chương trình quản lý đặc biệt đang được thực hiện để đối phó với các mối đe dọa đến các giá trị đa dạng sinh học, sinh thái và văn hóa. Thiếu tài chính để duy trì trang thiết bị hiện có. Do đó, trang thiết bị chỉ được sửa chữa khi bị hỏng.	Sử dụng phiếu khảo sát khách du lịch, cư dân địa phương về việc có thấy một số lấp đặt thêm các trạm đo đặc khí hậu và cảnh báo mức độ ô nhiễm môi trường tại địa phương.	Phù hợp đánh giá giữa định tính và định lượng
30	Mức độ ứng dụng công nghệ thông tin trong du lịch	Tập trung phát triển thông tin liên lạc giữa các bên có liên quan ở địa phương và các nhà quản lý khu bảo tồn	Chưa có thông tin cụ thể	Đánh giá chủ yếu từ định tính
31	Mức độ nhận thức và áp dụng chứng nhận xanh về an toàn thực phẩm và bảo vệ môi trường	Thảo luận rộng rãi tất cả các hoạt động của KBT với chính quyền và cộng đồng địa phương. Chính quyền và cộng đồng địa phương đã tham gia xây dựng Kế hoạch Quản lý Hoạt động.	Chưa có thông tin cụ thể	Đánh giá chủ yếu từ định tính

Nhóm nhân tố về thể chế chính sách				
32	Mức độ phù hợp của những quy hoạch phát triển kinh tế địa phương đối với vấn đề phát triển du lịch kết hợp với vấn đề môi trường	<p>Khu BT đã được công bố đầy đủ. Các quy chế kiểm soát việc sử dụng đất và các hoạt động trong KBT đã có, nhưng việc thực thi vẫn còn một số điểm yếu hay thiếu.- Thực hiện qui chế theo các văn bản pháp qui. VCF đã hỗ trợ kinh phí cho KBT nâng cao năng lực cho cán bộ BQL.</p> <p>- KBT nằm tiếp giáp với dân cư sinh sống và được quản lý khá tốt. Tuy nhiên còn có một số vấn đề như thiếu cán bộ, năng lực cán bộ thấp (hầu hết cán bộ có kiến thức cơ bản về lâm nghiệp và thiếu kiến thức về bảo tồn); trạm kiểm lâm nằm trong BQL, cán bộ trạm kiểm lâm luôn công việc của BQL. kế hoạch sử dụng đất lâm nghiệp & nông nghiệp trong KBT chưa rõ ràng và chưa đóng mốc trên thực địa;Hiện tại KBT vẫn chưa quản lý về du lịch, nguồn thu từ du lịch do xã quản lý và chưa có sự đầu tư trở lại cho bảo tồn.</p> <p>- Kỹ năng tuân tra và cập nhật các văn bản pháp qui vẫn còn yếu và thiếu.</p>	Chưa có thông tin cụ thể	Đánh giá chủ yếu từ định tính
33	Vai trò của chính quyền địa phương đối với vấn đề phát triển du lịch kết hợp với bảo vệ môi trường	<p>Cả BQL và lãnh đạo địa phương và những người sử dụng đất bên cạnh đều biết ranh giới KBT, nhưng mốc giới lại chưa làm xong.</p> <p>Có bản đồ thể hiện ranh giới KBT. Đã tiến hành đóng mốc cấp 1.</p> <p>- Ranh giới KBT đã được xác định có sự tham gia của chính quyền và cộng đồng địa phương.</p> <p>- Tổ chức họp và các bên liên quan</p> <p>- Điều tra thực địa, lập phương án cắm mốc.</p> <p>- Tiến hành cắm mốc và bổ sung bảng ranh giới trên thực địa</p> <p>- Các bên có liên quan ở địa phương (ban quản lý, chính quyền địa phương các xã/thị trấn) tham gia vào quy trình xây dựng Kế hoạch Quản lý Hoạt động.</p>	<p>Sử dụng phiếu khảo sát cư dân địa phương</p> <p>Nhận thức của cư dân địa phương, ghi nhận nắm chắc tốt giữa chủ trương, chính sách và hành động cụ thể.</p>	Phù hợp đánh giá giữa định tính và định lượng

		UBND tỉnh đã phê duyệt kế hoạch hoạt động hàng năm và đã hoàn thành các hoạt động. Nâng cao năng lực quản lý để có thể lập kế hoạch bảo tồn ĐDSH. Xây dựng cơ chế giám sát và đánh giá việc thực hiện kế hoạch.		
34	Đầu tư vào các ngành dịch vụ du lịch khách sạn tại địa phương	Có kế hoạch quản lý, nhưng nó chỉ được thực hiện một phần vì lý do kinh phí. Cấp vốn không theo đúng tiến độ của Dự án đầu tư	Chưa có thông tin cụ thể	Đánh giá chủ yếu từ định tính
35	Khó khăn khi thực hiện phát triển du lịch kết hợp với vấn đề môi trường 0067	KBT đã có sự đồng thuận về các mục tiêu, nhưng lại chỉ quản lý một phần của các mục tiêu đó. Chưa có chiến lược giám sát chung cho toàn bộ các hoạt động quản lý Thiếu tài chính để hoạt động của KBT và quản lý theo mục tiêu.	Sử dụng số liệu để phân tích, đánh giá các đáp viên là không thấy quá tải khách tại các khu, điểm du lịch	Phù hợp đánh giá giữa định tính và định lượng
36	Tập huấn về các hoạt động du lịch gắn với tăng trưởng xanh	Tập huấn các lớp về kỹ năng tuần tra, điều tra đa dạng sinh học. - Hướng dẫn thực thi pháp luật theo các văn bản mới cho lực lượng kiểm lâm 06 tháng/lần. - Xây dựng kinh phí tuần tra để VCF hỗ trợ. - Đào tạo về kỹ năng, phương pháp tiếp cận cộng đồng. - Thành lập Ban bảo vệ rừng xã - Tăng cường phối hợp với các xã về hoạt động bảo tồn rừng và ĐDSH.	Sử dụng phiếu khảo sát cư dân địa phương, phần lớn đáp viên đều nhận thức đúng về mức độ nhận thức được du lịch giúp xóa đói giảm nghèo, nâng cao thu nhập và kỳ vọng tham gia nhiều các hoạt động BVMT và các lớp bồi dưỡng về nghiệp vụ	Phù hợp đánh giá giữa định tính và định lượng
37	Phát triển thương hiệu độc đáo và ý nghĩa của du lịch xanh địa phương	- Tăng cường công tác tuyên truyền, nâng cao nhận thức cho cán bộ KBT cũng như cộng đồng dân cư. Cần có nhiều hỗ trợ dự án về đào tạo nghề du lịch cho địa phương	Sử dụng phiếu khảo sát cư dân địa phương, người dân rất kỳ vọng tham gia nhiều các hoạt động BVMT và các lớp bồi dưỡng về nghiệp vụ.	Phù hợp đánh giá giữa định tính và định lượng

(Nguồn: Nhóm NC tổng hợp và phân tích)

Kết quả 3: Đánh giá tiêu chí qua kết quả khảo nghiệm

Tất cả các kết quả nghiên cứu định lượng và định tính đều trả lời về sự phù hợp và cùng có 05 nhóm tiêu chí được nghiên cứu kiểm nghiệm trên cả góc độ chiều rộng và chiều sâu. Kết quả đối sánh giữa hai phần nghiên cứu định tính và định lượng cho thấy cách tiếp cận này phù hợp với nguyên lý của du lịch theo hướng TTX và bền vững, khuyến khích phát triển du lịch theo những cách không chỉ mang lại những trải nghiệm du lịch đáng nhớ mà còn giúp người dân địa phương có nhận thức tích cực về tác động của du lịch đối với ý thức của khách và lợi ích cho người dân. Điều này, góp phần vào sự hài lòng trong cuộc sống của cả người dân địa phương và khách du lịch. Kết quả điều tra được tìm thấy thông qua mối quan hệ sâu sắc hơn giữa tác động được nhận thức của du lịch và sự hài lòng đối với các lĩnh vực giữa khách du lịch và người dân trong cộng đồng điểm đến để ứng phó với những thách thức vốn có trong việc kết hợp thực tế trải nghiệm du lịch đáng nhớ với chất lượng cuộc sống của người dân.

Các đáp viên đều cho thấy cần thiết về phát triển du lịch theo TTX (thông qua nghiên cứu ở Vân Long) cần cân bằng mục tiêu đạt được các lợi ích về lợi ích kinh tế trong khi vẫn cần đạt được mục tiêu môi trường, thích ứng biến đổi khí hậu và văn hóa xã hội.

Kết quả nghiên cứu của định tính và định lượng này làm sáng tỏ phần đề xuất tiêu chí ở phía trên. Sau các tác động kinh tế, các tác động môi trường và biến đổi khí hậu được xác định bởi cả chính quyền và người dân địa phương. Khẳng định của các nghiên cứu cho thấy gần đây, trải nghiệm cuộc sống của cư dân địa phương đã được nâng cao vì du lịch không gây biến đổi về đa dạng sinh học và không làm suy thoái môi trường đối với cuộc sống của người dân. Tuy nhiên, từ góc độ khách du lịch, sự vệ sinh, trong sạch của môi trường, bảo vệ nguồn nước và năng lượng địa phương cần được coi là những yếu tố quan trọng trong việc thu hút khách đến điểm đến du lịch. Để bổ sung và mở rộng dữ liệu định tính, đáp viên cho rằng sức tải của điểm đến (Vân Long) cho phép tăng lượng khách du lịch trong giai đoạn đầu của quá trình phát triển. Mối quan tâm chính đi đôi với thách thức là làm thế nào để giảm thiểu tác động tiêu cực của du lịch đối với điểm đến (Vân Long). Các phát hiện kết quả nghiên cứu xác nhận rằng vấn đề bền vững môi trường và thích ứng biến đổi khí hậu đã được coi là một trong những vấn đề môi trường do du lịch gây ra.

Các kết quả cho thấy rằng những đáp viên quan tâm đến những tác động tiêu cực về văn hóa xã hội xảy ra do phát triển du lịch thiếu kiểm soát, thương mại hóa và một số bất lợi khác không mong muốn.

Tuy nhiên, trong số những đáp viên cho thấy về đây một vấn đề mới cần được các chính phủ và các cơ quan ngành du lịch tiếp tục làm rõ. Điều này có một tác động để giải thích vì có nhiều khía cạnh hoặc khía cạnh khác nhau của khái niệm bao gồm các khía cạnh kinh tế, môi trường, biến đổi khí hậu và văn hóa xã hội, tiến bộ công nghệ và cơ chế chính sách quản lý.

Một vấn đề khác được nêu ra là việc thực hiện áp dụng tiến bộ công nghệ về phát triển du lịch theo hướng TTX cần tiếp tục triển khai tại KBTĐNN Vân Long, mặc dù không ai phủ nhận về tầm quan trọng của tiến bộ công nghệ, nhưng việc áp dụng thế nào và hình thức áp dụng để thúc đẩy phát triển du lịch theo hướng TTX cần làm rõ, hoạt động du lịch có tính liên ngành và nhiều bên liên quan khác nhau, mức độ hoạt động và mục

đích chưa đồng nhất. Do sự thiếu hiểu biết chung về phát triển du lịch giữa các bên liên quan đến điểm đến nên dẫn đến sự khó khăn trong cơ chế chính sách, đặc biệt cơ chế phối hợp thực hiện để các bên liên quan huy động đảm bảo khả năng tồn tại và thành công của điểm đến.

Kết luận

Bộ tiêu chí đánh giá phát triển du lịch theo hướng TTX bao gồm 5 nhóm: kinh tế, văn hóa - xã hội, môi trường, tiến bộ công nghệ và thể chế chính sách. Trong 5 nhóm này, các tiêu chí đề ra đều dựa trên cơ sở định hướng về cân đối mục đích phát triển kinh tế với cân bằng, hài hòa mục tiêu xã hội, tạo công an việc làm cho nhóm đối tượng yếu thế, người dân địa phương. Tập trung nhóm tiêu chí môi trường và tiến bộ công nghệ hướng tới nền DL xanh.

KBTĐNN Vân Long là một điểm du lịch sinh thái được biết đến từ lâu. Việc đánh giá xác định các tiêu chí phát triển du lịch theo hướng TTX được xem là định hướng của điểm du lịch. Đối với bộ tiêu chí nhóm nghiên cứu đã đưa ra, xét về góc độ phát triển du lịch bền vững là cần thiết và phù hợp. Nhóm 5 trụ cột để đánh giá cụ thể về các tiêu chí phát triển DL theo hướng TTX được cụ thể hóa bằng các chỉ tiêu cụ thể; khi áp dụng vào điểm du lịch Vân Long, cho thấy, hầu hết các tiêu chí đều mang tính phù hợp. Điều đó, thể hiện sự cân nhắc khi đưa ra chỉ tiêu đảm bảo tính đúng, cập nhật.

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DETERMINANTS OF INTENTION TO USE CLOUD-BASED TECHNOLOGY IN LOW-TECH SMALL AND MEDIUM BUSINESSES IN VIETNAM

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Abstract: *Drawing from the Unified Theory of Acceptance and Use of Technology, this paper aims to investigate the determinants that influence intention to use the Cloud-based Technology of low-technology (hereafter low-tech) small and medium businesses (SMBs) in Vietnam. Although low-tech SMBs usually contribute considerably to a nation's GDP and jobs, their roles are often underestimated and underfunded. This study used a quantitative survey methodology with a sample of 154 participants working in Vietnamese SMBs. Our findings indicate that a combination and interactions of cost savings, reliability, sharing and collaboration, effort expectancy, competitive pressure, and firm size greatly enhance intention to use the Cloud-based Technology in low-tech Vietnamese SMBs. This study adds to the literature exploring the critical impacts of cost savings, reliability, effort expectancy, and competitive pressure on intention to use the Cloud-based Technology within a group of low-tech SMBs that have not yet been studied. The empirical findings of the research would provide insightful evidence for the policymakers in Vietnam, technology providers, and SMBs sector in emerging countries to develop appropriate policies and awareness-raising initiatives to enhance the readiness to adopt the new technology and their efficiencies in the digital era.*

Keywords: *Cloud-based Technology adoption, Data management, Small and Medium Businesses, Unified Theory of Acceptance and Use of Technology*

CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN Ý ĐỊNH SỬ DỤNG CÔNG NGHỆ DỰA TRÊN ĐÁM MÂY TRONG CÁC DOANH NGHIỆP NHỎ VÀ VỪA CÓ CÔNG NGHỆ THẤP TẠI VIỆT NAM

Tóm tắt: *Dựa trên lý thuyết thống nhất về chấp nhận và sử dụng công nghệ (UTAUT), bài viết này nhằm mục đích đánh giá sự các yếu tố ảnh hưởng đến ý định sử dụng công nghệ dựa trên đám mây (IUC) của các doanh nghiệp nhỏ và vừa (DNNVV) có công nghệ thấp tại Việt Nam. Mặc dù các DNNVV công nghệ thấp thường đóng góp đáng kể vào GDP và việc làm của một quốc gia, nhưng vai trò của họ thường bị đánh giá thấp và bị thiếu vốn. Nghiên cứu này sử dụng phương pháp khảo sát định lượng với cỡ mẫu 154 người đang*

làm việc ở DNNVV Việt Nam. Kết quả nghiên cứu chỉ ra rằng sự kết hợp và tương tác giữa tiết kiệm chi phí, độ tin cậy, chia sẻ và hợp tác, kỳ vọng nỗ lực, áp lực cạnh tranh và quy mô doanh nghiệp sẽ nâng cao đáng kể ý định sử dụng IUC trong các DNNVV công nghệ thấp của Việt Nam. Nghiên cứu này bổ sung vào tài liệu khám phá các tác động quan trọng của tiết kiệm chi phí, độ tin cậy, kỳ vọng nỗ lực và áp lực cạnh tranh đối với IUC trong một nhóm DNNVV công nghệ thấp chưa được nghiên cứu. Kết quả thực nghiệm của nghiên cứu sẽ cung cấp bằng chứng sâu sắc cho các nhà hoạch định chính sách ở Việt Nam, các nhà cung cấp công nghệ, và các DNNVV ở các quốc gia mới nổi để xây dựng các chính sách và các sáng kiến nâng cao nhận thức để nâng mức độ sẵn sàng áp dụng công nghệ mới để nâng cao hiệu quả của họ trong kỷ nguyên số.

Từ khóa: *Ứng dụng công nghệ dựa trên đám mây, Quản lý dữ liệu, Doanh nghiệp nhỏ và vừa, Lý thuyết thống nhất về chấp nhận và sử dụng công nghệ*

1. Introduction

The emergence of Cloud-based Technology (CBT) has elevated the competitiveness of businesses due to minimum cost or free applications anywhere on the Internet, pervasive storage, unlimited computing power, and mobility of business information (Ghasemaghaei *et al.*, 2018, Lutfi, 2022). Thus, CBT would be an optimal solution for Small and Medium Businesses (SMBs) with budgetary constraints (Lutfi, 2022). Cloud-based Technology is a promising paradigm that delivers IT services through websites and the Internet rather than on-premise digital assets (McAfee, 2011). Companies lease these assets from the cloud to run their IT operations and business when they need. They would not need to invest significant capital in software and hardware (e.g., data centers and other specialized facilities) and keep them within their walls (McAfee, 2011, Hsu, 2022). However, existing literature within this field of study mainly concentrates on cloud-Enterprise Resource Planning (ERP) adoptions in large enterprises. Current SMBs are still in the infancy stage and have experienced challenges in terms of the adoption of cloud-based software and the use of new systems, especially those in emerging countries (Haddara *et al.*, 2022, Alsharari *et al.*, 2020). Although CBT is beneficial and prior research has mentioned its adoption, empirical studies on the factors impacting adoption in SMBs are lacking (Christiansen *et al.*, 2022, Haddara *et al.*, 2022). Thus, it is vital to investigate the determinants of intention to use the Cloud - based Technology (IUC) in order to increase the use of CBT in SMBs in emerging nations, especially transitional countries such as Vietnam.

This paper aims to contribute to a growing body of research on CBT by studying the critical factors influencing IUC in the SMBs in Vietnam. Vietnam has attempted to step up digital transformation, stimulate applications of science, technology, and creative innovation in Industry 4.0. Particularly, government recently signed Resolution No.52-NQ/TW (2019), Directive No.01/CT-TTG (2020), Decision No.749/QĐ-TTG (2020) to facilitate national digital transformation; targeting Vietnam will be among top 40 countries in Global Innovation Index rankings; digital economy accounting for over 30% GDP by

2030. However, Vietnamese SMBs' participation is slow (Truong-Minh & Nguyen, 2020). This holds the economy back from development since SMBs accounting for 97% of total enterprises are paramount important in the Vietnamese economy (Ha, 2021). Currently, many Vietnamese SMBs are using Microsoft Excel to store and manage data (Dang & Nguyen, 2020). However, this data is then exchanged via email, Google Drive, and Zalo encounters various disadvantages: virus attacks, data loss (email, Zalo), and no capabilities for data delegation per Excel Sheets (Google Drive only allows delegation per file). SMBs lack the technical infrastructure to connect data among departments and financial capacities (Chau et al. 2020) to upgrade their system to premium software such as ERP/SaaS. Thus, adopting CBT is likely an optimal solution for Vietnamese SMBs, especially for low-tech SMBs, those lacking IT experts and IT resources to digitalize their business activities. However, not many SMBs were willing to adopt cloud computing technology due to uncertain and limited knowledge (Le and Cao, 2020). Thus, understanding the determinants of CBT adoption will assist Vietnamese SMBs in fasten transitional stage of digitalization, set a solid foundation for their upgrade to ERP/SaaS in the future, contribute to the COVID-19 recovery plan, address long-term challenges for Vietnam in the context of the global megatrends (contact-free economic activity, automation, and digitization).

This paper is structured as follows: Section 2 introduces the literature review and hypothesis development. Section 3 presents the research methodology, followed by section 4 - Results. A discussion of the findings and implications for future research are presented in section 5, followed by concluding remarks in section 6.

2. Literature review and Theoretical framework

Prior studies mainly investigated the critical factors affecting ERP adoptions and implementation in the developed countries (Venkatraman and Fahd, 2016) or large enterprises (Abdelghaffar and Azim, 2010, Trivedi, 2013). Some studies examined the factors influencing the CBT adoption in Singapore, Malaysia and India (Gupta *et al.*, 2013), Nigeria (Awa *et al.*, 2017), Kenya (Makena, 2013). The critical factors affecting CBT adoption in Vietnam are under researched. The study by Hoang *et al.* (2021) investigated the electronic commerce adoption of SMBs in Vietnam, neither the cloud-based technology nor the critical factors impacting CBT were examined. Trinh *et al.* (2015) investigated the adoption model of Software as a Service (SaaS) in SMBs. Thus, it is pivotal to examine the determinants of Cloud-based Technology adoption in order to increase the use of CBT in SMBs in transitional countries such as Vietnam.

2.1. Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh *et al.* (2003) developed Unified Theory of Acceptance and Use of Technology (UTAUT) to identify four key factors (i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions) and four moderators (i.e., age, gender, experience, and voluntariness) to predict the adoption to use a technology and actual technology used primarily in organizational contexts. According to UTAUT, theoretically, performance expectancy, effort expectancy, and social influence were found

to affect behavioral intention to use a technology, while the intention and facilitating conditions determine the technology used (Venkatesh *et al.*, 2003). Furthermore, UTAUT explained 77 percent of the variance in behavioral intention to use a technology and 52 percent of the variance in technology use in longitudinal field studies of employees' acceptance of technology (Venkatesh *et al.*, 2016). While Gupta *et al.* (2008) used UTAUT in the context of e-government adoption in a developing country, our research utilize UTAUT to explain the determinants of the intention to use CBT in low-tech SMBs in a transitional economy.

2.2. Hypothesis development

Cost savings (CS): Consumers' technology use may have been significantly impacted by the cost and pricing structure of that technology (Venkatesh *et al.*, 2012). For example, it is evidence that the short messaging services (SMS) was prevailing in China due to its relatively lower price in compared to the other mobile Internet applications (Chan *et al.*, 2008). Cost savings are referred to consumers' cognitive evaluation of reducing IT infrastructure, operation and maintenance expenditures to achieve a similar or higher level of the application perceived benefits (Dodds *et al.*, 1991, Oliveira *et al.*, 2014). By adopting cloud-based technology, firms can reduce the time devoted to system maintenance and routine update; it also lowers infrastructure costs, energy consumption and maintenance fees (Marston *et al.*, 2011). Thus, cost savings have positive impacts on the behavioural intention to use technology when the perceived benefits of the cloud-based application use could maintain or increase by lowering the operational costs of IT applications.

H1: Cost savings will positively influence the behavioural intention to use cloud-based technology.

Sharing and Collaboration (SC): With the proliferation of cloud-based technology's massive storage, SMBs stakeholders can easily share information and data, store and retrieve information anytime and anywhere to collaborate, assign tasks, and report progress (Devaki, 2011). Sharing a document across groups or teams and editing it simultaneously by various team members (via Google Docs, OneDrive - SharePoint) is compelling and becomes essential to adopted cloud-based technology users (McAfee, 2011, Marston *et al.*, 2011). Therefore, the need for sharing and collaboration in this digital world would enable the intention to adopt cloud-based technology.

H2: Sharing and Collaboration will positively influence the behavioural intention to use cloud-based technology.

Reliability (RE): Cloud-based technology offers a better and more reliable 'storage' solution (e.g., data redundancy is built-in, so that the files are always available). Netflix is a good example of this when large portions of Amazon's Web Services infrastructure went down for as much as three days in April 2011 (McAfee, 2011). Of course, cloud storage is also a much more sound and safe solution to hard-disk, physical server, thumb drive (USB), or portable hard-disk in the case of physical disasters such as flood, bushfire, storm, fire and earthquake (Oliveira *et al.*, 2014, Marston *et al.*, 2011).

Availability 24x7x365 and providing automatic disaster recovery and backup are also important to cloud users as these abilities can assure their business continuity regardless of unforeseeable events such as cyber-attacks or downtime (Zhang *et al.*, 2020, McAfee, 2011, Devaki, 2011). The higher reliability of cloud-based services, the greater likelihood to adopt this cloud technology.

H3: Sharing and Collaboration will positively influence the behavioural intention to use cloud-based technology.

Effort Expectancy (EE): Another crucial factor in UTAUT (Venkatesh *et al.*, 2003) and UTAUT2 (Venkatesh *et al.*, 2012) is effort expectancy. It is defined as “the degree of ease associated with consumers’ use of technology” (Venkatesh *et al.*, 2012). Technology is less likely to be adopted when it is perceived as complex or difficult to use and requires additional effort to learn, assimilate and apply in relation to the existing applications. Thus, effort expectancy, in contrast to complexity, which negatively affects the intention to use technology, has a positive impact on this behavioural intention (Venkatesh *et al.*, 2016).

H4: Effort expectancy will positively influence the behavioural intention to use cloud-based technology.

Competitive Pressure (CP): Competitive pressure is referred to the intensity and pressure levels an organization experiences from its competitors in its industry, especially when they are successful in adopting new technology (Gutierrez *et al.*, 2015, Hsu, 2022). Because many SMBs seek to mimic their competitors’ actions to reduce uncertainty in a turbulent and fast changing business environment, gain legitimacy and ensure their survival (DiMaggio and Powell, 1983, Hsu, 2022). Moreover, firms also under pressure of suppliers and customers to enhance their IT infrastructure to facilitate their transactions with these trading partners (Pan and Jang, 2008, Gutierrez *et al.*, 2015). Thus, the following hypothesis is proposed:

H5: Competitive pressure will positively influence the behavioural intention to use cloud-based technology.

Firm size: Organization size is one of the most fundamental determinants of adopting new technology to gain competitive advantages from innovative technology (Rogers, 2004). While it is initially reported that cloud-based technology is more attractive to SMBs (Sultan, 2011), more and more large size organizations have a tendency of adopting CBT due to their greater flexibility and ability to take risk (Pan and Jang, 2008, Hsu, 2022). However, as this study focuses on low-tech SMBs, the differences among firm size are small, this leads to firm size is included as a control variable.

H6: Firm size is likely to positively correlate with the behavioural intention to use cloud-based technology.

Figure 1 summarizes our research model and its hypotheses.

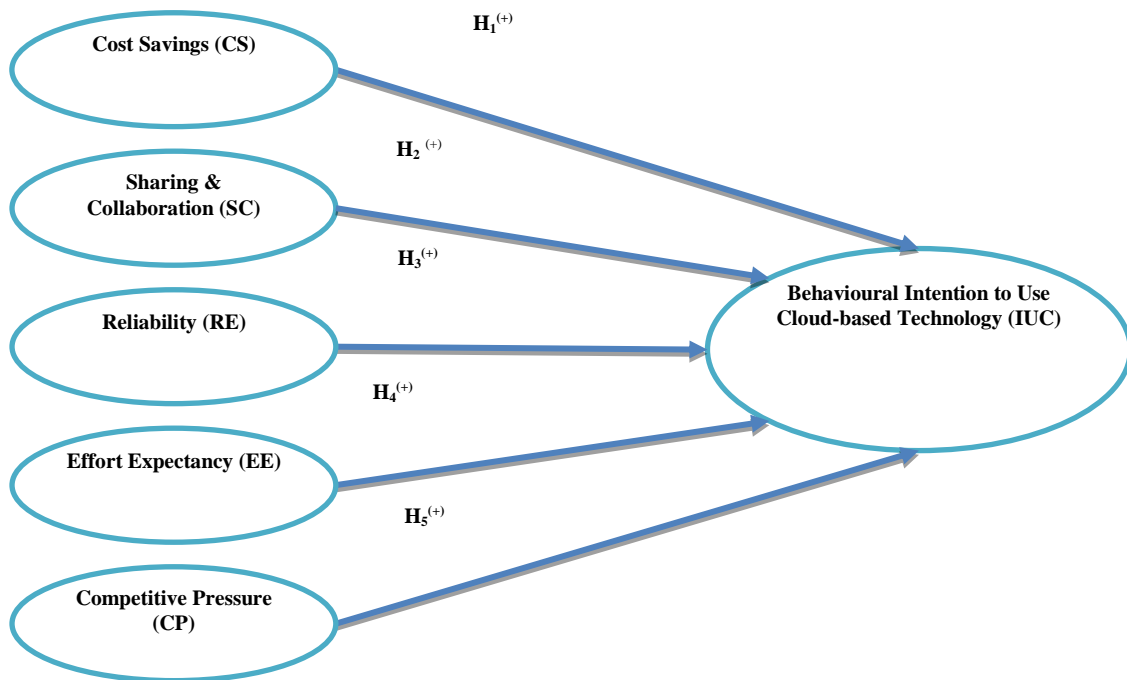


Figure 1 - Research model and hypothesis

To find the answers to these hypotheses, we conduct empirical quantitative research using survey method. The next section will articulate this research method.

3. Research Methodology

3.1. Sampling and data collection

Our study aims to enhance the probability of intention to use cloud-based technology in low-tech SMBs in Vietnam. The survey questionnaires have been designed and distributed through Qualtrics. We contacted 30 SMBs to deliver our surveys through owners' and managers' emails. Another channel was to participate in their regular/annual meetings to ask them directly or discussing face-to-face. Ultimately, the study got 159 responses out of 160 invitations, making response rate is 99.4%. Our dependent variable is IUC. The independent variables in our research are Cost savings, Reliability, Sharing and Collaboration, Effort Expectancy, Competitive Pressure. We followed Hair *et al.* (2010) to determine the sample size (159 respondents), which was at least five times higher than the total number of items (30 items).

The data missing was checked by running the STATA missing table function. This function listed all missing data point in a table. If there were missing data for all research main constructs, then, we took a closer look at the data to identify these respondent missing data. There was a record with data missing in all main constructs; thus, we removed this record with 158 lefts. The remain data did not have any serious missing issues, most of missing data were dispersed.

We decided to eliminate those data records missing more than 70% of data points

per record (Newman, 2014). Four records were eliminated, 154 lefts as the data is missing completely at random (MCAR) with Little's $p_value = 0.539 > 0.05$ (Little, 1988). We applied the predictive mean matching imputation method for other missing data points with five (5) nearest neighbours (Little, 1988, Morris *et al.*, 2014). Therefore, all main constructs had no missing data. After cleaning unusable records due to missing important variables, 154 samples go for further analysis.

3.2. Constructs Operationalization

To operationalize the research model, we designed a questionnaire to collect data on research constructs that have been discussed above. As research constructs are developed from the literature review, their measurement items used in the survey questionnaire are adapted from previous studies. Thus, these measurement items have been previously validated with 7-Likert scale.

Cost Savings are measured by four items: "Reduction of the operating costs of my organization by using cloud computing tools and techniques", "Using cloud infrastructure instead of buying and deploying physical machines and software", "Elimination of hiring expensive IT expertise in-house", and "Improvement of the scalability of IT infrastructure (ramp up or ramp down at will)" (Gupta *et al.*, 2013, Oliveira *et al.*, 2014). We also estimated Reliability construct by five indicators: 1) Provision of excellent 'backup' for my organization's data against hard-disk crash, 2) Better and reliable 'storage' solution for my office data instead of a thumb drive (USB) or portable hard disk, 3) Provision of excellent disaster recovery (in case of an unforeseen event) with uninterrupted access, 4) The ability of the cloud computing service provider to back up my office data safely even if it gets corrupted due to spam/malware, and 5) High uptime and availability of the cloud services round the clock 24x7x365 (Marston *et al.*, 2011, Gupta *et al.*, 2013, Venkatesh *et al.*, 2016). Similarly, the Sharing and Collaboration construct is operationalized by four items adapted from Venkatesh *et al.* (2012) and Oliveira *et al.* (2014): "Sharing my work (company data or files) with other supply chain partners (like customers)", "Usage of the same set of data or documents with other partners", "Cutting business travel (both domestic and international) due to easy sharing", and "Easy tracking".

Additionally, we adapted measurement items of Effort Expectancy and Competitive Pressure from Venkatesh *et al.* (2012), Pan and Jang (2008) and Gutierrez *et al.* (2015) including five and six indicators respectively. Five items of Effort Expectancy: 1) Learning how to use cloud-based technology is easy for me, 2) My interaction with cloud-based technology is clear and understandable, 3) I find cloud-based technology easy to use, 4) It is easy for me to become skilful at using cloud-based technology, and 5) Using cloud-based technology does not require me much effort. Six items of Competitive Pressure: "Industry pressures us to adopt cloud-based technology", "Distant partners demand better communications and data interchange", "Suppliers pressure us to adopt cloud-based technology", "Customers pressure us to adopt cloud-based technology", "Competitors who have adopted cloud-based technology are perceived favourably by others in our industry", and "I am aware of cloud-based technology implementation in my competitor organisations".

The IUC is measured by six items reflecting the intention to use to manage business data, curiosity to use and positive attitude to use CBT (Venkatesh *et al.*, 2012, Venkatesh *et al.*, 2016).

3.3. Data analysis method

We applied structural equation modeling to test the developed hypothesis. Before testing the hypothesized research model, we run EFA and CFA to check measurement models.

4. Results

4.1. Descriptive analysis

Table 1 shows the respondents' profile. Of 154 samples, male accounted for 57.14% and 57.8% were from 25 to 39 years old and majority of them had less than 15 years of working experience. Most of them (77.92%) were staff, 9.74% were directors and 7.14% were heads of departments. Regarding IT skill, respondents had elementary level accounted for 39.61% and nearly a half (46.1%) had intermediate level.

Table 1: Respondents' profile

		Count	%
Gender	Female	66	42.86
	Male	88	57.14
Age	Under 25 years old	9	5.8
	From 25 to 39	89	57.8
	40 to 54	50	32.5
	Over 54	5	3.2
	Missing value	1	0.6
Tenure	Under 5 years	51	33.12
	From 5 to 9 years	37	24.03
	From 10 to 14 years	30	19.48
	Over 14 years	17	11.04
	Missing value	19	12.34
Job position	Staff	120	77.92
	Head of department	11	7.14
	Director	15	9.74
	Missing value	8	5.19
IT skill	Elementary	61	39.61

Intermediate	71	46.10
Advance	18	11.69
Missing value	4	2.60

4.2. Exploratory Factor Analysis (EFA)

We applied structural equation modelling to test the model. Before testing the model, we used the Exploratory Factor Analysis (EFA) to identify the data structure, we also applied goodness-of-fit index to check measurement model.

The Exploratory Factor Analysis (EFA) was run to identify the data structure. We followed Hair *et al.* (2019)'s guideline, which would remove any items that: 1) an item in a single factor, 2) cross items - items have loaded into two or more different factors, 3) items do not share more than 50% common variance with their main constructs (i.e., factor loading < 0.5).

Since the data was not multivariate normally distributed [p_value = 0.000 in the Mardia, Henze-Zirkler and Doornik-Hansen tests (Hair *et al.*, 2014)], the EFA was run with the principal factor (PF) method, using oblique approach with promax rotation technique (Fabrigar *et al.*, 1999). We applied the factor loadings more than 0.5 (Hair *et al.*, 2019). The EFA result illustrated that there were six (6) factors with 28 items in the research model.

4.3. Research Model Assessment

The most popular approach to evaluate the measurement model fit involved χ^2 statistics and Goodness-of-fit (GOF) indices (Hu and Bentler, 1998). The recommendations for a good model fit (Brown, 2015, Hair *et al.*, 2014, Kenny *et al.*, 2015) included: χ^2/df - normed chi-square of 1.0-3.0 is preferable (Hair *et al.*, 2014); RMSEA and SRMR < 0.05 is preferable; < 0.08 is acceptable (Hair *et al.*, 2014, Kenny *et al.*, 2015); CFI and TLI > 0.95 is preferable; > 0.90 is acceptable (Hair *et al.*, 2014, Kline, 2016).

If either the χ^2 GOF p-value or GOF indices are not satisfied, the measurement model needs to be re-specified. Instead of freely estimating the parameter - a popular technique, we trimmed the model by dropping a free estimated parameter (Brown, 2015, Kline, 2016, Raykov and Marcoulides, 2012). This technique was appropriate for reflective measurement models but not composite measurement models (Gefen *et al.*, 2011). This is because dropping items does not affect the meaning of the corresponding construct with reflective items but does alter the meaning of a construct with composite items (Jarvis *et al.*, 2003, MacKenzie *et al.*, 2011). Thus, in this research, the SMC, modification indices, and factor loadings (FLs) were used to determine what to do with an item in that model. Generally, SMC > 0.5 is preferable, and > 0.3 is acceptable. FL > 0.707 is preferable, and values > 0.6 are acceptable for a relatively new construct.

Another noticeable technique applied in this research is the Satorra-Bentler-scaled statistics. As this data sample is not multivariate normality, this technique facilitates adjustments to the χ^2 p-value and GOF indices for non-normal data in a CFA (Satorra and

Bentler, 1988). This is because when the CFA technique uses the maximum likelihood (ML) estimator, which is particularly sensitive to non-normally distributed data, this may result in (a) spuriously inflated χ^2 values (i.e. over-rejection of the solution), (b) modest underestimation of fit indices such as the Tucker-Lewis Index (TLI) and Comparative Fit Index (CFI), and (c) moderate to severe underestimation of the standard errors of the parameter estimates (inflating the risk of Type I error) (West *et al.*, 1995).

After several rounds of confirmatory factor analysis (CFA) using the second approach - trimming potential issue items, the full measurement model with 19 items was fitted with the data structure with acceptable requirements (i.e., norm chi-square - χ^2/df) = $1.526 < 3$, RMSEA = 0.058 and SRMR = 0.069, < 0.08 ; CFI = 0.942 and TLI = 0.927, > 0.90). Additionally, the SMC of all constructs was preferable (i.e., > 0.50), and all FLs > 0.707 reflected a good measurement model.

Based on the CFA results of the outcome and the predictor constructs, construct validity (i.e., convergent validity and discriminant validity) and reliability were evaluated by using the factor loading of items, average variance extracted (AVE), and significant construct correlation (Campbell *et al.*, 2015, Fornell and Larcker, 1981, Hair *et al.*, 2017); and congeneric/composite reliability (CR) index (Cho, 2016).

All constructs satisfied the convergent validity criteria (i.e., AVE > 0.5 and FL > 0.707). The discriminant validity was also checked by applying the most popular technique - AVE comparison analysis (Campbell *et al.*, 2015, Fornell and Larcker, 1981). The result in Table 2 shows that the AVE of constructs was larger than any of the off-diagonal correlations. Thus, it could be concluded that all the constructs satisfied discriminant validity. Also, all constructs' composite reliability (CR) and Cronbach Alpha (α) were over 0.7 - the recommendation level of Construct Reliability (Cho, 2016).

Table 2 - Mean, Standard Deviations (SD), Composite Reliability (CR), Cronbach Alpha (α) and Discriminant Validity

	Mean	SD	CR	Cronbach Alpha (α)	IUC	CS	SC	RE	EE	CP
IUC	4.95	1.34	0.93	0.903	<i>0.649*</i>					
CS	4.50	1.33	0.86	0.719	0.297	<i>0.578</i>				
SC	4.76	1.30	0.87	0.712	0.18	0.255	<i>0.552</i>			
RE	5.22	1.11	0.91	0.853	0.304	0.169	0.266	<i>0.662</i>		
EE	5.47	1.07	0.91	0.850	0.216	0.101	0.106	0.379	<i>0.662</i>	
CP	4.01	1.40	0.91	0.877	0.219	0.268	0.379	0.090	0.016	<i>0.642</i>

** The diagonal values are the square root of AVE (in bold and italic), other values are the correlation between each pair of constructs*

4.4. Research Hypothesis Testing

This research explores the critical factors impacting on the IUC of SMBs in

Vietnam. After reviewing the literature, developing the theoretical research model and its hypotheses, and validating the measurement model, we present the structural model results and discuss the key findings of this research.

To control for the variation of SMBs' size on the Intention, we included firm size as a control variable. We tested two different models: Model 1 with the control variable only and Model 2 with all constructs and the control variable to validate whether our main constructs significantly contribute to the explanation of the dependent variable's variation by comparing the R^2 of the two models (Hair *et al.*, 2019). The results were presented at Table 3 and Figure 2.

Based on the findings displayed on Table 3 and Figure 2, four out of six hypotheses were supported [i.e., all their p-values < 0.05 and 95% CI do not contain zero value (Aguirre-Urreta and Rönkkö, 2018)]. The research model accounted for 49.2% of the total variance in the Behavioural Intention to Use Cloud-based Technology in Vietnamese SMBs in the study ($R^2 = 0.492$).

Although each of the critical factors had small effect size (< 0.1) (Cohen, 1992) on the Behavioural Intention to Use Cloud-based technology, their interactions and collaborations has made a significantly great impact (0.94 - well over > 0.4) on this intention.

Table 3 - Structural path coefficients and hypothesis testing

Hypothesis	Structural paths	Coefficients	p-value	[95% Confidence Interval (CI)]		Statistically Supported
Model 1 ($R^2 = 0.013$)						
Control variable	Firm size → IUC	0.115	0.169 ^{ns}	-0.049	0.278	NO
Model 2 ($R^2 = 0.492$; $\Delta R^2 = +0.479$ - significant improvement in R^2)						
Control variable	Firm size → IUC	0.085	0.206 ^{ns}	-0.047	0.218	NO
H1	CS → IUC	0.276	0.009 ^{***}	0.069	0.484	YES
H2	SC → IUC	-0.082	0.548 ^{ns}	-0.349	0.185	NO
H3	RE → IUC	0.281	0.013 ^{**}	0.059	0.503	YES
H4	EE → IUC	0.196	0.049 ^{**}	0.001	0.390	YES
H5	CP → IUC	0.258	0.022 ^{**}	0.037	0.479	YES
<i>Significant levels: *** ~ $p < 0.01$, ** ~ $p < 0.05$, * ~ $p < 0.1$, and ns ~ not significant</i>						

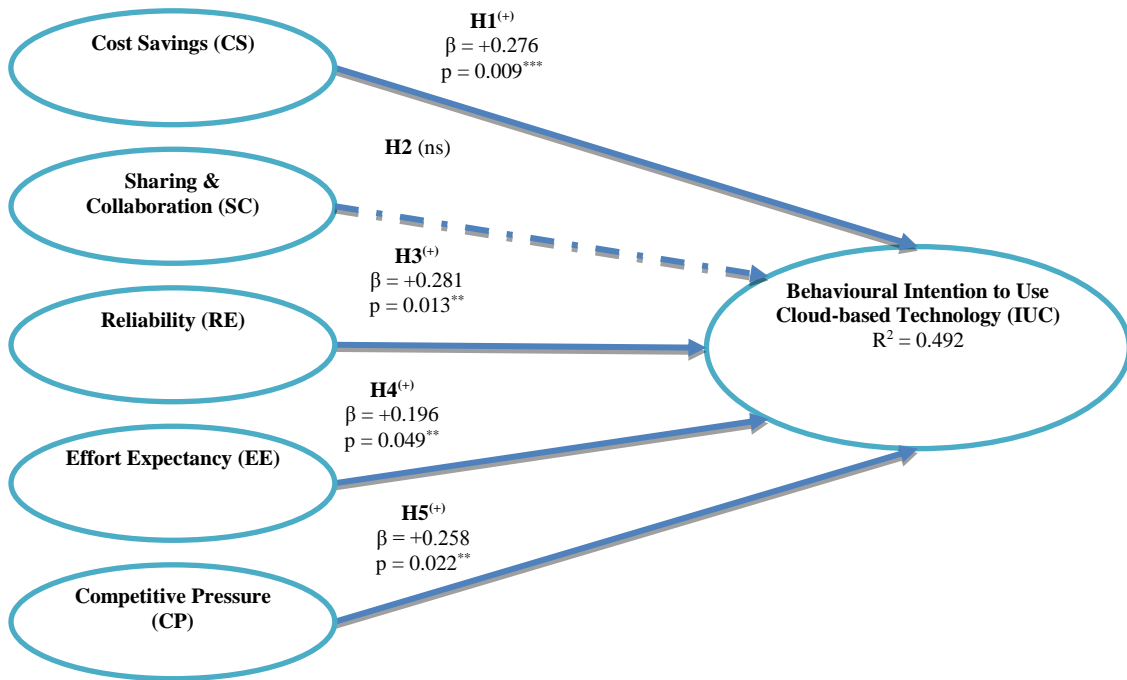


Figure 2 - Research structural model results

These overall research findings demonstrate that cost savings, reliability, effort expectancy, and competitive pressure enable the Behavioural Intention to Use Cloud-based Technology in Vietnamese SMBs, while the potential capability of Cloud-based technology in collaboration and sharing as well as SMBs' firm size have not significantly determined SMBs' intentions in this study.

5. Discussion

First, our findings indicate that cost savings positively impact the behavioural intention to use technology, which is consistent with prior studies (Gupta *et al.*, 2013, Li *et al.*, 2011, Swartz, 2011). Li *et al.* (2011) explained that SMBs adopted CBT due to a reduction of operating and maintenance costs while Swartz (2011) showed a decline in data center costs. Marston *et al.* (2011) also indicated that the entry cost for SMBs utilizing business analytics, that required lots of computing power, has been lowered. This is in line with the trend of European and USA SMEs, where the use of CBT resulted from reduction of fixed IT assets cost and their maintenance costs (Etro, 2011).

Second, our results also show that reliability greatly enhances the Intention to Use Cloud-based Technology in Vietnamese SMBs. This finding is align with prior research (Gupta *et al.*, 2013, Devaki, 2011). Devaki (2011) explained data redundancy results in cloud storage solutions because the files are always available, despite power failures, network downtime. Employees can depend on the cloud centre (if needed) instead of the in-house IT staff (Ankeny, 2011). A higher degree of reliability in using cloud result from the ease of use and convenience proposition for SMEs when they can access their data anytime, anywhere via any device (Gupta *et al.*, 2013).

Third, the results from our study show that effort expectancy positively influences the behavioural intention to use cloud-based technology. This finding is expected and consistent with results from Venkatesh *et al.* (2003), Venkatesh *et al.* (2012), Venkatesh *et al.* (2016), Gupta *et al.* (2013). Gupta *et al.* (2013) clarified that the ease of use and convenience in using the cloud technology (e.g., via a simple and intuitive user-interface and easy accessibility) positively impact CBT adoption. Less powerful devices (e.g., smartphones, netbooks) are likely to allow users conduct data management via a simple web-based interface like AWS Management console (Marston *et al.*, 2011).

Fourth, findings from our research also support hypothesis H5, indicating that competitive pressure positively influences the behavioral intention to use cloud-based technology. This result aligns with prior studies (e.g., Gutierrez *et al.* (2015) and Hsu (2022) that found the intensity and pressure levels of an organization experienced from its competitors in its industry affected adopting new technology. Hsu (2022) and DiMaggio and Powell (1983) clarified that many SMBs sought to mimic their competitors' actions to reduce uncertainty in a turbulent and fast changing business environment, gain legitimacy and ensure their survival. Furthermore, Gutierrez *et al.* (2015) and Altinkemer *et al.* (2011) found that firms were under pressure of suppliers and customers to adopt CBT to facilitate their transactions with their stakeholders.

However, the hypothesis H2 was unexpectedly not supported as we found that sharing and collaboration did not impact the behavioural intention to use cloud-based technology. This finding is inconsistent with prior studies e.g., Marston *et al.* (2011); Krell (2011) stating that users were likely to adopt cloud computing due to document sharing and collaboration by team members at the same time (via Google Docs, Skype, Google chat). Moreover, this finding is not aligned with Gupta *et al.* (2013) that found a negative relationship between sharing, collaboration and cloud adoption by SMEs. The reason behind might be due to the different context of low-technology SMBs in a transitional economy, where the employees have not realised the benefits of sharing and collaboration in today's highly competitive world.

This study is subject to two major limitations. First, as there are limitations of the cross-sectional survey format in terms of deeply understanding the adoption process of CBT, future studies might utilize the advantages of intensive longitudinal data and dynamic structural equation modelling (Zhou *et al.*, 2021) or interview data to gain insights into this process. Second, this research examined six factors, supported by the existing literature. However, during the survey, some new variables were mentioned in our open-ended questions by SMEs to use and adopt cloud at the present time, but these factors were not covered in our study. Thus, future avenue can be to examine these new factors, for example, internal testing being done using cloud by SMEs before releasing their solution to their customers; Trial-run (alpha and beta releases) of their solutions or services deployed in the cloud, being used by their customers; use of latest original software; data synchronization; attracting talent (Gupta *et al.*, 2013). Some organizational factors such as top management support, technology readiness of the firm that might affect the cloud-based technology adoption can be investigated in the future studies (Makena, 2013).

6. Conclusion

This research provided five noteworthy contributions. First, building on the Unified Theory of Acceptance and Use of Technology (Venkatesh *et al.*, 2003, Venkatesh *et al.*, 2016), our findings contribute to an understanding of the determinants of SMBs' cloud computing adoption in the context of a transitional economy. Second, this paper contributes to a growing body of research on cloud computing by providing evidence of the positive impact of cost savings, reliability, effort expectancy, and competitive pressure on intention to use CBT. Third, the empirical finding of the research would provide insightful information for the policymakers in Vietnam to develop appropriate policies and economic incentives, legislative measures, and awareness-raising initiatives to increase the level of CBT adoption in Vietnam. Fourth, various stakeholders such as technology providers would also find this research useful to develop their business strategies and future continuous plans to provide their services to SMEs, particularly in Vietnam and emerging countries. Fifth, the SMBs sector in emerging countries could develop their roadmap to increase CBT adoption and assess their readiness to adopt the new technology to decrease business operation costs and enhance their efficiencies in the fast lane of growth and prosperity.

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TOURISTS' SOCIAL MEDIA ENGAGEMENT BEHAVIORS WITH TOURISM DESTINATION: A SCALE VALIDATION

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Abstract. *This study aims to validate a measurement scale for tourists' social media engagement behaviors with tourism destinations. This study adapted the Consumer's Online Brand-Related Activities framework, which classifying consumer engagement behaviors into consumption, contribution, and creation. The final scale was validated based on exploratory factor analysis and confirmatory factor analysis, satisfying the requirement of convergent and discriminant validity. This is a useful measurement scale for evaluating the level of engagement behaviors of tourists with the destination through social media.*

Keywords: *Social media; Engagement behaviors; Tourist; Tourism destination.*

HÀNH VI TƯƠNG TÁC TRÊN MẠNG XÃ HỘI CỦA DU KHÁCH: XÁC THỰC THANG ĐO

Tóm tắt: *Nghiên cứu này có mục đích xác thực thang đo đo lường hành vi tương tác trên mạng xã hội với điểm đến du lịch. Nghiên cứu kế thừa khung phân tích Hành vi liên quan đến thương hiệu trực tuyến của người tiêu dùng (Consumer's Online Brand-Related Activities), phân loại các hành vi gắn kết của người tiêu dùng thành tiêu thụ, đóng góp, và sáng tạo. Thang đo được xác thực dựa trên phân tích nhân tố khám phá và phân tích nhân tố khẳng định, đảm bảo yêu cầu về tính hội tụ và phân biệt. Đây là một thang đo hữu ích để đánh giá mức độ hành vi tương tác của khách du lịch với điểm đến thông qua mạng xã hội.*

Từ khóa: *Truyền thông xã hội; Hành vi tương tác; Du khách; Điểm đến du lịch.*

1. Introduction

Along with the rapid development of social networks, the topic for building effective tourism communication campaigns is increasingly attracting the attention of scholars around the world (Blichfeldt and Smed, 2015). By allowing users to communicate on existing social networking platforms, people can exchange ideas and experiences about products or services with relatives, friends or strangers in a variety of ways. (Chu & Kim, 2011). In this context, users of social networks are increasingly encouraged to exchange information about products and services over the internet, and this information is considered trustworthy by consumers (Rejón-Guardia et al., 2013).

In fact, social networks play an important role in the spread of information among

tourists, potentially influencing their behavioral intentions as well as their subsequent tourism related decision-making (Hamouda, 2018). This product may include travel packages, airline tickets, hotel reservations, excursions, and other destination-related features in the future. Social media allows internet users to exchange travel information globally through user-generated content (UGC), or to engage in electronic word of mouth (eWOM) (Chu et al., 2019; Kang and Schuett, 2013). For example, social media users can share their travel experiences on TripAdvisor or Booking.com. Additionally, social media users (e.g. influencers) can act as validators to promote travel destinations on social sites such as Facebook, YouTube, Instagram, TikTok and Weibo. (Xu and Pratt, 2018).

However, no research has really focused on tourists' social media use behavior that relates to tourism destinations, especially in term of level of engagement. Therefore, this study focuses on validating a scale to measure tourists' social networking engagement with the destination.

2. Literature review

2.1 Social media engagement

Social media has become a popular communication method for brand to engage with their customers. Brand engagement is customers' activity that contributes to the enterprise's value directly (purchases) and indirectly (referrals, chats, recommendations) (Kumar & Pansari, 2016). Brand engagement includes cognitive, emotional, and behavioral dimensions (Brodie et al., 2013). Cognitive engagement is the overall process of cognitive activities about things and phenomena, expressed through attention and attraction; affective engagement showing enthusiasm and interest; behavioral engagement is a positive manifestation, such as sharing, learning, and advocacy behaviors (Dessart et al. (2016)). Brand engagement is a complex concept because customer perceptions and emotions are difficult to measure, so it is advisable to focus on behavioral factors to demonstrate user engagement on social media better (Oh et al., 2017).

Social media engagement behavior refers to how customers connect with a brand and is reflected in different levels (Van Doorn et al., 2010). Muntinga (2011) proposed the Consumer's Online Brand-Related Activities framework which classified brand engagement behaviors into three groups: consuming, contributing, and creating. Consuming is the lowest level (eg, reading content, watching videos); the next level is contributing, which refers to consumer-content and consumer-consumer interactions; creating is the composing and posting of content on social networks, and it is also the highest level (Muntinga, 2011).

Table 1. Engagement behaviors on social media

Author(s)	Consuming	Contributing	Creating	Methodology
Muntinga (2011)	x	x	x	Qualitative
Jahn & Kunz (2012)	Usage intensity	Fan page engagement		Quantitative
Men and Tsai (2013)	x	x	x	Quantitative
Pöyry et al. (2013)	Browsing	Participating	Participating	Quantitative
Luarn (2015)		Online engagement		Quantitative
Schivinski (2016)	x	x	x	Quantitative
Piehler et al (2019)	x	x	x	Quantitative

2.2 Tourists' engagement behaviors on social media

There are research tried to understand the engagement behaviors of tourists with destination on social media. Osei (2015) applied the Engell-Kollat-Blackwell model and classified tourists' use of social media into 4 stages: Need awareness, Information search, Evaluation, and Purchase. Chavez (2020) measured the tourists' interactive behaviors on social media by their eWOM review adoption, stickiness, and the intention to create UGC. Xue (2021) applied the AISAS model to investigate the online behaviors of tourists in Search before travel, Search during travel, Learning and growth, Action, Sharing after travel.

Table 2. Tourists' engagement behaviors on social media

Author(s)	Consuming	Contributing	Creating	Methodology
Osei (2015)	Need awareness, Information search, Evaluation		Purchase	Quatitative
Chavez (2020)	eWOM review adoption	Stickiness	Intention to create UGC	Quantitative

Xue (2021)	Search before travel, Search during travel, Learning and growth		Action, Sharing after travel	Quantitative
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However, there is no research that sophisticatedly measure the engagement behaviors of tourists with destination on social media, especially in term of the level of interaction. Therefore, this study adopted the Consumer's Online Brand-Related Activities framework to validate a measurement scale to measure the tourists' engagement behaviors on social media.

Table 3. Theoretical measurement model for online social media engagement behaviors

Code	Item	Sources
CS1	I read posts related to Hue tourism destination on social media	(Schivinski, 2016; Poryr, 2013)
CS2	I read page(s) related to Hue tourism destination on social network sites	
CS3	I watch pictures/graphics related to Hue tourism destination	
CS4	I follow blogs related to Hue tourism destination	
CS5	I follow Hue tourism destination on social network sites	
CT1	I comment on videos related to Hue tourism destination	(Luarn, 2015; Schivinski, 2016)
CT2	I comment on posts related to Hue tourism destination	
CT3	I comment on pictures/ graphics related to Hue tourism destination	
CT4	I share Hue tourism destination related posts	
CT5	I "Like" pictures/ graphics related to Hue tourism destination	
CT6	I "Like" posts related to Hue tourism destination	
CR1	I initiate posts related to Hue tourism destination	(Azar, 2016; Kang, 2014; Schivinski, 2016;
CR2	I initiate posts related to Hue tourism destination on social network sites	
CR3	I post pictures/graphics related to Hue tourism destination	
CR4	I write reviews related to Hue tourism destination	
CR5	I write posts related to Hue tourism destination on forums	
CR6	I post videos that show Hue tourism destination	

3. Method

Data were collected through face-to-face survey with structured questionnaires. The survey sites are popular attractions to tourists, for examples: The Imperial City, Thien Mu pagoda, Dong Ba market, Khai Dinh tomb, the walking street, etc. Before filling out the questionnaires, tourists were asked 2 questions to ensure they are suitable for this study: (1) Are they traveling to Hue for tourism activities?, and (2) Are they using social media to engage with Hue tourism destination?. The observed variables are measured by a 7-level likert scale with (1) being Never and (7) being Very frequently. The data were collected from July 2022 to September 2022. Out of 290 questionnaires distributed, 273 valid questionnaires were included in the analysis.

The analyzing process consists of 2 steps. First, this study use the exploratory factor analysis (EFA) to determine the number of factors extracted. Second, this study conducts confirmatory factor analysis (CFA) to test the scale reliability, convergent and discriminant validity.

4. Result

4.1 Sample characteristics

A total of 273 tourists participated in the survey. Out of these, 129 were male, making up 47.3% of the respondents, while 144 were female, accounting for 52.7%. In terms of age distribution, the majority (59.3%) were between 18 to 29 years old. As for the number of visits to Hue, 80 tourists (29.3%) visited for the first time, 68 (24.9%) visited for the second time, and 47 (17.2%) visited for the third time. Moreover, 78 tourists (28.6%) had visited Hue more than four times.

4.2 Exploratory factor analysis

The EFA result shows that the KMO test value is 0.888 and the p-value of the Bartlett test is 0.000 less than 0.05, ensuring the conditions for conducting EFA exploratory factor analysis (Table 2). The observable item CR2 is removed from the EFA because it loads on two different factors. There are three factors extracted from 16 original observed variables. The total variance extracted is 74.438% (> 50%), and all newly extracted factors ensure the conditions that their eigenvalues are greater than 1 and the factor loadings are greater than 0.5 (Table 3), satisfying the required requirements of EFA analysis.

Table 4. Exploratory factor analysis result of tourists' social media engagement behaviors

Observable variables	Contribution	Consumption	Creation
CT1	1.000		
CT3	.988		
CT2	.987		
CT4	.674		
CT6	.587		
CT5	.578		

CS3		.904	
CS2		.882	
CS1		.786	
CS5		.766	
CS4		.706	
CR5			.987
CR6			.958
CR1			.624
CR3			.554
CR4			.546
Eigen value	8.479	2.051	1.380
% of Variance Extracted	52.993	12.818	8.627
Cronbach' Alpha	0.902	0.928	0.905

Source: Survey data 2022

The measurement scale meets both the criteria of convergence and discriminant validity. Specifically, in terms of convergence, each observed variable has high loadings (> 0.5) on each corresponding factor. Regarding discriminant validity, each observed variable has a high loading coefficient on one and only one factor. The factors from 1 to 3 are named Contribution, Consumption, and Creation. The reliability test results show that all factors ensure reliability with Cronbach's Alpha coefficient greater than 0.8. The factor with the highest Cronbach's Alpha coefficient is 0.928 for *Consumption*, and the lowest is *Contribution*, with Cronbach's alpha coefficient of 0.902.

4.3 Confirmatory factor analysis

* *Convergence validity*: According to Fornell and Larcker (1981), the AVE coefficient (average variance extracted) must be greater than or equal to 0.5 to confirm the convergence value. From the data in Table 5. We see that the average variance extracted (AVE) of all the scales from 0.616 to 0.673, all are greater than 0.5. Therefore, all scales used in the model meet the requirements of convergence value.

* *Discriminant validity*: Fornell and Larcker (1981) suggest that the scale achieves discriminant validity when the square root of the AVE for each latent variable is higher than the other correlation values in the model. The results in Table 5 show that the square root of the AVE values of the factors are all larger than the correlation coefficient between that factor and the remaining factors. Therefore, the factors used in the model achieve discriminant validity.

Table 5. Convergence and discriminant validity

	Composite Reliability	AVE	CT	CS	CR
CT	0,922	0,673	0,820		
CS	0,895	0,632	0,527	0,795	
CR	0,885	0,616	0,702	0,443	0,785

The results of the confirmatory factor analysis for the scale of social media engagement (Figure 1) show that $CMIN/DF = 0.267 (< 3)$, $GFI = 0.890 (> 0.8)$, $TLI = 0.957 (> 0.9)$, $CFI = 0.965 (> 0.9)$ and $RMSEA = 0.079 (< 0.08)$, satisfying the condition. Therefore, it can be concluded that the scale extracted from the study is consistent with the research data. The confirmatory factor analysis results show that the scale of social media engagement built and developed from this study is reliable, reaching convergent values in each group of scales, reaching unidimensionality, and satisfying the discriminant requirement.

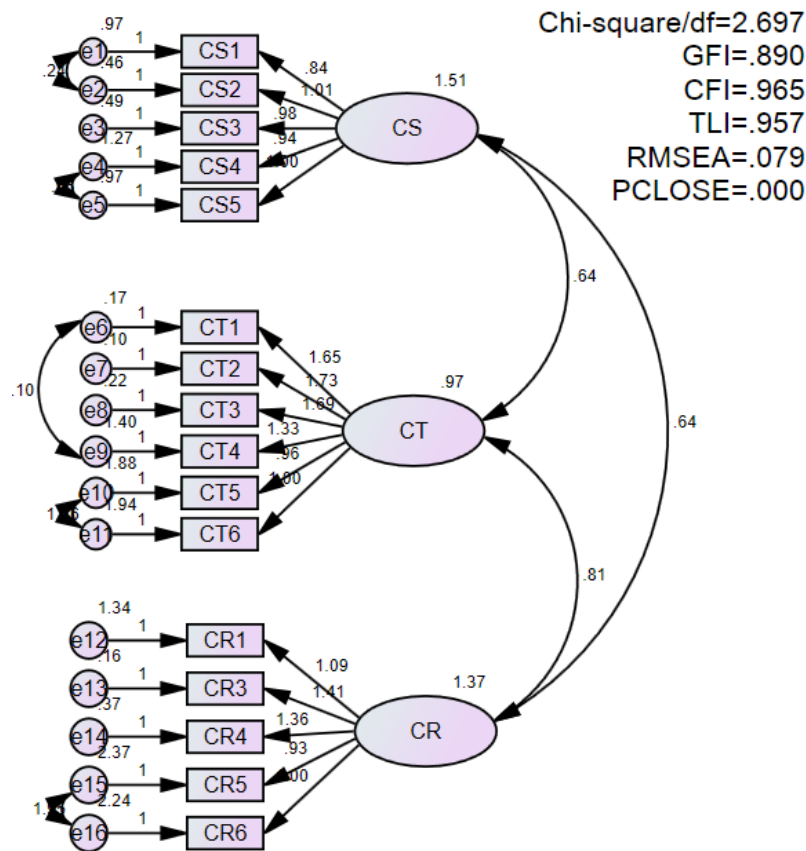


Figure 1. CFA result of the theoretical model

Source: Survey data 2022

5. Conclusion

The social media engagement of tourists with their destination has been developed and validated in two steps: exploratory factors analysis and confirmatory factors analysis. One observable variable is removed because it loads on two different factors. The result suggests a measurement scale including three dimensions (a) Consumption, (b) Contribution, and (c) Creation. The measurement scale meets the requirement of convergent and discriminant validity. This is a useful tool for evaluating the level of engagement behaviors of tourists with the destination through social media.

The validated scale follows three factors included in the COBRAs framework, namely Consumption, Contribution, and Creation. This research has further applied this marketing and consumer behavior theory in the context of tourism. Using this scale, researchers in tourism or other sectors can evaluate the usage behaviors of tourists or consumers on social media. Researchers can consider testing antecedents and consequences to the tourists' engagement behaviors on social media.

Although tourism enterprises and organizations are using social media as main marketing channel, research on tourist behavior related to destination brand on social media is still beginning. (Schivinski, 2016). This scale will help marketing managers to understand how tourists behave and engage with tourism destination on social media. They can specifically evaluate the success of their social media execution with this scale.

However, this research still has limitations due to limited time and resources. The measurement scale has just been validated with the reliability, convergence, and discriminant value from 273 tourists to Hue destination. Further studies should expand the scope of the study to to different samples with more rigorous methodology. Besides, all of the respondents are domestic tourists. Further research should acquire tourists from other countries with different cultural backgrounds.

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HOW DO NATURE-BASED ATTRACTIVE ATTRIBUTES AFFECT TOURISTS' INTENTIONS TO REVISIT BACH MA NATIONAL PARK, VIETNAM?

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Abstract: *Understanding the connection between destination attractiveness and tourist intention to return is crucial for success in the highly competitive tourism industry. To support nature-based tourism destination managers, the study identified a six-dimensional construct related to the attractiveness of Bach Ma National Park that affects tourist revisit intention from 308 domestic tourists visiting the park by applying factor analysis and a multiple regression model. The results also indicate that the six attractive factors (natural attractions, social and cultural attractions, prices, infrastructure, services, and accessibility) positively and significantly affect tourists intentions to revisit. The findings of the study contribute by indicating that tourism marketers, destination, and protected area managers need to make every possible effort to enhance the destination's attractiveness and to increase the intention of tourists to revisit nature-based tourism destinations in Vietnam.*

Keywords: *Destination attractiveness, nature-based tourism, revisit intention, Bach Ma National Park*

CÁC THUỘC TÍNH HẤP DẪN DỰA VÀO THIÊN NHIÊN ẢNH HƯỞNG NHƯ THẾ NÀO TỚI Ý ĐỊNH QUAY TRỞ LẠI CỦA DU KHÁCH THAM QUAN VƯỜN QUỐC GIA BẠCH MÃ, VIỆT NAM?

Tóm tắt: *Hiểu được mối liên hệ giữa sức hấp dẫn của điểm đến và ý định quay trở lại của khách du lịch là rất quan trọng để thành công trong lĩnh vực du lịch có nhiều sự cạnh tranh cao. Nhằm hỗ trợ các nhà quản lý điểm đến du lịch dựa vào thiên nhiên, nghiên cứu đã xác định sáu thang đo liên quan tới sức hấp dẫn du lịch của Vườn quốc gia Bạch Mã ảnh hưởng đến ý định quay lại của khách du lịch, dựa trên thông tin từ 308 khách nội địa tham quan Vườn với các phép phân tích nhân tố và mô hình hồi quy đa biến. Kết quả nghiên cứu cũng cho thấy sáu nhóm yếu tố hấp dẫn (tự nhiên, văn hóa - xã hội, giá cả, cơ sở hạ tầng, dịch vụ, và khả năng tiếp cận) có ảnh hưởng có ý nghĩa và tích cực tới ý định quay lại của du khách. Những phát hiện của nghiên cứu này góp phần hỗ trợ các thông tin quan trọng cho các nhà tiếp thị du lịch, quản lý điểm đến, và quản lý khu bảo tồn thiên nhiên trong nỗ lực nâng cao sức hấp dẫn của điểm đến và gia tăng ý định trở lại của du khách tới các điểm đến du lịch dựa vào thiên nhiên tại Việt Nam.*

Từ khóa: *Tính hấp dẫn của điểm đến, du lịch dựa vào thiên nhiên, ý định trở lại, Vườn quốc gia Bạch Mã*

1. Introduction

Nature-based tourism (NBT) is one of the fastest-growing subsectors of the global tourist industry, which is a major global industry. The rate of global tourism growth is astronomically high, averaging between 10 and 30 percent each year (Nyaupane et al., 2004), and nature-based tourism models draw about 60 percent of all international visitors (International Ecotourism Society, 2002). NBT's primary goal is to promote and deepen understanding of nature through direct connection with the natural environment (Newsome et al., 2013). The majority of nature-based tourism destinations are located within nature reserves. Around 8 billion people visit nature reserves worldwide each year (Balmford et al., 2015). In this way, NBT has played a significant role in encouraging socioeconomic development and environmental protection. This form of tourism is also a significant economic driver for host countries and a potential revenue source for nature reserves pursuing biodiversity conservation and objectives of natural resource management (Snyman & Bricker, 2019). Numerous countries across the world support ecotourism in order to achieve both nature conservation and socio-economic development, including Australia and New Zealand (Eagles et al., 2002).

In Vietnam, the importance of nature-based tourism in the conservation and effective management of natural resources in protected areas, as well as the promotion of economic growth for communities located close to and around protected areas, is becoming increasingly recognized. More than half (51%) of the expected 91 million domestic tourists and 33% of the estimated 1.2 million international visitors have taken part in tourism-related activities (Luong, 1999). The National Tourism Plan for the years 2015-2030 lists nature tourism as a key product for the nation's growth and prosperity (Government of Vietnam, 2013). In this light, national parks and other nature reserves in the country are beginning to pay more attention to the potential gains from NBT, such as increased revenue to put toward natural resource management and the development of alternative livelihood opportunities for local residents (Rugendyke & Son, 2005; Suntikul et al., 2010; An et al., 2018). In addition, policymakers and managers of protected areas are increasingly highlighting the potential benefits of NBT (An et al., 2018), in particular by promoting attractive characteristics of destinations in an effort to entice tourists to visit nature reserves. However, there are a lot of obstacles to overcome in the process of developing tourism in protected areas, particularly in terms of attracting tourists. These obstacles include issues connected to transportation facilities, tourism services, and infrastructure (An et al., 2019; Bui et al., 2021). Therefore, it is necessary to conduct research and evaluations on the characteristics and tourist-attractive attributes of destinations, especially based on tourists' perspectives when visiting protected areas that are considered key to supporting strategies and plans to increase the attraction of tourist destinations.

Furthermore, previous studies have shown a significant amount of interest in the evaluation of characteristics that contribute to the attractiveness of destinations. The vast majority of studies on nature-based tourism attractiveness have also concentrated on the perception and behavior of visitors or customers (Kim, 1998; Lee et al., 2010; Hsu et al.,

2009). Thereby, it is essential to examine and appraise the features of a tourist site in an effort to attract visitors, which in turn helps to advance the marketing and management of destinations as well as the competition between them (Lee et al., 2009; Caber et al., 2012). In this sense, the perspectives of tourists on the desirability of a destination as well as their behavioral intentions are essential components of successful destination marketing and management (Žabkar et al., 2010). Hence, in the context of tourism development in Vietnam, many studies on tourist destinations' attractiveness attributes affecting tourists' revisit intention have been explored (Ngoc & Trinh, 2015; Long & Nguyen, 2018). However, there has been little empirical study conducted on Vietnamese protected areas, explaining the relation between tourism attractiveness and tourists' intentions to revisit these areas. This study aims to fill this gap and identify the main factors associated with the tourism attractiveness of Bach Ma National Park, Central Vietnam, affecting the protected area revisit intention for domestic visitors, utilizing the multiple linear regression method.

2. Literature review on nature-based tourism attractiveness and revisit intention

2.1. Nature-based destination attractiveness

In the last few decades, the concept and measurement of destination attractiveness have received extensive attention from tourism authorities, academics, and professionals (Mayo & Jarvis, 1981; Hu & Ritchie, 1993; Kim, 1998; Deng et al., 2002; Lee et al., 2010; Reitsamer et al., 2016). Destination attractiveness has been defined as the perceived capacity of a location to satisfy the demands of visitors (Hu & Ritchie, 1993). Mayo and Jarvis (1981) mentioned that the attractiveness of a vacation destination refers to travelers' views of a place and its capacity to satisfy their needs. In this sense, considering the attractiveness of destinations can engage tourism planning and policy development based on understanding target markets and tourists' decision-making processes (An et al., 2019). Many aspects and attributes of tourist destinations or tourist products influence the motivation to visit and enjoy a location (Hu & Ritchie, 1993; Lee et al., 2010). Both the supply-side and demand-side perspectives on destination attractiveness have also been extensively analyzed (Lee et al., 2010). This study focuses on tourists' evaluations of the destination's attractiveness, which is known as the demand-side perspective on tourism. It is crucial to identify and assess the destination characteristics that attract and satisfy tourists to effectively manage and market the destination (Taplin, 2012).

Furthermore, previous studies on nature-based tourism destinations have identified and described a number of a destination's attributes in order to measure its attractiveness (Lee et al., 2010; Deng et al., 2002; Puustinen et al., 2009; An et al., 2019). As nature-based tourism grows, Deng et al. (2002) put together a list of five groups of characteristics of protected areas that make a destination more attractive: tourism resources, tourist facilities, accessibility, local communities, and peripheral attractions. Lee et al. (2010) indicated four main categories that make a forest-based destination appealing: tourist attractions, accessibility, amenities, and complementary services. It should be mentioned that perceptions of destination attributes may vary based on tourists' characteristics

(Mariani & Guizzardi, 2020). In addition, prior research confirmed that each characteristic of a destination contributes to the destination's attractiveness to varying degrees (Deng et al., 2002; Lee et al., 2010; An et al., 2019). Hence, understanding destination characteristics and attributes enables a nature-based destination to not only enhance the effective administration of protected areas but also to promote specific types of tourist experiences, increase tourists' intentions of visiting, and satisfy travelers in protected areas.

2.2. Revisit intention

Tourism destination management has recognized the importance of tourist revisit intentions in the tourism industry. The intention to revisit a tourism destination is known as a post-consumption behavioral intention type (Cole & Scott, 2004) and refers to an individual's willingness or propensity to visit the same destination again (Tosun et al., 2015; Stylos et al., 2016). In addition, it can be seen as an indication of tourist loyalty toward a tourism destination (Sadat & Chang, 2016). Considering revisit intention is crucial to contributing to reducing marketing and promotion costs (Loi et al., 2017), promoting survival and business growth (Ngoc & Trinh, 2015), and increasing the profitability and substantiality of the tourism business (Stylos et al., 2017). Hence, it is important to explore factors influencing revisit intention as well as to understand why travelers intend to revisit the tourism destination again. In previous studies, including nature-based tourism research, satisfaction, tourism experience, service quality, and perceived value seem to be the main determinants of a tourist's decision to revisit a tourism destination (Allameh et al., 2018; Moon & Han, 2018; Stylos et al., 2017; Zhang et al., 2018). Many studies have also suggested that tourists' intention to return to a destination is influenced by their perception that the destination's characteristics and attributes will meet their requirements (Stylos et al., 2017; Moon & Han, 2018).

3. Methodology

3.1. Study context

Bach Ma National Park (Bach Ma NP), in central Vietnam, was established in 1991 to protect not only many rare and endangered wildlife species and typical ecosystems but the country's remaining natural forest corridor from the South China Sea to the Annamite Mountains. The park is also considered one of the most important biodiversity conservation areas in the country, with about 2,373 plant species and 2,115 animal species (Keo & An, 2011). Bach Ma NP covers approximately 37,487 ha of the core zone and 58,676 ha of the buffer zone. There are 109 communes, with about 65,000 people of four ethnic groups living in the park buffer zone (Kinh, Ka Tu, Van Kieu, and Muong).

Bach Ma NP can be considered one of the most popular nature-based tourism destinations in national parks, particularly in Central Vietnam (An et al., 2019). According to An et al. (2019) and Bach Ma National Park (2021), an increasing number of tourists are coming to the park, and 33,700 travelers visited the destination as of 2019, which increased 2.3 times compared with 2015. The development of NBT in the park is important in terms of extending financial sources, creating employment opportunities, and local economic development (Lê Thanh An et al., 2020; Lê Thanh An & Nguyễn Công Định, 2023). The

majority of tourists visiting the Bach Ma are now domestic, which is also the population this study is focusing on in this poll. Therefore, understanding domestic tourists intention to revisit is critical not only to the nature-based tourism development of Bach Ma but also to the local socio-economic prosperity surrounding the region.

3.2. *Measurement development and proposed* research model

Based on the literature review about the tourism attractiveness and revisit intention above, destination attractive attributes of Bach Ma NP and tourists' intentions to revisit the park were inherited, selected, and developed in the study. In particular, a thorough review of the relevant literature was done to figure out which items would be best for measuring the different concepts in the study. Thereby, a 29-item scale was employed to measure destination attractiveness (25 items) and the revisit intention of tourists (4 items) toward Bach Ma National Park that was adapted from previous studies (Table 1). All of these items were also measured on a five-point Likert scale ranging from (1) strongly disagree to (5) strongly disagree.

Table 1. Scale items in the research model

Constructs	Items	Definition	Adapted from
<i>Destination attractive attributes (DAA)</i>			
Natural attractions (NA)	NA1	Scenery/natural/landscape wonders	Agyeman et al. (2019)
	NA2	Comfortable/good climate	
	NA3	The park has varied and unique fauna	
	NA4	The park has varied and unique flora	
	NA4	Uniqueness and healthy condition of water (e.g., waterfalls/streams and rivers)	
	NA6	Uniqueness of various altitudes/terrain	
Social and cultural attractions (SA)	SA1	Interesting special events/programs in the park	Žabkar et al. (2010), Moon & Han (2018)
	SA2	Diversity of local cuisine/culinary culture	
	SA3	Chance to experience local culture & history	
	SA4	A variety of opportunities to experience local way of agricultural activities/life	
	SA5	A variety of local products/brands in local shops	
Infrastructure (TF)	TF1	Good availability of tourism information on the park/tourist centers	Moon & Han (2018), Agyeman et al. (2019)
	TF2	Clear, well-presented & maintained signage/directions in the national park	
	TF3	Well-designed & maintained walking trails/roads inside the national park	
	TF4	Uniqueness of designed infrastructure (e.g. parking, toilet facilities)	
	TF5	High quality of infrastructure (e.g.	

Accessibility (AC)	AC1	parking, toilet facilities) Ease of visiting different sites/locations in the park	Moon & Han (2018)
	AC2	Ease of traveling other destinations around the park	
	AC3	Convenience in accessing the park	
Services (SE)	SE1	Brochures/maps/guides/useful information on the park were well prepared	Yoon et al. (2010)
	SE2	Impressive service provided by service staff	
	SE3	The offer of recreational activities and services in the park is abundant	
Prices (PR)	PR1	The price of accommodation is good	Yoon et al. (2010), Eusébio & Vieira (2013)
	PR2	The price of food and drinks is good	
	PR3	The price of transportation is good	
<i>Intention to revisit the national park (IRP)</i>			
	IRP1	I intend to revisit this destination in the future	Moon & Han (2018)
	IRP2	I am willing to return to this destination in the future	
	IRP3	It is very likely that I will come back to this place in the future	
	IRP4	Bach Ma could be again my next vacation place	

In the present study, multiple linear regression analysis was used to test for the effects of destination attractive attributes perceived by tourists, with six components (natural, social, and cultural attractions, infrastructure, accessibility, services, and prices) on their revisit intention toward Bach Ma NP, measured on the average score or mean of the construct. Thereby, the empirical model in this research is specified as:

$$\text{MIRP} = \alpha + \beta_1.\text{MNA} + \beta_2.\text{MSA} + \beta_3.\text{MTF} + \beta_4.\text{MAC} + \beta_5.\text{MSE} + \beta_6.\text{MPR} \quad (1)$$

where MIRP as a dependent variable refers to tourist's intention to revisit Bach Ma National Park. Six predictive factors as independent variables - natural attraction (MNA), social and cultural attraction (MSA), infrastructure (MTF), accessibility (MAC), services (MSE), and prices (MPR) - refers attributes of Bach Ma destination (see Table 1). α is the constant and β_j are the coefficients of the explanatory variables.

3.3. Data collection and analysis

This study is based on a survey employing a questionnaire on respondents' perceptions. On the basis of the mentioned literature review, a questionnaire was constructed with three sections: information about the destination's attractive features, measurements of participants' intention to revisit, and demographic characteristics. As mentioned above, a five-point Likert scale was used to measure all items in the research (see Table 1). The questionnaire was also pre-tested by a small number of visitors visiting

the park to remove unclear wording and improper items. After supplementing and adjusting the appropriate information, the study conducted a formal survey based on a self-administered questionnaire that was distributed to tourists visiting Bach Ma NP. Convenience sampling was used to collect the data for this research.

As per the recommendations of Hair et al. (2010), a minimum of 100 samples, or at least five samples per item, is required for the exploratory factor analysis to be conducted. Thereby, in this study, around 350 questionnaires were distributed for the formal survey among domestic tourists visiting the Bach Ma from 2020 to 2021. After carefully examining the questionnaires, 308 out of the total number of returned surveys were deemed suitable for data analysis.

The data analysis for this study was conducted using IBM SPSS 20.0 software. The Cronbach's alpha statistical test was used to identify the reliability of the measurement scale. Attractive aspects of Bach Ma NP and visitor behavior intentions are identified using exploratory factor analysis, which is applied to a broader set of questionnaire items. The regression model (see Equation 1) is the primary analytical method utilized in this study to increase knowledge of the factors of return intention among domestic tourists.

4. Results and discussion

Demographic characteristics

Of the 308 respondents, 182 questionnaires were completed by male tourists (59.09%) and 126 by female tourists (40.91%). The sample of respondents was biased toward young people (average age of 32) and those with a college education or above (82.14%). In the time of COVID-19, the demographic characteristic showed that 10% have income less than 4,000,000VND, 34,42% between 4,000,000VND to 6,000,000VND, 22,40% between 6,000,000VND to 8,000,000VND, 12,01% between 8,000,000VND to 10,000,000VND, and 21,10% have more than 10,000,000VND in monthly salary.

Reliability analysis

The Cronbach statistical test revealed that the coefficients for the seven constructs in this study exceeded the minimal value of 0.70. Minimum and maximum alpha reliability ratings for prediction items were 0.775 and 0.886, respectively (Table 2). The results suggest that the new factors are all reliable and can be included in further data analysis. In addition, all items have an item-total correlation above 0.3; therefore, no item was required to be removed. The outcomes satisfied the criteria proposed by Hair et al. (2010).

Table 2. Reliability statistics for all items

Variable	Mean \pm SD	Cronbach's α	Cronbach's α Based on Standardized Items	N of Items
NA	4,05 \pm 0.543	0.868	0.868	6
SA	2,75 \pm 0.590	0.886	0.887	5
TF	3,14 \pm 0.520	0.835	0.836	5
AC	3,61 \pm 0.534	0.775	0.776	3
SE	3,32 \pm 0.546	0.784	0.784	3

PR	3,27 ± 0.585	0.796	0.798	3
IRP	3,26 ± 0.680	0.866	0.867	4

Notes. NA = Natural attractions, SA = Social and cultural attractions, TF = Infrastructure, AC = Accessibility, SE = Services, PR = Prices, IRP = Intention to revisit the national park

Exploratory factor analysis

Exploratory factor analysis with Promax rotation was done on the 25 items and 4 items to explore the dimensions of Bach Ma NP's attractiveness and intention to return, respectively. The results from the factor analysis are presented in Table 2. The Kaiser-Meyer-Olkin (KMO) values were comfortably above the recommended value of above 0.50 and less than 1, and Barlett's test of sphericity reached statistical significance, thus supporting the appropriateness of factor analysis. As suggested by Hair et al. (2010), factor loadings in excess of 0.50 were deemed essential for practical importance. The final result yielded a six-factor model with 25 destination attributes toward the attractiveness of the Bach Ma destination that explained 56.31% of the total variance (Table 3).

Table 3. Factor analysis results for the Bach Ma **attractiveness and tourist** return intention

Observed variables	Factor						Intention to revisit IRP
	Independent variables						
	NA	SA	TF	PR	SE	AC	
DAA							
NA2	0.816						
NA6	0.742						
NA5	0.740						
NA1	0.735						
NA3	0.707						
NA4	0.617						
SA4		0.827					
SA2		0.791					
SA1		0.752					
SA3		0.741					
SA5		0.679					
TF1			0.775				
TF3			0.754				
TF4			0.736				
TF5			0.640				
TF2			0.633				
PR3				0.809			
PR1				0.778			
PR2				0.637			

SE2						0.930	
SE1						0.660	
SE3						0.580	
AC2							0.769
AC3							0.742
AC1							0.698
IRP							
IRP1							0.843
IRP3							0.835
IRP2							0.753
IRP4							0.720
Initial Eigenvalues	3,632	3.287	3.024	2.138	2.098	2.072	2,862
Variance Explained (%)	53,02	57.31	50.76	57.36	55.77	53.77	62.33
Kaiser-Meyer-Olkin Measure	0,838						0.818
Bartlett's test of sphericity (Sig.)	3347.847 (0.000)						586.322 (0.000)
Variance Explained (%)	56.31						62.33

Notes. DAA = Destination attractive attributes, NA = Natural attractions, SA = Social and cultural attractions, TF = Infrastructure, AC = Accessibility, SE = Services, PR = Prices, IRP = Intention to revisit the national park

Multiple Regression Analysis

Results of the multiple linear regression analysis are given in Table 3. In the analysis model (1), the test for multicollinearity is conducted by comparing the tolerance value and variance inflation factor (VIF) to the required value (Table 4). There is no possibility of the multicollinearity phenomenon among the variables used in the model because they have a tolerance value ≥ 0.10 and a VIF ≤ 10 . A heteroskedasticity test was conducted, and there is no heteroskedasticity in the regression model. In this study, the model explained 30% of the variance in Vietnamese tourists' revisit intention toward the Bach Ma National Park. The remaining 70% is accounted for by elements not included in this model.

Table 4. Factors affecting tourists' intentions to revisit Bach Ma National Park

Explanatory variables	Beta	Standard error	Standardized beta	<i>t</i>	Collinearity Statistics	
					Tolerance	VIF
Constant	0.116	0.274	-	0.424		
MNA	0.127	0.052	0.128	2.432**	0.822	1.216
MSA	0.245	0.045	0.268	5.394***	0.920	1.087
MTF	0.178	0.055	0.172	3.256***	0.816	1.225
MAC	0.091	0.050	0.090	1.800*	0.913	1.095

MSE	0.111	0.053	0.113	2.091**	0.780	1.282
MPR	0.157	0.049	0.171	3.179***	0.788	1.269
Adjusted R Square	0.300					
F value (Sig.)	22.972 (0.000)					

Notes. ***, **, * indicate statistical significance $p = 0.01$, 0.05 , and 0.1 , respectively; MNA = Natural attraction; MSA = Social and cultural attraction; MTF = Infrastructure; MAC = Accessibility; MSE = Service; MPR = Price

In this study, six independent variables, such as natural, social, and cultural attractions, infrastructure, accessibility, price, and service, were found to be statistically important in explaining why domestic tourists wanted to visit the park again (Table 4). The findings showed a positive relationship between attractive attributes and revisit intention based on the coefficients of each variable. For instance, the regression coefficient of natural attraction gives a value of 0.127, indicating that if the destination's natural appeal is enhanced and assuming that all other factors remain constant, tourist intention to return to the park will increase and vice versa. The results suggest that any improvement in the six attributes of the Bach Ma NP would positively impact the intention of tourists to revisit the destination. These findings are in line with previous research on the connection between the destination attribute and revisit intention (Chi & Qu, 2008; Stylos et al., 2017; Loi et al., 2017; Moon & Han, 2018; Long & Nguyen, 2018; Singh & Singh, 2019).

Moreover, it is noteworthy that among the destination attractiveness dimensions examined in the research model, social and cultural attractions (MSA, Beta = 0.245), infrastructure (MTF, Beta = 0.178), and price (MPR, Beta = 0.157) are found to be the most important predictors of domestic tourists' revisit intention (Table 4). This study's results support the findings of An et al. (2019) and Bui et al. (2021), who showed that a lack of transportation facilities, tourism services, and infrastructure are emerging obstacles to NBT development in Vietnam. Additionally, with regard to price items, when visiting the Bach Ma NP, visitors also have to pay a relatively high cost for transportation services due to the park's topography characteristics and access to attractive locations. Even setting prices by service providers should be strictly controlled to make sure that prices match the quality of service offered in tourism destinations in Vietnam (Long & Nguyen, 2018). Infrequent destination visits are mostly attributable to a lack of engaging park amenities and programs, the absence of typical characteristics, and improper destination administration (Le & Kim, 2015). To be successful, tourism destinations founded on a market-oriented mentality should deliver higher-quality services than other locations (Allameh et al., 2015). Therefore, sustainable tourism growth and an enhanced market position might be secured via careful management of the existing tourism resources and attractions (Krešić & Prebežac, 2011).

The results of this study show that the six factors used to build the model can only account for 30% of tourists' intentions to visit the Bach Ma again (Table 3). It suggests that exploring other dimensions and destination attributes affecting tourists' intentions to revisit the Bach Ma NP is crucial in further study. For example, destination images and the satisfaction of tourists might be important influential elements in explaining their intention

to return to a tourist destination (Allameh et al., 2015; Loi et al., 2017; Moon & Han, 2018). Because of the data collection during the COVID-19 situation, further study on longitudinal aspects of revisit intention and destination attributes toward the park that are perceived by visitors in different years could be extended, such as pre- and/or post pandemic. Another interesting aspect for future research would be to consider international tourists perceptions toward national park-based attractive attributes, behavioral intentions, and loyalty when visiting NBT destinations in Vietnam.

5. Conclusions

The present study is expected to make a significant contribution to the development and management of nature-based tourism effectively in Vietnamese national parks by exploring the attractive attributes of Bach Ma National Park and better understanding factors affecting domestic tourists' intentions to revisit the park. Six groups of the Bach Ma NP's attractive attributes, including natural attractions, social and cultural attractions, infrastructure, accessibility, services, and prices, were obtained from the factor analysis. The study revealed that all six attractive attributes of the park significantly and positively influenced tourists' intentions to revisit. Not just the services themselves but also the state the national park is in plays a role in determining these characteristics. The findings of this particular study should be taken into account in tourism planning, strategies, and management of Bach Ma NP to not only maintain and upgrade destination attributes and their quality but also increase a stronger intention to revisit the park in the future. In addition to preserving its inherent ecological and scenic qualities, it is imperative to underscore the significance of enhancing the park's social and cultural amenities, infrastructure, and pricing schemes to effectively stimulate repeat visitation among domestic tourists. Destination managers can coordinate service providers and tour operators who could encourage cultural exchange by hosting festivals and events in the park and inviting local communities of the area to attend. Obtaining investment for infrastructure and enhancing amenities can increase the destination's attractiveness and make a significant impact on the behavioral intentions of tourists.

Furthermore, the implementation of communication initiatives that disseminate information pertaining to the biodiversity, landscape, and ecology of the Bach Ma NP is an essential component in heightening public awareness and comprehension of the protected area, including among tourists visiting the area. It additionally assists in enhancing the public's knowledge and appreciation of the park's natural attractions. Protected area managers should keep in mind that naturally attractive as well as unique geographical structures must be maintained and preserved because they not only play a key advantage in nature-based tourism destinations but also contribute to the likelihood of tourists returning.

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DEVELOPMENT OF VOLUNTARY SOCIAL INSURANCE FOR PEOPLE IN QUANG NINH DISTRICT, QUANG BINH PROVINCE

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Abstract. *This study endeavors to analyze the prevailing circumstances concerning the development of voluntary social insurance for inhabitants of Quang Ninh district, Quang Binh province. The research methodology employed a survey approach comprising 103 respondents from 12 communes and towns within the district. Results from the survey depict an upward trend in the number of voluntary social insurance participants, albeit still maintaining a relatively small proportion compared to those under social insurance coverage. Additionally, the aggregate revenue generated from voluntary social insurance within the district is not yet optimal, and the general populace remains relatively disinterested in this form of insurance. Consequently, the research aims to conduct a comprehensive evaluation of the current state of voluntary social insurance development, determine constraints and causes, and propose feasible developmental solutions for future implementation.*

Keywords: *Social insurance; Voluntary social insurance; Workers*

PHÁT TRIỂN BẢO HIỂM XÃ HỘI TỰ NGUYỆN CHO NGƯỜI DÂN TRÊN ĐỊA BÀN HUYỆN QUẢNG NINH, TỈNH QUẢNG BÌNH

Tóm tắt: *Nghiên cứu này phân tích thực trạng phát triển bảo hiểm xã hội tự nguyện cho người dân trên địa bàn huyện Quảng Ninh, tỉnh Quảng Bình. Nghiên cứu được thực hiện trên cơ sở khảo sát 103 người dân của 12 xã, thị trấn của huyện Quảng Ninh. Kết quả điều tra cho thấy: số lượng người tham gia bảo hiểm xã hội tự nguyện có xu hướng tăng lên, tuy nhiên, vẫn chiếm tỷ lệ nhỏ so với tổng số người tham gia bảo hiểm xã hội; Tổng thu bảo hiểm xã hội tự nguyện trên địa bàn huyện chưa cao; Người dân vẫn chưa quan tâm nhiều đến việc tham gia loại hình bảo hiểm này. Do đó, nghiên cứu hướng đến đánh giá thực trạng phát triển bảo hiểm xã hội tự nguyện, rút ra những hạn chế và nguyên nhân, trên cơ sở đó đề xuất một số hàm ý giải pháp phát triển trong thời gian tới.*

Từ khóa: *Bảo hiểm xã hội; Bảo hiểm xã hội tự nguyện; Người lao động*

1. Introduction

Social insurance (SI) is the main pillar in the social security policy system. Its primary goal is to support citizens and stabilize their lives when they face risks, to set up a

trust for workers on stable income when they get old, to distribute income fairly etc.

With the aim of ensuring a better life for workers in the informal economy sector, the voluntary social insurance program was established. Obviously, this is a support system for independent workers with low incomes, providing them with the opportunity to receive benefits that are not available under mandatory social insurance coverage. Through its implementation, voluntary social insurance has proven to be one of the significant policies of the Party and the State in ensuring social welfare.

Quang Ninh district, Quang Binh province is a purely agricultural district, with the living standards and income of people in the district still facing many difficulties. Therefore, developing voluntary SI for people is both a target and a solution to implement social justice, ensuring that all people participate and benefit from the SI regimes according to the law. However, the implementation process has shown that the number of people participating in voluntary SI in the district is still very limited, with only 4,053 people participating; the voluntary SI collection rate accounts for only 12.98% of the total SI collection in the district [1]. The issue to be raised in order to improve and ensure the stability of people's lives, as well as to achieve the goal of economic growth linked to progress and social justice, towards sustainable development. It is necessary to raise the awareness of the people, encourage and motivate them to actively participate in voluntary SI.

Therefore, analyzing the current situation of the development of voluntary SI in Quang Ninh district, Quang Binh province is necessary in order to evaluate the situation and propose solutions for the development of voluntary SI, attracting people to participate in voluntary SI in the research area.

2. Literature review and Research methods

2.1. Literature review

After 12 years of implementing the voluntary social insurance (VSI) policy, research on VSI has attracted the attention of many scholars from various perspectives.

Theoretical studies on VSI include Pham Thi Lan Phuong's (2015) detailed explanation of the role, nature, characteristics, and principles of VSI; Duong Thao Phuong's (2014) emphasis on theoretical issues related to VSI law; and Luu Quang Tuan's (2013) clarification of the content of the VSI policy for poor and disadvantaged workers, aiming to encourage their participation in VSI.

Studies on the current situation and development solutions for VSI include Pham Thanh Tung's (2017) identification of the development status of VSI participants in Quang Binh province, which serves as a basis for proposing a system of development solutions for VSI, and Phan Khoa Cuong et al. (2017) study of the causes of low VSI participation rates, which are primarily attributed to high costs, low profits, and long-term payment periods.

Research on factors influencing VSI development includes Hoang Thu Thuy (2018), Truong Thi Phuong (2013), and Nguyen Xuan Cuong et al. (2014) identification of factors affecting people's participation in VSI, such as communication activities, income,

people's awareness, expectations of families and society, and procedures for participation in VSI. Based on these factors, research has evaluated the current situation and proposed a system of solutions for VSI development.

In this study, the theoretical framework is built on the system of policies and laws issued by the Party and the State. This legal basis is the most solid guarantee for people's participation in and implementation of social insurance.

In Vietnam, the initial regulations regarding Social Insurance (SI) and Voluntary Social Insurance (VSI) were expressed in the 1994 Labor Code, which was subsequently revised and supplemented by the 2002 amended Labor Code. The first Social Insurance Law was enacted and passed in 2006, which is an important legal basis for enhancing the effectiveness of SI policy enforcement, expanding the participation of SI beneficiaries to all members of society, and better safeguarding the rights of those participating in SI. Specifically, the Social Insurance Law provides for VSI policy for workers and began implementation on January 1, 2008. This new official document has opened up a new step for all workers, including farmers and workers in non-formal sectors, to have the opportunity to participate in VSI.

After 07 years of implementing the Law on Social Insurance (2006), on 20/11/2014, at the 8th session, the National Assembly approved the Law on Social Insurance No. 58/2014/QH13 replacing the Law on Social Insurance No. 71/2006/QH11. The purpose of this adjustment and replacement is to promote equity, equality, and further expand the social insurance coverage and benefits of social insurance participants. The legislation explicitly establishes the provision of social insurance for all eligible subjects. Pursuant to the provisions of Clause 3, Article 3 of the Law on Social Insurance No. 58/2014/QH13, voluntary social insurance is defined as a social insurance scheme that is organized by the State, enabling participants to select their contribution level and methodology, which correspond to their income. Moreover, the State has introduced policies that provide support for social insurance contributions to enable participants to enjoy retirement and death benefits [2].

Voluntary social insurance (VSI) involves transferring risks through insurance contracts. Its primary purpose is to compensate or replace a portion of income for employees who experience a reduction or loss of income due to incapacity. VSI plays a crucial role in ensuring economic security for workers and their families when risks occur, additionally, contributing to social safety. Therefore, VSI can be viewed from two perspectives: economic and social. *From an economic perspective*, social insurance relates to mobilizing financial resources to build and use the voluntary social insurance fund, which helps stabilize the lives of participants when they face risks that cause a reduction or loss of income from labor. *From a social perspective*, voluntary social insurance is not profit-oriented but operates for social objectives, as demonstrated by the payment of unemployment social insurance benefits when participants suffer losses due to risks, and by providing social security when they get old.

From that point of view, the development of voluntary social insurance has increasingly received a lot of attention. Through this process, there will be an increase in

the number and structure of participants, expanding to many different types of workers, professions and social classes. This also strengthens the quality of voluntary social insurance as well as the expansion and improvement of policies for participants. Therefore, it can be understood that the development of voluntary social insurance is an activity that develops social security with a higher quantity, quality, and reasonable structure to meet the needs of individuals and society, contributing to ensuring social welfare and promoting the socio-economic development of the country.

To sum up, the development of voluntary social insurance (VSI) is evaluated based on two aspects: quantity and quality. Specifically, *the development of VSI scale* is assessed by extending the scope of social insurance coverage and increasing the number of participants in social insurance. The aforementioned involves the broadening of diverse categories of voluntary social insurance (VSI), growing the coverage area and the supply network for VSI. The in-depth evaluation of VSI development activities pertains to *the advancement of VSI quality*, which currently lacks the presence of specific criteria for its assessment. Within the scope of research, the determination of the quality of voluntary social insurance (VSI) may be explicated by specific benchmarks, including the augmentation of VSI funds, the efficacy of VSI collection and payment undertakings, and the resolution of payment and policy disbursement concerns relating to VSI participants.

2.2. Research method

This study approaches from the point of view of the units which provide voluntary social insurance, thereby assessing the actual situation of voluntary social insurance development for residents in Quang Ninh district, Quang Binh province.

The majority of the research results are based on secondary data through the annual reports of the Social Insurance Department in Quang Ninh District, during the period of 2019-2021, to assess the practical implementation of voluntary social insurance schemes for the populace within the district during the aforementioned time frame.

In addition, in order to have objective assessments, a survey was conducted on a group of residents in the district. The convenient sampling method was used, and the sample size was determined using the Slovin formula $n=N/(1 + N \times e^2)$, as of December 31, 2021, with a population size of 4,053 people participating in social insurance, a permissible error of 10%, and a confidence level of 95%, resulting in a calculated sample size of 98 people. To ensure the accuracy of the study, the survey was conducted on 120 questionnaires, with 105 questionnaires returned, achieving a response rate of 87.5%.

The district of Quang Ninh, Quang Binh Province comprises 15 communes and townships (14 communes and 1 township), among which 3 communes are classified as particularly difficult areas. Therefore, the research was conducted in 12 communes, with the sample size evenly distributed on average for each commune and township at a rate of 10 surveys per commune.

To synthesize and analyze the data, the study mainly used descriptive statistical methods. The collected data was categorized according to different criteria and presented through charts, graphs, and diagrams with absolute, relative, and average numbers to

compare and evaluate the changes of the research indicators over time.

3. Results and Discussion

3.1. *The situation of voluntary participation in social insurance in Quang Ninh district, Quang Binh province*

According to the report from the Social Insurance Department in Quang Ninh district, there was a significant rise in the scale of citizens' participation in social insurance over the years. More specifically, a mere 1,694 individuals participated in social insurance, accounting for 1.86% of the total population in the district, constituting 7.9% of the total number of participants in the social insurance program. This is due to the lack of attention to new policies and propaganda efforts. In 2020, the number of people participating in social insurance went up to 2,970 comprising 8.5% of individuals participating in social insurance and escalated 4,053 in 2021 composing 10.9% of the total number of participants in the social insurance. Evaluating the expansion of the scale of social insurance participation based on the growth rate criterion shows that, even though the number of participants constitutes a small share of the district's entire population, voluntary social insurance is a type of insurance with a high growth rate, reaching 75.3% in 2020 and 36.5% in 2021 (Table 1).

Table 1. Number of participants in VSI in Quang Ninh district, Quang Binh province between 2019 and 2021

Indicators	2019		2020		2021		2020/2019		2021/2020	
	Quantity	%	Quantity	%	Quantity	%	+/-	%	+/-	%
Mandatory social insurance	19,749	92.10	31,971	91.50	32,135	86.41	12,222	61.89	164	0.51
Voluntary social insurance	1,694	7.90	2,970	8.50	4,053	10.90	1,276	75.32	1,083	36.46
Total number of participants in the social insurance program	21,443	100	34,941	100	37,188	100	13,498	62.95	2,247	6.43

(Source: Quang Ninh District's Social Insurance Department, Quang Binh province)

The proportion of individuals participating in the voluntary social insurance (VSI) scheme, in comparison to the overall eligible population, remains suboptimal and does not correspond to the district's potential. In 2021, the number of people participating in VSI was evaluated to have a strong growth, but it only accounted for 6% of the eligible population for VSI.

* *The participants of voluntary social insurance*

Developing the participation of individuals in Voluntary Social Insurance (VSI) by

gender, the findings indicate that females make up a greater proportion of participants than males, accounting for 63.5% and 36.5%, respectively. The analysis of age groups indicates that individuals below 30 years of age constitute 11.72% (475 individuals); those aged between 30 and 45 account for 47.84% (1,939 individuals); and those above 45 years old account for 40.44% (1,639 individuals). It is noteworthy that the majority of individuals obligated to participate in social insurance are over the age of 50 since those within this age range who commence participation in the general system will not meet eligibility requirements for pension benefits (specifically, they must have at least 15 years of participation).

According to the evaluation of the development of participation in VSI by occupational structure, it has been found that the participation has expanded gradually in all sectors. However, the coverage is not yet extensive, and the proportion is not highly balanced. In 2021, the highest proportion of participation was observed in the agricultural labor group, accounting for 91.07%. This group consisted of 3,427 workers in agriculture, 112 in forestry, 115 in aquaculture, and 37 in fisheries. On the other hand, for the non-agricultural worker group, the number of VSI participants was 362 in 2021, accounting for 8.93% of the total. This group included 231 industrial workers and 131 workers in the service and commercial sectors as shown in Table 2. This situation is consistent with the characteristics of Quang Ninh district, which is predominantly an agricultural district with the majority of labor engaged in the agricultural sector. Therefore, the proportion of VSI participation has been high in recent years.

Table 2. Number of people participating in voluntary social insurance in Quang Ninh district, Quang Binh province, categorized by profession, for the period of 2019-2021

Unit: People, %

Profession	2019		2020		2021		2020/2019		2021/2020	
	Quantity	%	Quantity	%	Quantity	%	(+/-)	(%)	(+/-)	(%)
Total	1,694	100	2,970	100	4,053	100	1,276	75.32	1,083	36.46
Agricultural workers	1,504	88.78	2,697	90.81	3,691	91.07	1,193	79.32	994	36.86
"Non-agricultural workers"	190	11.22	273	9.19	362	8.93	83	43.68	89	32.6

(Source: Quang Ninh District's Social Insurance Department, Quang Binh province)

* *The type and level of voluntary social insurance contributions*

Agricultural workers constitute the primary participants of the VSI program, and as a result, the predominant method of insurance payment is through monthly contributions, which account for 48.29% of total payments. Meanwhile, payments made every three months make up 36.12% of the total. These payment methods are deemed appropriate for

farmers, especially considering the difficulties faced in the wake of the Covid-19 pandemic. Thus, the insurance payment schemes of one and three months are considered well-suited to the livelihoods and income levels of the farmers.

At present, the insurance premium rate for the VSI program ranges from 154,000 VND/month to 6,556,000 VND/month. Given the challenges faced by agricultural workers, the highest preferred insurance premium rate ranges from 154,000 VND to 253,000 VND/month, representing 51.22% of total payments. Insurance premium over 1,100,000 VND/month are insignificant, constituting less than 1% of total payments.

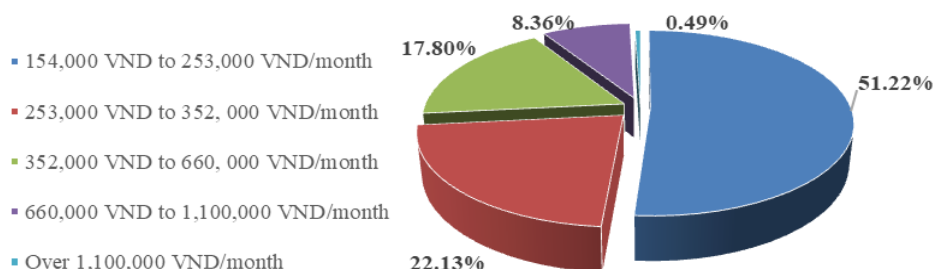


Figure 1. Structure of voluntary social insurance premium payment levels of the people in Quang Ninh district, period 2019 - 2021

(Source: Quang Ninh District's Social Insurance Department, Quang Binh province)

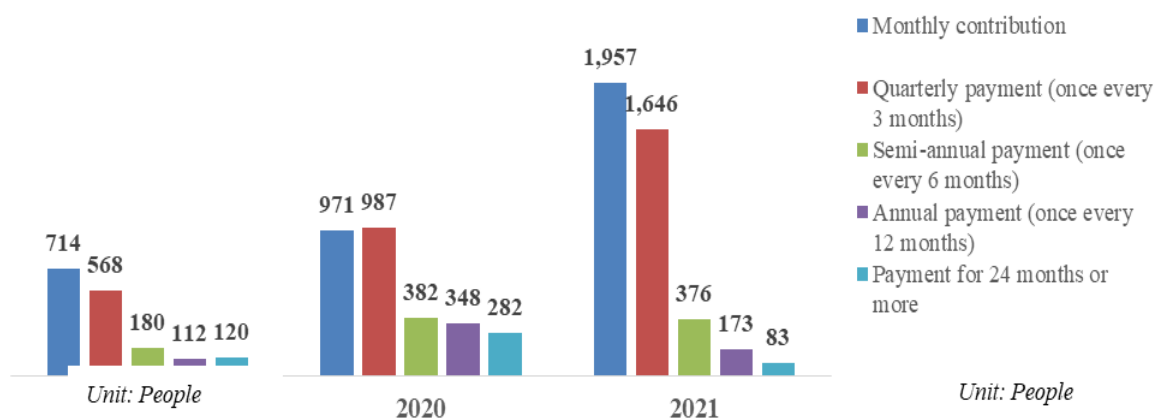


Figure 2. The voluntary social insurance payment method of resident in Quang Ninh district, during the period from 2019 to 2021

(Source: Quang Ninh District's Social Insurance Department, Quang Binh province)

During the period of 2019-2021, it is evident that within the timeframe of 2019-2021, the demographic of social insurance beneficiaries predominantly comprised of laborers operating within the agricultural, forestry, fishery, and craft industries. Additionally, self-employed and seasonal contract workers constituted a significant portion of the insured population. These individuals typically earn low incomes and are employed in jobs that lack stability, prompting them to opt for a lower insurance premium that aligns with their financial reality.

** The situation of voluntary social insurance premium collection*

In the period of 2019 - 2021, an analysis of the social insurance revenue of Quang Ninh district, Quang Binh province reveals an upward trend in the revenue generated from both voluntary and mandatory social insurance over the years. Specifically, the growth rate of voluntary social insurance outpaced that of mandatory social insurance. This observation is substantiated by the data presented in table 3.

Table 3. Current state of collecting premiums for voluntary social insurance in Quang Ninh district, Quang Binh province from 2019 to 2021

Unit: million VND

Indicator	Year			2020/2019		2021/2020	
	2019	2020	2021	(+/-)	(%)	(+/-)	(%)
Total social insurance revenue	57,528	67,916	75,679	10,388	18.06	7,763	11.43
Compulsory social insurance revenue	53,433	61,013	65,854	7,580	14.19	4,841	7.93
Voluntary social insurance revenue	4,095	6,903	9,825	2,808	68.57	2,922	42.33
Percentage of voluntary social insurance revenue compared to total social insurance revenue (%)	7.12	10.16	12.98				

(Source: Quang Ninh District's Social Insurance Department, Quang Binh province)

According to the report on the collection of VSI premiums in the district, VSI collection has consistently met or exceeded the planned targets for social insurance (SI) in the province over the years. Despite this, the VSI collection still only accounts for a small fraction of the total social insurance collection in the district. In 2019, the VSI collection amounted to 4,095 million Vietnamese dong, representing 7.12% of the total. In 2020, the VSI collection rose to 6.903 million Vietnamese dong, accounting for 10.16% of the total. In 2021, the proportion of VSI collection within the total social insurance collection reached its highest level in recent years at 12.98%. Nonetheless, the total amount collected in VSI was only 9,825 million Vietnamese dong, which represents a mere 13% of the overall social insurance collection for the district, which was 75,679 million Vietnamese dong. These findings indicate a steady increase in the VSI collection over the years, which bodes positively for the development of voluntary social insurance in the Quang Ninh district.

3.2. Factors affecting the development of voluntary social insurance through the assessment of respondents.

This study aimed to evaluate the demand and interest in participating in VSI among residents in Quang Ninh district through a survey of 105 respondents. The findings revealed that 80% of the surveyed population expressed a genuine need to take part in VSI. Nevertheless, the results also indicate that the levels of demand and interest vary among different age groups, genders, and income levels.

Table 4. Demand for voluntary social insurance participation among people in Quang Ninh district, Quang Binh province

Factors	Demand for VSI participation (%)		
	Yes	No	Neutral
<i>Gender</i>			
Male	67.31	11.54	21.15
Female	69.81	20.75	9.43
<i>Age</i>			
Under 30	34.78	30.43	34.78
30 - 45	74.00	16.00	10.00
Above 45	65.63	18.75	15.63
<i>Income</i>			
< 1,150,000	25.00	58.33	16.67
1,150,000 - 3,000,000	57.89	15.79	26.32
> 3000,000	74.42	16.28	9.30

(Source: Survey data and calculations by the author)

Regarding the relationship between age and participation in social insurance, it appears that the middle-aged and older age groups exhibit a greater propensity for involvement in social insurance relative to the younger population. This phenomenon is partially attributed to the notion that older individuals possess a better comprehension of the necessity of participating in social insurance in general and voluntary social insurance in particular to safeguard themselves and their families against future difficulties.

Furthermore, research suggests that the demand for participation in VSI is greater among women than men, as indicated by participation rates of 67.31% and 69.81%, respectively. This difference may be attributed to the psychological characteristics of women, who tend to present higher levels of anxiety thence, may have a greater need for insurance coverage as a means of protecting their future well-being.

Individuals aged 30-45 years have the highest demand for participation in VSI,

with a participation rate of 74%. This age group is characterized by individuals with seniority, life experience, and financial stability along with a recognition of the importance of insurance participation. In contrast, individuals above the age of 45 and under the age of 30 show a lower propensity for participation in VSI. Correspondingly, the demand for VSI participation increases in tandem with income, with individuals earning an average monthly income of over 3 million VND revealing the highest demand for insurance participation, with a rate of 74.42%.

By conducting practical evaluations and assessing the needs of the populace, it becomes apparent that the demand for participation in the VSI is considerably high. However, the actual number of participants remains disproportionately low in comparison to the total population, which fails to align with the district's potential. To comprehend this actuality, a study undertook the task of surveying the opinions of individuals regarding the reasons for abstaining from participation in the VSI within Quang Ninh district. The findings are displayed in Figure 3.

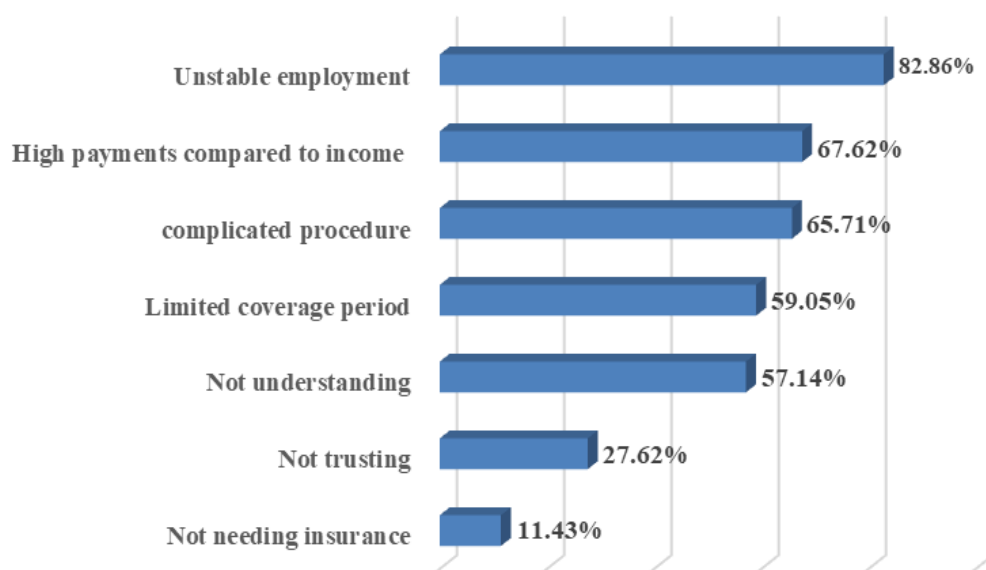


Figure 3. Reasons for not participating in voluntary social insurance of citizens

(Source: Survey data and calculations by the author)

The current situation in Quang Ninh district, Quang Binh province evinces that there exist seven fundamental reasons underlying the populace's non-participation in the voluntary social insurance scheme. These reasons include, but are not limited to, unstable employment opportunities and inadequate remuneration, accounting for 82.86% of the cases, high contribution rates relative to income (67.62%), complex and onerous administrative procedures (65.71%), restricted access to voluntary social insurance benefits (59.05%), insufficient information (57.14%), lack of trust in the insurance system (27.62%), and a perceived lack of necessity for insurance coverage (11.43%). Of note, income and employment are the primary factors that directly impinge on the citizens' inclination to enroll in the social insurance program. The population residing in the district consists mainly of rural laborers who rely on agriculture for their livelihoods, thereby

entailing unstable employment prospects and fluctuating incomes, both of which act as direct deterrents to their ability to participate in the social insurance program. Consequently, to address this predicament, Quang Ninh district and the provincial authorities must implement policies that support the populace in terms of employment opportunities and income augmentation, which would ultimately enhance their quality of life and improve the provision of social welfare services within the community.

The assessments and opinions of the local population are found to be considerably aligned with those of the officials and insurance agents pertaining to the factors that have influenced the progression of voluntary social insurance within Quang Ninh district over the recent period. This outcome has been illustrated in Figure [1].

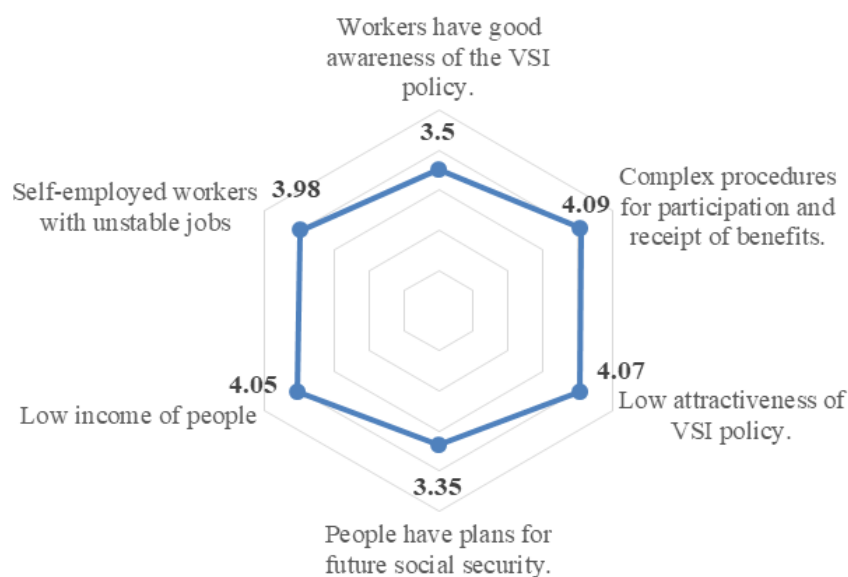


Figure 4. Factors affecting the development of voluntary social insurance in Quang Ninh district

(Source: Survey data and calculations by the author)

A survey was conducted to gather the opinions of officials and insurance agents on two groups of factors affecting the development of voluntary social insurance in Quang Ninh district.

Firstly, the group of factors related to the people, which can be considered as the main factors affecting the demand for participation in social insurance in general and voluntary social insurance in particular. The criterion "People have plans for future social security" was evaluated at a score of 3.35, indicating that people have not yet been concerned about social security policies and have not given much attention to participating in voluntary social insurance. In addition, people's awareness of voluntary social insurance is still limited, as evidenced by the criterion "Workers have good awareness of voluntary social insurance policy" which received a mean score of 3.5, not meeting the high evaluation of officials.

Furthermore, the majority of the workforce in the district are engaged in agriculture

and self-employment with unstable jobs and low incomes, which are also factors affecting their ability to participate in voluntary social insurance. Specifically, the criterion "Self-employed workers with unstable jobs" was highly agreed upon by officials and agents, with a mean score of 3.98, as it has an impact on the people's ability to participate in social insurance. Similarly, the criterion "Low income of people" was also agreed upon by officials and agents, receiving a mean score of 4.08, as it also affects the people's ability to participate in voluntary social insurance.

Secondly, group of factors that hinder the development of voluntary social insurance in Quang Ninh district pertains to the policy framework of VSI. The low attractiveness of benefits and policies, as well as complex procedures, are identified as obstacles. Specifically, the criterion "Low attractiveness of VSI policy" receives an average score of 4.07, indicating that the policies have not yet attracted the participation of citizens. The criterion "Complex procedures for participation and receipt of benefits" affects the motivation of citizens and receives an average score of 4.09.

4. Conclusion

A study and assessment of the current state of development of voluntary social insurance in Quang Ninh district, Quang Binh province during the period of 2019 to 2021, with a survey of the actual situation in 2022, has revealed that the number of VSI participants in the district has steadily increased. Furthermore, the group of individuals participating in VSI has expanded and become more diverse. There has been increased attention and improvement in the communication and dissemination of information on social insurance. The form and amount of VSI premiums have been adjusted by the Vietnam Social Security, and are becoming more suitable for the financial capacity of the people. Consequently, the revenue from VSI in the district has increased year by year, surpassing the set plan. Yet, the development of VSI in Quang Ninh district still faces several challenges, including low coverage, with the group of participants mainly concentrated in rural areas, not commensurate with the potential and population scale of those eligible for social insurance. The proportion of revenue from VSI is small, and does not truly reflect the effectiveness of the development of VSI activities.

Upon evaluation of the factors that impact the development of voluntary social insurance in Quang Ninh district, it can be observed that this undertaking is influenced by several factors. These include unstable employment and precarious income of citizens, complicated administrative procedures, a lack of attractiveness of the social insurance policies, and limited understanding and awareness of the citizens regarding social insurance.

In order to promote the development of VSI in Quang Ninh district, Quang Binh province, a number of basic issues need to be addressed in the near future.

Firstly, raising awareness and implementing policies to solve employment issues and increase income for the people is necessary. Improving people's awareness of VSI is a necessary solution, which can be achieved by intensifying information and propaganda efforts on social insurance policies to all people in the district.

Integrating the VSI development program with the socio-economic development and labor policies, along with preferential policies for citizens, is essential. Unlike mandatory social insurance policies applied to businesses and state agencies, with contributions made jointly by employers and employees, VSI is a form of insurance for citizens and independent workers who are not covered by mandatory social insurance policies. Therefore, the basic requirement for individuals to participate in VSI is to have stable employment and income, and the ability to accumulate funds to make contributions to the program. Given this characteristic, expanding the coverage of VSI to increase the number of participants must be linked to the economic development strategy, in coordination with employment programs, national and local poverty reduction programs. Policies for providing preferential loans to farmers for economic development, creating income sources, and improving their livelihoods are necessary to enable them to participate in VSI and achieve long-term stability in their lives.

Secondly, enhancing the responsibility of political and social organizations at the local level in developing VSI. To ensure that VSI reaches the people, a diverse range of implementation methods is necessary. In addition to the coordination between the Quang Ninh District Social Insurance and the local government, it is possible to promote coordination between the district social insurance and political and social organizations such as the Women's Union, the Veteran Association, the Farmers' Association, the Promotion of Education Association, Youth Union, and local health stations.

Thirdly, expanding the participation of people in VSI through simplifying administrative procedures and creating favorable conditions for people. The goal of implementing and organizing VSI collection must first establish VSI regulations that are appropriate to the current practical conditions. For people, the biggest difficulty in participating in VSI is administrative procedures, regulations, documents, and paperwork. Therefore, solutions should focus on reforming organizational methods towards simplicity, convenience, diversifying forms of money transfer and payment, and minimizing administrative procedures to facilitate registration, especially for workers, farmers, and self-employed individuals.

Fourthly, expanding the VSI regime and increasing its attractiveness through the innovation of VSI policies is recommended. The addition of certain regimes can create fairness between voluntary social insurance and compulsory social insurance. Currently, workers who participate in compulsory social insurance enjoy various benefits and regimes, including sick leave, maternity leave, work-related accidents and occupational diseases, retirement and funeral benefits. Notwithstanding, in the case of voluntary social insurance, citizens only enjoy two basic benefits: retirement and funeral benefits. Although these regimes are appropriate for the current situation, in the long term, they must be expanded to keep up with development and integration, by adding regimes such as sick leave, maternity leave, work-related accidents, and health insurance as compulsory coverage. It is also suggested Vietnam Social Insurance to adjust the level of financial support for voluntary social insurance, particularly for those who are not considered poor or near-poor households, and have more flexible policies regarding support levels.

Minimum support levels should be stipulated to provide localities with the conditions and economic development to support an additional part of the voluntary social insurance contribution.

Adjusting and supplementing short-term voluntary social insurance packages that meet the diverse needs of citizens is recommended. Quang Ninh district, which mainly comprises of farmers and informal workers, needs to promote flexible, short-term voluntary social insurance packages to attract this group of workers and provide them with more choices. For instance, the minimum period of social insurance participation required to receive a pension was previously 20 years, but this policy has been adjusted by the government to 15 years. It is also possible to expand the additional voluntary social insurance package by 10 years, specifically for elderly citizens who need short-term regimes.

Fifthly, it is recommended to advance the dissemination and popularization of policies and laws pertaining to voluntary social insurance, concurrently with the intensification of the application of information technology. The application of information technology assumes a crucial role in simplifying administrative procedures, the elimination of superfluous documents and forms, and enhancing the form of delivering public services from administrative to online channels, to begin with. In addition, it is imperative to ensure the accuracy, speed, timeliness, and convenience of service delivery. On the other hand, the utilization of information technology contributes to the transparency and openness of the rights and obligations of participants, ensuring fairness and creating favorable conditions for workers to participate in voluntary social insurance. Moreover, the adoption of information technology serves to reduce management costs and time for organizations and citizens, while simultaneously enhancing the quality of services.

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NĂNG LỰC SỐ CỦA SINH VIÊN VÀ CÁC NHÂN TỐ ẢNH HƯỞNG

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Tóm tắt: Nghiên cứu này mô tả nhận thức của sinh viên về năng lực số của họ và khám phá tác động của các yếu tố cá nhân sinh đến năng lực số bằng cách sử dụng dữ liệu mẫu khảo sát từ 793 sinh viên đại học Kinh tế, Đại học Huế dựa trên khung năng lực số Digcomp. Kết quả cho thấy nhận thức của sinh viên về năng lực số liên quan đến năng lực thông tin và dữ liệu, giao tiếp và cộng tác cũng như đảm bảo an toàn là khá tích cực. Kết quả cũng cho thấy các yếu tố như giới tính, niên khoá, đào tạo về CNTT và TT có tác động đến cảm nhận về mức độ năng lực số của sinh viên trong khi các yếu tố khác như khoa, khu vực thường trú chưa cho thấy sự ảnh hưởng.

Từ khoá: Năng lực số; sinh viên; Digcomp

STUDENTS' DIGITAL COMPETENCE AND FACTORS AFFECTING

Abstract: The study investigates undergraduate students' perceptions and the impact of personal factors on digital competence using a survey-based investigation of 793 students from University of Economics, Hue University and the Digcomp framework. Results suggest that students' perceptions of digital competence in areas such as information and data, communication and collaboration, and safety are predominantly positive. The study also highlights the significant influence of personal factors like gender, academic years, and ICT training on students' perceptions of digital competence. However, factors such as faculty and area of residence do not have a significant impact.

Keywords: Digital competence; students; Digcomp

1. Giới thiệu

Công nghệ thông tin và truyền thông (ICT) đã và đang thâm nhập nhanh vào tất cả các lĩnh vực hoạt động của con người. Sự gia tăng về quy mô và tốc độ số hóa dẫn đến nhu cầu tăng cường và tập trung vào các kỹ năng liên quan đến kỹ thuật số. Vấn đề về năng lực số (cách viết ngắn gọn của năng lực kỹ thuật số) đã trở nên cực kỳ quan trọng sau khi Tổ chức Y tế Thế giới (WHO) tuyên bố đại dịch toàn cầu liên quan đến vi-rút corona (COVID-19) vào ngày 11 tháng 3 năm 2020. Kể từ đó, các hoạt động giáo dục và học tập truyền thống đã bị gián đoạn và đã chuyển sang mô hình giáo dục trực tuyến (Schleicher, 2020). Với sự lan rộng của dịch bệnh, công nghệ đã trở thành một phần không thể thiếu của giáo dục, và các kỹ năng số là một phần không thể thiếu của giáo dục trực tuyến. Trong bối cảnh này, tầm quan trọng của năng lực số của người học ở các cấp học khác nhau đã được chứng minh rõ ràng trên toàn thế giới. (Portillo.J và cộng sự, 2020)

Các quốc gia và tổ chức trên toàn thế giới đang nỗ lực để đảm bảo chất lượng giáo dục và đạt được các mục tiêu phát triển vững của Liên hợp quốc. Liên minh Châu Âu đã đưa ra kế hoạch hành động về giáo dục số (2021-2027) nhằm thúc đẩy phát triển hệ sinh thái giáo dục số hiệu quả cao và nâng cao kỹ năng và năng lực số để đáp ứng với quá trình chuyển đổi số (EU, Digital Education Action Plan. 2020). Báo cáo về chuyển đổi số ở các nước thành viên của ASEAN đã khẳng định rằng, các chính phủ cần hành động để thích ứng với những tác động từ chuyển đổi số đến nền kinh tế, trong đó, đặc biệt nhấn mạnh đến giáo dục, đào tạo năng lực số nhằm đáp ứng những thay đổi trong nhu cầu về nhân lực của các tổ chức, doanh nghiệp (J. Change & Huynh, 2016).

Báo cáo của Tổ chức Lao động Quốc tế cho thấy, Việt Nam là nước bị ảnh hưởng nhất trong khối ASEAN về lao động việc làm do chuyển đổi số, với 70% người lao động ở các ngành nghề cơ bản bị ảnh hưởng (J. Change & Huynh, 2016). Bối cảnh này đặt ra cho giáo dục đại học Việt Nam một thách thức lớn trong việc đào tạo nguồn nhân lực chất lượng cao, có khả năng thích ứng và làm chủ công nghệ trong tiến trình chuyển đổi số của nền kinh tế. Chính sách phát triển nguồn nhân lực trong Nghị quyết 52 đã nhấn mạnh tầm quan trọng của nội dung giáo dục kỹ năng số, đổi mới cách dạy và học trên cơ sở áp dụng công nghệ số, khuyến khích các mô hình giáo dục, đào tạo mới dựa trên các nền tảng số, thực hiện theo lộ trình phổ cập kỹ năng số (Nghị quyết 52-NQ/TW, 2019). Ngày 15/6/2021, Thủ tướng Chính phủ đã ký Quyết định số 942/QĐ-TTg Phê duyệt Chiến lược phát triển Chính phủ điện tử hướng tới Chính phủ số giai đoạn 2021-2025, định hướng đến năm 2030, trong đó khẳng định quyết tâm thay đổi tổng thể và toàn diện của cá nhân, tổ chức về cách sống, cách làm việc, phương thức sản xuất dựa trên các công nghệ số, với mục tiêu xây dựng chính phủ số, kinh tế số và xã hội số.

Ảnh hưởng từ đại dịch Covid-19 càng khẳng định vai trò của công nghệ, đòi hỏi ngành Giáo dục phải thay đổi cách dạy học, trang bị các kỹ năng số cần thiết cho sinh viên. Năng lực thông tin được coi là một trong những thành tố quan trọng góp phần tạo lập năng lực tự học suốt đời của mỗi cá nhân trong bối cảnh xã hội thông tin và nền kinh tế số (Đỗ Văn Hùng và cộng sự, 2018). Trong nền giáo dục hiện nay, khả năng làm chủ các phương tiện CNTT - TT để từ đó hình thành nên năng lực công nghệ số của sinh viên đóng vai trò vô cùng quan trọng (Nguyễn Tấn Đại, & Marquet P, 2019). Năng lực số của sinh viên là yếu tố quan trọng trong mô hình học tập mới và cũng là sự chuẩn bị cho cuộc sống học tập và sự nghiệp sau này. Sinh viên có năng lực số cao hơn có khả năng tham gia học tập tốt hơn và say mê học tập hơn (Bergdahl và cộng sự, 2020). Việc phát triển năng số là một phần quan trọng của học tập suốt đời và là mối quan tâm của các trường đại học và tổ chức giáo dục đại học trên toàn thế giới (Stephanie và cộng sự, 2017).

Nghiên cứu này phân tích thực trạng năng lực số của sinh viên thông qua cảm nhận của họ về các khía cạnh năng lực số sử dụng mô hình Khung năng lực số của Ủy ban Châu Âu (Digcomp 2.0). Trên cơ sở đó, nghiên cứu sẽ khám phá xem liệu các yếu tố cá nhân (Giới tính, ngành học, niên khoá, vùng miền, lịch sử đào tạo về CNTT) có ảnh hưởng đến các khía cạnh năng lực số hay không?

2. Cơ sở lý thuyết và phương pháp nghiên cứu

2.1. Cơ sở lý thuyết

2.1.1. Năng lực số

Năng lực số là một khái niệm rộng được đưa vào các tài liệu chính sách, các nghiên cứu và ngày càng được chú trọng trong giáo dục đại học. Có nhiều khái niệm khác nhau về năng lực số, đây là một khái niệm rộng (Gudmundsdottir và cộng sự 2020). Năng lực số được định nghĩa là tập hợp kiến thức, kỹ năng và thái độ cần thiết khi sử dụng công nghệ số để tối ưu hóa hiệu quả cuộc sống hàng ngày của chúng ta (Ferrari, A. 2012). Năng lực số cũng là một trong tám kỹ năng sống chính (Ủy ban Châu Âu) và được định nghĩa là sử dụng và tham gia tự tin, có phản biện và có trách nhiệm với các công nghệ số để học tập, làm việc và tham gia vào xã hội (European Commission, 2019). Năng lực số còn được hiểu là kỹ năng về nhận thức, thái độ và công nghệ giúp giải quyết nhiều vấn đề và thách thức trong xã hội tri thức ngày nay (Janssen, J và cộng sự, 2013). Năng lực số không chỉ liên quan đến các kỹ năng số mà còn cả các khía cạnh xã hội và cảm xúc khi sử dụng các thiết bị kỹ thuật số và các công nghệ liên quan. Sự cùng tồn tại của các khía cạnh ở cấp độ kỹ thuật, nhận thức và đạo đức, và sự tích hợp các kỹ năng liên quan trong các khía cạnh này, được nhấn mạnh khi đề cập đến năng lực số (Calvani và cộng sự, 2008). Nhìn chung, trong xã hội ngày nay có một lượng thông tin khổng lồ đang tồn tại dưới dạng số và mỗi cá nhân cần có khả năng phân tích hợp lý, tư duy phản biện để đánh giá chúng và nắm bắt được cách thức sử dụng các công cụ số trong việc chia sẻ thông tin, phục vụ nghiên cứu và biểu đạt bản thân (Trần Đức Hoà, 2021)

Trong lĩnh vực giáo dục, năng lực số được xem là một khả năng cần có, cùng với việc có nền tảng lý thuyết vững chắc, khả năng nghiên cứu và thử nghiệm để áp dụng kiến thức, thái độ và kỹ năng cần thiết vào việc lập kế hoạch, thực hiện, đánh giá và xem xét liên tục các quy trình dạy và học được hỗ trợ bởi CNTT - TT (From, J, 2017). Cộng đồng sư phạm đã nhận ra tầm quan trọng của năng lực số đối với việc giảng dạy và học tập, và coi nó là cần thiết để giải quyết nhiều vấn đề trong quá trình này (Urdín và cộng sự, 2017). Trung tâm nghiên cứu chung (JRC) đã phát triển một khung năng lực số dành cho các tổ chức giáo dục (DigcompOrg), giúp các tổ chức này tích hợp học tập số một cách có hệ thống từ góc độ giảng dạy, công nghệ và tổ chức (Kampylis và cộng sự, 2015). Đối với giáo viên, năng lực số có nghĩa là sử dụng CNTT - TT với phương pháp giảng dạy tốt, hiểu biết về CNTT - TT và nhận thức được tầm quan trọng của việc này đối với chiến lược học tập và hình thành giáo dục của học sinh (Krumsvik, 2007). Năm 2017, khung năng lực số dành cho giáo viên (DigcompEdu) đã được xuất bản, chỉ ra sáu lĩnh vực năng lực mà giáo viên cần phát triển để đáp ứng yêu cầu (Redecker, C, 2017).

Hiện nay, sinh viên và người học nói chung đang trưởng thành trên nền tảng công nghệ hiện đại (Prensky, M. 2007). Sinh viên ngày nay có khả năng tạo ra và quản lý nội dung, thông tin, điều khiển các công cụ truyền thông, và giải quyết các vấn đề công nghệ, làm cho họ trở nên có năng lực và cạnh tranh hơn trong việc đáp ứng nhu cầu xã hội hiện nay (Eger và cộng sự, 2018). Thêm vào đó, dịch bệnh COVID-19 đã thúc đẩy sự đổi mới trong giáo dục, ảnh hưởng đáng kể đến mô hình học tập và triết lý giảng dạy. Với vai trò

chủ thể chính trong giáo dục, sinh viên cần được trang bị kỹ năng số để đối phó với những thách thức mới (Toquero, C. M, 2020). Tuy nhiên, hầu hết sinh viên không có đủ trình độ kỹ năng số cần thiết (Cabezas González và cộng sự, 2017). Công nghệ vẫn chưa được tích hợp tốt nhất vào quá trình giảng dạy trong lớp học hoặc trực tuyến. Mặc dù một số nghiên cứu đã chỉ ra rằng sinh viên có một số khả năng được ghi nhận tích cực trong các lĩnh vực kỹ năng số, nhưng vẫn còn một chặng đường dài trước khi họ có thể hoàn toàn thành thạo.

2.1.2. Khung năng lực số Digcomp

Trong những năm gần đây, năng lực số trong lĩnh vực giáo dục đã được đánh giá theo các khía cạnh khác nhau từ nhiều quan điểm khác nhau (Zhao và cộng sự, 2021). Khung năng số Châu Âu (Digcomp) được sử dụng rộng rãi để hỗ trợ quy hoạch chiến lược và lập chính sách, phát triển các sáng kiến giáo dục và đào tạo và đánh giá năng lực số của các đối tượng (Vuorikari và cộng sự, 2016).

Ủy ban Châu Âu lần đầu tiên đề xuất khung năng lực số Digcomp vào năm 2013 như một định hướng về cách sử dụng và sửa đổi năng lực số, xác định các yếu tố chính của năng lực số gồm kiến thức, kỹ năng và thái độ liên quan đến năng lực số. Năm 2016, phiên bản Digcomp 2.0 được ra mắt để đáp ứng các yêu cầu mới nảy sinh do sự phát triển nhanh chóng của việc số hóa trong tất cả các lĩnh vực của xã hội. Trong phiên bản này các khía cạnh năng lực, mô tả năng lực đã được cập nhật. DigComp 2.0 bao gồm 21 năng lực trong 05 nhóm khía cạnh năng lực: (1) Năng lực về thông tin và dữ liệu; (2) Năng lực giao tiếp và hợp tác; (3) Năng lực sáng tạo nội số; (4) Năng lực đảm bảo an toàn; và (5) Năng lực giải quyết vấn đề. Phiên bản Digcomp 2.1 đã thêm tám cấp độ đo lường về năng lực và các ví dụ sử dụng mới.

Bảng 1. So sánh các phiên bản của Khung năng lực số của Châu Âu

Digcomp 1.0		Digcomp 2.0		Digcomp 2.1
1.Thông tin	1.1. Duyệt, tìm kiếm và lọc thông tin 1.2.Đánh giá thông tin 1.3.Lưu trữ và truy xuất thông tin	1.Năng lực thông tin và dữ liệu	1.1. Duyệt, tìm kiếm và lọc dữ liệu, thông tin và nội dung số 1.2. Đánh giá dữ liệu, thông tin và nội dung số 1.3. Quản lý dữ liệu, thông tin và nội dung số	Dựa trên các chiều từ Digcomp 2.0, đã được thêm và cập nhật tám cấp độ thành thạo cho mỗi trong 21 năng lực và ví dụ về việc sử dụng tám cấp độ thành thạo được áp dụng vào kịch bản học tập và việc
2.Giao tiếp	2.1. Tương tác qua công nghệ 2.2. Chia sẻ thông tin và nội dung 2.3. Tham gia vào công dân trực tuyến	2.Giao tiếp và cộng tác	2.1. Tương tác qua công nghệ số 2.2. Chia sẻ qua công nghệ số 2.3. Thực hiện vai trò, quyền lợi công dân	

	<p>2.4. Hợp tác qua các kênh kỹ thuật số</p> <p>2.5. Văn hóa ứng xử trên mạng</p> <p>2.6. Quản lý danh tính kỹ thuật số</p>		<p>qua công nghệ số</p> <p>2.4. Hợp tác qua công nghệ số</p> <p>2.5. Văn hóa ứng xử trên mạng</p> <p>2.6. Quản lý danh tính số hóa</p>	làm trong 21 năng lực.
3.Sáng tạo nội dung	<p>3.1. Phát triển nội dung</p> <p>3.2. Tích hợp và tái sản xuất</p> <p>3.3. Bản quyền và giấy phép</p> <p>3.4. Lập trình</p>	3.Sáng tạo nội dung kỹ thuật số	<p>3.1. Phát triển nội dung số hóa</p> <p>3.2. Tích hợp và tái chế nội dung số hóa</p> <p>3.3. Bản quyền và giấy phép</p> <p>3.4. Lập trình</p>	
4.An toàn	<p>4.1. Bảo vệ thiết bị</p> <p>4.2. Bảo vệ dữ liệu cá nhân</p> <p>4.3. Bảo vệ sức khỏe</p> <p>4.4. Bảo vệ môi trường</p>	4.An toàn	<p>4.1. Bảo vệ thiết bị</p> <p>4.2. Bảo vệ dữ liệu cá nhân và quyền riêng tư</p> <p>4.3. Bảo vệ sức khỏe và tinh thần</p> <p>4.4. Bảo vệ môi trường</p>	
5.Giải quyết vấn đề	<p>5.1. Giải quyết các vấn đề kỹ thuật</p> <p>5.2. Xác định nhu cầu và phản hồi công nghệ</p> <p>5.3. Đổi mới và sáng tạo sử dụng công nghệ</p> <p>5.4. Xác định khoảng cách năng lực số</p>	5.Giải quyết vấn đề	<p>5.1. Giải quyết các vấn đề kỹ thuật</p> <p>5.2. Xác định nhu cầu và phản hồi công nghệ</p> <p>5.3. Sáng tạo sử dụng công nghệ số</p> <p>5.4. Xác định khoảng cách năng lực số</p>	

Nguồn: Trung tâm Nghiên cứu Chung (JRC), Ủy ban Châu Âu

Năm khía cạnh năng lực số và 21 năng lực cụ thể được xác định trong mô hình DigComp 2.0 cung cấp sự hiểu biết sâu sắc về năng lực số được yêu cầu trong xã hội hiện đại ngày nay (Kluzer, S., & Rissola, G, 2015).

Trong mỗi khía cạnh năng lực số, có một loạt các năng lực cụ thể liên quan đến nó. Trong mỗi năng lực cụ thể này, kiến thức chuyên môn, kỹ năng, thái độ, là những thành phần chính. Mặt khác, cũng có sự trùng lặp và liên quan chéo rất lớn giữa các khía cạnh

năng lực. Điều quan trọng cũng cần nhấn mạnh là khung DigComp không có tính chỉ định (phải tuân theo), mà mang tính chất là “mô tả” và tính mô tả này có thể giúp thích nghi với nhu cầu cụ thể của nhóm mục tiêu.

Việt Nam hiện đang trong quá trình chuyển đổi số mạnh mẽ, nhưng so với các khung năng lực số Châu Âu đã được thiết lập có hệ thống và được điều chỉnh nhiều lần, hiện tại chưa có khung chính thức để đánh giá năng lực số của sinh viên châu Á nói chung cũng như sinh viên Việt Nam nói riêng được phát hành rộng rãi. Trong nghiên cứu này, chúng tôi sử dụng khung năng lực số châu Âu vào bối cảnh hệ thống giáo dục Việt Nam và dựa trên Digcomp 2.0 để khám phá năng lực số của sinh viên tại trường Đại học Kinh Tế, Đại học Huế.

2.2. Phương pháp nghiên cứu

2.2.1. Công cụ khảo sát

Dựa trên 05 khía cạnh năng lực và 21 năng lực cụ thể của khung Digcomp 2.0, chúng tôi đã thiết kế bảng hỏi bao gồm tất cả các mục được xem là cần thiết để đáp ứng các mục tiêu của nghiên cứu. Các đặc điểm và tính hợp lệ của bảng câu hỏi đã được kiểm tra thông qua các cuộc thảo luận với các chuyên gia trong lĩnh vực nghiên cứu. Sau đó, bảng câu hỏi được xem xét lại theo các khuyến nghị của các chuyên gia. Độ tin cậy của công cụ đã được đo lường với hệ số Cronbach Alpha đạt 0,978, đại diện cho mức độ tin cậy rất cao.

Bảng 2. Các thành phần của bảng hỏi

Thông tin cá nhân	Tuổi; giới tính; khu vực cư trú; Khoa, Niên khoá
Sự đáp ứng về nguồn lực công nghệ	Kết nối thiết bị với Internet; mạng máy tính trường học và thiết bị sở hữu.
Tiềm năng phát triển năng lực số	Tần suất kết nối với Internet; Thiết bị kết nối và mục đích sử dụng các công cụ CNTT.
Lịch sử đào tạo liên quan đến CNTT và số hóa	Đào tạo trước đó về việc sử dụng CNTT và sự tiếp nhận năng lực số; các cách tiếp cận để cải thiện năng lực số; tham gia lớp học trực tuyến và mức độ sử dụng máy tính.
Cảm nhận về năng lực số của cá nhân	Năng lực thông tin và dữ liệu; Năng lực giao tiếp và hợp tác; Năng lực sáng tạo nội dung số; Năng lực đảm bảo an toàn và năng lực giải quyết vấn đề.
Thái độ	Thái độ đối với CNTT

Nguồn: Tổng hợp của tác giả, 2023

Các câu hỏi được đặt dưới dạng câu hỏi đóng hoặc trắc nghiệm nhiều lựa chọn. Thang đo Likert 5 mức độ được sử dụng để sinh viên đánh giá, cảm nhận về các khía cạnh năng lực số của bản thân.

2.2.2. Chọn mẫu và thu thập số liệu

Dữ liệu được thu thập trong học kỳ 2 năm học 2022 - 2023. Bảng câu hỏi được thiết kế trên nền tảng Google Form và được phân phối cho sinh viên thông qua việc chia sẻ trên các nền tảng khác nhau - MS Team, Facebook, Group Mail.

Theo công thức, Slovin (1984), với quy mô hiện tại khoảng 8000 sinh viên, chọn mức sai số cho phép là 0.05 thì cỡ mẫu tối thiểu cần là 380 sinh viên. Kết quả khảo sát qua thu về được 805 lượt phản hồi của sinh viên hệ chính quy đang học tại trường. Sau quá trình tiền xử lý dữ liệu, có 793 phiếu trả lời được lựa chọn để đưa vào phân tích chính thức. Có 78,6% đối tượng được khảo sát là nữ trong khi nam chỉ chiếm 21,4 %, đây cũng là một tỷ lệ phù hợp với kết cấu theo giới tính của sinh viên trường ở thời điểm hiện tại. Mẫu khảo sát cũng bao gồm tất cả sinh viên các khóa hiện đang còn theo học tại trường, trong đó tập trung chủ yếu ở nhóm sinh viên năm hai (41,6%) và năm ba (31,1%). Đa số đối tượng khảo sát là sinh viên hai khoa Quản Trị Kinh Doanh (49,4%) và Kế Toán - Tài Chính (34,4%) vì đây là hai khoa chiếm tỷ lệ sinh viên cao nhất trong trường. Có một số rất ít sinh viên khoa Kinh Tế Chính Trị đã phản hồi nhưng qua quá trình làm sạch dữ liệu thì số này đã bị loại ra do thuộc vào những giá trị đột biến (outlier). Nhìn chung quy mô và cơ cấu mẫu đã đảm bảo tính đại diện tốt cho sinh viên toàn trường, số liệu đủ điều kiện tin cậy để tiến hành những bước phân tích tiếp theo.

2.2.3. Phương pháp thu thập và phân tích dữ liệu

Dữ liệu thu được được phân tích bằng phần mềm SPSS 20. Tất cả các phân tích suy diễn đều sử dụng mức độ tin cậy 95% (mức ý nghĩa 5%). Phân tích thống kê mô tả được thực hiện thông qua việc tính toán các tham số trung bình và độ lệch chuẩn. Để hiểu rõ hơn về các đặc tính cá nhân quyết định đến năng lực số của sinh viên, phân tích thống kê suy luận đã được thực hiện. Theo kiểm định Kolmogorov-Smirnov, các biến mục tiêu không tuân theo phân phối chuẩn ($\text{sig} < 0,05$), vì vậy các kiểm định phi tham số sẽ được sử dụng. Cụ thể kiểm định Mann-Whitney U được sử dụng để xác định liệu có sự khác biệt có ý nghĩa trong cảm nhận về năng lực số của sinh viên theo các nhóm (giới tính, khu vực thường trú, lịch sử đào tạo về CNTT). Tương tự như vậy, nghiên cứu sử dụng kiểm định Kruskal - Wallis H để khám phá sự khác biệt về cảm nhận của sinh viên theo các yếu tố (Khoa, niên khoá).

3. Kết quả và thảo luận

Năng lực số của sinh viên (bao gồm 34 câu hỏi) được trình bày theo 05 nhóm năng lực sau: Năng lực thông tin và dữ liệu (6 câu hỏi); Năng lực giao tiếp và hợp tác (11 câu hỏi); Năng lực tạo nội dung số (6 câu hỏi); Năng lực về an toàn (7 câu hỏi) và Năng lực giải quyết vấn đề (6 câu hỏi).

3.1. Năng lực số của sinh viên theo các nhóm năng lực

3.1.1. Năng lực thông tin và dữ liệu

Số liệu từ bảng 3 cho thấy, sinh viên cảm thấy họ có năng lực tốt nhất trong việc sử dụng các công cụ tìm kiếm chuyên dụng với các phương thức tìm kiếm khác nhau với mức điểm trung bình cao nhất là 3,73 và có hơn 60% sinh viên cho rằng họ có năng lực ở

mức từ tốt trở lên. Trong khi đó, việc xây dựng chiến lược để tổ chức, quản lý và truy xuất thông tin được sinh viên cảm nhận là thấp nhất trong số các khía cạnh thuộc năng lực thông tin và dữ liệu. Cụ thể, có gần 60 % sinh viên cho rằng họ có mức năng lực từ trung bình trở xuống, điểm trung bình đánh giá ở mức thấp nhất trong nhóm với 3,33 điểm. Năng lực phân tích và phản biện về thông tin, nội dung số cũng được sinh viên cảm nhận khá thấp khi có đến 42,8 % sinh viên cho rằng họ có mức năng lực trung bình và 11,5 % đánh giá bản thân ở mức yếu. Độ lệch chuẩn của điểm cảm nhận cho tất cả các khía cạnh đều nhỏ hơn 1, chứng tỏ có sự đồng đều, nhất quán khá cao trong cảm nhận của sinh viên.

Bảng 3: Cảm nhận của sinh viên về năng lực số đối với khía cạnh thông tin và dữ liệu

Năng lực thông tin và dữ liệu	Tỷ lệ đánh giá theo các mức độ (%)					Trung bình	Độ lệch chuẩn
	Rất yếu	Yếu	Trung bình	Tốt	Rất tốt		
Sử dụng CNTT để tìm kiếm, lựa chọn, tổ chức, đánh giá, xử lý, lưu trữ, biến đổi, phổ biến và truyền đạt thông tin.	1,2	7,0	36,2	45,7	9,9	3,56	0,813
Sử dụng các công cụ tìm kiếm chuyên dụng(Google,Bing,Yahoo,ChatGPT...)với các phương thức khác nhau (xác định từ khoá, từ đồng nghĩa và các thuật ngữ liên quan, tìm kiếm bằng nhiều ngôn ngữ...).	0,8	6,2	32,1	41,2	19,8	3,73	0,877
Biết được các nguồn thông tin khác nhau và có thể xây dựng được các chiến lược tìm kiếm hợp lý tùy vào nguồn thông tin.	0,8	9,1	33,3	42,4	14,4	3,60	0,872
Phân tích và phản biện về thông tin, nguồn thông tin, nội dung số, xác minh được tính hợp lệ và tính kịp thời của thông tin được tìm thấy.	0,8	11,5	42,8	34,6	10,3	3,42	0,856
Áp dụng các phương pháp và công cụ khác nhau để quản lý và lưu trữ thông tin, dữ liệu, nội dung số nhằm dễ dàng truy xuất khi cần.	1,6	7,4	37,4	40,7	12,8	3,56	0,867
Có chiến lược cá nhân để tổ chức, quản lý và truy xuất thông tin, dữ liệu.	2,1	14,4	40,7	34,2	8,6	3,33	0,899

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.1.2. Năng lực giao tiếp và cộng tác

Trong số những khía cạnh thuộc nhóm năng lực này, sinh viên cho rằng họ tốt nhất ở việc quan tâm vào nội dung đăng tải trực tuyến và biết cách bảo vệ an toàn cho bản thân với điểm trung bình chung là 3,83, độ lệch chuẩn 0,813 và có hơn 60 % sinh viên cảm nhận rằng họ có năng lực ở mức tốt trở lên. Giao tiếp và tương tác thông qua các ứng dụng

kỹ thuật số cũng là năng lực được sinh viên cảm nhận tốt hơn so với các khía cạnh khác (trung bình 3,83 và độ lệch chuẩn 0,856), có gần 70% sinh viên cho rằng họ đạt được mức năng lực từ tốt trở lên. Sinh viên cũng cảm nhận khá tốt ở khía cạnh tham gia vào các nền tảng cộng tác, cộng đồng trực tuyến để chia sẻ kiến thức, nội dung đa phương tiện. Ở chiều ngược lại, năng lực tham gia học trực tuyến thông qua môi trường cộng tác như Coursera, Datacamp... được sinh viên cảm nhận ở mức thấp nhất trong nhóm năng lực này với điểm trung bình chỉ ở mức 3,31 và có gần 60% sinh viên đánh giá năng lực này của bản thân ở mức từ trung bình trở xuống. Kỹ năng tạo và quản lý hồ sơ cá nhân chuyên nghiệp trên các ứng dụng truyền thông xã hội cũng được cảm nhận chưa cao, với điểm trung bình chỉ ở mức 3,53 và gần 50 % sinh viên đánh giá năng lực ở mức từ trung bình trở xuống.

Bảng 4: Cảm nhận của sinh viên về năng lực số đối với khía cạnh giao tiếp và cộng tác

Năng lực giao tiếp và cộng tác	Tỷ lệ đánh giá theo các mức độ (%)					Trung bình	Độ lệch chuẩn
	Rất yếu	Yếu	Trung bình	Tốt	Rất tốt		
Giao tiếp và tương tác thông qua nhiều thiết bị và ứng dụng kỹ thuật số (SMS, email, mạng xã hội (Facebook), Zalo, MS Team, Google Meet...)	1,2	4,5	25,9	47,3	21,0	3,82	0,856
Có thể tham gia vào các mạng xã hội, các nền tảng cộng tác và cộng đồng trực tuyến để chia sẻ kiến thức, thông tin, nội dung đa phương tiện.	1,2	4,9	28,4	44,4	21,0	3,79	0,873
Cộng tác với bạn bè, thầy cô thông qua kết nối Internet trong quá trình học tập để hình thành mạng lưới học tập cá nhân.	0,8	7,0	26,7	48,6	16,9	3,74	0,851
Sử dụng công nghệ số và truyền thông khi làm việc nhóm	1,2	3,7	28,8	51,0	15,2	3,75	0,801
Sử dụng công nghệ và công cụ cộng tác (Trello, Google docs, Google Driver, Dropbox, MSTeams, Meet, Zoom...) để lên kế hoạch, thực hiện, chia sẻ việc giám sát các hoạt động, dự án liên quan đến học tập.	1,6	5,3	34,6	42,8	15,6	3,65	0,865

Tham gia học trực tuyến thông qua môi trường cộng tác: Courera, edX, Udemy, Datacamp, LinkedIn Learning...	4,9	12,8	39,5	32,1	10,7	3,31	0,991
Hiểu biết về các quy tắc ứng xử trực tuyến hoặc trong thế giới ảo: thân thiện, lịch sự, tôn trọng và luôn cẩn thận với việc sử dụng ngôn từ.	1,2	4,1	32,5	42,0	20,2	3,76	0,864
Luôn cập nhật các vấn đề liên quan đến đạo đức trong việc sử dụng Internet	1,6	4,5	34,6	44,0	15,2	3,67	0,848
Quan tâm đến việc nhắc nhở gia đình, bạn bè về các quy tắc hành vi cơ bản trên mạng Internet	2,5	6,2	35,0	42,8	13,6	3,59	0,888
Biết cách tạo và quản lý hồ sơ cá nhân chuyên nghiệp trên phương tiện truyền thông xã hội (Facebook, Instagram, LinkedIn, GitHub...)	2,5	8,2	34,6	43,2	11,5	3,53	0,892
Có sự quan tâm vào những gì bạn đăng tải trực tuyến và biết cách bảo vệ an toàn cho bản thân.	0,4	2,5	32,9	42,0	22,2	3,83	0,813

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.1.3. Năng lực tạo lập nội dung số

Kết quả ở bảng 5 cho thấy rằng đây là nhóm năng lực được sinh viên cảm nhận ở mức độ thấp nhất trong số 5 nhóm với điểm trung bình của tất cả các khía cạnh năng lực đều nhỏ hơn 3,5. Đây cũng là điều dễ hiểu bởi vì tạo lập nội dung số yêu cầu nhiều kỹ năng công nghệ và kỹ thuật và sinh viên kinh tế có thể không mạnh về mặt này. Hai khía cạnh năng lực được cảm nhận cao nhất trong nhóm này là việc sử dụng các công cụ và phần mềm để tạo các sản phẩm đa phương tiện và việc sử dụng các phương tiện truyền thông khác nhau để trình bày ý tưởng một cách sáng tạo với tỷ lệ sinh viên cảm nhận ở mức tốt lần lượt là 43,6 % và 41,6 %, điểm trung bình đều là 3,49. Ngược lại, kỹ năng sửa đổi các chương trình, ứng dụng được cảm nhận ở mức thấp nhất, có khoảng 60% sinh viên đánh giá bản thân ở mức từ trung bình trở xuống, chỉ khoảng 30 % cho rằng họ làm tốt việc này. Việc hiểu biết các kiến thức cơ bản của quy trình số, các nguyên tắc lập trình cũng có kết quả thấp tương đương, hơn 20 % sinh viên cho rằng họ yếu hoặc rất yếu, gần 40 % sinh viên cảm nhận họ có năng lực ở mức trung bình. Đây là nhóm năng lực được sinh viên cảm nhận ở mức thấp, thể hiện qua điểm trung bình. Tuy nhiên các giá trị độ lệch

chuẩn lại khá cao, điều này cho thấy sự phân hoá đáng kể trong cảm nhận của sinh viên đối với các khía cạnh năng lực này.

Bảng 5: Cảm nhận của sinh viên về năng lực số đối với khía cạnh tạo lập nội dung số

Năng lực tạo lập nội dung số	Tỷ lệ đánh giá theo các mức độ (%)					Trung bình	Độ lệch chuẩn
	Rất yếu	Yếu	Trung bình	Tốt	Rất tốt		
Sử dụng được các công cụ và phần mềm (Canva, Camtasia, MS Powerpoint, Photoshop, Capcut...) để tạo lập các nội dung đa phương tiện ở nhiều định dạng khác nhau (văn bản, audio, video, hình ảnh...)	4,1	8,2	32,9	43,6	11,1	3,49	0,942
Sử dụng các phương pháp và phương tiện truyền thông khác nhau để trình bày các ý tưởng một cách sáng tạo.	1,6	10,3	35,8	41,6	10,7	3,49	0,878
Chỉnh sửa, phát triển và kết hợp các tài nguyên có sẵn để tạo ra các nội dung, kiến thức mới có liên quan.	2,1	11,5	37,4	39,9	9,1	3,42	0,885
Hiểu các vấn đề cơ bản về luật sở hữu trí tuệ, cấp phép thông tin và nội dung số khi sáng tạo nội dung.	4,1	14,4	35,8	35,4	10,3	3,33	0,983
Hiểu những kiến thức cơ bản của các quy trình số; Hiểu các nguyên tắc lập trình và những gì đằng sau một chương trình, ứng dụng.	4,5	16,9	38,7	30,5	9,5	3,23	0,991
Thực hiện sửa đổi các chương trình máy tính, ứng dụng và thiết bị khi cần thiết.	6,6	14,0	39,5	30,5	9,5	3,22	1,02

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.1.4. Năng lực đảm bảo an toàn

Bảng 6: Cảm nhận của sinh viên về năng lực số đối với khía cạnh bảo đảm an toàn

Năng lực đảm bảo an toàn	Tỷ lệ đánh giá theo các mức độ (%)					Trung bình	Độ lệch chuẩn
	Rất yếu	Yếu	Trung bình	Tốt	Rất tốt		
Hiểu những rủi ro liên quan đến việc sử dụng các công cụ và thiết bị trực tuyến.	0,4	4,5	31,3	45,7	18,1	3,77	0,812
Có thể bảo vệ tài khoản, thiết bị và nội dung đa phương tiện của mình.	0,4	7,0	33,7	43,2	15,6	3,67	0,838
Đảm bảo an toàn cho dữ liệu cá nhân và bảo vệ quyền riêng tư cá nhân.	0,8	4,9	30,9	44,9	18,5	3,75	0,841
Tôi hiểu các rủi ro sức khỏe liên quan đến việc sử dụng các công nghệ liên quan.	0,4	4,9	31,7	41,2	21,8	3,79	0,854
Phòng ngừa và tránh các mối đe dọa về sức khỏe thể chất và tinh thần khi sử dụng internet và thiết bị đa phương tiện, chẳng hạn như tư thế ngồi và các vấn đề đe dọa trực tuyến.	0,8	7,0	35,0	37,0	20,2	3,69	0,900
Biết các khía cạnh tích cực và tiêu cực liên quan đến việc sử dụng công nghệ tác động đến môi trường.	0,8	4,9	32,5	44,0	17,7	3,73	0,838
Áp dụng các biện pháp cơ bản để tiết kiệm năng lượng, tái chế các thiết bị và bảo vệ môi trường.	2,1	,8	35,4	39,1	15,6	3,58	0,916

Nguồn: Tổng hợp và xử lý của tác giả, 2023

Kết quả về nhận thức của sinh viên đối với vấn đề an toàn được thể hiện trong Bảng 6. Sinh viên đa số đồng ý rằng họ làm tốt trong việc hiểu rõ những rủi ro liên quan đến việc sử dụng các công cụ và thiết bị trực tuyến (63,8%), và họ cho biết họ có thể bảo vệ thiết bị và nội dung của mình tốt (58,8 %). Liên quan đến việc bảo vệ dữ liệu cá nhân và sự riêng tư của bản thân, phần lớn sinh viên cho biết họ đạt được mức độ tốt hoặc rất tốt với điểm trung bình là 3,75, độ lệch chuẩn là 0,841. Đối với việc bảo vệ sức khỏe và sự an

toàn, khá nhiều sinh viên cho rằng họ có năng lực tốt trong việc nhận thức về những rủi ro và mối đe dọa liên quan (63%), bảo vệ sức khỏe và sự an toàn của mình khi sử dụng Internet và các công nghệ liên quan (57,2%) và biết rõ về ảnh hưởng của việc sử dụng công nghệ đến môi trường (61,7%). Khía cạnh năng lực được cho là thấp nhất trong nhóm này là việc áp dụng các biện pháp cơ bản để tiết kiệm năng lượng, tái chế các thiết bị và bảo vệ môi trường, điểm đánh giá trung bình là 3,58 với độ lệch chuẩn là 0,916.

3.1.5. Năng lực giải quyết vấn đề

Dữ liệu liên quan đến nhận thức của sinh viên về năng lực kỹ năng giải quyết vấn đề ở bảng 7 cho thấy rằng chỉ khoảng một nửa số sinh viên cho rằng họ có kiến thức về hoạt động của các thiết bị kỹ thuật số và có thể xác định các vấn đề kỹ thuật có thể xảy ra (50,6 %), và 49,4 % cho rằng họ không có năng lực tốt trong lĩnh vực này. Bên cạnh đó, khi gặp phải các vấn đề kỹ thuật thực tế hàng ngày, chỉ có 43,2 % sinh viên cho rằng họ có thể giải quyết tốt vấn đề, như vậy có hơn một nửa sinh viên tham gia khảo sát không tự tin về kỹ năng này. Về khả năng nhận diện nhu cầu kỹ thuật, có 54,3% sinh viên đánh giá bản thân là có năng lực tốt. Khi được hỏi về việc cập nhật những tiến bộ công nghệ mới, sử dụng công nghệ kỹ thuật số để sáng tạo đổi mới, chỉ có hơn 50 % sinh viên cho rằng họ có năng lực tốt. Khía cạnh được sinh viên cảm nhận tích cực nhất trong nhóm năng lực này là khả năng sử dụng linh hoạt các sản phẩm số với định dạng khác nhau để truyền tải thông điệp một cách sáng tạo, điểm đánh giá trung bình ở mức cao nhất là 3,61 với độ lệch chuẩn là 0,833. Ở chiều ngược lại, sinh viên không tự tin nhất đối với việc tham dự các sự kiện và hội thảo về sáng tạo số, vào các dự án cộng tác về kỹ thuật số với gần 60% sinh viên cho rằng mình có năng lực ở mức trung bình trở xuống, điểm đánh giá trung bình thấp nhất (3,28). Nhìn chung, cũng giống như năng lực tạo lập nội dung số, đây là nhóm năng lực được sinh viên cảm nhận ở mức khá thấp so với các nhóm năng lực khác.

Bảng 7: Cảm nhận của sinh viên về năng lực số đối với khía cạnh giải quyết vấn đề

Năng lực giải quyết vấn đề	Tỷ lệ đánh giá theo các mức độ (%)					Trung bình	Độ lệch chuẩn
	Rất yếu	Yếu	Trung bình	Tốt	Rất tốt		
Nhận biết được hoạt động của các thiết bị kỹ thuật số và có thể xác định các vấn đề kỹ thuật có thể xảy ra.	1,6	8,6	39,1	38,7	11,9	3,51	0,874
Giải quyết các vấn đề về kỹ thuật hàng ngày.	2,5	11,1	43,2	31,7	11,5	3,39	0,917
Đánh giá và chọn công cụ, dịch vụ, thiết bị một cách thích hợp để thực hiện các nhiệm vụ và đáp ứng các nhu cầu của cá nhân.	1,2	7,8	36,6	42,8	11,5	3,56	0,843

Tự cập nhật về những sự phát triển mới, xu hướng công nghệ mới nổi, sáng tạo bằng việc sử dụng công nghệ kỹ thuật số.	2,1	6,6	36,6	40,3	14,4	3,58	0,888
Sử dụng linh hoạt các hình thức khác nhau như văn bản, hình ảnh và âm thanh để làm cho thông điệp muốn truyền tải sáng tạo và hiệu quả hơn	1,2	6,2	35,8	44,0	12,8	3,61	0,833
Tích cực tham dự các sự kiện và hội thảo về sáng tạo số, tham gia vào các dự án cộng tác về kỹ thuật số và đa phương tiện.	4,9	13,6	40,7	29,6	11,1	3,28	0,999

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.2. Các nhân tố ảnh hưởng đến năng lực số của sinh viên

Để khám phá các nhân tố ảnh hưởng đến năng lực số của sinh viên kiểm định Mann-Whitney U và Kruskal - Wallis H được áp dụng.

Bảng 8: Kết quả kiểm định Mann-Whitney U (giá trị p) của các nhân tố

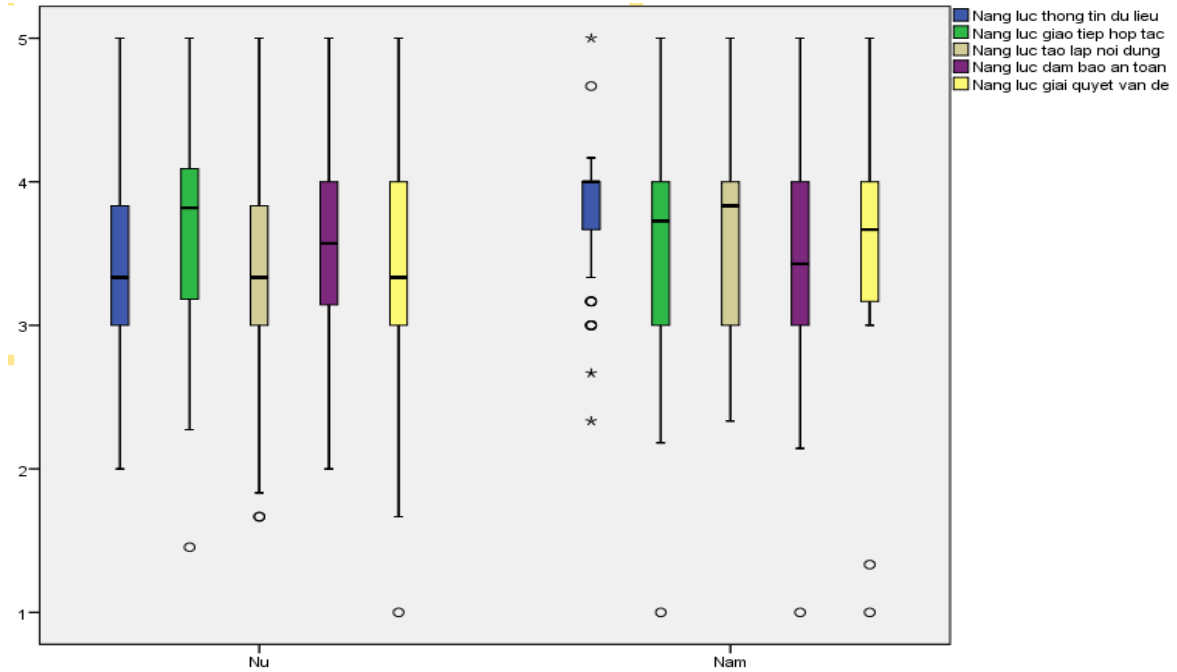
Nhân tố	Nhóm năng lực				
	Năng lực thông tin và dữ liệu	Năng lực giao tiếp và cộng tác	Năng lực tạo lập nội dung số	Năng lực bảo đảm an toàn	Năng lực giải quyết vấn đề
<i>Giới tính</i>	0,000	0,347	0,010	0,838	0,027
<i>Khu vực (Nông thôn, thành thị)</i>	0,105	0,394	0,148	0,583	0,708
<i>Đào tạo</i>	0,000	0,100	0,127	0,121	0,010

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.2.1. Giới tính

Kiểm định Mann-Whitney U được sử dụng để xác định liệu có khác biệt trong cảm nhận của sinh viên nam và sinh viên nữ về các nhóm năng lực số. Kết quả từ bảng 8 cho thấy sự khác biệt có ý nghĩa thống kê được tìm thấy đối với các nhóm năng lực **thông tin và dữ liệu, tạo nội dung số và năng lực giải quyết vấn đề** (giá trị $p < 0,05$). Từ hình 1 chúng ta thấy rằng **sinh viên nam (Trung vị = 4,00)** cho rằng trình độ năng lực số của họ liên quan đến thông tin và dữ liệu cao hơn đáng kể so với sinh viên nữ (**Trung vị = 3,33**). Đối với năng lực tạo lập nội dung số, sinh viên nữ (**Trung vị = 3,33**) có cảm nhận thấp hơn đáng kể so với cảm nhận của sinh viên nam (**Trung vị = 3,83**). Kết quả tương tự được tìm thấy trong năng lực giải quyết vấn đề, trong đó sinh viên nam (**Trung vị = 3,66**) đánh giá năng lực của họ tốt hơn sinh

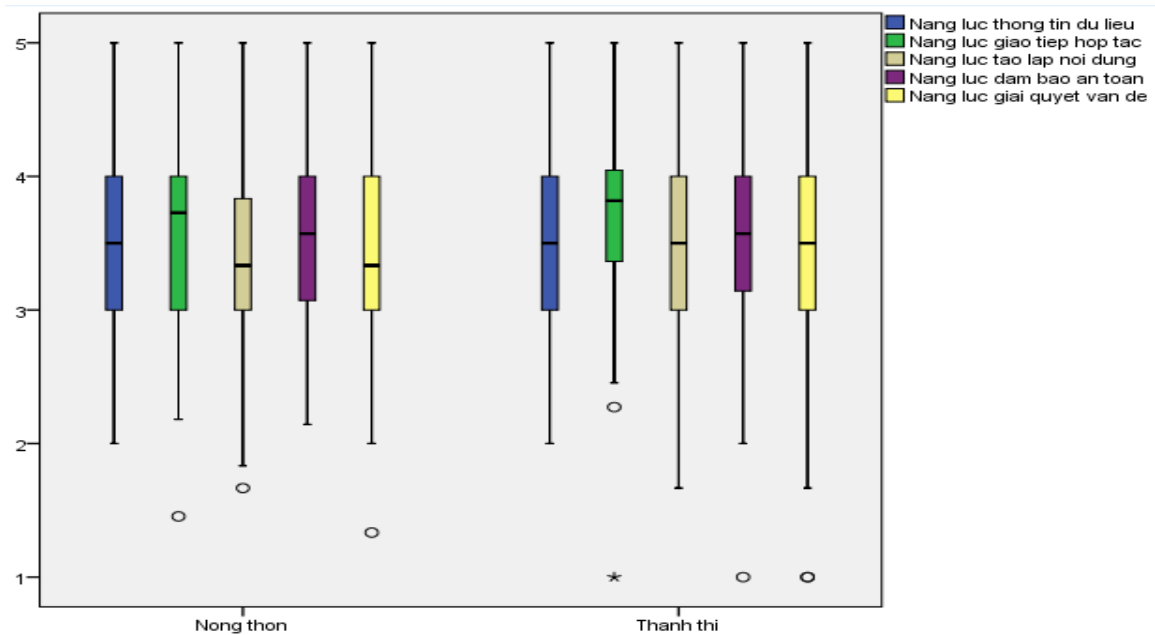
viên nữ (**Trung vị = 3,33**). Kết quả ở bảng 8 và hình 1 cũng cho thấy rằng không có sự khác biệt có ý nghĩa giữa các nhóm giới tính đối với năng lực giao tiếp và cộng tác cũng như năng lực bảo đảm an toàn với các giá trị p lần lượt là 0,347 và 0,838.



Hình 1: Cảm nhận của sinh viên về năng lực số theo các nhóm giới tính

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.1.6. Khu vực thường trú



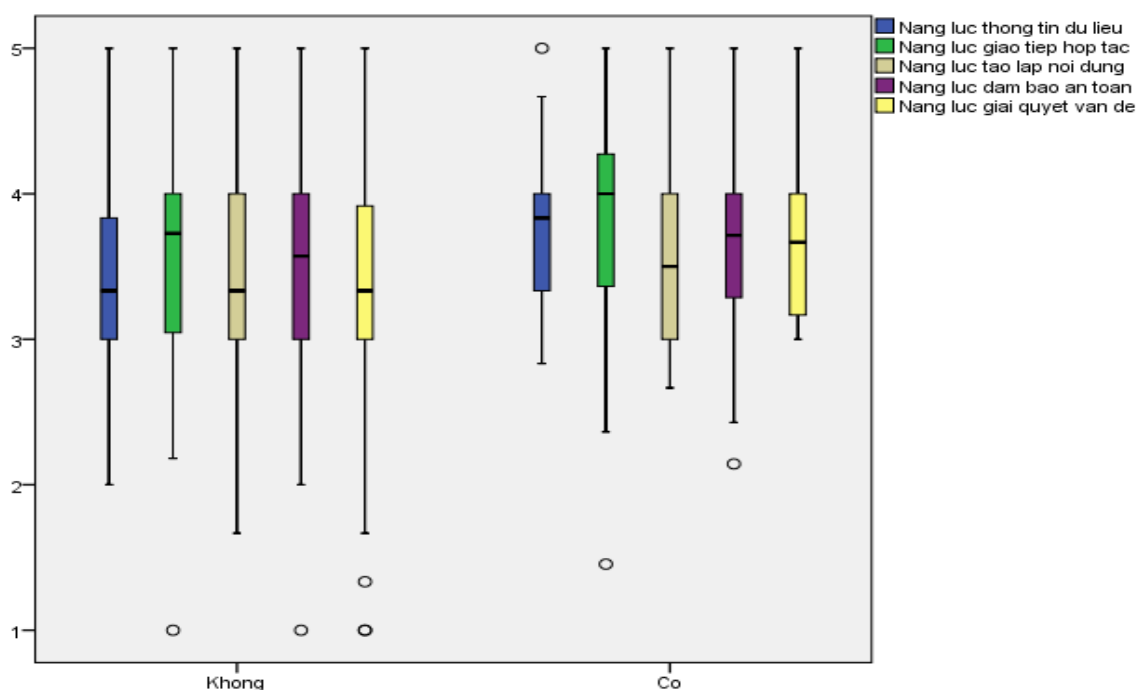
Hình 2: Cảm nhận của sinh viên về năng lực số theo các nhóm khu vực

Nguồn: Tổng hợp và xử lý của tác giả, 2023

Đối với các nhóm khu vực thường trú của sinh viên, kết quả từ bảng 8 và hình 2 cho thấy không có sự khác biệt có ý nghĩa nào trong trong năm năng lực số của sinh viên đến từ các khu vực cư trú khác nhau (tất cả các giá trị p đều lớn hơn 0.05). Điều này có nghĩa là sinh viên cư trú ở nông thôn hay thành thị đều có mức cảm nhận về năng lực giống nhau ở tất cả nhóm năng lực số.

3.2.2. Đào tạo CNTT và TT

Kết quả ở bảng 8 cho thấy sự khác biệt đáng có ý nghĩa giữa những sinh viên đã được đào tạo về CNTT và sinh viên chưa từng được đào tạo liên quan đến CNTT và TT đối với năng lực thông tin và dữ liệu và năng lực giải quyết vấn đề. Cụ thể, từ hình 3 chúng ta thấy, sinh viên đã có học về CNTT và TT (Trung vị = 3,83) cảm nhận năng lực về thông tin và dữ liệu của họ tốt hơn so với sinh viên nữ. Kết quả tương tự cũng được tìm thấy với nhóm năng lực giải quyết vấn đề khi sinh viên đã được đào tạo (Trung vị = 3,66) cho rằng họ có năng lực tốt hơn so với mức năng lực của sinh viên chưa từng được đào tạo (Trung vị = 3,33). Không tìm thấy sự khác biệt có ý nghĩa đối với sinh viên đã được đào tạo và sinh viên chưa được đào tạo về CNTT đối với năng lực giao tiếp và cộng tác, năng lực tạo nội dung số và năng lực đảm bảo an toàn (giá trị p đều lớn hơn 0,05).



Hình 3: Cảm nhận của sinh viên về năng lực số theo các nhóm đào tạo

Nguồn: Tổng hợp và xử lý của tác giả, 2023

Bảng 9: Kết quả kiểm định Kruskal - Wallis H (giá trị p) của các nhân tố

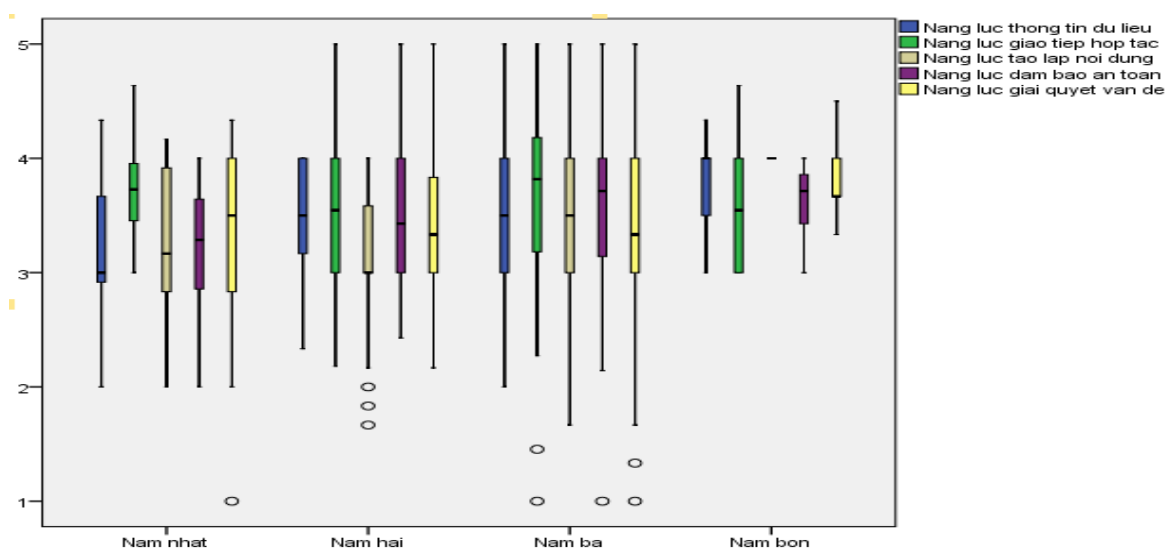
Nhân tố	Nhóm năng lực				
	Năng lực thông tin và dữ liệu	Năng lực giao tiếp và cộng tác	Năng lực tạo lập nội dung số	Năng lực bảo đảm an toàn	Năng lực giải quyết vấn đề
<i>Niên khoá</i>	0,032	0,409	0,000	0,050	0,034
<i>Khoa</i>	0,945	0,432	0,053	0,156	0,757

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.2.3. Niên khoá

Đối với các nhân tố như niên khoá hay khoa, do các nhân tố này có nhiều hơn hai phân nhóm nên kiểm định Kruskal - Wallis H được sử dụng để xem xét liệu có sự khác biệt có ý nghĩa trong cảm nhận của sinh viên ở các khoá hay các khoa khác nhau liên quan đến 5 nhóm năng lực số.

Đối với nhân tố niên khoá, kết quả từ bảng 9 cho thấy rằng có sự khác biệt có ý nghĩa thống kê trong cảm nhận của sinh viên thuộc các niên khoá khác nhau liên quan đến năng lực thông tin và dữ liệu, năng lực tạo nội dung số, năng lực đảm bảo an toàn và năng lực giải quyết vấn đề (các giá trị p đều nhỏ hơn hoặc bằng 0.05). Trong khi đó, năng lực giao tiếp và cộng tác không cho thấy có sự khác biệt có ý nghĩa đối với sinh viên ở các niên khoá khác nhau (giá trị p = 0,409). Cụ thể hơn, kết quả ở hình 4 cho thấy rằng sinh viên năm 4 có cảm nhận về năng lực thông tin và dữ liệu (trung vị = 4) cao hơn đáng kể so với cảm nhận của sinh viên năm thứ nhất về năng lực này (trung vị = 3). Kết quả tương tự được thể hiện ở nhóm năng lực tạo lập nội dung số khi sinh viên năm bốn cho rằng họ có năng lực cao hơn so với sinh viên năm nhất. Đối với năng lực đảm bảo an toàn sinh viên năm thứ ba và năm thứ tư cảm nhận rằng họ ở mức năng lực cao hơn so với năm nhất.



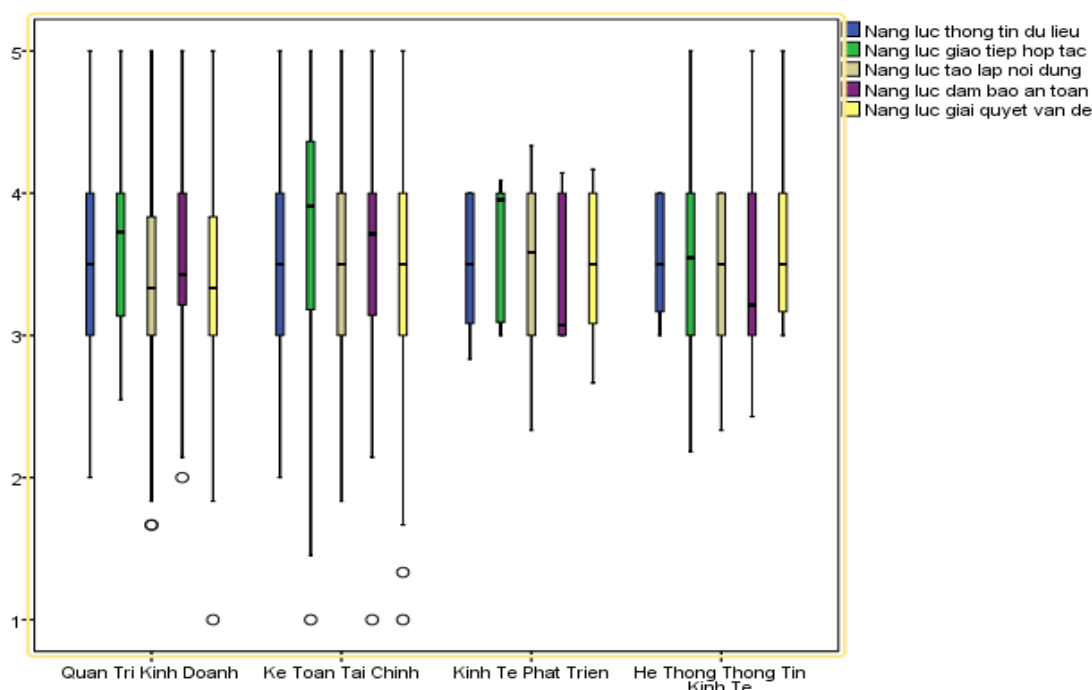
Hình 4: Cảm nhận của sinh viên về năng lực số theo các niên khoá

Nguồn: Tổng hợp và xử lý của tác giả, 2023

3.2.4. Khoa

Kết quả từ bảng 9 và hình 5 cho thấy rằng không có sự khác biệt có ý nghĩa về cảm nhận của sinh viên các khoa khác nhau liên quan đến cả năm nhóm năng lực số (tất cả giá trị p đều lớn hơn 0,05 và không có sự chênh lệch quá lớn về giá trị trung vị cảm nhận của sinh viên các khoa khác nhau về các nhóm năng lực). Điều này cho thấy yếu tố khoa hay ngành học chưa thể hiện sự ảnh hưởng có ý nghĩa đến năng lực số của sinh viên hay yếu tố khoa không có mối liên hệ có ý nghĩa đến năng lực số của sinh viên.

Hình 5: Cảm nhận của sinh viên về năng lực số theo các khoa



Nguồn: Tổng hợp và xử lý của tác giả, 2023

4. Kết luận

Nghiên cứu này khám phá nhận thức của sinh viên về mức độ năng lực số của họ trong bối cảnh giáo dục đại học, dựa trên nghiên cứu trường hợp của sinh viên trường đại học Kinh Tế, Đại học Huế. Nhìn chung, sinh viên có cảm nhận khá tích cực về mức độ năng lực số của bản thân. Kết quả nghiên cứu cũng cho thấy nhận thức về năng lực số của sinh viên giảm khi độ phức tạp của nhiệm vụ, kỹ năng yêu cầu tăng lên. Cụ thể là sinh viên có cảm nhận tích cực về các nhóm năng lực thông tin, dữ liệu, an toàn, giao tiếp nhưng không tự tin ở các nhóm năng lực khó hơn như tạo nội dung số, giải quyết vấn đề. Do đó, sinh viên cần cải thiện mức độ năng lực của mình liên quan đến tạo nội dung số và lập trình, cũng như một số kỹ năng giải quyết vấn đề.

Có một số nghiên cứu đã khám phá tác động của giới tính đến năng lực số, cho thấy sự ảnh hưởng đáng kể của giới tính đến năng lực số sinh viên. Đồng thời, cũng có một số nghiên cứu đã đạt được kết quả ngược lại là không tìm thấy sự khác biệt đáng kể liên quan đến giới tính. Trong nghiên cứu này, chúng tôi đã xác nhận rằng sinh viên nam đánh giá năng lực số của họ cao hơn sinh viên nữ ở nhiều khía cạnh như thông tin số liệu, tạo nội

dung số và giải quyết vấn đề. Nghiên cứu cũng đã chứng minh rằng sinh viên ở các khoá trước (năm bốn) đánh giá tốt hơn sinh viên khoá sau (năm nhất) trong tất cả các khía cạnh của năng lực số, dựa trên khung chương trình Digcomp. Sinh viên các khoa khác nhau chưa cho thấy họ có cảm nhận khác nhau về tất cả các nhóm năng lực số. Kết quả tương tự cũng được tìm thấy khi nghiên cứu yếu tố khu vực thường trú của sinh viên, dù ở nông thôn hay thành thị thì họ đều cảm nhận giống nhau về mức năng lực số của họ.

Nghiên cứu này vẫn còn tồn tại những mặt hạn chế của nó. Thứ nhất, mẫu được lấy từ sinh viên tại cùng một trường đại học. Nghiên cứu tương lai nên mở rộng điều tra khảo sát sinh viên đa dạng ngành nghề hơn. Thứ hai, nghiên cứu dựa trên dữ liệu tự đánh giá (cảm nhận của sinh viên) chứ không phải là một khảo sát khách quan về năng lực số của sinh viên. Nghĩa là, các dữ liệu thu được là chủ quan cảm nhận của sinh viên và do đó có thể không phản ánh đúng mức độ thực tế hiện tại về năng lực số sinh viên.

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**NÂNG CAO CẢM NHẬN HẠNH PHÚC TRONG CÔNG VIỆC
CỦA NGƯỜI LAO ĐỘNG - MỘT GỢI Ý VỀ GIẢI PHÁP THU HÚT
NGUỒN NHÂN LỰC CHẤT LƯỢNG CAO CHO CÁC DOANH NGHIỆP
TĂNG TRƯỞNG XANH**

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Tóm tắt: Bài viết nghiên cứu về nâng cao cảm nhận hạnh phúc trong công việc của người lao động như một gợi ý về giải pháp thu hút nguồn nhân lực chất lượng cao cho các doanh nghiệp tăng trưởng xanh. Tác giả nghiên cứu, tổng hợp, phân tích về cảm nhận hạnh phúc trong công việc của người lao động nhằm mang đến cho độc giả những nội dung cụ thể và sâu sắc về chủ đề này. Từ kết quả nghiên cứu tổng quan về cảm nhận hạnh phúc trong công việc của người lao động, tác giả nhận thấy có sự phù hợp và mối liên hệ ý nghĩa giữa khái niệm này với chính sách thu hút nguồn nhân lực chất lượng cao của các doanh nghiệp hướng tới mô hình tăng trưởng xanh.

Từ khóa: Doanh nghiệp tăng trưởng xanh, cảm nhận hạnh phúc của người lao động, nguồn nhân lực chất lượng cao

**IMPROVING EMPLOYEE'S PSYCHOLOGICAL WELL-BEING AS A
SUGGESTION ON SOLUTIONS TO ATTRACT HIGH-QUALITY HUMAN
RESOURCES FOR GREEN GROWTH ENTERPRISES**

Abstract: This paper covers a research on improving employee's psychological well-being as a suggestion on solutions to attract high-quality human resources for green growth enterprises. The author researches, synthesizes and analyzes employee's psychological well-being in order to provide readers with specific and profound content on this topic. From the results of an overview study on employees' psychological well-being at work, the author found that there is a relevance and a meaningful relationship between this concept and the policy of attracting high-quality human resources of green growth enterprises.

Keywords: Green growth enterprises, employee's well-being, high-quality human resources

1. Giới thiệu

Kinh tế xanh (Green Economy) là một mô hình phát triển kinh tế mới, được nhiều quốc gia trên thế giới nghiên cứu và từng bước thực thi. Theo Chương trình môi trường của Liên hợp quốc (UNEP, 2011), nền kinh tế xanh là “nền kinh tế nâng cao đời sống của con người và cải thiện công bằng xã hội, đồng thời giảm thiểu những rủi ro môi trường và những thiếu hụt sinh thái”. Đây là một mô hình kinh tế hướng đến sự phát triển bền vững, sử dụng hợp lý tài nguyên, giảm thiểu gây hại tới môi trường và chú trọng công bằng xã hội.

Để hướng tới nền kinh tế xanh thì trong giai đoạn hiện nay, Đảng và Nhà nước ta đã có nhiều chính sách nhằm khuyến khích các doanh nghiệp chuyển đổi từ mô hình tăng trưởng truyền thống sang mô hình tăng trưởng xanh. Các doanh nghiệp hướng tới mô hình tăng trưởng xanh cần đạt được đa mục tiêu, trong đó có 02 mục tiêu chính: mục tiêu kinh tế và mục tiêu môi trường. Vì vậy, lựa chọn phát triển bền vững theo mô hình tăng trưởng xanh yêu cầu các doanh nghiệp phải chuẩn bị các nguồn lực thật tốt để dễ dàng hơn khi vượt qua các thách thức, trở ngại. Và trong các nguồn lực thì nguồn nhân lực là một trong các nguồn lực có vai trò trụ cột. Bài viết đề xuất việc nâng cao cảm nhận hạnh phúc trong công việc cho người lao động ở doanh nghiệp hướng tới mô hình tăng trưởng xanh như một giải pháp giúp các doanh nghiệp này thu hút được nguồn nhân lực chất lượng cao nhằm chuẩn bị tốt nhất cho mục tiêu tăng trưởng xanh bền vững.

2. Tổng quan nghiên cứu

2.1. Quan niệm về hạnh phúc của người lao động

2.1.1. Quan niệm về cảm nhận hạnh phúc nói chung

Các nhà nghiên cứu triết học và xã hội học đã đưa ra nhiều khái niệm khác nhau về cảm nhận hạnh phúc (McMahon, 2006; Kesebir và Diener, 2008; Fisher, 2010). Nhà triết học cổ đại Aristotle cho rằng hạnh phúc gắn liền với đạo đức (eudaimonia), hạnh phúc là không ngừng nuôi dưỡng và thực hành đạo đức trong suốt cuộc đời. Tương tự, các nhà khoa học như Di Tella (2006), Alipour (2012), Gupta (2012) và Januwarsono (2015) cũng cho rằng, hạnh phúc có nghĩa là “làm việc tốt”. Theo một hướng nhìn khác, Seligman (2002) lại cho rằng “nhận ra và phát huy điểm mạnh của chính mình và áp dụng nó hàng ngày trong công việc, tình yêu, các hoạt động giải trí, làm cha mẹ và mọi mặt khác của đời sống, chính là hạnh phúc”. Hay như quan điểm của Fredrickson và Losada, 2005, “Hạnh phúc là góp phần xây dựng một thế giới tốt đẹp hơn”.

Qua nghiên cứu nhiều quan điểm khác nhau về khái niệm hạnh phúc, hiện các nhà khoa học đã tổng kết có ba nhóm chính như sau:

- *Nhóm 1: Quan điểm của các nhà đạo đức học và triết học về hạnh phúc:* Các nhà đạo đức học và triết học cho rằng hạnh phúc làm cảm giác vui sướng của con người khi được thỏa mãn các nhu cầu chân chính về vật chất và tinh thần. Tiêu biểu của dòng quan điểm này là nhà triết học Aristotle: “Hạnh phúc là ý nghĩa và mục tiêu của cuộc sống, là mục đích cuối cùng của cuộc đời con người”.

- *Nhóm 2: Quan điểm của các thuyết khác nhau về hạnh phúc:*

Thuyết vị lợi: Đề cập đến hạnh phúc tập thể thay vì hạnh phúc cá nhân, càng cho đi nhiều thì con người ta càng hạnh phúc, càng có đóng góp cho tập thể, cho cộng đồng thì càng hạnh phúc.

Thuyết hoan lạc (hedonism): Đề cập đến khoái lạc là mục đích cuối cùng của con người. Thuyết hoan lạc cho rằng hạnh phúc là “triệt để hưởng thụ cuộc đời này cho đến hơi thở cuối cùng” (Epicure).

Thuyết hạnh phúc của Tal Ben (2007), “hạnh phúc là trải nghiệm niềm vui và ý nghĩa một cách trọn vẹn”. Niềm vui là những cảm xúc tích cực trước mắt, ý nghĩa là những

lợi ích lâu dài mà con người muốn theo đuổi, con người vừa cần có cảm giác mãn nguyện với niềm vui trước mắt vừa cần có quyết tâm theo đuổi những ý nghĩa lâu dài thì mới có thể có hạnh phúc trọn vẹn

- *Nhóm 3: Quan điểm của các nhà tâm lý học phương Tây về hạnh phúc:*

Các nhà tâm lý học phương Tây mà đại diện tiêu biểu là nhà tâm lý học Martin Seligman (2002) cho rằng, hạnh phúc được cấu thành bởi 3 thành tố chính, đó là: “một cuộc sống có niềm vui”, “một cuộc sống có sự tham gia” và “một cuộc sống có ý nghĩa”.

2.1.2. *Quan niệm về hạnh phúc của người lao động trong công việc*

Về hạnh phúc trong công việc của người lao động, giới nghiên cứu cũng có nhiều quan điểm khác nhau khi định nghĩa về khái niệm này. Maenapothi (2007) và Januwarsono (2015) cho rằng “hạnh phúc trong công việc là khi một người nào đó yêu thích công việc và cảm thấy vui vẻ khi làm việc”. Nhưng Paschoal và Tamayo (2008) lại suy nghĩ cụ thể hơn “hạnh phúc là sự lan tỏa cảm xúc tích cực trong công việc, phát hiện ra tiềm năng của mình và phát triển nó trong công việc”. Còn George (1995), Judge và đồng sự (1999), Connolly và Viswesvaran (2000), Mignonac và Herrbach (2004) lại cho rằng “hạnh phúc trong công việc có liên quan chặt chẽ đến sự hài lòng trong công việc”. Rất nhiều các nhà khoa học, với góc nhìn và phương pháp tiếp cận khác nhau, đã đưa ra nhiều khái niệm khác nhau về cảm nhận hạnh phúc của người lao động.

Thậm chí, có nhà nghiên cứu còn nghi ngờ rằng “khái niệm hạnh phúc và khái niệm công việc không đi cùng với nhau”; “làm sao chúng ta có thể hạnh phúc khi chúng ta đang phải làm việc?”. Nhưng quả thực, người lao động hoàn toàn có thể tìm thấy hạnh phúc trong công việc. Khái niệm hạnh phúc không “đổi lập” với công việc. Asiyabi và Mirabi (2012) cho rằng “những người lao động hạnh phúc có thể mang hạnh phúc từ nơi làm việc về nhà và ngược lại. Các nhà nghiên cứu Warr (2007) và Fisher (2010) cũng cho rằng “công việc có mang lại hạnh phúc cho con người theo nhiều cách khác nhau”. Ví dụ như, một công nhân thất nghiệp có thể tìm lại cảm giác vui thích, hài lòng của anh ta khi anh ta tìm được một công việc phù hợp (Clark và cộng sự, 2008).

Khái niệm “hạnh phúc trong công việc của người lao động” là một khái niệm rộng. Qua nghiên cứu tổng quan, tác giả nhận thấy khái niệm hạnh phúc trong công việc của người lao động theo quan điểm của Carol D.Ryff và Burton Singer là toàn diện nhất: “*Hạnh phúc trong công việc của người lao động là sự hài lòng, dễ chịu của cá nhân người lao động với công việc của mình khi thỏa mãn được 5 thành tố: “Tự chấp nhận” (Self-Acceptance); “Quan hệ tích cực với người khác” (Positive Relations With Others); “Làm chủ bản thân” (Autonomy); “Làm chủ môi trường” (Environment Mastery); “Mục đích trong cuộc sống” (Purpose in Life); “Phát triển bản thân” (Personal Growth)*”.

2.2. *Thang đo hạnh phúc của người lao động*

Nghiên cứu về cách đo lường, hay nói cách khác là nghiên cứu về các mặt biểu hiện của hạnh phúc của con người nói chung hay hạnh phúc của người lao động nói riêng, hiện nay có 02 quan điểm nổi bật nhất, đó là quan điểm của Diener (1984) và quan điểm của nhóm các nhà nghiên cứu Carol D.Ryff, Keynes và Burton Singer. Theo Diener (1984) thì hạnh phúc (theo cảm nhận chủ quan) có ba thành phần riêng biệt: sự hài lòng trong

cuộc sống, sự có mặt của các cảm xúc tích cực, sự vắng mặt của các cảm xúc tiêu cực. Một cá nhân có mức độ cảm nhận hạnh phúc cao khi cá nhân đó hài lòng với cuộc sống của mình, thường xuyên trải qua những cảm xúc tích cực và ít khi có những cảm xúc tiêu cực. Và theo nhóm các nhà nghiên cứu Carol D.Ryff, Keynes và Burton Singer, hạnh phúc thể hiện qua trạng thái thỏa mãn về tâm lý, thể hiện cụ thể qua sáu thang đo: **Chấp nhận bản thân; Quan hệ tích cực với người khác; Phát triển bản thân; Mục đích trong cuộc sống; Làm chủ môi trường và Làm chủ bản thân.**

Tự chấp nhận về bản thân (Self-Acceptance): Được hiểu là thái độ của cá nhân đối với tự thừa nhận, chấp nhận các khía cạnh của bản thân, với phẩm chất, nhân cách, trong cuộc sống hiện tại cũng như những gì đã xảy ra trong quá khứ.

Quan hệ tích cực với người khác (Positive Relations with Others): Cá nhân có mối quan hệ ấm áp, tin tưởng với những người xung quanh và có khả năng duy trì các mối quan hệ hay không?

Làm chủ bản thân (Autonomy): Là khả năng tự chủ (tự quyết) và độc lập, đánh giá mọi việc theo quan điểm của bản thân hay khả năng đối phó với các áp lực xã hội

Làm chủ môi trường (Environmental Mastery): Khả năng tự chủ, kiểm soát môi trường xung quanh, tự lựa chọn (quyết định) môi trường phù hợp cho giá trị của bản thân, nắm bắt được cơ hội một cách hiệu quả

Mục đích trong cuộc sống (Purpose in Life): Có định hướng, có mục tiêu cho cuộc sống, cảm nhận được ý nghĩa của cuộc sống

Phát triển bản thân (Personal Growth): Nhận ra khả năng (tiềm năng) của bản thân, sẵn sàng học tập, thay đổi để phát triển và trở thành người tốt hơn

Bảng 1. Diễn giải về thang đo hạnh phúc của người lao động

Thành tố	Mức điểm
<i>Autonomy (Làm chủ bản thân)</i>	<i>Mức điểm cao:</i> Cá nhân tự chủ và độc lập, có khả năng suy nghĩ và hành động theo quan điểm của riêng mình trước áp lực xã hội; có khả năng tự đặt ra các quy tắc cho bản thân; có khả năng tự đánh giá về bản thân dựa trên các quy chuẩn riêng mình
	<i>Mức điểm thấp:</i> Quan tâm đến kỳ vọng và đánh giá của người khác; phụ thuộc vào đánh giá của người khác khi đưa ra những quyết định quan trọng; ít có khả năng bảo vệ quan điểm của bản thân trước áp lực xã hội
<i>Environmental Mastery (Làm chủ môi trường)</i>	<i>Mức điểm cao:</i> Làm chủ môi trường xung quanh, có khả năng quản trị môi trường xung quanh; kiểm soát mức độ phức tạp của các hoạt động bên ngoài; sử dụng hiệu quả các cơ hội quanh mình; có khả năng chọn lựa và tạo ra các hoàn cảnh phù hợp với nhu cầu và giá trị của bản thân
	<i>Mức điểm thấp:</i> Gặp khó khăn trong việc quản trị các việc hàng ngày; cảm thấy không thể thay đổi hoặc cải thiện hoàn cảnh

Thành tố	Mức điểm
	xung quanh; không nhận biết các cơ hội quanh mình; cảm thấy không thể kiểm soát thế giới xung quanh
<i>Personal Growth</i> (<i>Phát triển bản thân</i>)	<p><i>Mức điểm cao:</i> Có cảm nhận về sự phát triển bản thân; nhận thấy bản thân đang phát triển; cởi mở khám phá các trải nghiệm mới; nhận thấy các tiềm năng của bản thân; nhận thấy sự cải thiện trong hành vi của bản thân qua thời gian; hướng bản thân tới sự hoàn thiện về kiến thức và hiệu quả</p> <p><i>Mức điểm thấp:</i> Cảm thấy trì trệ; thiếu mong muốn phát triển bản thân; cảm thấy cuộc sống nhàm chán và thiếu thú vị; cảm thấy không có khả năng phát triển các quan điểm mới và hành vi mới</p>
<i>Positive Relations with Others</i> (<i>Quan hệ tích cực với người khác</i>)	<p><i>Mức điểm cao:</i> Có mối quan hệ thân mật, hài lòng, tin tưởng với người khác; quan tâm đến hạnh phúc của người khác; biết đồng cảm; hiểu được mối quan hệ cho và nhận giữa con người với con người</p> <p><i>Mức điểm thấp:</i> Có ít mối quan hệ thân thiết và tin cậy với người khác; cảm thấy khó khăn trong việc tìm kiếm các mối quan hệ thân thiết; cảm thấy bị cô lập; không sẵn sàng gắn kết với mọi người</p>
<i>Purpose in Life</i> (<i>Mục đích trong cuộc sống</i>)	<p><i>Mức điểm cao:</i> Có mục tiêu và phương hướng trong cuộc đời; cảm thấy cuộc sống trong quá khứ và hiện tại là có ý nghĩa; tin tưởng vào các giá trị của cuộc sống; có mục tiêu và mục đích sống</p> <p><i>Mức điểm thấp:</i> Cảm thấy cuộc sống không có ý nghĩa; có ít mục tiêu, thiếu phương hướng; cảm thấy cuộc sống trong quá khứ không có mục đích; không tìm thấy niềm tin về ý nghĩa của cuộc sống</p>
<i>Self-Acceptance</i> (<i>Tự chấp nhận</i>)	<p><i>Mức điểm cao:</i> Có thái độ tích cực về bản thân; biết và chấp nhận tính đa chiều của cuộc sống, cả mặt tích cực và tiêu cực của nó; cảm thấy tích cực về quá khứ</p> <p><i>Mức điểm thấp:</i> Cảm thấy không hài lòng về bản thân; cảm thấy thất vọng với những gì xảy ra trong quá khứ; mong muốn bản thân khác đi thay vì mong muốn trở thành một phiên bản tốt hơn của chính mình</p>

(Nguồn: Dr. Carol D.Ryff và Burton Singer, 2013)

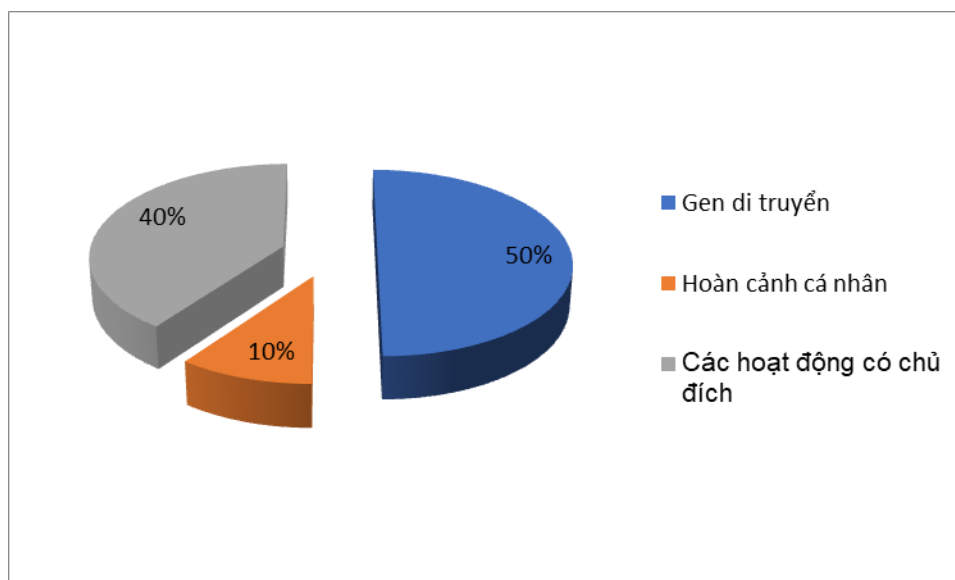
2.3. Các nhân tố tác động tới hạnh phúc của người lao động

2.3.1. Các nhân tố tác động tới hạnh phúc của cá nhân nói chung

Theo nghiên cứu của Lyubomirsky, Sheldon và Schkade, 2005 và David, Boniwell và Conley, 2013, cảm nhận hạnh phúc của con người nói chung và của người lao động nói riêng phụ thuộc vào 3 nhóm nhân tố tác động chính như sau: Gen di truyền; hoàn cảnh cá

nhân và các hoạt động có chủ đích. Và theo ấn phẩm “Sổ tay về Hạnh phúc” của Nhà xuất bản Trường Đại học Oxford thì 03 nhóm nhân tố này có tỉ lệ ảnh hưởng lần lượt là (i) Gen di truyền (khoảng 50%), (ii) Hoàn cảnh cá nhân (khoảng 10%); (iii) Các hoạt động có chủ đích (khoảng 40%).

Hình 1. Các nhân tố tác động đến hạnh phúc của cá nhân



(Nguồn: Sổ tay về Hạnh phúc của Nhà xuất bản Đại học Oxford, 2013)

Đi sâu nghiên cứu về các nhóm nhân tố này, chúng ta có thể tìm hiểu các nghiên cứu sau đây. Thứ nhất là nhóm các nghiên cứu tìm hiểu về sự tác động của nhân tố gen di truyền. Theo hướng này, chúng ta có các nghiên cứu của Diner và cộng sự, 1999 và nghiên cứu của Januwarsono, 2015. Các nhà khoa học này cho rằng, gen di truyền và tính cách là nhóm nhân tố chính ảnh hưởng đến cảm nhận hạnh phúc của con người trong cuộc sống nói chung và trong môi trường công việc nói riêng. Họ tìm ra bằng chứng của mối quan hệ chặt chẽ giữa đặc điểm cá nhân và cảm nhận hạnh phúc của con người.

Tuy nhiên, theo một góc nhìn khác, một số nhà khoa học như Schein, 2004, Parker và cộng sự, 2003, Morgeson, Humphrey, 2006, Warr, 2007, Vasconcelos, 2008 lại cho rằng, hạnh phúc của con người nói chung và của người lao động nói riêng phụ thuộc vào các nhân tố thuộc môi trường bên ngoài ví dụ như văn hóa của môi trường/tổ chức anh ta sinh sống/làm việc; quan điểm, hành vi của đội ngũ lãnh đạo, quản lý của tổ chức mà anh ta tham gia, đồng nghiệp hoặc bạn bè, người thân của anh ta, đặc điểm công việc mà anh ta phụ trách... Không thể phủ nhận rằng, nhóm các nhà khoa học này rõ ràng đã chỉ ra được các nhân tố rất quan trọng ảnh hưởng đến cảm nhận hạnh phúc của con người nói chung và của người lao động nói riêng.

Cuối cùng, về nhóm các nhân tố thuộc các hoạt động có chủ đích mà cá nhân tham gia, chúng ta thấy có các nhà nghiên cứu như Fisher, 2010, David, Boniwell và Conley, 2013, các nhà khoa học này khẳng định các hoạt động có chủ đích cũng là nhóm nhân tố quan trọng tác động đến cảm nhận hạnh phúc của người lao động. Nếu các hoạt động này

phát huy được điểm mạnh của người lao động hoặc mang đến cảm giác thành công hoặc có tiến bộ cho người lao động thì sẽ ảnh hưởng thuận chiều đến cảm nhận hạnh phúc của người lao động.

2.3.2. Các nhân tố tác động đến hạnh phúc trong công việc của người lao động

Theo một nghiên cứu của Eunice Stoaia (2015), hạnh phúc của người lao động chịu tác động của các nhân tố như sau:

- Khả năng làm việc của người lao động

Theo Bernadin và Russell, khả năng làm việc của người lao động được đo lường qua sáu thang đo: năng lực, kỹ năng, tính thật thà, tinh thần trách nhiệm, kịp thời hạn, năng suất làm việc, trong đó, năng lực là thành tố chính (Januwarsono, 2015). Kluger và cộng sự, 1994; Kluger and DeNisi 1996; Locke và cộng sự, 1970 đã chỉ ra rằng, khả năng làm việc tốt mang lại các cảm xúc tích cực cho người lao động và thống kê cho thấy có nhiều người lao động quan tâm và xem xét xem họ có thể hiện tốt trong công việc hay không. Lý thuyết kiểm soát cũng khẳng định rằng càng đến gần mục tiêu thì trạng thái tâm lý của người lao động càng tích cực (Carver and Scheier, 1990). Có cùng quan điểm khả năng làm việc của người lao động là nhân tố tác động đến hạnh phúc trong công việc của người lao động chúng ta có các nghiên cứu của Wright, Bonett and Sweeney, 1993, Wright và Staw, 1999, Wright, Cropanzano, Denney và Moline, 2002, Wright and Hobfoll, 2004, Wright, Cropanzano và Bonett, 2007. Khi nghiên cứu về tổ chức, các nhà nghiên cứu này đều đồng ý sự tương quan tích cực giữa cảm nhận hạnh phúc tâm lý của người lao động và khả năng làm việc của người lao động. Hơn nữa, cảm nhận hạnh phúc tâm lý của người lao động có vai trò nền tảng trong việc quyết định gắn kết với tổ chức của người lao động hay không (David, Boniwell and Conley Ayers, 2013).

- Văn hóa tổ chức

Văn hóa tổ chức là hệ thống những niềm tin và giá trị chung được xây dựng trong tổ chức và hướng dẫn hành vi của các thành viên trong tổ chức. Các tổ chức có văn hóa tổ chức tác động tích cực tới cảm nhận hạnh phúc tâm lý của người lao động thường xem người lao động là tài sản quan trọng nhất của tổ chức, có sự tin tưởng lẫn nhau giữa lãnh đạo và nhân viên và đề cao sự chân thật (Januwarsono, 2015). Theo một nghiên cứu được tiến hành vào năm 2010, một môi trường tổ chức lý tưởng để tăng cảm nhận hạnh phúc tâm lý của người lao động là một môi trường chú trọng xây dựng chữ Tín (Trust), thông qua 5 thang đo: uy tín, sự tôn trọng, sự công bằng, sự tự hào, tinh thần tình bạn.

- Đặc tính của công việc

Theo Fisher (2010), đặc tính của công việc, là ổn định hay có tính thử thách hay thú vị, sẽ tạo ra thái độ tích cực từ đó cải thiện cảm nhận hạnh phúc của các thành viên trong tổ chức. Một trong những lý thuyết phổ biến nhất về đặc tính của công việc là lý thuyết của Hackman và Oldham (1975), lý thuyết này cho rằng, một công việc có tính chất tích cực sẽ được đo lường qua 5 thang đo: Ý nghĩa của công việc, Sự đa dạng về kỹ năng, Được nhận biết, Nhận được phản hồi về công việc, Mức độ thành thạo trong công việc. Mô hình này của Hackman và Oldman được gọi là mô hình 5 thành tố và nhà nghiên cứu Fried and Ferris, 1987 đã chỉ ra rằng một công việc có 5 thành tố này là một công việc có tác động

tích cực đến cảm nhận hạnh phúc tâm lý của người lao động. Bên cạnh lý thuyết của Hackman và Oldham, lý thuyết của Morgeson and Humphrey (2006) lại chỉ ra cụ thể hơn nữa, hai ông đã chỉ ra 21 thang đo về đặc tính của một công việc, đó là: Sự thành thạo trong việc lập kế hoạch công việc, Sự thành thạo trong việc ra quyết định, Sự thành thạo về phương pháp làm việc, Tính đa dạng của công việc, Ý nghĩa của công việc, Được nhận biết, Nhận được phản hồi về công việc, Tính chất phức tạp của công việc, Xử lý thông tin, Giải quyết vấn đề, Sự đa dạng về kỹ năng, Chuyên môn sâu, Sự hỗ trợ của tập thể, Tính phụ thuộc lẫn nhau, Sự tương tác với bên ngoài tổ chức, Các phản hồi từ người khác, Quan điểm của các nhà nghiên cứu lao động, Nhu cầu vật chất, Điều kiện làm việc, Sử dụng các thiết bị. Ngoài ra, vào năm 2007, Warr cũng công bố thêm một lý thuyết về đặc tính của công việc có tác động tới cảm nhận hạnh phúc của người lao động với 12 thang đo: Cơ hội cho kiểm soát cá nhân, Cơ hội vận dụng các kỹ năng, Các mục tiêu đạt được, Sự đa dạng, Sự rõ ràng về môi trường làm việc, Tương tác với mọi người, Tài chính đáp ứng nhu cầu, An toàn về thể chất, Vị trí xã hội tốt, Lãnh đạo hỗ trợ, Tâm nhìn về công việc, Bình đẳng.

- Các phong cách lãnh đạo tích cực:

Theo nghiên cứu của Warr (2007), có các minh chứng rõ ràng của mối liên hệ giữa các phong cách lãnh đạo tích cực và cảm nhận hạnh phúc của người lao động. Warr cho rằng các phong cách lãnh đạo tích cực như lắng nghe nhân viên, thể hiện sự tôn trọng, hỗ trợ, quan tâm đến nhân viên, đánh giá cao các đóng góp của nhân viên đều có sự tác động tích cực đến cảm nhận hạnh phúc tâm lý của người lao động. Để củng cố thêm cho giả thuyết của mình, trong nhiều nghiên cứu, Warr cũng đi chứng minh có mối liên hệ giữa các phong cách lãnh đạo tiêu cực và sự căng thẳng, trạng thái thiếu gắn kết của người lao động. Ngoài ra, theo nghiên cứu của Tepper (2007), các phong cách lãnh đạo tiêu cực cũng làm giảm mức độ hài lòng và cảm nhận hạnh phúc của người lao động. Từ đó, các nhà nghiên cứu khuyến nghị các nhà lãnh đạo nên quan tâm đến cảm nhận của nhân viên, chú trọng truyền cảm hứng, giúp nhân viên phát triển và hướng nhân viên đến ý nghĩa của công việc (Vasconcelos, 2008; Cleavenger và Munyon, 2013). Khi nghiên cứu về nhân tố lãnh đạo trong mối liên hệ với cảm nhận hạnh phúc của người lao động, một số nhà nghiên cứu đánh giá cao vai trò của một số phong cách lãnh đạo như: lãnh đạo chuyển dạng (transformational leadership, đôi khi được gọi là lãnh đạo truyền cảm hứng, inspirational leadership), lãnh đạo đích thực (authentic leadership), lãnh đạo thuyết phục (charismatic leadership), lãnh đạo có sự chuyển đổi giữa lãnh đạo và thành viên.

- Những phản hồi tích cực:

Việc tiếp nhận các thông tin phản hồi rõ ràng và trực tiếp về các thành tích mà nhân viên đạt được có tác động tốt tới cảm nhận hạnh phúc của người lao động (Warr, 2011). Chaboyer và cộng sự (1999) phát hiện thấy các phản hồi tích cực về công việc giúp nhân viên gia tăng sự hài lòng trong công việc. Các phản hồi tích cực về các thành công của nhân viên có thể giúp nhân viên được tập thể người lao động trong tổ chức ghi nhận. Các phản hồi tích cực có thể tạo động lực làm việc cho nhân viên, tiếp nhận các phản hồi có tính xây dựng, nhân viên có thể dựa vào đó để phán đoán cách triển khai công việc theo hướng tốt hơn, kiểm soát bản thân tốt hơn và gia tăng sự tự tin (London, 2003). Các phản hồi từ lãnh đạo có thể có các thông tin về môi trường bên ngoài tổ chức, các thông tin giúp

nhân viên tránh được các sai lầm và có thông tin về lời khuyên các phẩm chất nhân viên cần rèn luyện để thực hiện công việc tốt hơn (Parker and Axtell, 2001). Ngược lại, nếu nhận được các phản hồi tiêu cực thái quá từ nhà lãnh đạo, các nhân viên có thể bị mất tự tin hoặc bị căng thẳng (Warr, 2007). Và nhận được quá nhiều các phản hồi cũng có tác động không tốt tới cảm nhận hạnh phúc của người lao động (Spreitzer and Porath, 2012).

- Được phát huy các điểm mạnh trong triển khai công việc và cảm nhận sự tiến triển của công việc:

Có rất nhiều nghiên cứu thực nghiệm củng cố niềm tin rằng việc được phát huy các điểm mạnh trong triển khai công việc làm gia tăng cảm nhận hạnh phúc của người lao động. Seligman và cộng sự (2005) nhận thấy nếu các cá nhân sử dụng chính các điểm mạnh trong tính cách của mình theo một cách mới mẻ hàng ngày một trong một tuần thì cảm nhận hạnh phúc trong công việc của họ có thể được cải thiện trong 6 tháng. Peterson và Seligman (2004) cũng chỉ ra trong nghiên cứu của mình, việc phát huy các điểm mạnh giúp các cá nhân có cảm nhận hạnh phúc chân thực. Khi người lao động cảm thấy công việc của họ phù hợp với khả năng và các mong muốn của họ, họ có thể vận dụng các điểm mạnh và tài năng của họ trong công việc, họ sẽ cảm thấy hạnh phúc hơn và ít có xu hướng bị căng thẳng (Seligman et al., 2005). Việc vận dụng các điểm mạnh của người lao động là một nội dung quan trọng của lý thuyết hành vi tổ chức tích cực (POB, Positive Organization Behavior). Bên cạnh đó, việc cảm nhận được sự tiến triển của công việc cũng có tác động tích cực tới cảm nhận hạnh phúc của người lao động. Nếu người lao động cảm nhận được sự phát triển trong công việc hoặc có cơ hội phát triển các năng lực và kỹ năng mới, họ sẽ có cảm nhận hạnh phúc cao hơn. Wilson và cộng sự (2004), Patterson và cộng sự (2004) qua nghiên cứu 42 tổ chức đã chỉ ra rằng, có mối liên hệ chặt chẽ giữa cảm nhận được phát triển và cảm nhận hạnh phúc của người lao động. Rất nhiều người lao động có cảm nhận hạnh phúc cao hơn khi họ cảm thấy họ trưởng thành theo công việc (Amabile and Kramer, 2011).

- Mối quan hệ tích cực:

Peterson (2006) nhấn mạnh rằng mối quan hệ tích cực là nhân tố quan trọng tác động đến cảm nhận hạnh phúc của người lao động. Tình bạn trong tổ chức, có thể là giữa các nhà lãnh đạo, giữa lãnh đạo và nhân viên hay giữa nhân viên và nhân viên là cơ sở của cảm nhận hạnh phúc trong công việc. Các mối quan hệ trong một tổ chức có ảnh hưởng rất lớn đến cảm nhận hạnh phúc của người lao động, tuy nhiên, trong một thời gian dài, mối liên hệ này đã bị các nhà nghiên cứu bỏ qua. Về mặt lý thuyết, hàng loạt các nhà nghiên cứu như Baumeister và Leary, 1995, Westaway, Olorunju và Rai, 2007, Fisher 2010, Demir và Davidson, 2013, Soraker, 2012 đều khẳng định mối quan hệ với những người xung quanh là nền tảng của cảm nhận hạnh phúc của con người. Một số năm gần đây, các nhà nghiên cứu đã quan tâm nhiều hơn đến mối liên hệ này. Dutton 2003, Dutton và Ragins 2007, Fisher 2010 chứng minh rằng mối quan hệ tốt với những người xung quanh sẽ giúp người lao động gia tăng cảm nhận hạnh phúc và gia tăng năng lượng tích cực, họ sẽ có thái độ tốt hơn, hợp tác hơn và gắn kết với tổ chức hơn. Và không chỉ tác động tích cực đến cảm nhận hạnh phúc của người lao động, các mối quan hệ tích cực trong tổ chức còn giúp gia tăng năng suất lao động của tổ chức. Snow, 2013, Wright, 2005, Wesarat, Yazam

và Halim, 2014 cho rằng các tổ chức cần tạo điều kiện xây dựng các tình bạn tốt trong tổ chức, đặc biệt là các tổ chức có đặc thù công việc người lao động ít có cơ hội tương tác trực tiếp, mối quan hệ tốt trong nội bộ tổ chức sẽ giúp bầu không khí tổ chức tốt hơn và gia tăng cảm nhận hạnh phúc của người lao động trong tổ chức đó.

- Các trải nghiệm tích cực trong công việc:

Các nghiên cứu đã chứng minh rằng người lao động sẽ có cảm nhận hạnh phúc trong công việc tốt hơn nếu họ có các trải nghiệm tích cực trong công việc: đạt được mục tiêu công việc, được ghi nhận, công việc có tính thử thách và thú vị, mối quan hệ tích cực với các thành viên trong tổ chức, thu nhập có tính cạnh tranh và ngược lại, cảm nhận hạnh phúc của người lao động sẽ có xu hướng giảm đi nếu họ có các trải nghiệm tiêu cực như: thiếu kết nối với lãnh đạo, các ý kiến thường không được chú ý, công việc không thú vị, không cảm nhận thấy có đóng góp cho tổ chức (Rodríguez và Sanz, 2011). Theo Herzberg, không phải chúng ta loại bỏ các nhân tố gây ảnh hưởng tiêu cực tới cảm nhận hạnh phúc của người lao động là cảm nhận hạnh phúc của họ tăng lên mà xu hướng này còn phụ thuộc vào nhiều nhân tố khác.

3. Nâng cao cảm nhận hạnh phúc trong công việc của người lao động, một giải pháp thu hút nguồn nhân lực chất lượng cao cho các doanh nghiệp tăng trưởng xanh

3.1. Các doanh nghiệp phát triển theo hướng tăng trưởng xanh

Khái niệm “tăng trưởng xanh” khá gần với khái niệm “kinh tế xanh”, tuy nhiên, nội hàm của hai khái niệm này cũng có những điểm khác nhau. Kinh tế xanh (Green Economy) là một mô hình phát triển kinh tế mới, được nhiều quốc gia trên thế giới nghiên cứu và từng bước thực thi. Theo Chương trình môi trường của Liên hợp quốc (UNEP, 2011), nền kinh tế xanh là “nền kinh tế nâng cao đời sống của con người và cải thiện công bằng xã hội, đồng thời giảm thiểu những rủi ro môi trường và những thiếu hụt sinh thái”. Đây là một mô hình kinh tế hướng đến sự phát triển bền vững, sử dụng hợp lý tài nguyên, giảm thiểu gây hại tới môi trường và chú trọng công bằng xã hội. Còn tăng trưởng xanh, theo định nghĩa của Ngân hàng thế giới (WB), là “hiệu quả trong việc sử dụng tài nguyên thiên nhiên, sạch trong việc giảm thiểu ô nhiễm và các tác động môi trường, linh hoạt trong khả năng thích ứng với các hiểm họa thiên nhiên, quản lý môi trường và vốn tự nhiên trong phòng chống thiên tai.” “Tăng trưởng xanh” khác với tăng trưởng truyền thống là không lấy phương châm “phát triển trước, bảo vệ môi trường sau”, mà lấy việc phòng ngừa, lồng ghép bảo vệ môi trường, giảm phát thải các-bon trong sản xuất, kinh doanh làm động lực để tăng trưởng. Như vậy, ta thấy khái niệm về kinh tế xanh rộng hơn khái niệm về tăng trưởng xanh, nhưng khái niệm tăng trưởng xanh là một nội dung quan trọng của kinh tế xanh, tăng trưởng nhưng vẫn giữ cân bằng hài hòa với môi trường sinh thái, không làm phá vỡ sự cân bằng của môi trường, tăng trưởng xanh là điều kiện cần để tiến tới kinh tế xanh (UNESCAP, 2013).

Như vậy, ta có thể thấy, doanh nghiệp hướng tới tăng trưởng xanh là các doanh nghiệp “hiệu quả trong việc sử dụng tài nguyên thiên nhiên, sạch trong việc giảm thiểu ô nhiễm và các tác động môi trường, linh hoạt trong khả năng thích ứng với các hiểm họa thiên nhiên, quản lý môi trường và vốn tự nhiên trong phòng chống thiên tai” và doanh

nghiệp hướng tới tăng trưởng xanh có vai trò quan trọng trong việc vừa tăng trưởng kinh tế vừa đảm bảo sự cân bằng của môi trường. Các doanh nghiệp tăng trưởng xanh là một trong các lực lượng quan trọng trong việc xây dựng nền kinh tế xanh.

3.2. Nguồn nhân lực chất lượng cao và vai trò của nguồn nhân lực chất lượng cao đối với sự phát triển của doanh nghiệp tăng trưởng xanh

Từ các cách tiếp cận khác nhau, ta có nhiều khái niệm khác nhau về nguồn lao động chất lượng cao. Theo nghiên cứu của nhà nghiên cứu Phạm Minh Hạc (2003), “nguồn nhân lực chất lượng cao là đội ngũ nhân lực có thể lực tốt, có trình độ và năng lực cao, là lực lượng xung kích tiếp nhận chuyển giao công nghệ tiên tiến, thực hiện có kết quả việc ứng dụng công nghệ vào điều kiện nước ta”. Theo nghiên cứu của TS.Nguyễn Hữu Dũng (2002), “Nhân lực cao là khái niệm để chỉ một người lao động cụ thể có trình độ lành nghề (về chuyên môn, kỹ thuật) ứng với một ngành nghề cụ thể theo tiêu thức phân loại lao động về chuyên môn, kỹ thuật nhất định”. Và theo tổng kết của Đặng (2017), chúng ta có thể đánh giá nguồn nhân lực chất lượng cao dựa theo 02 tiêu chí sau đây:

- Dựa trên hiệu quả, năng suất của người lao động: Lao động chất lượng cao có khả năng đáp ứng những yêu cầu phức tạp của công việc; từ đó tạo ra năng suất và hiệu quả cao trong công việc

- Dựa trên trình độ được đào tạo của người lao động: Lao động chất lượng cao là nguồn lao động được đào tạo ở trình độ cao; lao động ở trình độ cao đòi hỏi chi phí đào tạo cao

Nghiên cứu, tiếp cận tổng thể, có thể hiểu “nguồn nhân lực chất lượng cao là nhân lực qua đào tạo và tự tích lũy được, có chuyên môn, nghiệp vụ kỹ thuật cao, có kỹ năng lao động giỏi, có khả năng hòa nhập, thích ứng với những thay đổi của xã hội, của khoa học-công nghệ, tham gia lao động có hiệu quả cao, có khả năng đóng góp cho sự phát triển của các tổ chức và toàn xã hội”.

Trong Chiến lược quốc gia tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050 được ban hành kèm theo Quyết định số 1658/QĐ-TTg ngày 01/01/2021 có nội dung nhấn mạnh: “Tăng trưởng xanh góp phần thúc đẩy cơ cấu lại nền kinh tế gắn với mô hình tăng trưởng, nhằm đạt được thịnh vượng về kinh tế, bền vững về môi trường, hướng tới nền kinh tế xanh, trung hòa carbon và đóng góp vào mục tiêu hạn chế gia tăng nhiệt độ toàn cầu”. Để đạt được mục tiêu đó, việc chuẩn bị lực lượng lao động chất lượng cao đóng vai trò rất then chốt. Doanh nghiệp tăng trưởng xanh có thể áp dụng nhiều giải pháp để thu hút nguồn nhân lực chất lượng cao như “tăng cường chính sách xúc tiến thu hút”, “chính sách đãi ngộ và tạo động lực lao động”, “chính sách tạo dựng môi trường và điều kiện làm việc”, “chính sách sử dụng lao động hợp lý, hiệu quả và thiết thực”..., nhưng việc nâng cao cảm nhận hạnh phúc trong công việc của người lao động được xem là một giải pháp căn cơ và thiết thực.

4. Khuyến nghị về một số giải pháp nâng cao cảm nhận hạnh phúc của người lao động trong các doanh nghiệp tăng trưởng xanh

Thứ nhất, doanh nghiệp cần xây dựng một tập thể đoàn kết với các mối quan hệ tích cực giữa các nhà lãnh đạo, giữa lãnh đạo với nhân viên, giữa nhân viên và nhân viên.

Mối quan hệ tốt trong tổ chức sẽ giúp người lao động gia tăng cảm nhận hạnh phúc, giúp họ có thái độ tốt hơn, có cảm giác an toàn hơn và gắn kết với tổ chức nhiều hơn (Dutton & Ragins, 2007; Fisher, 2010)

Thứ hai, doanh nghiệp cần bố trí công việc theo điểm mạnh, sở trường của người lao động, giúp người lao động cảm nhận được sự phát triển trong công việc. Theo Peterson và Seligman (2004), việc phát huy các điểm mạnh giúp các cá nhân có cảm nhận hạnh phúc chân thực. Khi người lao động cảm thấy công việc của họ phù hợp với khả năng và các mong muốn của họ, họ có thể vận dụng các điểm mạnh và tài năng của họ trong công việc, họ sẽ cảm thấy hạnh phúc hơn và ít có xu hướng bị căng thẳng (Seligman et al., 2005).

Thứ ba, tổ chức nên khuyến khích các phong cách lãnh đạo cởi mở, tích cực. Theo nghiên cứu Warr (2007), có các minh chứng rõ ràng của mối liên hệ giữa các phong cách lãnh đạo tích cực và cảm nhận hạnh phúc của người lao động. Warr cho rằng các phong cách lãnh đạo tích cực như lắng nghe nhân viên, thể hiện sự tôn trọng, hỗ trợ, quan tâm đến nhân viên, đánh giá cao các đóng góp của nhân viên đều có sự tác động tích cực đến cảm nhận hạnh phúc tâm lý của người lao động.

Và cuối cùng, theo tìm hiểu của tác giả, việc tôn trọng quyền tự chủ của người lao động cũng là một giải pháp giúp người lao động được làm việc đúng với giá trị mà người lao động tin tưởng, giúp họ cảm nhận được sâu sắc hơn niềm vui và các ý nghĩa mà công việc đem lại, từ đó, có sự gắn kết tốt hơn với công việc và tổ chức mà họ đang làm việc.

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**THỰC HIỆN AN TOÀN, VỆ SINH LAO ĐỘNG
TRONG CÁC DOANH NGHIỆP DỆT MAY, DA GIÀY GÓP PHẦN HƯỚNG ĐẾN
PHÁT TRIỂN KINH TẾ XANH VÀ BỀN VỮNG Ở VIỆT NAM**

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Tóm tắt: An toàn, vệ sinh lao động trong doanh nghiệp (ATVSLĐ) là hoạt động hướng đến đảm bảo an toàn, sức khỏe và phúc lợi cho người lao động, tạo việc làm đầy đủ và phát triển bền vững cho doanh nghiệp. Việc thúc đẩy thực hiện ATVSLĐ và ATVSLĐ theo hướng xanh hóa cũng góp phần thúc đẩy phát triển kinh tế xanh và bền vững. Bằng việc thống kê và phân tích các số liệu thứ cấp và sơ cấp đã thu thập được, tác giả nhận định về thực trạng an toàn vệ sinh lao động tại các doanh nghiệp dệt may, da giày tại Việt Nam tuy đã dần được cải thiện qua các năm, nhưng đây vẫn là vấn đề phức tạp và cần được tập trung cải thiện nhiều hơn nữa, đặc biệt là trong nội dung huấn luyện ATVSLĐ, trang bị thiết bị bảo hộ lao động, đảm bảo môi trường làm việc an toàn. Hướng đến phát triển kinh tế xanh, bền vững, một số doanh nghiệp dệt may lớn cũng đã tiến hành xanh hóa hoạt động ATVSLĐ bằng việc đổi mới dây chuyền sản xuất, thay thế các hóa chất nguy hiểm trong nhuộm,.. nhưng tỷ lệ này vẫn rất thấp. Qua phân tích, tác giả đưa ra một số đề xuất nhằm hoàn thiện công tác ATVSLĐ trong DN dệt may, da giày hướng đến phát triển xanh và bền vững.

Từ khóa: An toàn, vệ sinh lao động; phát triển bền vững, kinh tế xanh.

**IMPLEMENT OCCUPATIONAL HEALTH AND SAFETY IN TEXTILE,
GARMENT, AND FOOTWEAR ENTERPRISES, CONTRIBUTING TOWARDS
GREEN AND SUSTAINABLE ECONOMIC DEVELOPMENT IN VIETNAM**

Abstract: Occupational safety and health in an enterprise aim at ensuring safety, health, and welfare for employees, towards creating decent work and sustainable development for enterprises. Promoting the implementation of OSH and OSH towards greening also contributes to promoting green and sustainable economic development. By making statistics and analyzing the collected primary and secondary data, the author shows the fact in occupational safety and health in textile, garment, and footwear enterprises in Vietnam containing OSH training, equipping laborers with protective equipment, ensuring a safe working environment and greening OSH activities in enterprises. Towards green growth and sustainable development, large textile enterprises have also greened their activities by innovating production lines and replacing dangerous chemicals in dyeing. The percentage of enterprises converting is still low. Through the analysis, the author suggests improving OSH in textile, garment, and footwear enterprises toward green and sustainable development.

Keywords: Occupational health and safety; Sustainable development, green economy.

Đặt vấn đề

Phát triển kinh tế xanh là một xu thế tất yếu của phát triển bền vững bởi lẽ con người ngày càng nhận thức được tầm quan trọng của việc bảo vệ môi trường sống, giảm các hoạt động có tác động lớn đến môi trường. Chương trình môi trường Liên hợp quốc (UNEP) cho rằng, một nền kinh tế xanh là nền kinh tế có sự cải thiện về đời sống và công bằng xã hội đồng thời giảm một cách đáng kể những tổn hại về mặt môi trường và sinh thái. Một nền kinh tế phát triển theo hướng xanh sẽ hướng đến việc hình thành các trụ cột của kinh tế bền vững, đó là kinh tế, xã hội và môi trường.

Tại Việt Nam, dệt may, da giày là một lĩnh vực mang lại việc làm và GDP cho nền kinh tế và được kỳ vọng còn phát triển hơn nữa trong tương lai, đặc biệt là sau khi ký kết hai hiệp định thương mại tự do thế hệ mới (FTAs) với nhiều cam kết ưu đãi giảm thuế đến 0% trong ngành này. Tuy vậy, các cam kết FTAs này cũng yêu cầu các nước thành viên đảm bảo nguyên tắc để phát triển bền vững. Trong đó, vấn đề đảm bảo các tiêu chuẩn về hàng hóa, về nguồn gốc và về tiêu chuẩn lao động, an toàn, vệ sinh lao động trong doanh nghiệp dệt may là một trong những điều kiện phải thực hiện của cam kết phát triển kinh tế xanh và bền vững trong hiệp định FTAs. An toàn, vệ sinh lao động (ATVSLĐ) là hoạt động đều nhằm tới cải thiện điều kiện lao động, đảm bảo để người lao động được an toàn, khỏe mạnh và đầy đủ phúc lợi tại nơi làm việc (Fanning, Fred E., 2003). Điều này góp phần thúc đẩy hình thành việc làm đầy đủ và bền vững cho người lao động; từng bước cải thiện điều kiện lao động, hiện đại hóa quy trình sản xuất thêm an toàn; thay thế những nguyên liệu cũ bằng những nguyên liệu mới an toàn, thân thiện, xanh; kiểm soát môi trường làm việc ở những điều kiện cho phép, ngăn ngừa ảnh hưởng cho người lao động và môi trường xung quanh góp phần thực hiện mục tiêu 3,6,8 của phát triển bền vững do Liên hợp quốc (UN) đặt ra. Như vậy, thực hiện các cam kết về ATVSLĐ trong DN cũng là góp phần thúc đẩy phát triển kinh tế xanh và bền vững trong ngành dệt may tại Việt Nam.

Trong thực tế sản xuất hiện nay, điều kiện lao động của dệt may, da giày vẫn tiềm ẩn nhiều nguy cơ cao về an toàn, sức khỏe cho người lao động. Như ngành này vẫn còn nguy cơ cao xảy ra cháy nổ; ngành sử dụng nhiều các loại hóa chất nguy hiểm, nhiều loại hóa chất có thể được dùng trong sản xuất như thuốc nhuộm có chứa azo, PFOS và PFAS (các chất per- và poly-fluoro -alkyl) làm chất chống thấm nước, deca-BDEs làm chất chống cháy và clo để tẩy trắng... Những yếu tố mất an toàn, vệ sinh lao động như vậy đều có tác động nghiêm trọng đến môi trường, an toàn và sức khỏe con người. Theo thống kê trong báo cáo tình hình tai nạn lao động của Cục An toàn lao động từ 2016-2020, dệt may, da giày luôn là ngành được xếp và nhóm ngành có số lượng tai nạn lao động lớn nhất. Các hiệp định thương mại tự do (FTAs) thế hệ mới Việt Nam ký đều có các quy tắc, cam kết về bảo vệ môi trường và phát thải thấp. "Xanh hóa" ngành dệt may, da giày là xu thế toàn cầu chứ không chỉ riêng tại Việt Nam. Điều này bắt buộc doanh nghiệp phải triển khai bằng việc đầu tư công nghệ sản xuất, tự động hóa, xây dựng môi trường làm việc an toàn cho người lao động, giúp tăng tính cạnh tranh đối với khách hàng và người tiêu dùng. Chính vì vậy, thúc đẩy thực hiện an toàn, vệ sinh lao động trong doanh nghiệp dệt may, da giày chính là hoạt động góp phần thúc đẩy tăng trưởng xanh và bền vững ở Việt Nam là vấn đề cần được nghiên cứu làm rõ để đảm bảo thực hiện tốt hơn nữa, góp phần hướng tới mục tiêu phát triển xanh và bền vững tại Việt Nam.

1. Tổng quan và phương pháp nghiên cứu

1.1. Tổng quan nghiên cứu

Các công trình nghiên cứu về phát triển bền vững, kinh tế xanh, về ATVSLĐ, ATVSLĐ trong các doanh nghiệp dệt may, da giày đã được công bố khá nhiều. Những nghiên cứu cũng chỉ rõ những nội dung của ATVSLĐ trong doanh nghiệp mà còn chỉ ra được mối quan hệ giữa thực hiện ATVSLĐ với việc xanh hóa quá trình sản xuất, thúc đẩy phát triển kinh tế xanh và bền vững.

Trong cuốn sách WHO Healthy Workplace Framework and Model: Background and Supporting Literature and Practices (2010) tác giả Joan Burton khẳng định, đảm bảo một môi trường làm việc an toàn, lành mạnh cho người lao động vì lợi ích của toàn xã hội, là “Đạo đức doanh nghiệp”, đó “là việc thông minh mà doanh nghiệp phải làm”, góp phần tuân thủ tiêu chuẩn lao động về ATVSLĐ, thúc đẩy xây dựng việc làm đầy đủ và thúc đẩy phát triển bền vững. Điều này cũng được khẳng định trong các nghiên cứu của Joan Burton, (2010); International Labour Organization. (2014, August); WHO, (2012); S.Z. Al Kilani, J. Jupp, A. Sawhney(2013); Amponsah-Tawiah, K. (2013), Trương Thị Yến Nhi (2013), Nguyễn Thị Minh Nhân (2019); Đinh Thị Hương (2019). Tác giả Joan Burton (2010) chỉ ra “hầu hết các quốc gia có một số luật yêu cầu tối thiểu người sử dụng lao động phải bảo vệ người lao động khỏi các mối nguy hiểm tại nơi làm việc có thể gây thương tích hoặc bệnh tật”. Tuy nhiên, có rất nhiều doanh nghiệp may đã bất chấp pháp luật, không đảm bảo những điều tối thiểu về an toàn, vệ sinh lao động. Ngay tại nước Mỹ, một nước công nghiệp tiên bộ vào loại bậc nhất thế giới, ô nhiễm bụi môi trường lao động và các điều kiện khác của môi trường lao động cũng vẫn tồn tại nhiều vấn đề, ghi nhận về điều kiện lao động còn nhiều bất cập, các tồn tại về môi trường và điều kiện lao động là rất khó cải thiện như vi khí hậu không thuận lợi, ô nhiễm bụi... điều này cản trở sự phát triển bền vững trong các doanh nghiệp nói riêng và của ngành dệt may, da giày nói chung. Các tác giả cũng chỉ ra rằng có sự gia tăng tỷ lệ một số bệnh ở người lao động dệt may, đặc biệt là các bệnh hô hấp là do ảnh hưởng của các yếu tố nguy cơ đặc thù (Carmella Winx, Elizabeth Boskey, George Krucil M. D.,2012; Denis Hadjiliadis, David Zieve, 2013). Khi nghiên cứu về môi trường lao động của công nhân dệt may tại các nước châu Á, nhiều tác giả cho rằng vấn đề ô nhiễm bụi hỗn hợp hữu cơ, vô cơ và vi khí hậu bất lợi đang là vấn đề có nguy cơ cao đối với sức khỏe người lao động (Biana D., Ganer A., Boha S.,2014; Islam M. Z., Ahmed S., Sarker R. N., Farjana S., Akter A., Saha S.,2013; Veera Singam S.,2005). Vì vậy, thúc đẩy thực hiện ATVSLĐ trong DN dệt may, da giày là một trong những hoạt động cần thiết để giúp người lao động tránh khỏi các tai nạn lao động và bệnh nghề nghiệp.

Những nghiên cứu chỉ ra rằng, xanh hóa ngành dệt may là một xu hướng của tương lai ngành dệt may, da giày và hướng đến bảo vệ môi trường sống, bảo vệ nguồn lực con người, góp phần giữ vững các trụ cột của phát triển bền vững. Đây là những điều được thể hiện trong nghiên cứu của Kim Ngọc & Nguyễn Thị Kim Thu (2015); Adam oswell/WWF (2020); ILO(2022).

Thông quan tổng quan tình hình nghiên cứu, tác giả thấy rằng, viện tăng cường thực hiện ATVSLĐ trong các DN dệt may, da giày sẽ giúp thúc đẩy các doanh nghiệp may

thực hiện tiêu chuẩn quốc tế về lao động giúp tạo việc làm đầy đủ và hướng đến thúc đẩy phát triển xanh trong xanh hóa quy trình sản xuất và phát triển bền vững.

1.2. Phương pháp nghiên cứu

Phương pháp nghiên cứu dữ liệu tại bàn: Trong nghiên cứu này, tác giả tiến hành thu thập và tổng hợp các tài liệu về tình hình an toàn, vệ sinh lao động trong các doanh nghiệp dệt may, da giày ở Việt Nam từ các tổ chức như ILO, Tổng cục Thống kê, Cục An toàn lao động, Dự án Better Work, so sánh và đưa ra những đánh giá của tác giả về tình hình thực hiện an toàn, vệ sinh lao động trong các doanh nghiệp may ở Việt Nam trong 05 năm gần đây, kết hợp với các tài liệu sơ cấp tác giả thu thập được để có căn cứ đánh giá tình hình thực hiện ATVSLĐ trong các doanh nghiệp dệt may, da giày ở Việt Nam

Phương pháp thu thập dữ liệu sơ cấp qua điều tra khảo sát: Nhóm nghiên cứu tiến hành điều tra khảo sát tại các doanh nghiệp dệt may, da giày. Nội dung khảo sát nhằm làm rõ tình hình công tác an toàn, vệ sinh lao động tại doanh nghiệp, đặc biệt là việc xây dựng bộ máy, nội quy, quy trình quản lý và thực hiện an toàn, vệ sinh lao động và xu hướng xanh hóa ATVSLĐ trong các DN được khảo sát. Nhóm dự định khảo sát ở các đối tượng gồm: Người lao động trực tiếp, người làm công tác an toàn, vệ sinh lao động tại doanh nghiệp, đại diện người lao động tại doanh nghiệp trong năm 2021. Sau khi thu thập phiếu điều tra, nhóm nghiên cứu sẽ tổng hợp kết quả điều tra để phân tích và đánh giá kết quả thống kê.

2. Cơ sở lý luận

2.1. An toàn, vệ sinh lao động trong DN dệt may, da giày

An toàn lao động và vệ sinh lao động là hai phạm trù có mối liên hệ mật thiết với nhau bởi chúng có thể phát sinh đồng thời tại cùng không gian và thời gian tác động đến người lao động, đó là môi trường làm việc và quá trình làm việc của người lao động. Tuy nhiên, chúng ta phân biệt rõ an toàn lao động và vệ sinh lao động qua cách thức tác động của các yếu tố nguy hiểm và yếu tố có hại trong điều kiện lao động đến con người; an toàn lao động là nói đến những biện pháp giúp giảm yếu tố “nguy hiểm” gây ra “tai nạn lao động”, nhấn mạnh đến những “sự cố” xảy ra “bất ngờ”, còn vệ sinh lao động là muốn nói đến những biện pháp giúp phòng, tránh những yếu tố “có hại”, tác động đến người lao động một cách “từ từ” theo thời gian và gây ra những “bệnh nghề nghiệp”, Theo ILO, ATVSLĐ được định nghĩa là “khoa học về dự đoán, ghi nhận, đánh giá và kiểm soát các mối nguy hại phát sinh trong hoặc từ nơi làm việc có thể làm suy giảm sức khỏe và hạnh phúc của người lao động, có tính đến tác động có thể xảy ra đối với cộng đồng xung quanh và môi trường chung”. An toàn, vệ sinh lao động là hoạt động của nhiều chủ thể khác nhau, mỗi chủ thể, với vai trò khác nhau thì hoạt động về an toàn, vệ sinh lao động của họ cũng khác nhau. Với khoa học về an toàn, vệ sinh lao động, họ nghiên cứu một cách khoa học để đưa ra những biện pháp, những phương tiện bảo hộ hay những quy tắc để phòng ngừa tai nạn lao động và bệnh nghề nghiệp. An toàn, vệ sinh lao động trong doanh nghiệp được hiểu là tất cả những biện pháp mà doanh nghiệp thực hiện để phòng ngừa tai nạn lao động và bệnh nghề nghiệp từ điều kiện lao động nguy hiểm, có hại, để đảm bảo an toàn, sức khỏe cho người lao động. Có thể chia ATVSLĐ thành các hoạt động chính gồm: Xây

dựng hệ thống quản lý ATVSLĐ trong DN; Phòng ngừa sự cố khẩn cấp về cháy nổ; Quản lý hóa chất và những vật liệu nguy hiểm; Các biện pháp phòng ngừa và bảo vệ; Đảm bảo môi trường làm việc an toàn, vệ sinh; Quản lý bệnh nghề nghiệp và dịch vụ y tế.

Xây dựng hệ thống quản lý ATVSLĐ trong DN: gồm xây dựng hệ thống chính sách ATVSLĐ trong doanh nghiệp gồm các nội quy, quy định, quy trình, kế hoạch ATVSLĐ trong DN và xây dựng bộ máy quản lý ATVSLĐ trong DN, phân định quyền, trách nhiệm và sự phối hợp của các mắt xích.

Đảm bảo an toàn hóa chất: An toàn hóa chất là sử dụng các chất hóa học nghề nghiệp theo cách đảm bảo sự an toàn và sức khỏe của con người và ngăn ngừa thiệt hại cho môi trường. Điều này bao gồm tất cả các khía cạnh của việc sử dụng hóa chất, bao gồm vận chuyển, sử dụng và xử lý, lưu trữ hóa chất. Khi doanh nghiệp sử dụng hóa chất và những vật liệu nguy hiểm trong sản xuất, doanh nghiệp phải đảm bảo quản lý an toàn hóa chất cho người lao động. Những nội dung của quản lý hóa chất và vật liệu nguy hiểm gồm: Dán nhãn hóa chất độc hại; Bảo quản hóa chất độc hại đúng cách; Đào tạo người lao động về an toàn hóa chất; Ghi chép về việc sử dụng hóa chất độc hại; Trang bị các thiết bị bảo hộ phù hợp.

Thực hiện các biện pháp phòng ngừa và kiểm soát rủi ro: Các biện pháp phòng ngừa và kiểm soát rủi ro được hiểu là những biện pháp kỹ thuật, vệ sinh, tổ chức nơi làm việc để đảm bảo môi trường làm việc chung và cá nhân được an toàn, vệ sinh trong quá trình lao động, bao gồm việc trang bị thiết bị bảo hộ lao động, lắp đặt cơ cấu an toàn cho máy móc, thiết bị. Thiết bị bảo hộ cá nhân được sử dụng để bảo vệ một cá nhân như găng tay, kính mắt cần được trang bị cho người lao động ở vị trí cắt, may. Ngoài ra, cung cấp găng tay, mặt nạ cho những vị trí phải tiếp xúc với hóa chất như nhuộm, in, tẩy rửa. Những vị trí điều khiển xe nâng hàng cần đảm bảo đủ điều kiện vận hành xe nâng và bố trí không gian phù hợp cho xe hoạt động.

Đảm bảo môi trường làm việc an toàn: Nội dung của đảm bảo môi trường làm việc an toàn, đó là các yếu tố như nhiệt độ, tiếng ồn, bụi,... tại nơi làm việc đảm bảo ở mức cho phép, không làm thương tổn đến sức khỏe người lao động, và những không gian xung quan cũng được dọn vệ sinh sạch sẽ, ngăn nắp.. Ở hầu hết các quốc gia, chính phủ sẽ có những quy định về điều kiện môi trường theo quy định và yêu cầu DN báo cáo đo đạc môi trường tại DN trong từng kỳ (Tháng/quý/năm) bởi vấn đề mất an toàn môi trường lao động có thể ảnh hưởng rất lớn đến không chỉ người lao động, mà còn có thể ảnh hưởng đến môi trường và dân cư xung quanh đó.

Quản lý bệnh nghề nghiệp và dịch vụ y tế: Quản lý bệnh nghề nghiệp và dịch vụ y tế là việc doanh nghiệp tiến hành theo dõi sức khỏe của từng người lao động theo thời gian làm việc tại DN, và có những bố trí, sử lý phù hợp cho NLĐ, đồng thời xử lý kịp, cấp cứu thời những tai nạn phát sinh.

Đảm bảo ứng cứu khẩn cấp: Những nguy hiểm như cháy, nổ là những nguy hiểm tiềm tàng có thể xảy ra ở DN và thường gây sự cố rất lớn có thể về người và tài sản. Làm thế nào để di tản được người nhanh nhất có thể trước khi có những thiệt hại đáng tiếc? làm thế nào để ứng phó với những tai nạn này, đó chính là vấn đề của ứng cứu khẩn cấp trong doanh nghiệp. Với nội dung này, doanh nghiệp thường được yêu cầu những công việc sau:

trang bị hệ thống báo cháy, hệ thống này lưu ý là phải được kiểm tra định kỳ về tình trạng hoạt động của hệ thống, đảm bảo rằng hệ thống vẫn hoạt động tốt; trang bị thiết bị chữa cháy: những thiết bị như bình chữa cháy tự động và bán tự động, vòi phun nước; đào tạo về phòng cháy, chữa cháy, sơ tán khi có cháy nổ; đảm bảo hệ thống thoát hiểm được bố trí theo quy định.

2.2. An toàn, vệ sinh lao động với phát triển xanh và bền vững

Theo Liên Hợp Quốc, phát triển bền vững là sự phát triển đáp ứng được những yêu cầu của hiện tại, nhưng không gây trở ngại cho việc đáp ứng nhu cầu của các thế hệ mai sau. Trong đó, phát triển bền vững đã được xác định là quá trình phát triển có sự kết hợp chặt chẽ, hài hòa và hợp lý giữa ba mặt của quá trình phát triển, gồm: phát triển kinh tế (tăng trưởng kinh tế), phát triển xã hội (thực hiện tiến bộ, công bằng xã hội; xóa đói giảm nghèo và giải quyết việc làm) và bảo vệ môi trường (xử lý, khắc phục ô nhiễm, phục hồi và cải thiện môi trường; phòng chống cháy và chặt phá rừng; khai thác hợp lý và sử dụng tiết kiệm tài nguyên thiên nhiên). Tiêu chí để đánh giá sự phát triển bền vững là sự tăng trưởng kinh tế ổn định; thực hiện tốt tiến bộ và công bằng xã hội; khai thác hợp lý và sử dụng tiết kiệm tài nguyên thiên nhiên, bảo vệ và nâng cao được chất lượng môi trường sống. Liên hợp quốc cũng đưa ra 17 mục tiêu phát triển bền vững của thế giới, trong đó, các mục tiêu số 3, số 6, số 8 có liên quan đến thúc đẩy thực hiện ATVSLĐ trong DN nhằm đảm bảo quyền được mạnh khỏe, an toàn của con người, đồng thời thúc đẩy hình thành công việc tốt hơn trong nền kinh tế. Thuật ngữ kinh tế xanh được phát triển khoảng hơn 10 năm trở lại đây, ra đời sau thuật ngữ kinh tế bền vững. Kinh tế xanh được hiểu là “phát triển kinh tế đảm bảo sử dụng hiệu quả các nguồn tài nguyên thiên nhiên, trong đó giảm thiểu ô nhiễm và tác động đến môi trường, tăng cường khả năng phục hồi trước biến đổi tự nhiên, đẩy mạnh vai trò của quản lý nhà nước về môi trường và nguồn lực tự nhiên trong việc ngăn ngừa các thảm họa từ thiên nhiên” (Ngân hàng thế giới, 2012). Một nền kinh tế phát triển xanh sẽ hướng đến đạt được sự bền vững, bởi nó cũng hướng đến thực hiện 3 mục tiêu kinh tế (xóa đói giảm nghèo, nâng cao chất lượng chăm sóc sức khỏe cộng đồng, phát triển năng lượng sạch, đáp ứng nhu cầu việc làm của người dân và thúc đẩy tăng trưởng...), môi trường (đảm bảo sản xuất và tiêu dùng bền vững, bảo tồn tài nguyên biển, bảo vệ, tái tạo và khuyến khích sử dụng bền vững các hệ sinh thái trên cạn...) và xã hội (nâng cao chất lượng giáo dục, thu hẹp khoảng cách bất bình đẳng giới và giảm thiểu bất bình đẳng xã hội...).

Từ đó ta có thể thấy ATVSLĐ trong doanh nghiệp hướng đến phát triển xanh và bền vững sẽ gồm các nội dung:



Hình 1: Xanh hóa ATVSLĐ trong DN dệt may, da giày hướng đến phát triển kinh tế xanh và bền vững

(Nguồn: Nhóm nghiên cứu tổng hợp và phát triển)

Từ mô hình xanh hóa ATVSLĐ bên trên, ta có thể thấy rằng, trong các nội dung của ATVSLĐ, có những mảng nội dung, nếu thực hiện tốt sẽ góp phần đẩy mạnh phát triển xanh và bền vững ở Việt Nam, đó là hoạt động phòng ngừa sự cố khẩn cấp về cháy nổ, quản lý hóa chất và những vật liệu nguy hiểm, đảm bảo môi trường làm việc an toàn, vệ sinh, quản lý bệnh nghề nghiệp và dịch vụ y tế, để đảm bảo thực hiện xanh hóa ATVSLĐ trong DN, các hoạt động ATVSLĐ này sẽ hướng đến sử dụng những nguyên liệu, hóa chất thay thế, thân thiện với môi trường, đảm bảo sức khỏe cho bản thân NLĐ, thiết bị bảo hộ được lựa chọn như khẩu trang, găng tay... là những thiết bị có thể tái sử dụng, thân thiện, làm giảm lượng rác thải ra môi trường; thường xuyên bảo trì và thay mới trang thiết bị giúp giảm lượng nhiên liệu, giảm khí thải khi vận hành máy móc và đảm bảo an toàn cho người lao động khi vận hành chúng.... Khác với việc có thực hiện tốt an toàn, vệ sinh lao động theo quy định của pháp luật, hướng đến phát triển kinh tế xanh và bền vững, bên cạnh tuân thủ pháp luật quốc gia để đảm bảo an toàn, sức khỏe cho người lao động, hoạt động này của doanh nghiệp phải được thực hiện với một tinh thần ý thức hướng đến xanh hóa quy trình sản xuất nhiều hơn, thể hiện thông qua một số thang đo lường như sau:

Từ nhận định rõ nội dung của ATVSLĐ trong doanh nghiệp dệt may, da giày, nghiên cứu các tài liệu nghiên cứu về ATVSLĐ của Benjamin O. Alli (2008), Đặng Đình Đào (2015), Luật ATVSLĐ (2015) và các văn bản hướng dẫn thi hành luật, Adam oswell/WWF (2020); ILO(2022), nhóm nghiên cứu đề xuất thang đo cho ATVSLĐ và ATVSLĐ với phát triển xanh và bền vững cụ thể như sau:

Bảng 1. Thang đo nghiên cứu ATVSLĐ trong DN dệt may, da giày

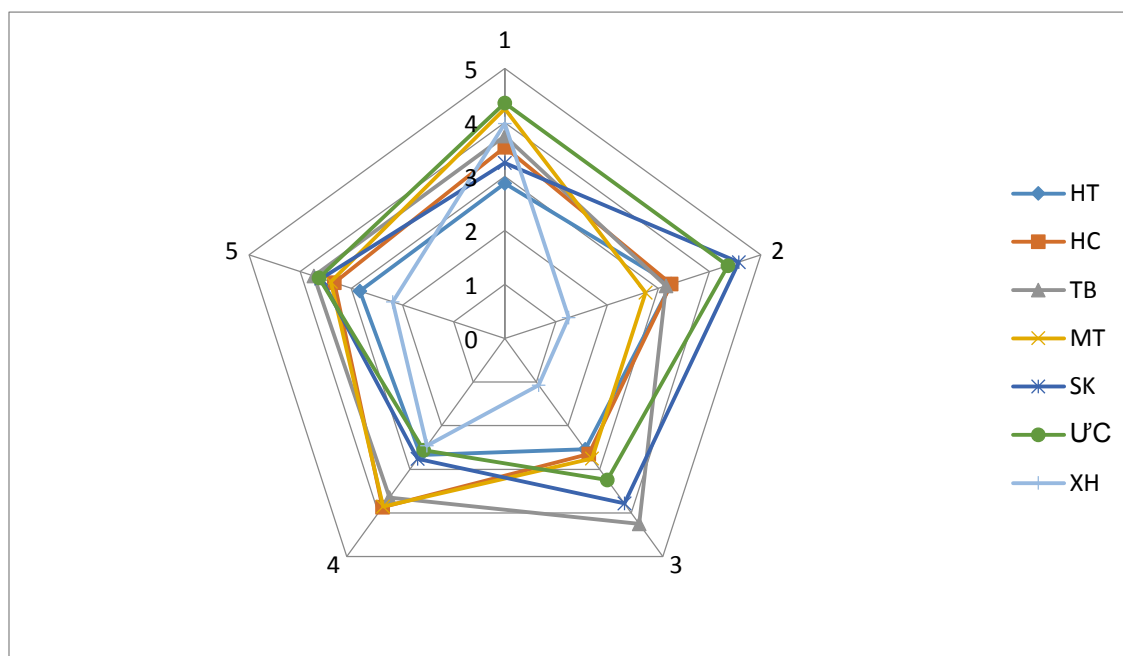
Nhóm vấn đề	Mã hóa	Nội dung
Xây dựng hệ thống quản lý ATVSLĐ trong DN	HT1	Doanh nghiệp xây dựng bộ máy quản lý ATVSLĐ
	HT2	Xây dựng nội quy/quy chế về ATVSLĐ trong doanh nghiệp
	HT3	Lập kế hoạch về dự phòng tai nạn lao động và bệnh nghề nghiệp trong DN
	HT4	Lập quy trình xử lý trong những tình trạng khẩn cấp

Đảm bảo an toàn hóa chất	HC1	Dán nhãn hóa chất độc hại
	HC2	Bảo quản hóa chất độc hại đúng cách
	HC3	Đào tạo người lao động về an toàn hóa chất
	HC4	Ghi chép về việc sử dụng hóa chất độc hại
Thực hiện các biện pháp phòng ngừa và kiểm soát rủi ro	PN1	Người lao động được trang bị thiết bị bảo hộ lao động cá nhân
	PN2	Hướng dẫn người lao động sử dụng thiết bị bảo hộ lao động cá nhân
	PN3	Máy móc được gắn bộ phận bảo vệ phù hợp
	PN4	Định kỳ bảo dưỡng máy móc, thiết bị
Đảm bảo môi trường làm việc an toàn	MT1	Nhiệt độ tại nơi làm việc ở mức cho phép
	MT2	Tiếng ồn tại nơi làm việc ở mức cho phép
	MT3	Bụi tại nơi làm việc ở mức cho phép
	MT4	Nơi làm việc sạch sẽ, ngăn nắp
Quản lý bệnh nghề nghiệp và dịch vụ y tế	SK1	Người lao động được kiểm tra y tế định kỳ hằng năm/6 tháng
	SK2	Nơi làm việc có cán bộ y tế tại chỗ
	SK3	Nơi làm việc được trang bị túi sơ cứu, cấp cứu tại chỗ
	SK4	Đào tạo về sơ cứu, cấp cứu cho một số người lao động nhất định
Đảm bảo ứng cứu khẩn cấp	UC1	Nơi làm việc được trang bị hệ thống báo cháy
	UC2	Nơi làm việc được trang bị thiết bị chữa cháy
	UC3	Đào tạo về phòng cháy, chữa cháy cho một số lượng phù hợp người lao động
	UC4	Hệ thống thoát hiểm được bố trí theo quy định
ATVSLĐ theo hướng PT xanh và bền vững	XH1	DN thường xuyên bảo trì, đổi mới công nghệ máy móc
	XH2	Lựa chọn vật liệu bảo hộ mới, thân thiện môi trường (tái sử dụng nhiều lần, vật liệu xanh, tái chế được...)
	XH3	Xu hướng thay thế dẫn những hóa chất nguy hiểm trong quá trình sản xuất
	XH4	Xử lý chất thải trong sản xuất

(Nguồn: Tổng hợp và phát triển thang đo từ các nghiên cứu trước đó)

3. Kết quả nghiên cứu

Thực hiện ATVSLĐ trong các DN dệt may vẫn còn nhiều vấn đề chưa được thực hiện tốt, trong đó, việc hướng đến xanh hóa quy trình sản xuất vẫn còn rất thấp. Nhóm tác giả đã tiến hành khảo sát thông qua bảng hỏi tới 400 người lao động tại các doanh nghiệp dệt may, gia dầy và thu về được 372 phiếu khảo sát với kết quả cụ thể ở hình 2. Qua dữ liệu sơ cấp và thứ cấp thu thập được, nhóm có căn cứ để đánh giá tình hình thực hiện ATVSLĐ trong DN dệt may da giày như sau:



Hình 2: Kết quả khảo sát thực hiện ATVSLĐ trong DN dệt may, da giày ở VN

(Nguồn: Khảo sát của nhóm tác giả)

Xây dựng hệ thống quản lý ATVSLĐ trong doanh nghiệp

Đây là nội dung ghi nhận nhiều vi phạm trong các doanh nghiệp ngành dệt may tại Việt Nam. Theo kết quả điều tra việc tuân thủ quy định pháp luật về ATVSLĐ trong DN dệt may do nhóm nghiên cứu thực hiện, tình hình tuân thủ các vấn đề trong xây dựng hệ thống an toàn, vệ sinh lao động chỉ được đánh giá điểm 2,83/5, trong đó, việc lập dự phòng về tai nạn lao động và bệnh nghề nghiệp được đánh giá thấp nhất với mức điểm chỉ có 2,54/5 điểm và được đánh giá tốt nhất trong nội dung này là xây dựng nội quy/quy định về ATVSLĐ trong doanh nghiệp.

Nhóm các doanh nghiệp có quy mô nhỏ và vừa hầu như không chú ý đến vấn đề về xây dựng hệ thống an toàn, vệ sinh lao động bị bỏ ngỏ. Những doanh nghiệp thuộc loại hình này hầu hết không có nhân viên chuyên trách về ATVSLĐ, cũng không xây dựng quy định về ATVSLĐ trong DN và theo dõi tình hình ATVSLĐ trong DN mình. Những DN nhỏ cũng không có người làm công tác y tế, vì ở quy mô nhỏ, công việc chủ yếu của người lao động là làm may công nghiệp, nên các doanh nghiệp nhỏ rất chú trọng việc đảm bảo an toàn, vì nghĩ đây là công việc mức độ nguy hiểm không cao. Theo khảo sát của Nguyễn Thị Thu Hằng (2017), số doanh nghiệp quy mô dưới 50 lao động hầu như không thực hiện công tác ATVSLĐ; với doanh nghiệp quy mô từ 50 đến dưới 200 người, chỉ có chưa đến 30% doanh nghiệp có thành lập bộ phận làm công tác ATVSLĐ theo quy định; doanh nghiệp quy mô từ 200-300 lao động, chỉ có 42,17% doanh nghiệp tổ chức bộ phận an toàn, vệ sinh lao động.

Theo thông tin của ILO và IFC, các nhà máy dệt may tham gia Better Work, năm 2019 đã có tới 82% số nhà máy vi phạm liên quan đến vấn đề về hệ thống quản lý ATVSLĐ, gia tăng hơn so với năm 2017 (ghi nhận vi phạm là 66%). Có sự gia tăng vi phạm này được nhận định là do, các quy định trong pháp luật có sự thay đổi về quy định

đối với cán bộ làm công tác an toàn, vệ sinh lao động, các quy định chặt chẽ hơn về số lượng và năng lực của người làm công tác ATVSLĐ, vì vậy, các DN dệt may chưa kịp thay đổi để đáp ứng quy định mới. Các nhà máy này chủ yếu vi phạm ở những vấn đề như: không có đủ số nhân viên của bộ phận ATVSLĐ theo đúng quy định của pháp luật (so với quy mô nhà máy) và những người làm công tác an toàn, vệ sinh lao động không đủ trình độ chuyên môn để đảm nhận công việc này theo quy định; nhiều nhà máy không có nhân viên chuyên trách làm công tác an toàn, vệ sinh lao động và đồng thời cũng không có người làm công tác ATVSLĐ kiêm nhiệm theo đúng quy định; nhiều nhà máy khác thì không tổ chức mạng lưới an toàn, vệ sinh viên. Một số ít các nhà máy thì không xây dựng quy định cụ thể về ATVSLĐ trong DN mình, hay vi phạm trong đánh giá định kỳ về ATVSLĐ và xây dựng cơ chế đảm bảo sự phối hợp giữa người lao động với người phụ trách các vấn đề về lao động trong công ty, dẫn đến tình trạng người lao động không biết phải làm gì và liên hệ với ai trong công tác an toàn, vệ sinh lao động.

Đảm bảo an toàn hóa chất

An toàn hóa chất trong các doanh nghiệp được quy định cụ thể trong luật an toàn, vệ sinh lao động và luật hóa chất. Vấn đề an toàn hóa chất trong các doanh nghiệp dệt may cũng là vấn đề vi phạm rất nhiều trong các doanh nghiệp.

Theo khảo sát từ nhóm nghiên cứu, vi phạm nhiều nhất trong quản lý an toàn hóa chất là đào tạo người lao động về an toàn hóa chất, đặc biệt trong những bộ phận như nhuộm, làm sạch, với điểm đánh giá chỉ 2,65/5 điểm. Người lao động không được đào tạo đầy đủ về an toàn khi sử dụng hóa chất sẽ dễ dẫn đến những nguy hiểm như không làm sạch hóa chất trong trường hợp hóa chất dính vào da hay vương vãi trên sàn trong quá trình sử dụng, hoặc trường hợp, các hóa chất nhuộm có thể gây ảnh hưởng đến sức khỏe lâu dài của người lao động nếu hít phải, mà người lao động, do không được đào tạo về an toàn, nên chủ quan trong việc tẩy sạch và không sử dụng thiết bị bảo hộ cá nhân trong quá trình làm việc. Nội dung ghi chép về việc sử dụng hóa chất là nội dung được đánh giá tốt nhất, nhưng cũng chỉ ở mức 3,87/5 điểm. Kết quả này cũng tương tự với khảo sát của ILO&IFC, theo công bố của ILO&IFC, năm 2017, có 73% số nhà máy vi phạm tham gia chương trình Better Work được khảo sát vi phạm quy định về quản lý hóa chất, nhưng đến 2019, số vi phạm về hóa chất chỉ còn 68%. Tuy nhiên, con số này vẫn ở mức cao. Những vi phạm chủ yếu trong an toàn hóa chất gồm: không ghi nhãn hóa chất (44% DN vi phạm); số vi phạm về lưu kho là 33%, có 34% doanh nghiệp không đào tạo người lao động trong sử dụng và bảo quản hóa chất, 25% số doanh nghiệp không ghi chép đầy đủ hồ sơ về số hóa chất sử dụng. Các công đoạn nhuộm, in vải và sản xuất giầy dép là những công đoạn sử dụng nhiều hóa chất nguy hại. Theo cuộc phỏng vấn của nhóm nghiên cứu đối với công nhân làm trong nhà máy giầy da tại Thái Bình (công ty quy mô lớn 8.000 công nhân, có vốn đầu tư của Trung Quốc). Công nhân nữ được phỏng vấn cho biết, các chị phải làm việc với keo liên kết mà không được phát cho thiết bị bảo hộ nào (không được phát khẩu trang hay găng tay), chị cho biết “mùi keo rất gay mũi, ngứa nhiều vầng đầu lắm”. Những người công nhân này cũng không được biết thông tin liên quan đến những lưu ý khi sử dụng các loại chất dùng trong quá trình làm việc này có ảnh hưởng như thế nào, và phải lưu ý gì khi sử dụng.

Thực hiện các biện pháp phòng ngừa và kiểm soát rủi ro

Việc trang bị thiết bị bảo hộ lao động trong doanh nghiệp may được quy định khá

cụ thể và chi tiết trong *Thông tư 04/2014/TT-BLĐTBXH*. Theo khảo sát của nhóm nghiên cứu, nội dung thiết bị bảo hộ lao động được đánh giá cao ở việc gắn thiết bị bảo hộ cho máy móc, với mức đánh giá là 4,25/5 điểm. Tuy nhiên, việc hướng dẫn việc sử dụng thiết bị bảo hộ lao động cá nhân lại chưa tốt (3,15/5 điểm), điều này có thể là nguyên nhân dẫn tới việc người lao động chủ quan, không sử dụng thiết bị bảo hộ và việc người công nhân tháo hoặc điều chỉnh thiết bị bảo vệ mắt và kim khâu của máy may vẫn còn rất phổ biến do không được hướng dẫn đầy đủ và không hiểu hết ý nghĩa của việc sử dụng chúng.

Trong số những nhà máy khảo sát trong năm 2019 của Better Work Việt Nam, có 47% số nhà máy vi phạm về đào tạo an toàn cho người lao động làm công việc có yêu cầu nghiêm ngặt về ATVSLĐ, 35% số nhà máy vi phạm về thiết bị bảo hộ lao động cá nhân và 39% vi phạm về vấn đề an toàn vận hành máy móc, thiết bị. Việc không đào tạo về an toàn cho người lao động, không cung cấp thiết bị bảo hộ lao động cá nhân cho người lao động cũng là 02 nguyên nhân lớn dẫn đến những vụ tai nạn lao động nghiêm trọng theo công bố của Cục An toàn lao động trong những năm qua.

Đảm bảo môi trường làm việc an toàn;

Đây là vấn đề ít ghi nhận sự vi phạm nhất trong các vấn đề về an toàn, vệ sinh lao động trong các doanh nghiệp dệt may, da giày.

Trong các nội dung của môi trường làm việc, nội dung nhiệt độ môi trường tại nơi làm việc đạt mức cho phép được đánh giá là tốt nhất với mức đánh giá 4,25/5 điểm. Phòng vấn thực tế tại một số nhà máy may, người công nhân cho biết, có những xưởng may còn được trang bị điều hòa nhiệt độ (một nhà máy may tại Thái Bình), còn các cuộc phỏng vấn khác thì đều trả lời, đã được trang bị hệ thống quạt trong mùa hè. Tuy nhiên hai nội dung là bụi và tiếng ồn nơi làm việc thì được đánh giá khá thấp, chỉ ở mức 2,75/5 điểm. Người lao động cho biết, hầu hết thời gian trong năm họ đều phải tăng ca, thời gian làm việc từ 10-12 tiếng/ngày, và tiếng ồn từ xưởng may (đặc biệt ở các xưởng may lớn) làm họ thấy ù tai, nhức đầu, mệt mỏi. Lượng bụi cũng nhiều do không được vệ sinh thường xuyên (chỉ vệ sinh sàn) và không gian làm việc là không gian kín.

Báo cáo tuân thủ của ILO & IFC thì chỉ ra điều khả quan hơn, các doanh nghiệp tham gia chương trình better work đề tuân thủ việc định kỳ thực hiện quan trắc môi trường lao động. Tỷ lệ số DN khảo sát vi phạm việc quan trắc môi trường lao động năm 2017 và 2019 lần lượt là 21% và 15%. Tuy vậy, báo cáo này cũng chỉ ra, những vi phạm chủ yếu trong vấn đề về môi trường trong các doanh nghiệp dệt may, da giày đó là vấn đề liên quan đến tiếng ồn và bụi.

Những doanh nghiệp làm việc trong lĩnh vực này phải làm việc thường xuyên với môi trường có bụi vải, bụi bông từ vật liệu may mặc, đồng thời, việc trang bị bảo hộ lao động (khẩu trang lọc bụi) và công tác vệ sinh không sạch sẽ là nguy cơ dẫn đến nhiều loại bệnh về phổi, trong đó có bệnh bụi phổi bông, là loại bệnh được bảo hiểm. Bên cạnh nguy cơ về bụi, doanh nghiệp dệt may còn thường xuyên phải tiếp xúc với tiếng ồn từ máy móc hoạt động trong nhà xưởng. Tiếng ồn ở mức 85db là mức con người có thể chịu đựng được khi tiếp xúc liên tục 8 tiếng. Tuy nhiên, các doanh nghiệp dệt may cũng là những doanh nghiệp ghi nhận số vi phạm về tăng ca, vi phạm thời gian làm thêm giờ rất lớn, theo khảo sát của Better Work, số doanh nghiệp vi phạm về làm thêm giờ lên đến 77%. Người công nhân tiếp xúc với tiếng ồn từ máy móc công nghiệp 10-12 tiếng liên tục/ngày mà

không được cung cấp thiết bị bảo hộ, đây cũng là nguyên nhân dẫn đến nguy cơ bị các bệnh về thính lực.

Quản lý bệnh nghề nghiệp và dịch vụ y tế

Việc quản lý bệnh nghề nghiệp và dịch vụ y tế có thể nói là vấn đề phức tạp, đặc biệt là vấn đề bệnh nghề nghiệp.

Theo khảo sát của nhóm nghiên cứu, nội dung được đánh giá tuân thủ pháp luật cao nhất trong quản lý bệnh nghề nghiệp là có cán bộ y tế tại chỗ với mức điểm 4.57/5 điểm. Tuy nhiên, việc đào tạo về sơ cứu, cấp cứu cho một số lượng người nhất định trong doanh nghiệp lại được đánh giá với điểm số rất thấp, chỉ 2,76/5 điểm. Người lao động không được đào tạo đầy đủ về sơ cứu, cấp cứu, nên khi có tai nạn xảy ra, sẽ ảnh hưởng lớn đến việc cấp cứu kịp thời cho người lao động và phải chờ bộ phận y tế đến.

Việc tổ chức khám sức khỏe định kỳ cho người lao động cũng được đánh giá ở mức trung bình với 3,25/5 điểm. Đây chính là lý do nhóm nhận định quản lý BNN là vấn đề phức tạp bởi doanh nghiệp tổ chức khám sức khỏe định kỳ cho người lao động theo quy định chưa đồng nghĩa với quản lý BNN tốt theo quy định của pháp luật, bởi hầu hết các doanh nghiệp mới chỉ dừng lại ở khâu khám sơ bộ và phân loại sức khỏe, chưa thực sự khám và phát hiện bệnh nghề nghiệp cho người lao động. Một số liệu thống kê khác từ Cục môi trường lao động – Bộ Y tế cho biết, số lượng doanh nghiệp thực hiện khám sức khỏe định kỳ cho người lao động chỉ khoảng 20% và hầu hết ở lĩnh vực công nghiệp nặng, và hầu hết các doanh nghiệp cũng mới chỉ dừng lại ở khám và phân loại sức khỏe, chưa thực hiện khám và phát hiện bệnh nghề nghiệp. Theo báo cáo của các nhà máy Better work, tỷ lệ vi phạm các vấn đề liên quan đến quản lý bệnh nghề nghiệp và dịch vụ y tế từ 2017 – 2019 không giảm. Tỷ lệ các nhà máy vi phạm vẫn ở mức cao (51%). Thực tế tại các DN may, vấn đề vi phạm chủ yếu trong các DN may là việc không thực hiện khám sức khỏe và phát hiện sớm bệnh nghề nghiệp cho người lao động và đào tạo về sơ cứu, cấp cứu cho người lao động. Còn vấn đề liên quan đến trang bị đủ số lượng hộp/vật tư sơ cứu dễ tiếp cận tại nơi làm việc và có phương tiện, vật tư y tế, nhân viên y tế tại chỗ thì hầu hết các doanh nghiệp đều đảm bảo tuân thủ. Trong các doanh nghiệp may, thuộc lĩnh vực công nghiệp nhẹ, hầu hết lao động làm ở vị trí may công nghiệp. Hơn nữa, đặc thù ngành này chủ yếu là những lao động khá trẻ, tuổi trung bình từ 20 – 40 tuổi (theo Bùi Văn Tốt (2014), *Báo cáo ngành dệt may*) và có mức độ biến động khá thường xuyên Theo thống kê của Tập đoàn Dệt may Việt Nam (Vinatex): Một doanh nghiệp có 5.000-6.000 công nhân thì hàng năm trung bình khoảng 1.000-2.000 công nhân thường xuyên ra, vào, nên thực tế, tình trạng bệnh nghề nghiệp trong ngành may ảnh hưởng đến sức khỏe người lao động không nghiêm trọng nên người lao động và người sử dụng lao động khá lơ là trong việc quản lý sức khỏe nghề nghiệp.

Đảm bảo ứng cứu khẩn cấp

Doanh nghiệp dệt may, da giày với đặc điểm là nguyên vật liệu đầu vào đều là những vật liệu dễ cháy, nên vấn đề ứng cứu khẩn cấp là vấn đề cần được quan tâm nhiều để tránh xảy ra những hậu quả nặng nề khi có cháy nổ.

Theo khảo sát của nhóm nghiên cứu, việc trang bị hệ thống báo cháy và trang bị thiết bị chữa cháy đều được đánh giá cao, ở mức 4,36/5 điểm. Điều này cho thấy các doanh

ngành cũng đã rất chú trọng đến công tác phòng ngừa cháy nổ. Tuy nhiên, quan tâm này chưa được thực hiện đồng bộ khi mà hệ thống thoát hiểm và đào tạo về phòng cháy chữa cháy theo quy định chỉ được đánh giá lần lượt là 2,56/5 điểm và 3,24/5 điểm.

Báo cáo tuân thủ của Better Work cũng chỉ ra điều tương đồng. Theo báo cáo của ILO&IFC về khảo sát các nhà máy may tham gia Better Work, số vi phạm về những vấn đề phòng chống cháy nổ, tỷ lệ không tuân thủ nhiều nhất là gồm các lĩnh vực: việc bảo quản những vật liệu dễ cháy (12%); lắp đặt và bảo trì dây điện, công tắc, phích cắm và các thiết bị điện đúng cách (21%); chỉ dẫn lối thoát hiểm khẩn cấp (41%); lối thoát hiểm khẩn cấp bị khóa, bị chặn hoặc không thể tiếp cận được trong giờ làm việc (51%). Về vấn đề này, vi phạm hàng đầu về ATVSLĐ ở các nhà máy Better Work là lối ra bị cản trở hoặc không tiếp cận được, nguyên nhân phổ biến nhất là do nhà máy xếp ngồn ngang các nguyên liệu sản xuất (như vải và hộp carton) ở các vị trí chắn lối ra và lối thoát hiểm, chỉ có một số ít nhà máy chặn lối thoát hiểm, trong đó, có một số lượng ít hơn nữa là những nhà máy khóa cửa thoát hiểm trong thời gian làm việc. Việc này không những vi phạm pháp luật mà còn rất nguy hiểm nếu có trường hợp khẩn cấp xảy ra. Cũng liên quan đến lối thoát hiểm, có đến 44% số nhà máy không có chỉ dẫn rõ ràng vị trí cửa thoát hiểm. Khi tìm hiểu nguyên nhân, các nhà máy phản hồi rằng, do hệ thống xưởng có diện tích hạn chế, nên việc sắp xếp hàng hóa, máy móc chắn lối đi là khó tránh khỏi, chính vì vậy mà tình trạng bố trí nguyên vật liệu, máy móc không hợp lý này đã kéo dài mà chưa được khắc phục. Vấn đề đảm bảo hệ thống phòng cháy chữa cháy phù hợp, hoạt động tốt vẫn chưa được thực hiện tốt, nhiều nhà máy không lắp đủ hệ thống báo cháy, bên cạnh đó thì họ cũng không định kỳ kiểm tra và bảo dưỡng hệ thống phát hiện và báo cháy này; thiết bị chữa cháy và hệ thống báo cháy không đảm bảo chất lượng chiếm 44% số nhà máy khảo sát.

ATVSLĐ hướng đến phát triển kinh tế xanh và bền vững

Các chỉ tiêu ATVSLĐ hướng đến phát triển xanh được đánh giá thấp, trung bình chỉ bằng 2.19/5 điểm. Trong các chỉ tiêu thành phần, chỉ tiêu hướng đến xanh hóa trong sản xuất bằng việc thay thế những vật liệu đang sử dụng trong sản xuất và bảo hộ ATVSLĐ thành những vật liệu thân thiện với môi trường là hai chỉ tiêu được đánh giá rất thấp, chỉ ở mức 1,07/5 điểm (Xu hướng thay thế dần những hóa chất nguy hiểm trong quá trình sản xuất) và 1,25/5 điểm (Lựa chọn vật liệu bảo hộ mới, thân thiện môi trường) ; Chỉ tiêu xanh hóa trong thực hiện bảo trì và đổi mới công nghệ trong sản xuất (3,98/5 điểm) và Xử lý chất thải trong sản xuất (2,46/5 điểm) được đánh giá cao hơn một chút, nhưng cũng không phải ở mức cao. Điều này cho thấy, các doanh nghiệp chọn chuyển đổi sản xuất xanh còn rất hạn chế. Những doanh nghiệp hướng đến xanh hóa trong sản xuất hiện nay là những doanh nghiệp dệt may quy mô lớn như Vinatex, Hanosimex và một số doanh nghiệp khác. Vinatex cho biết, sẽ tập trung phấn đấu giảm 30% lượng nước thải sau nhuộm bằng công nghệ mới; sử dụng lại 30% nước thải sau xử lý cho các công đoạn giặt, rửa, vệ sinh.

Là đơn vị xuất khẩu sợi lớn tại phía Bắc, cuối năm ngoái, Tổng công ty cổ phần Dệt may Hà Nội (Hanosimex) và Tập đoàn Hansae (Hàn Quốc) đã bắt tay thực hiện dự án đặc quyền về sản xuất vải tái chế. Với dự án này, Hanosimex và Hansae sẽ cùng xây dựng chuỗi cung ứng hoàn thiện từ sợi - dệt - nhuộm - may dành riêng cho các sản phẩm tái chế. Cụ thể, hai bên sẽ thực hiện dự án sản xuất sợi và vải từ xơ tái chế, toàn bộ sản phẩm từ

nhà máy sẽ được may hàng xuất khẩu. Dự kiến, khoảng 4.000 tấn vải tái chế dành cho thị trường EU sẽ được đưa vào sản xuất trong thời gian tới.

Điều này cũng có thể lý giải được, bởi với các doanh nghiệp quy mô nhỏ và vừa, nguồn tài chính còn hạn chế thì việc xanh hóa trong ATVSLĐ và sản xuất thực sự là thách thức lớn. Để đạt được mục tiêu xanh hóa ngành dệt may, da giày ở Việt Nam, cần sự nỗ lực lớn từ phía doanh nghiệp trong thời gian tới.

4. Kết luận và một số gợi ý

Qua nghiên cứu về an toàn, vệ sinh lao động trong các doanh nghiệp dệt may, da giày tại Việt Nam, tác giả nhận thấy, công tác ATVSLĐ trong các doanh nghiệp tuy đã có cải thiện dần qua các năm, một số mặt đã có những cải thiện đáng kể như trong việc trang bị thiết bị phòng cháy chữa cháy, trang bị bảo hộ và kiểm định máy móc định kỳ đầy đủ, cải thiện dần trong hệ thống theo dõi sức khỏe người lao động.. bên cạnh đó, một số mặt của công tác ATVSLĐ vẫn còn nhiều hạn chế, như đào tạo về ATVSLĐ cho người lao động làm việc trong những môi trường có nguy cơ cao, các chỉ tiêu ATVSLĐ hướng đến phát triển xanh và bền vững còn rất thấp. Một phần do ý thức của người sử dụng lao động với ATVSLĐ vẫn còn hạn chế, chưa thấy được vai trò của ATVSLĐ với phát triển bền vững của doanh nghiệp, một phần khác quan do điều kiện tài chính của doanh nghiệp dệt may, da giày, có 80% các doanh nghiệp có quy mô nhỏ và vừa (Đinh Thị Hương, 2019).

Để thúc đẩy việc thực hiện ATVSLĐ trong các doanh nghiệp dệt may, da giày và hướng đến thực hiện ATVSLĐ theo hướng xanh hóa, thúc đẩy phát triển kinh tế xanh và bền vững tại Việt Nam, tác giả xin đề xuất một số khuyến nghị như sau:

Thứ nhất, nâng cao nhận thức của chủ doanh nghiệp về an toàn, vệ sinh lao động trong doanh nghiệp khi Việt Nam gia nhập các FTAs và theo xu hướng phát triển của thế giới. Người chủ doanh nghiệp phải biết, thực hiện ATVSLĐ là nghĩa vụ của họ. Khi Việt Nam gia nhập FTAs, chúng ta cam kết thực hiện các công ước quốc tế ILO về lao động đã được chúng ta phê chuẩn, đồng thời thúc đẩy việc doanh nghiệp thực hiện trách nhiệm xã hội của mình, trong đó có các vấn đề về trách nhiệm xã hội của DN đối với người lao động, tạo một điều kiện lao động tốt hơn, đảm bảo an toàn và sức khỏe, phúc lợi cho người lao động. Những cam kết này đã được Chính phủ cụ thể hóa bằng các văn bản pháp luật về an toàn, vệ sinh lao động, quy định trách nhiệm của người sử dụng lao động trong doanh nghiệp. Như vậy, trước hết, người chủ doanh nghiệp phải nhận thức được rằng, thực hiện ATVSLĐ theo quy định của pháp luật là nghĩa vụ của mình. Đồng thời, thực hiện ATVSLĐ trong doanh nghiệp cũng mang lại lợi ích kinh tế to lớn cho doanh nghiệp. Theo thống kê từ các nhà máy tham gia Better Work tại Việt Nam, với số LĐ từ các nhà máy tham gia chiếm hơn 20% tổng LĐ trong ngành dệt may, da giày mặc cả nước, đã đem lại những cải thiện đáng kể về điều kiện làm việc tại các nhà máy may mặc, đồng thời thúc đẩy hiệu suất kinh doanh thông qua việc tuân thủ tốt hơn luật pháp quốc gia và các tiêu chuẩn lao động quốc tế. NLĐ tại các nhà máy tham gia chương trình Better Work cho biết, lương hàng tuần tăng và họ ít lo ngại hơn về việc phải làm tăng ca quá nhiều và vấn đề bị lạm dụng hợp đồng thử việc. Đồng thời, các nhà máy nơi công nhân cho biết điều kiện làm việc được cải thiện, có lợi nhuận cao hơn tới 8%. Tính trung bình, các DN có tỷ lệ doanh thu trên chi phí tăng 25% sau 4 năm tham gia Better Work. Một chương trình khác - chương trình phát triển DN bền vững (SCORE) với gần 120 DN vừa và nhỏ trong ngành

chế biến gỗ và nội thất, cho thấy đối thoại xã hội đóng vai trò quan trọng không chỉ trong việc cải thiện điều kiện làm việc mà còn góp phần tăng năng suất và khả năng cạnh tranh. Khoảng 90% các DN tham gia chương trình SCORE tại Việt Nam cho biết chi phí giảm đi và một nửa trong số các DN báo cáo về việc giảm lỗi sản phẩm là kết quả chương trình đem lại. Tăng năng suất lao động tạo ra lợi nhuận lớn hơn và thêm cơ hội đầu tư, cải thiện điều kiện lao động mang lại lợi ích cho DN. Đối với NLĐ tăng năng suất lao động dẫn tới lương cao hơn và điều kiện làm việc tốt hơn. Về lâu dài, tăng năng suất lao động có ý nghĩa quan trọng đối với tạo việc làm. Con số lợi nhuận này có thể lớn hơn nữa khi Việt Nam gia nhập EVFTA, đối với các doanh nghiệp gia công xuất khẩu như dệt may, gia dầy, gỗ và các sản phẩm từ gỗ, máy vi tính, sản phẩm, linh kiện điện tử, EU cam kết xóa bỏ từ 37% đến 100% số dòng thuế ngay khi EVFTA có hiệu lực, số còn lại sẽ xóa bỏ trong lộ trình từ 3-7 năm tới. Từ đó, cơ hội hợp tác lâu dài và lợi nhuận cho các doanh nghiệp sẽ càng tăng thêm.

Như vậy, việc tuyên truyền để nâng cao nhận thức của người chủ doanh nghiệp về vai trò của ATVSLĐ trong doanh nghiệp cần được thực hiện tốt, để người chủ doanh nghiệp có thể thay đổi công tác ATVSLĐ trong doanh nghiệp mình theo yêu cầu của EVFTA và tận dụng những cơ hội mà EVFTA mang lại.

Thứ hai, cấp phát thiết bị bảo hộ lao động đầy đủ, đúng quy cách cho người lao động, lựa chọn những thiết bị bảo hộ thân thiện với môi trường để thay thế dần.

Thiết bị bảo hộ cá nhân là tập hợp những dụng cụ, phương tiện, thiết bị bảo vệ cá nhân người lao động được nghiên cứu, thiết kế, chế tạo ra đời mà người lao động phải được trang bị đầy đủ và cần thiết tùy thuộc vào công việc cụ thể để sử dụng nhằm tránh tai nạn lao động và bệnh nghề nghiệp do các yếu tố nguy hiểm và có hại gây ra trong hoạt động lao động khi các biện pháp về kỹ thuật an toàn và kỹ thuật vệ sinh không thể loại trừ, giải quyết được. Đây là nghĩa vụ của người sử dụng lao động được quy định trong Luật An toàn, vệ sinh lao động. Người sử dụng lao động căn cứ vào mức độ yêu cầu của từng nghề hoặc công việc cụ thể tại cơ sở của mình, sau khi tham khảo ý kiến của tổ chức công đoàn cơ sở thì quyết định thời hạn sử dụng cho phù hợp với tính chất công việc và chất lượng của phương tiện bảo vệ cá nhân, đồng thời phải tổ chức hướng dẫn người lao động sử dụng thành thạo các phương tiện bảo vệ cá nhân thích hợp trước khi cấp phát và phải kiểm tra chặt chẽ việc sử dụng.

Các phương tiện bảo vệ cá nhân chuyên dùng có yêu cầu kỹ thuật cao như găng tay cách điện, ủng cách điện, mặt nạ phòng độc, dây an toàn, phao an toàn... người sử dụng lao động phải cùng người lao động kiểm tra để bảo đảm tiêu chuẩn chất lượng trước khi cấp, đồng thời định kỳ kiểm tra trong quá trình sử dụng và ghi sổ theo dõi. Các phương tiện bảo vệ cá nhân để sử dụng ở những nơi dơ bẩn, dễ gây nhiễm độc, nhiễm trùng, nhiễm phóng xạ thì sau khi sử dụng, người sử dụng lao động phải có các biện pháp khử độc, khử trùng, tẩy xạ bảo đảm tiêu chuẩn vệ sinh và phải định kỳ kiểm tra. Người lao động khi được trang bị phương tiện bảo vệ cá nhân thì bắt buộc phải sử dụng phương tiện đó theo đúng quy định trong khi làm việc, không sử dụng vào mục đích riêng. Nếu người lao động cố tình vi phạm thì tùy theo mức độ vi phạm phải chịu hình thức kỷ luật thích đáng theo nội quy lao động của cơ sở mình hoặc theo quy định của pháp luật.

Khi lựa chọn phương tiện bảo hộ lao động cá nhân, cố gắng chọn loại thiết bị thân

thiện với môi trường, như khâu trang lọc bụi, gắng tay có thể tái sử dụng nhiều lần, những loại làm từ vật liệu thân thiện với môi trường để hạn chế rác thải từ chính khâu thực hiện ATVSLĐ.

Thứ ba, tăng cường công tác tuyên truyền, huấn luyện về an toàn, vệ sinh lao động cho người lao động trong doanh nghiệp

Huấn luyện – Đào tạo an toàn lao động cho cán bộ công nhân viên là trách nhiệm và nghĩa vụ của doanh nghiệp tổ chức tại Việt Nam. Theo Nghị định 44/2016/NĐ-CP và Thông tư 27/2013 Quy định về đào tạo huấn luyện an toàn lao động. Các cá nhân tham gia các công việc có yêu cầu nghiêm ngặt về lao động phải được huấn luyện, cấp chứng chỉ, chứng nhận đào tạo phù hợp với công việc đảm nhận. Tuy nhiên, ở nhiều doanh nghiệp, công tác bị bỏ qua hoặc chỉ được làm rất hời hợt, không mang lại hiệu quả như kỳ vọng, không đạt được mục đích của huấn luyện ATVSLĐ. Cần phải tăng cường công tác huấn luyện ATVSLĐ trong doanh nghiệp để nâng cao kiến thức về làm việc ATVSLĐ cho người lao động, đồng thời nâng cao cả ý thức an toàn, tuân thủ trong quá trình làm việc cho người lao động, tránh xảy ra những tai nạn lao động và bệnh nghề nghiệp, đồng thời, cũng tự giác và đấu tranh bảo vệ quyền lợi của bản thân người lao động trong thực thi ATVSLĐ trong doanh nghiệp với vai trò một người lao động, một công đoàn viên.

Thứ tư, nâng cao nhận thức của người sử dụng lao động ngành may trong việc xanh hóa các hoạt động của ngành may nói chung và xanh hóa hoạt động ATVSLĐ trong ngành may nói riêng. Theo Adam Oswell (2020), 20% ô nhiễm nước công nghiệp toàn cầu là phát sinh từ các hoạt động xử lý hàng dệt nhuộm. Sản xuất hàng dệt may cũng tiêu tốn năng lượng để vận hành nhiều loại thiết bị, tạo ra hơi và nhiệt cho các quy trình xử lý khác nhau. Trong năm 2016, ngành Dệt May đã phát thải 3.3Gt khí CO₂ quy đổi và chiếm 6.7% tổng phát thải này của toàn cầu². Đại dịch toàn cầu Covid-19 đang gây nên những xáo động to lớn về kinh tế và xã hội trên toàn thế giới. Ngành may mặc đã chứng kiến sụt giảm doanh số bán hàng ngay lập tức. Một cuộc điều tra người tiêu dùng ở quy mô toàn cầu của tập đoàn McKinsey tháng 4 năm 2020 chỉ ra rằng 60% người tiêu dùng cắt giảm chi tiêu cho thời trang là xu hướng trong ngắn và trung hạn; về dài hạn, 65% người tiêu dùng chuyển từ thời trang nhanh sang thời trang cơ bản và lâu bền; và 67% quan tâm nhiều về tính bền vững môi trường và xã hội của các nhãn hàng thời trang. Sức ép này từ người tiêu dùng sẽ là lực đẩy để các nhãn hàng cam kết và hành động để cải thiện tính bền vững trong suốt chuỗi cung ứng của họ. "Xanh hóa" ngành Dệt May mang ý nghĩa là ngành sẽ hoạt động theo hướng sử dụng hiệu quả các nguồn tài nguyên và giảm chất thải, loại bỏ các chất gây lo ngại và loại trừ phát sinh vi sợi; biến đổi cách thức thiết kế quần áo, bán và sử dụng sao cho có thể giảm thải ra tự nhiên; cải thiện triệt để khả năng tái chế bằng cách thay đổi thiết kế, thu hồi và tái sản xuất; và hướng tới sử dụng nguyên nhiên liệu tái tạo (Vinatext, 2020). Có thể thấy, xu hướng xanh hóa trong ngành dệt may, da giày là nhu cầu tất yếu, bởi vậy, sự chuyển đổi trong sử dụng nguồn nguyên liệu, thay thế những nguyên liệu sản xuất bằng những nguyên liệu thân thiện với môi trường, thay thế những hóa chất độc hại trong sản xuất sợi, nhuộm sợi... là yêu cầu tất yếu nhằm bảo vệ môi trường và người lao động là yêu cầu của các doanh nghiệp dệt may. Các doanh nghiệp dệt may, da giày Việt Nam cần nhanh chóng nắm bắt được xu thế này để thúc đẩy chuyển đổi trong sản xuất, tiến đến phát triển xanh và bền vững.

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ẢNH HƯỞNG CỦA COVID 19 ĐẾN HOẠT ĐỘNG CỦA CÁC DOANH NGHIỆP TẠI CÁC KHU CÔNG NGHIỆP TỈNH QUẢNG BÌNH

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Tóm tắt: Nghiên cứu này nhằm mục đích đánh giá tác động của Covid-19 đến hoạt động của các doanh nghiệp (DN) tại các khu công nghiệp (KCN) trên địa bàn tỉnh Quảng Bình. Dữ liệu được thu thập từ 63 doanh nghiệp đang hoạt động tại các KCN thông qua phương pháp phỏng vấn trực tiếp và điều tra online. Kết quả nghiên cứu cho thấy, Covid-19 đã có tác động tiêu cực đến các doanh nghiệp trên tất cả các phương diện như doanh thu, chi phí và tổ chức sản xuất. Mức độ tác động đối với các doanh nghiệp là khá lớn do quy mô các doanh nghiệp nhỏ và thị trường tiêu thụ chủ yếu là xuất khẩu. Nhằm ứng phó với các tác động tiêu cực, doanh nghiệp đã thực hiện nhiều biện pháp như tạm dừng hoạt động, cắt giảm quy mô sản xuất, cắt giảm lao động và giảm lương. Để hỗ trợ các doanh nghiệp phục hồi sau đại dịch cần tập trung vào các giải pháp tài chính trong ngắn hạn như gia hạn các khoản vay, tạm ngưng đóng BHXH. Về mặt dài hạn, các doanh nghiệp cần tái cấu trúc thị trường, tăng cường ứng dụng công nghệ thông tin và địa phương cần cải thiện dịch vụ hành chính công để tạo điều kiện thuận lợi hơn cho các doanh nghiệp.

Từ khóa: Covid-19, Tác động, Khu công nghiệp, Quảng Bình

IMPACTS OF COVID-19 PANDEMIC ON THE OPERATION OF FIRMS IN INDUSTRIAL ZONES IN QUANG BINH PROVINCE

Abstract: This study aims to evaluate the impact of Covid-19 on firms operating in industrial parks in Quang Binh province. Data was collected from 63 firms through direct interviews and online surveys. The research results showed that Covid-19 had a negative impact on firms in all aspects such as revenue, costs, and production activities. The level of impact on businesses was significant due to the small scale of firms and the dependence on export markets. In order to cope with the negative impacts, firms have implemented measures such as suspending operations, reducing production scale, cutting labor force, and reducing salaries. To support enterprises in post-pandemic, the focus should be placed on short-term financial solutions such as extending loans and suspending social insurance contributions. In the long term, firms need to restructure the market, enhance the application of information technology, and local authorities need to improve public administrative services to create more favorable conditions for businesses.

Keywords: Covid19, impacts, industrial parks, Quang Binh

1. Đặt vấn đề

Sự ra đời các khu công nghiệp (KCN) từ những năm sau Đổi Mới (1986) ở Việt Nam đã đóng góp tích cực đối với sự phát triển kinh tế - xã hội của đất nước. Trước hết phải kể đến làn sóng đầu tư nước ngoài vào các KCN diễn ra hết sức mạnh mẽ, tiếp nhận được các công nghệ sản xuất tiên tiến từ các nước phát triển, đồng thời giải quyết nhiều việc làm cho người lao động và tăng nguồn thu ngân sách cho các địa phương. Việc đẩy mạnh thu hút vốn đầu tư vào các KCN được xem là đòn bẩy để chuyển dịch cơ cấu kinh tế của các địa phương trong cả nước, góp phần thực hiện thành công sự nghiệp công nghiệp hóa, hiện đại hóa đất nước.

Cùng với lĩnh vực dịch vụ du lịch, tỉnh Quảng Bình đã xác định lấy phát triển công nghiệp làm hạt nhân của phát triển kinh tế nhằm chuyển dịch cơ cấu kinh tế theo hướng dịch vụ - công nghiệp - nông nghiệp. Trong nhiều năm trở lại đây, Quảng Bình đã tập trung huy động mọi nguồn lực, cải cách thủ tục hành chính, tận dụng những lợi thế về điều kiện tự nhiên của địa phương để phát triển các khu công nghiệp. Tính đến năm 2021, toàn tỉnh có 6 KCN, với 94 doanh nghiệp chính thức đi vào hoạt động sản xuất kinh doanh, giải quyết việc làm cho hơn 8.064 lao động [1].

Trong thời gian vừa qua, đã có nhiều nghiên cứu ở các nước trên thế giới và Việt Nam về tác động của Covid-19 đến các doanh nghiệp [2-6]. Tuy nhiên hầu hết các nghiên cứu này đều tập trung vào các doanh nghiệp vừa và nhỏ trên phạm vi rộng và vẫn chưa có nghiên cứu liên quan cụ thể đến các doanh nghiệp. Đặc biệt, ở khu vực miền Trung việc nghiên cứu ảnh hưởng của đại dịch Covid-19 đến các doanh nghiệp vẫn còn hạn chế.

Đại dịch Covid-19 đã có ảnh hưởng rất lớn đến các doanh nghiệp ở Quảng Bình. Theo báo cáo của Sở Lao động-Thương binh và Xã hội (LĐ-TB-XH), tính đến tháng 12/2021, toàn tỉnh có hơn 200 DN tạm dừng hoạt động với gần 10.000 NLD bị ảnh hưởng; 42 DN đăng ký giải thể dẫn đến khoảng 250 LĐ bị mất việc làm; 4/65 DN nằm trong các KCN, khu chế xuất tạm dừng hoạt động với gần 120 LĐ mất việc làm tạm thời [7]. Nghiên cứu này khảo sát ảnh hưởng của Covid-19 đến hoạt động sản xuất kinh doanh của các doanh nghiệp tại các khu công nghiệp của tỉnh Quảng Bình nhằm đề xuất các chính sách để thúc đẩy khả năng phục hồi của các doanh nghiệp sau đại dịch Covid-19.

2. Tổng quan tài liệu

Đại dịch Covid-19 xảy ra từ đầu năm 2020 đã ảnh hưởng nghiêm trọng đến mọi mặt kinh tế - xã hội của nước ta. Đặc biệt, làn sóng đại dịch Covid-19 lần thứ tư bắt đầu vào cuối tháng 4/2021, bùng phát mạnh ở các khu công nghiệp tại Bắc Ninh, Bắc Giang và lan rộng ra hầu hết các quận/huyện tại TP. Hồ Chí Minh, Bình Dương, Đồng Nai đã khiến các địa phương phải thực hiện giãn cách xã hội từng khu vực, địa phương, gây nên sự đứt gãy chuỗi sản xuất, cung ứng hàng hóa và nhiều đơn hàng sản xuất trong nước bị hủy, thiếu hụt lao động phục vụ sản xuất [8].

Theo Tổng cục Thống kê, năm 2020, Covid-19 ảnh hưởng nghiêm trọng tới mọi lĩnh vực của nền kinh tế, nhiều địa phương kinh tế trọng điểm phải thực hiện giãn cách xã hội kéo dài để phòng chống dịch bệnh. Tăng trưởng GDP năm 2021 chỉ đạt 2,58%, thấp nhất trong giai đoạn 2011-2021. Tổng vốn đầu tư trực tiếp nước ngoài (FDI) vào Việt Nam

năm 2020 giảm 25% so với năm 2019, trong 6 tháng đầu năm 2021 giảm 3,5% so với cùng kỳ. Đầu tư của khu vực ngoài nhà nước năm 2020 chỉ tăng 3,1% và tỷ lệ thất nghiệp của lao động trong độ tuổi là 2,48% - tăng 0,31 % so với năm 2019. Năm 2020, số DN đăng ký thành lập mới giảm 2,3% so với năm 2019; số DN tạm ngừng kinh doanh có thời hạn, ngừng hoạt động chờ làm thủ tục giải thể và hoàn tất thủ tục giải thể tăng 13,9%. Trong 9 tháng năm 2021, có 90,3 nghìn DN tạm ngừng sản xuất, kinh doanh có thời hạn, DN dừng hoạt động chờ làm thủ tục giải thể và DN đã hoàn tất thủ tục giải thể. Trong số đó, có tới 50,1% DN đã và đang làm thủ tục rút lui vĩnh viễn khỏi thị trường [9]. Lần đầu tiên, số DN gặp khó khăn tạm ngừng sản xuất, chờ làm thủ tục và đã làm thủ tục giải thể lớn hơn số DN mới thành lập. Số liệu khảo sát của Tổng cục thống kê cũng cho thấy, trong tháng 9/2021 có đến 95% DN gặp khó khăn do ảnh hưởng của dịch Covid-19; 80% DN phải tăng chi phí đầu vào; 54,2% DN tăng chi phí do giá nguyên vật liệu tăng; 49,5% DN tăng chi phí về logistics; đặc biệt có đến 33,4% DN thiếu lao động và 40,8% DN thiếu nguyên vật liệu sản xuất [10].

Để hỗ trợ DN vượt qua những ảnh hưởng của dịch Covid-19, thời gian qua, Quốc hội, Chính phủ đã đưa ra hàng loạt các chính sách hỗ trợ kịp thời như: Cắt giảm 30% thuế thu nhập DN (TNDN) cho các DN chủ yếu thuộc quy mô vừa và nhỏ, có doanh số dưới 200 tỷ đồng/năm; kéo dài thời gian miễn thuế sử dụng đất nông nghiệp từ ngày 01/01/2021 tới năm 2025 (miễn khoảng 7.500 tỷ đồng/năm); giãn, hoãn thuế giá trị gia tăng (GTGT), thuế TNDN, tiền thuê đất và các chính sách nói lỏng về tín dụng của các ngân hàng. Đặc biệt, ngày 19/4/2021, Chính phủ đã ban hành Nghị định số 52/2021/NĐ-CP về gia hạn thời hạn nộp thuế GTGT, thuế TNDN, thuế thu nhập cá nhân và tiền thuê đất trong năm 2021 [11]. Đối tượng áp dụng là các DN, tổ chức, hộ kinh doanh, cá nhân hoạt động sản xuất trong hơn 50 lĩnh vực cụ thể cả trong nông nghiệp, lâm nghiệp và thủy sản, công nghiệp - xây dựng và dịch vụ. Thời gian được gia hạn từ 3-6 tháng và người nộp thuế phải thực hiện nộp ngân sách chậm nhất vào cuối năm 2021. Tổng số tiền dự kiến được hoãn, giãn nộp thuế ước tính khoảng 115.000 tỷ đồng [12].

Nhìn chung, những chính sách đã ban hành nói đã góp phần tháo gỡ khó khăn cho người dân và DN. Tuy nhiên, các DN vẫn còn hết sức khó khăn. Nguyên nhân chủ yếu là do, đại dịch Covid-19 diễn biến phức tạp, khó dự báo, biến chủng Delta lây lan nhanh. Một số cơ chế, chính sách chưa bảo đảm tính tổng thể, chưa bao quát hết được tính chất, quy mô, mức độ khẩn cấp như đại dịch Covid-19. Việc giảm thuế có hiệu ứng tích cực, nhưng các quy định về thủ tục vẫn cứng nhắc. Ngoài ra, do năng lực các DN Việt Nam còn yếu, khả năng cạnh tranh thấp nên dễ chịu tác động của các cú sốc bên ngoài.

3. Phương pháp nghiên cứu

Nghiên cứu này sử dụng phương pháp nghiên cứu kết hợp định tính và định lượng. Ở bước đầu tiên, tác giả tổng hợp các số liệu, thông tin thứ cấp từ các cơ quan quản lý nhà nước, các bài báo đăng trên các tạp chí trong nước và quốc tế về ảnh hưởng của Covid-19 đến các doanh nghiệp. Ở bước tiếp theo, công cụ khảo sát bao gồm bảng câu hỏi được sử dụng để thu thập đánh giá của các doanh nghiệp về tác động của Covid-19 đối với quá trình hoạt động trong giai đoạn 2020-2021. Bảng câu hỏi gồm 2 phần: Phần đầu tiên thu thập thông tin nhân khẩu học của người trả lời, trong khi phần thứ hai tập trung vào khám

phá ảnh hưởng của Covid-19 đối với doanh nghiệp về các khía cạnh như: doanh thu, chi phí, lợi nhuận, nguồn cung nguyên vật liệu; thị trường cũng như ứng phó của các doanh nghiệp trong thời gian dịch bệnh Covid-19.

Dữ liệu được thu thập từ lãnh đạo các doanh nghiệp đang hoạt động tại các khu công nghiệp trên địa bàn tỉnh Quảng Bình. Đây là những người đã có kinh nghiệm về đánh giá tác động và sử dụng các chiến lược ứng phó để giảm tác động của Covid-19. Thời gian thu thập được thực hiện trong khoảng thời gian từ tháng 3 đến tháng 5 năm 2022. Dữ liệu định lượng được phân tích bằng phương pháp thống kê mô tả.

4. Kết quả nghiên cứu và thảo luận

4.1. Đặc điểm của mẫu điều tra

Mẫu điều tra bao gồm 63 doanh nghiệp đang hoạt động tại các KCN ở Quảng Bình. Tỷ lệ DN điều tra phân bố tương ứng với số lượng các DN hoạt động tại các KCN. Cụ thể, KCN Tây Bắc Đồng Hới (15,9%); KCN Bắc Đồng Hới (39,7%); KCN Cảng biển Hòn La (12,7%); KCN Hòn La II (14,3%); KCN Tây Bắc Quán Hàu (6,3%) và KCN Cam Liên (11,1%).

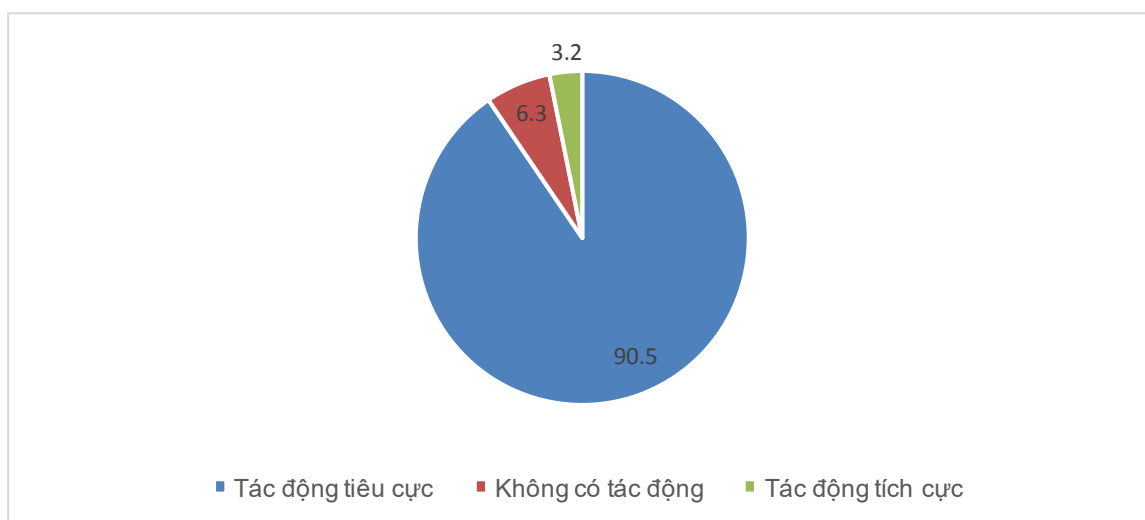
Về thời gian hoạt động của các doanh nghiệp, phần lớn các DN có thời gian hoạt động dưới 5 năm (66,71%). Do các KCN ở Quảng Bình đều mới thành lập và mức độ thu hút đầu tư còn ít nên số DN có thời gian hoạt động trên 5 năm còn khá ít (33%).

Về lĩnh vực hoạt động chính của doanh nghiệp, các doanh nghiệp hoạt động trong lĩnh vực sản xuất hàng xuất khẩu (may mặc, dăm gỗ, ván ép công nghiệp) chiếm 51%, doanh nghiệp hoạt động trong lĩnh vực sản xuất vật liệu xây dựng chiếm 29% và phần còn lại là các doanh nghiệp hoạt động trong các lĩnh vực khác.

4.2. Tác động tổng thể của Covid-19 đến hoạt động của doanh nghiệp

Kết quả khảo sát cho thấy, cho đến thời điểm cuối năm 2021, tác động của COVID-19 đến khu vực doanh nghiệp tại các KCN đã bắt đầu bộc lộ một cách rõ ràng. Trong tổng số 63 doanh nghiệp được phỏng vấn có đến 90,5% các doanh nghiệp điều tra đánh giá dịch Covid-19 có tác động tiêu cực đến hoạt động sản xuất kinh doanh của họ trong khi đó chỉ có 6,3% cho rằng không có tác động và 3,2% đánh giá là có tác động tích cực (**Hình 1**). Điều này cho thấy, cũng như các loại hình doanh nghiệp khác, các doanh nghiệp hoạt động trong các KCN ở Quảng Bình rất dễ bị tổn thương bởi tác động của Covid-19.

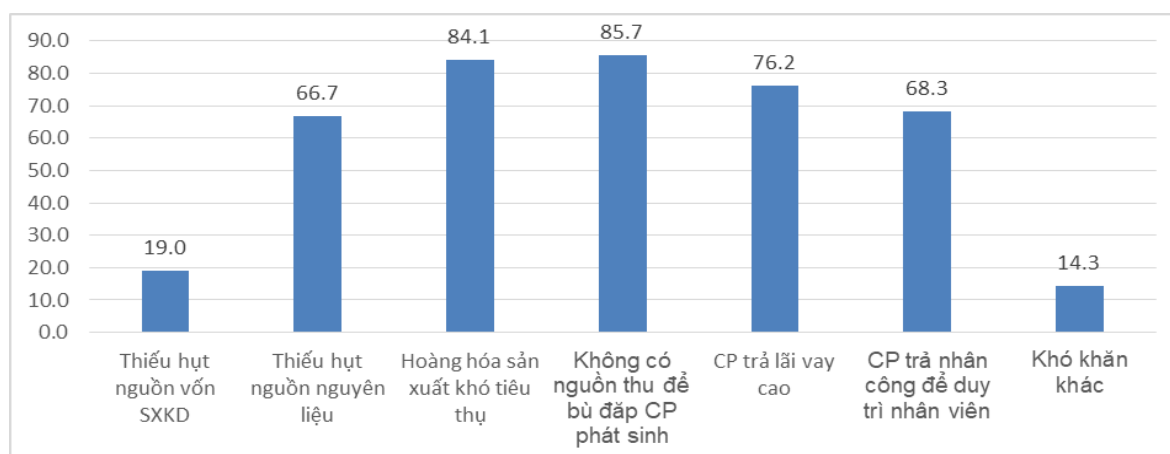
Qua điều tra cho thấy, các DN hoạt động tại các KCN ở Quảng Bình chủ yếu thuộc lĩnh vực sản xuất và chế biến lâm sản như sản xuất vật liệu xây dựng; chế biến dăm gỗ. Khi dịch bệnh Covid-19 diễn ra, các hoạt động xây dựng và xuất khẩu bị ngưng trệ nên đã ảnh hưởng lớn đến hoạt động sản xuất của các doanh nghiệp. Chỉ có một số ít doanh nghiệp hoạt động trong lĩnh vực dệt may và sản xuất thiết bị phục vụ giáo dục là không chịu ảnh hưởng hoặc hưởng lợi từ dịch bệnh Covid-19. Điều này cho thấy, với ngành nghề sản xuất kinh doanh hiện tại của các doanh nghiệp, họ dễ dàng chịu tác động bởi các yếu tố rủi ro như dịch bệnh, suy thoái kinh tế.

Hình 1: Tác động tổng thể của Covid-19 đến các doanh nghiệp

Nguồn: Kết quả điều tra năm 2022

4.3. Tác động Covid-19 đến quá trình sản xuất của doanh nghiệp

Đánh giá tác động của Covid-19 đến quá trình sản xuất của doanh nghiệp bao gồm các tác động đến nguồn cung và những tác động đến quá trình sản xuất, tiêu thụ. Nguồn cung ứng nguyên vật liệu là yếu tố quan trọng để đảm bảo vận hành sản xuất trong các doanh nghiệp sản xuất kinh doanh tại các khu công nghiệp.

**Hình 2: Tác động Covid-19 đến quá trình sản xuất của doanh nghiệp**

Nguồn: Kết quả điều tra năm 2022

Kết quả khảo sát cho thấy, thiếu hụt về nguồn nguyên liệu là một trong những vấn đề nghiêm trọng mà các doanh nghiệp đang gặp phải khi đại dịch xảy ra (66,7% số người được hỏi đồng ý với nhận định này). Từ đầu năm 2020, đại dịch bắt đầu lan rộng đến các tỉnh thành và chính phủ thực hiện các biện pháp hạn chế di chuyển hoặc đóng cửa một số khu vực tùy theo cấp độ dịch nên việc di chuyển giữa các vùng rất khó khăn. Các doanh nghiệp sản xuất tại các KCN trên địa bàn tỉnh Quảng Bình thường phụ thuộc vào nguồn

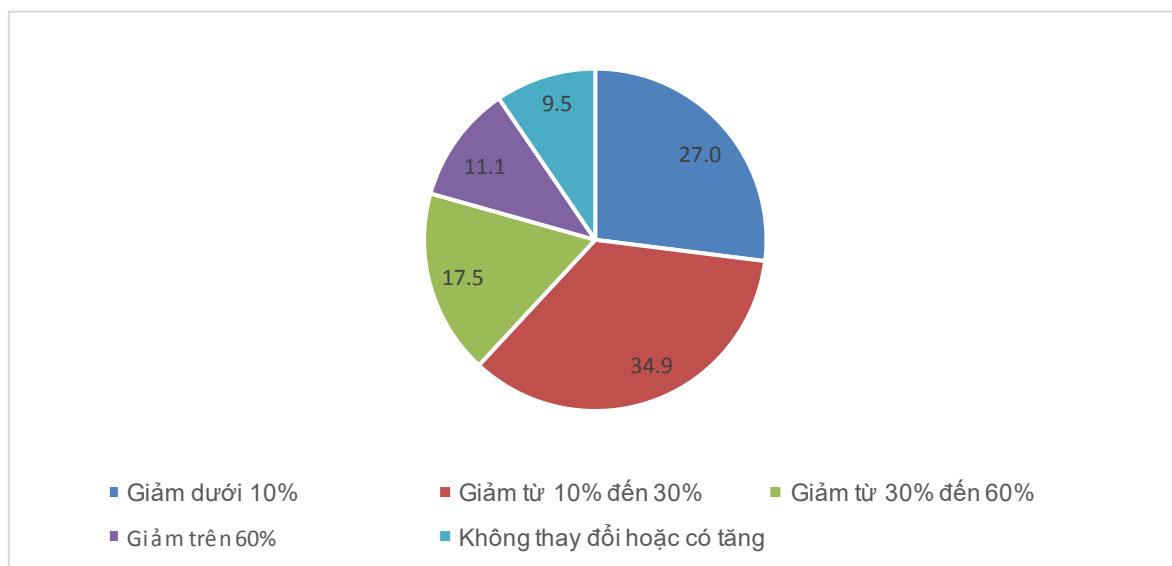
nguyên liệu ở Hà Nội và Thành phố Hồ Chí Minh đặc biệt là các doanh nghiệp may mặc nên khi xuất hiện các biện pháp hạn chế di chuyển sẽ gây tác động tiêu cực ngay đến các doanh nghiệp do không có hàng hoá để phục vụ quá trình sản xuất.

Đại dịch Covid-19 cũng đã gây nhiều khó khăn đối với các doanh nghiệp trong đó khó khăn phổ biến nhất là hàng hoá khó tiêu thụ và không có nguồn thu để bù đắp các chi phí phát sinh. Cũng giống như các doanh nghiệp khác, do thị trường các sản phẩm của các doanh nghiệp trong khu công nghiệp ở Quảng Bình chủ yếu sử dụng cho xuất khẩu như may mặc, dăm gỗ, sản xuất các loại vật liệu xây dựng (bê tông, gạch) nên khi đại dịch xảy ra, các doanh nghiệp này không thể xuất khẩu được và cũng không thể tiêu thụ tại thị trường nội địa do các hoạt động xây dựng bị hạn chế nên hoạt động sản xuất kinh doanh của các doanh nghiệp bị ngưng trệ. Bên cạnh đó, do quy mô các doanh nghiệp trong khu công nghiệp ở Quảng Bình còn nhỏ, tích lũy vốn thấp nên khi không có nguồn thu sẽ dẫn đến không có nguồn thu để bù đắp các chi phí sản xuất (85,7% số doanh nghiệp gặp những khó khăn này).

Để ổn định sản xuất sau đại dịch, các doanh nghiệp cũng cần duy trì một số lượng nhân viên nhất định mặc dù giảm quy mô sản xuất. Đây cũng là một trở ngại đối với các doanh nghiệp trong giai đoạn dịch bệnh (68,3% số doanh nghiệp được hỏi gặp khó khăn này). Bên cạnh đó, do lãi suất cho hoạt động sản xuất kinh doanh của các doanh nghiệp không được điều chỉnh nên đây cũng là gánh nặng các doanh nghiệp hoạt động tại các KCN tỉnh Quảng Bình.

4.4. Tác động Covid-19 đến doanh thu và lợi nhuận

Tác động tiêu cực của Covid-19 đến doanh thu của các doanh nghiệp là khá rõ ràng với khoảng gần 86% đồng ý với nhận định này. Hình 3 phản ánh mức suy giảm doanh thu trong giai đoạn dịch Covid-19 mà các doanh nghiệp đang gặp phải.



Hình 3: Tác động Covid-19 đến doanh thu

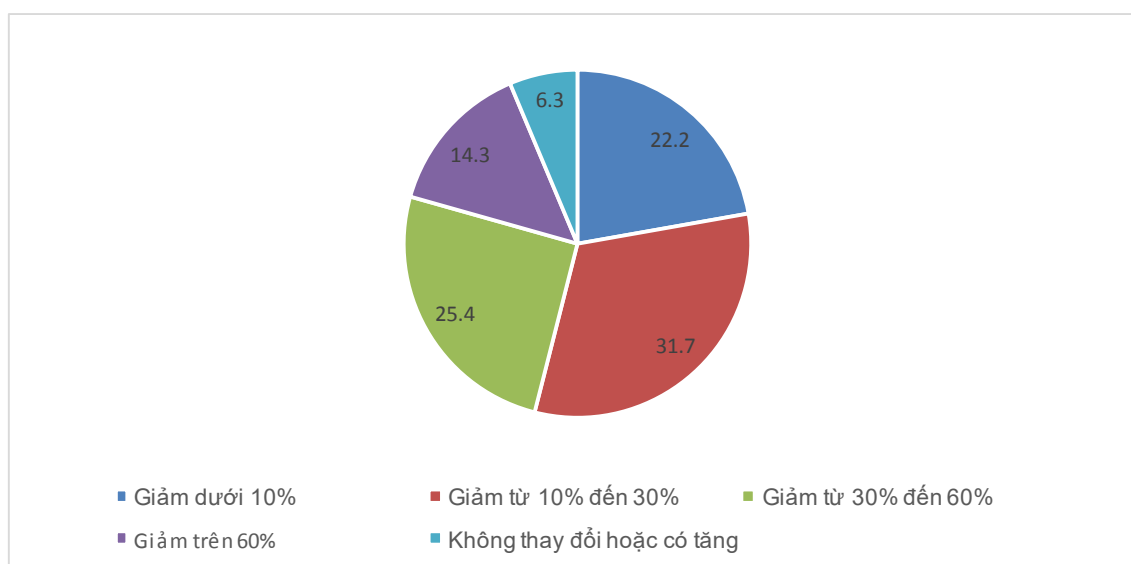
Nguồn: Kết quả điều tra năm 2022

Số liệu đã cho thấy khoảng gần 35% số doanh nghiệp được hỏi có mức suy giảm doanh thu từ 10 - 30% trong khi đó có khoảng 11% số doanh nghiệp giảm trên 60%. Điều này cho thấy, mức tác động đến doanh thu khá đa dạng đối với các loại hình doanh nghiệp. Hầu hết các doanh nghiệp tại các KCN trên địa bàn tỉnh đều có quy mô vừa và nhỏ nên khả năng ứng phó với các cú sốc như Covid-19 sẽ còn nhiều hạn chế. Đặc biệt, một số doanh nghiệp phụ thuộc hoàn toàn vào thị trường xuất khẩu nên trong thời gian diễn ra Covid-19, các đơn hàng rất hạn chế và mức suy giảm doanh thu bị kéo dài.

Bên cạnh các tác động tiêu cực, vẫn còn một số doanh nghiệp có doanh thu không thay đổi hoặc tăng do ngành nghề sản xuất là các sản phẩm ít chịu ảnh hưởng bởi Covid-19. Để đáp ứng nhu cầu chống dịch, một số doanh nghiệp chuyển sang may các sản phẩm khẩu trang để phục vụ nhu cầu trong nước.

Cùng với mức suy giảm về doanh thu, lợi nhuận của các doanh nghiệp cũng bị suy giảm tương ứng (Hình 4). Mức giảm lợi nhuận từ 10-30% là khá phổ biến và chiếm khoảng một phần ba tổng số doanh nghiệp được điều tra.

Hình 4: Tác động Covid-19 đến lợi nhuận

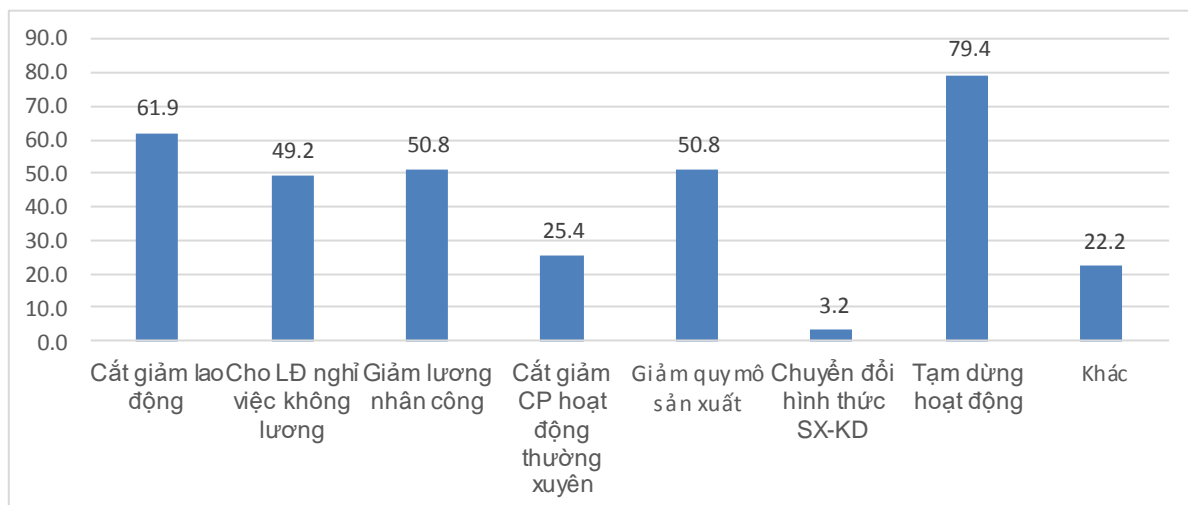


Nguồn: Kết quả điều tra năm 2022

Số doanh nghiệp có mức giảm lợi nhuận trên 60% chiếm tỷ lệ 14,3%. Hầu hết các doanh nghiệp này thuộc lĩnh vực sản xuất các sản phẩm xuất khẩu (ván ép, dăm gỗ, may mặc). Điều này cho thấy, việc đa dạng hoá thị trường nhằm giảm những cú sốc do các yếu tố rủi ro là điều rất cần thiết hiện nay đối với các doanh nghiệp hoạt động tại các KCN ở Quảng Bình.

4.5. Giải pháp ứng phó với đại dịch của các doanh nghiệp

Để ứng phó với đại dịch Covid-19, các doanh nghiệp đã thực hiện nhiều giải pháp ứng phó nhằm giảm thiểu các tổn thất. Giải pháp khá phổ biến nhất là tạm dừng hoạt động trong ngắn hạn (79,4% số doanh nghiệp đồng ý). Do phần lớn các doanh nghiệp sản xuất sản phẩm xuất khẩu hoặc khó lưu kho nhiều được nên đây là giải pháp phổ biến nhằm giảm thiểu chi phí.



Hình 5: Giải pháp ứng phó với đại dịch của các doanh nghiệp

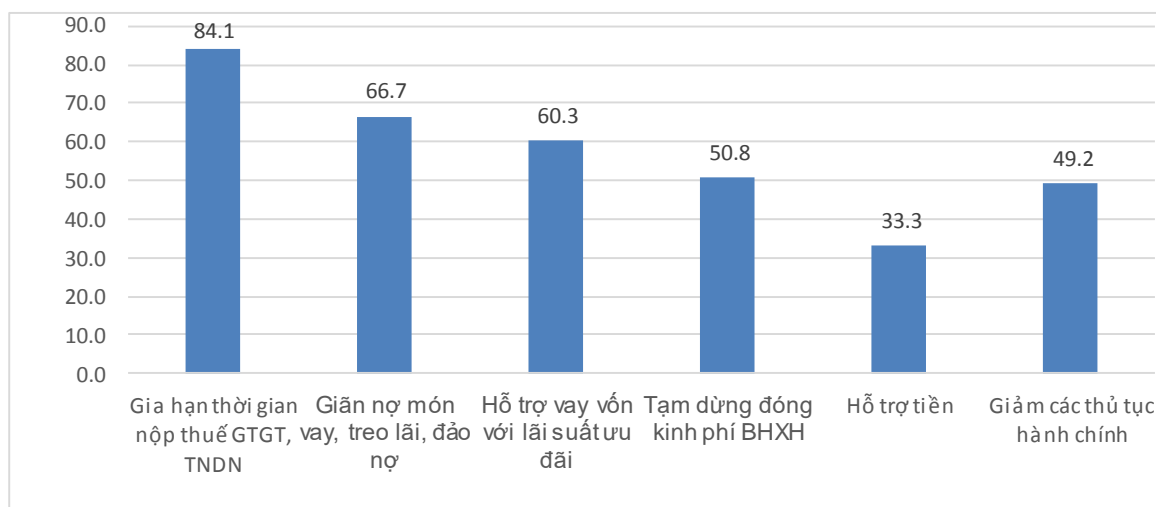
Nguồn: Kết quả điều tra năm 2022

Việc cắt giảm tạm thời lực lượng lao động cũng là cách hạn chế tác động Covid-19 với gần 62% các doanh nghiệp áp dụng. Trong thời gian giãn cách xã hội, các lao động được cắt giảm tạm thời và đi kèm với giải pháp này là giảm lương công nhân. Do phần lớn lao động hoạt động trong các doanh nghiệp là lao động phổ thông, có thể tìm kiếm một số công việc tạm thời ngoài nhà máy nên việc cắt giảm tạm thời không gây ảnh hưởng lớn đến lực lượng lao động sau khi dịch bệnh kiểm soát và họ có thể quay trở lại làm việc khi doanh nghiệp cần.

Việc chuyển đổi sang lại hình kinh doanh khác rất ít doanh nghiệp áp dụng (3,2% doanh nghiệp được hỏi đồng ý) vì do đặc thù của các doanh nghiệp hoạt động trong các khu công nghiệp. Các doanh nghiệp này tập trung trong lĩnh vực công nghiệp và xây dựng nên không thể thay thế ngành nghề sản xuất được do trở ngại của các máy móc thiết bị. Đây là một hạn chế về khả năng thích ứng mà các doanh nghiệp hoạt động trong các KCN ở Quảng Bình gặp phải.

4.6. Mong muốn của các doanh nghiệp

Để khắc phục những khó khăn của doanh nghiệp do tác động của Covid-19, không chỉ nỗ lực của doanh nghiệp mà cần có sự hỗ trợ của chính quyền địa phương. Kết quả khảo sát cho thấy, gia hạn thời gian nộp thuế GTGT và thuế TNDN là mong muốn của phần lớn các doanh nghiệp (84,1% số doanh nghiệp được hỏi). Bên cạnh đó, việc giãn nợ các món vay cũng là sự hỗ trợ quan trọng để các doanh nghiệp vượt qua khó khăn trong thời kỳ dịch bệnh.



Hình 6: Mong muốn của các doanh nghiệp

Nguồn: Kết quả điều tra năm 2022

Các hỗ trợ khác như hỗ trợ vay vốn với lãi suất ưu đãi và tạm dừng đóng các khoản BHXH cũng được các doanh nghiệp đồng ý như là biện pháp hỗ trợ trực tiếp từ nhà nước. Trong thời gian qua, chính phủ cũng đã hỗ trợ trực tiếp tiền đến các doanh nghiệp thông qua cho các doanh nghiệp vay không lãi để trả lương nhưng điều kiện để nhận được các khoản vay này cũng khá khó khăn nên chưa có tác dụng nhiều đến các doanh nghiệp.

Song song với các khoản hỗ trợ trực tiếp, chính quyền tỉnh Quảng Bình và Ban quản lý các khu công nghiệp và khu kinh tế tỉnh Quảng Bình cũng cần cải cách thêm các thủ tục hành chính nhằm giảm các chi phí về thời gian trong quá trình hoạt động của doanh nghiệp. Khi các sự hỗ trợ đã đề cập ở trên phát huy tác dụng sẽ góp phần thúc đẩy sự phát triển của doanh nghiệp sau đại dịch.

5. Kết luận và khuyến nghị chính sách

Kết quả nghiên cứu cho thấy, các khó khăn do ảnh hưởng của đại dịch Covid-19 đến các doanh nghiệp tại các KCN trên địa bàn tỉnh Quảng Bình là khá rõ ràng. Điều này được thể hiện qua sự suy giảm về doanh thu, lợi nhuận và các khó khăn về cung ứng nguyên liệu, vốn cho sản xuất. Bên cạnh đó, do quy mô các doanh nghiệp nhỏ, thị trường phụ thuộc vào xuất khẩu hoặc chỉ tiêu thụ nội tỉnh đã làm cho những tác động này càng nghiêm trọng hơn trong thời gian dịch bệnh. Để có thể phục hồi sau đại dịch Covid-19, các doanh nghiệp cần thực hiện một số giải pháp sau:

- Nghiên cứu để tìm hiểu các thị trường mới nhằm tránh các rủi ro do tác động lâu dài của dịch bệnh hoặc các yếu tố môi trường khác. Cụ thể, các doanh nghiệp sản xuất hàng xuất khẩu như sản xuất dăm gỗ, may mặc cần mở rộng thị trường ở các quốc gia khác nhau. Đối với các sản phẩm tiêu thụ nội tỉnh như vật liệu xây dựng, sản xuất đồ nội thất cần mở rộng thêm các địa lý lân cận ở Quảng Trị, Thừa Thiên Huế và Hà Tĩnh, Nghệ An.

- Nghiên cứu sự thay đổi của thị trường sau đại dịch như: yêu cầu sản phẩm của khách hàng, hệ thống phân phối và đối thủ cạnh tranh; những xu hướng hay những gián đoạn nào trên thị trường đáng lưu ý. Đa dạng hoá các sản phẩm nhằm chia sẻ rủi ro nếu có

những biến động tương tự như đại dịch Covid-19. Tăng cường liên kết với các doanh nghiệp ở các khu công nghiệp khu vực miền Trung nhằm mở rộng phạm vi hoạt động.

- Nghiên cứu đầu tư các máy móc, thiết bị để nâng cao năng suất lao động. Đào tạo lại nhân lực để đảm bảo người lao động có đủ trình độ, năng lực thích nghi với những thay đổi mới của doanh nghiệp

- Thúc đẩy hơn nữa quá trình chuyển đổi số, nhằm giúp DN có sức chống chịu tốt hơn. Đại dịch Covid-19 đang ảnh hưởng tới nhiều quốc gia, người dân và DN, trong bối cảnh đó, những DN sớm triển khai chuyển đổi số có sức chống chịu tốt hơn. Các doanh nghiệp cần đầu tư ứng dụng công nghệ thông tin vào việc duy trì và phát triển doanh nghiệp trong điều kiện dịch bệnh như cập nhật các phần mềm quản lý để vừa giảm chi phí, thay thế bán hàng trực tiếp bằng cách bán hàng trực tuyến vừa tạo điều kiện cho phép nhân viên làm việc tại nhà vừa đảm bảo công việc hiệu quả và tránh tiếp xúc cộng đồng khi dịch bệnh bùng phát.

- Chính quyền tỉnh Quảng Bình và Ban quản lý các Khu công nghiệp, khu kinh tế cần triển khai có hiệu quả các chính sách hỗ trợ khôi phục, phát triển hoạt động sản xuất, kinh doanh của các doanh nghiệp do chính phủ ban hành. Hỗ trợ, tháo gỡ khó khăn cho các chủ đầu tư kết cấu hạ tầng khu công nghiệp và các dự án sản xuất trong các khu công nghiệp. Phối hợp với các sở, ngành và địa phương đẩy mạnh công tác kêu gọi đầu tư đối với các dự án phát triển cụm công nghiệp; tạo lập môi trường kinh doanh và cơ hội tiếp cận hỗ trợ dịch vụ công bình đẳng cho mọi thành phần doanh nghiệp.

- Cải thiện mạnh mẽ môi trường kinh doanh, nâng cao chất lượng thực thi của hệ thống chính quyền cấp cơ sở, tiếp tục thúc đẩy cải cách thủ tục hành chính, cắt giảm gánh nặng thanh tra, kiểm tra và chi phí không chính thức cho các DN. Đồng thời, cải thiện chất lượng cung cấp dịch vụ công, hoàn thiện hệ thống thủ tục, quy định, thúc đẩy sự minh bạch và trách nhiệm giải trình trong quản lý nhà nước.

Mặc dù nghiên cứu này đã sử dụng phương pháp định lượng để đánh giá tác động của Covid-19 đến các doanh nghiệp tại các khu công nghiệp ở Quảng Bình nhưng vẫn còn một số hạn chế như: chưa phân tích sâu các tác động đối với từng nhóm doanh nghiệp; chưa thực hiện được các cuộc phỏng vấn sâu. Các nghiên cứu tiếp theo cần sử dụng kết hợp cả phương pháp định tính và định lượng để đánh giá sâu hơn tác động của Covid-19 đến các doanh nghiệp.

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GRANGER-CAUSED CONNECTEDNESS OF EXCHANGE RATES - A CASE STUDY OF THE MOST GLOBALLY TRADED CURRENCIES

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Abstract: *We use the conditional granger causality framework to investigate the connectedness among the most globally traded currencies from three perspective namely node-wise, group-wise and system-wise connectedness. Empirically, Global currencies tend to form into communities based on connection strength and density. While more links are found for emerging market currencies, the G11 currencies are net return- shock transmitters. Hard currencies like Canadian dollar, Norwegian Krone and Japanese Yen frequently present among the top most connected, although currencies' centrality positions vary over time. Dynamically, connectedness is found to capture major systemic events like Lehman Brothers' collapse and the deepening crisis of the Eurozone requiring the establishment of European Stability Mechanism in September 2012.*

Keywords: *Conditional granger causality, exchange rates, connectedness*

LIÊN KẾT GRANGER TỶ GIÁ HỐI ĐOÁI - TRƯỜNG HỢP NGHIÊN CỨU CÁC ĐỒNG TIỀN CÓ DOANH SỐ GIAO DỊCH LỚN NHẤT TOÀN CẦU

Tóm tắt: *Chúng tôi sử dụng phương pháp ước lượng nhân quả Granger có điều kiện của Barnett and Seth (2014) để khám phá quan hệ liên kết giữa các đồng tiền được giao dịch nhiều nhất toàn cầu trên cả ba phương diện: liên kết song phương, liên kết nhóm và liên kết toàn hệ thống. Kết quả nghiên cứu cho thấy, các đồng tiền có xu hướng hình thành nên các cộng đồng riêng biệt dựa trên số lượng và mức độ liên kết. Trong khi số lượng liên kết giữa các đồng tiền của các quốc gia mới nổi là nhiều nhất, đồng tiền thuộc nhóm các nước phát triển - khối G11 đóng vai trò là người truyền dẫn các cú sốc lợi nhuận. Các đồng tiền mạnh như đô la Canada, Krone Na Uy và Yên Nhật thường xuyên hiện diện trong nhóm các đồng tiền có mức độ liên kết lớn nhất, mặc dù đồng tiền ở vị trí trung tâm mạng tiền tệ có sự thay đổi theo thời gian. Trên góc độ liên kết động, chỉ số phản ánh mức độ liên kết tổng thể có thể phản ánh các sự kiện gây rủi ro hệ thống như sự sụp đổ của ngân hàng đầu tư Lehman Brothers, khủng hoảng nợ công khu vực đồng Euro cũng như sự ra đời của Cơ chế ổn định Châu Âu vào tháng 9 năm 2012.*

Từ khóa: *Nhân quả Granger có điều kiện, tỷ giá, liên kết*

1. Introduction

The financial crisis 2007 - 2009 has drawn great attention to connectedness within the financial system, reminding that financial connectedness is of critical importance to macroeconomic stability, yet still poorly defined, measured and thus

poorly comprehended (Glasserman and Young, 2016; Diebold and Yilmaz, 2015). This *status quo* partly originates from the multi-dimensionality of the concept 'connectedness' itself. Connectedness can be pairwise or system-wide, can focus on institutions, assets or markets, can be directional or non-directional, weighted or non-weighted, static or dynamic, contemporary or lead - lag relationship. As put forward by (Diebold and Yilmaz, 2015), connectedness is closely related to various types of risks, has both desirable and non-desirable parts, but is not equivalent to risk. As thus, a good understanding of financial connectedness is beneficial for policy makers in identifying, measuring and managing systemic risk, for investors and portfolio managers in conducting core financial activities like asset pricing, asset allocation and risk management. The connected objects are often, but not limited to, returns and volatility among different assets, asset classes or portfolios.

Foreign exchange market is an inseparable component of modern financial system, acting simultaneously as a facilitator to cross-border activities and as an investment channel. The role of foreign exchange market is reflected through the tremendous trading scale of this global market, which amounted to \$5.09 trillion per day in April 2016 (BIS, 2016). Movements in values of key currencies are of interest not only to companies, investors but also to policy makers since they not only affect a country's competitive advantage, its current account and the balance of payment but also lead to foreign exchange rate risks for investors and businesses (Eun and Resnick, 1988; Diebold and Yilmaz, 2015). Besides, several studies document inherent relationships between foreign exchange markets and other financial markets (Menkhoff et al., 2012; Melvin and Taylor, 2009; Apostolakis and Papadopoulos, 2015). Accordingly, foreign exchange markets transmit risks to and receive risks from stock markets, and to some extent, amplify turmoil in stock markets to a global scale. As a result, studying connectedness among global currencies in different periods of time thus also facilitates understanding the dynamic relationship between foreign exchange markets and markets like stocks and bonds.

This study is related to several strands of literature. The first is financial connectedness. Interests in understanding financial connectedness arise with the pulse to identify channels of contagion and to quantify systemic risks. Allen and Gale (2000) see connectedness among financial firms as the cross-holdings of deposits in the interbank market. Based on equilibrium analysis, they come to a conclusion that the density of connectedness strongly affects the possibility of financial contagion. Accordingly, a complete structure - occurs when any bank can hold deposits from others - can produce no contagion from a given shock. In the book 'Connectedness and Contagion - Protecting the financial system from panics', Scott (2016) argues that 'connectedness' is one among the three Cs of systemic risk: Connectedness, Contagion and Correlation. According to the author, 'connectedness occurs when financial institutions are directly overexposed to one another and the failure of one institution would therefore directly bankrupt other institutions, resulting in a chain reaction of failures' (Scott, 2016). Connectedness involves common sharing of resources, on either asset or

liability side of the institutions' balance sheets. In their seminal paper, Billio et al. (2012) assert that connectedness is indeed the 'Linkage' pillar in the four "L"s of financial crises: Leverage, Liquidity, Losses and Linkage. They argue that measure of systemic risk must capture the degree of connectedness in the financial system. Based on forecast variance decomposition of a VAR model, Diebold and Yilmaz (2014) propose several connectedness measures such as "from-others" and "to-others" connectedness to gauge the relative impacts individual nodes receive from or exert to others, pair-wise connectedness to measure the connection between two nodes and "total" connectedness to quantify the magnitude of connectedness of the whole system.

In foreign exchange market, Diebold and Yilmaz's approach (Diebold and Yilmaz, 2014) was employed mainly to gauge the direction connectedness and spillovers among currencies. For example, Diebold and Yilmaz (2015) analyzed the volatility connectedness for a sample of nine major currencies vis-à-vis USD; On the same set of currencies but longer time span, Greenwood-Nimmo et al. (2016) generalized the framework of Diebold and Yilmaz (2014) to analyze not only spillovers of risk neutral returns, risk neutral variance but also risk neutral skewness to capture the so-called 'crash risk'. Like in Diebold and Yilmaz (2014), the later study found that the total connectedness could capture major systemic events during the sub-prime crisis. Diebold and Yilmaz's framework is laid on sound theoretical foundation, easy to understand and apply, thus, is very popular

Granger causality concept was introduced by Granger (1969), then extensively developed and applied in different disciplines. The idea of granger-causality-based network to financial markets is, perhaps, first proposed by Billio et al. (2012). The authors' approach can be considered as compatible to that of Diebold and Yilmaz (2014) but bivariate in nature. In other words, the causal relationship only focus on two variables alone, without considering the simultaneous effects of others. These causality relationships may not hold in the multivariate case. This limitation can be addressed by employing multivariate conditional granger causality framework developed by Barrett et al. (2010) and Barnett and Seth (2014).

The second strand of literature is network of currencies. A network or graph (G) is generally understood as a collection of vertexes (V) and links (E) between them. Mathematically, this can be expressed as: $G = (V, E), V \in \mathbb{N}, E \in V \times V$. Applied to the field of finance, networks can represent specific markets, specific financial sectors or the financial system as a whole. Indeed, assets or institutions can be seen as nodes while relationships between them can be expressed as links or edges. Edges can be directional, weighted or both directional and weighted. From macro perspective, academics and practitioners rely on network approach to study financial stability, systemic risk and contagion. This approach helps to uncover a system's structure and connectedness, which play a vital role in systemic risk development, and helps to address the 'robust but fragile' issue. At micro level, investors can benefit from portfolio diversification and return forecast (Wang and Xie, 2016). Since there is a close relationship between foreign exchange market and other financial markets, studying connectedness

and structure in global currency market is important. Investors and policy makers and have early warning signal or confirmation evidence regarding development of systemic risk in stock markets (Ortega and Matesanz, 2006; Jang et al., 2011).

Initially laying in the domain of graph theory, network science was first used by sociologist to study relationship between social entities in the 1920s, then expanded rapidly to a wide range of disciplines in the late 1990s sparked by the two influential papers on small world networks (Watts and Strogatz, 1998) and on scale-free networks (Barabási and Albert, 1999) along with the development in computer sciences (Fenn, 2010; Onnela et al., 2006). Within foreign markets, literature about network studies is vast, ranging from the earliest study in 2005 (McDonald et al., 2005) till the most recent in 2016 (Kireyev and Leonidov, 2016; Shahzad et al., 2017). Foreign exchange market operates 24 hours a day, on global scale, involving millions of participants and trillions of USD daily turnover. This make it nearly impossible to construct network of currencies using real transaction data. Almost all researchers, therefore, rely on exchange rates to visualize linkages between currencies and study different properties. Motivated by the work of Mantegna (1999) on US stock markets, McDonald et al. (2005) applied the Minimum Spanning Tree techniques to the correlation network of foreign exchange markets, focusing on 11 most liquid currencies. Based on multi-step survival analysis they found the correlations among exchange rate returns are extremely long-lived. Furthermore, several currency clusters are found. These clusters change over time as the minimum spanning tree itself changes. Clustered structure is also found in all studies using the same methods, for examples Ortega and Matesanz (2006), Kwapien et al. (2009), Jang et al. (2011) and Matesanz and Ortega (2014). Each cluster often comprise currencies from the homogeneous geographical regions Ortega and Matesanz (2006) centering around a key currency from a major economy Mizuno et al. (2006). Dependence-based networks using time varying copula-t (Wang et al., 2014) and Symmetrized Joe-Clayton copula (Wang and Xie, 2016) provide similar conclusion on connectedness structure.

One similarity in the mentioned studies is that the networks are generally weighted but undirected. Granger-based causality approach in Billio et al. (2012) and Vyrost et al. (2015) can address the directional problem but result in un-weighted networks. Meanwhile, as argued by Diebold and Yilmaz (2015), both weight and direction of connectedness matter in real life. Two recent studies address this issue are those of Kireyev and Leonidov (2016) and Shahzad et al. (2017). Based on his proposed definition of currency demand indicator, Kireyev and Leonidov (2016) derives a multilateral exchange rate network from which the multilaterally equilibrium levels of bilateral exchanges rates are identified. However, their network may not reflect the dynamics of real world since the weights of links rely heavily on the share of currencies in the international currency turnover which only change every three years. Shahzad et al. (2017) propose a noteworthy approach when extending the connectedness to also the tail of return distribution. Accordingly, they use cross-quantilogram from Han et al. (2016) to measure the lead/lag directional return spillovers among a group of 20 currencies in different quantiles. Then, based on that, three different networks corresponding to three market states, namely

bearish, normal and bullish, can be visualized. Together with other model-based approach using copula (Wang and Xie, 2016; Lee and Yang, 2014) or quantile regression (Chuang et al., 2009), this modeless approach can show how currencies are connected to each other in extreme market conditions, which is beneficial to portfolio managers. The limitation is that, how linkages on global scale vary continually over time in terms of number of links and their strength is unknown. Another limitation, is the directional spillovers are bivariate and pairwise, thus not taking for the moderating effects of other exchange rates and not considering the effects of one exchange rate to total and vice versa. Last but not least, the authors just focus on a group of 25 currencies, many of which are not representative for the global currency basket due to low trading volume.

The rest of our paper is structured as follows: in Section 2 we outline the research methodology, notably on conditional Granger causality (G-causality), how a network is constructed and major network connectedness measures. G-causality and conditional G-causality framework in subsection 2.1 and 2.2 is drawn heavily from Barnett and Seth (2014). Section 3 presents empirical data, research findings and discussions. Conclusion, limitations and directions for future research are covered in section 4.

2. Methodology

2.1. Conditional Granger causality

The problems of spurious causality is originally mentioned in Granger (1969) and investigated by several authors including Geweke (1984), Chen et al. (2006), Eichler (2007), Barrett et al. (2010) and Barnett and Seth (2014). Granger (1969) was the first to coin the term 'spurious causality', referring to the case when relevant data and information is not available in causal relationship between two variables. According to Chen et al. (2006) the original definition of causality in Granger (1969) is applied to two stationary random variables, when a third series is taken into account, prima facie cause is used to describe the true causal relationship. X is said to prima facie causes Y if the observations of X up to time t help one predict Y_{t+1} when the corresponding observations of X and Z are available (Granger, 1980). Geweke (1984) is perhaps the first to mention the term conditional causality and the first to officially provide a testable solution to conditional causality. Conditional G-causality model is further developed and applied widely in several fields, especially neuro-science (Chen et al., 2006; Barrett et al., 2010). Chen et al. (2006) furthered the work of Geweke (1984) and applied to multivariate neural field potential data. Eichler (2007) tried to visualize the multivariate conditional causal relationships in graphs. Barrett et al. (2010) argued that traditional bivariate method may lead to fake causality and gave proof to the unification of time domain and frequency domain. These authors' theoretical framework is well presented in Barnett and Seth (2014) together with Matlab toolbox to efficiently estimate conditional Granger causality.

In the multivariate setting, G-causality between variables is often estimated in a vector autoregressive model with p lags - VAR(p), which takes the form:

$$\mathbf{U}_t = \sum_{k=1}^p \mathbf{A}_k \cdot \mathbf{U}_{t-k} + \varepsilon_t$$

Here p is the model order, \mathbf{A}_k is $n \times n$ matrix of regression coefficients, ε_t is the vector of residuals and k is the optimal lag selected using Bayesian Information Criterion (BIC) or Akaike Information Criterion (AIC).

Suppose the universe of \mathbf{U} in splits into three jointly distributed multi-variate processes:

$$\mathbf{U}_t = \begin{pmatrix} \mathbf{Y}_t \\ \mathbf{X}_t \\ \mathbf{Z}_t \end{pmatrix}$$

To condition out the effect of \mathbf{Z} , based on VAR(p) framework, we consider the following full and reduced regressions:

$$\mathbf{Y}_t = \sum_{k=1}^p A_{yy,k} \cdot \mathbf{Y}_{t-k} + \sum_{k=1}^p A_{yx,k} \cdot \mathbf{X}_{t-k} + \sum_{k=1}^p A_{yz,k} \cdot \mathbf{Z}_{t-k} + \varepsilon_{y,t}$$

$$\mathbf{Y}_t = \sum_{k=1}^p A'_{yy,k} \cdot \mathbf{Y}_{t-k} + \sum_{k=1}^p A'_{yz,k} \cdot \mathbf{Z}_{t-k} + \varepsilon'_{y,t}$$

The causality from \mathbf{X} to \mathbf{Y} conditional on \mathbf{Z} , is:

$$\mathcal{F}_{\mathbf{X} \rightarrow \mathbf{Y} | \mathbf{Z}} \equiv \ln \frac{|\sum'_{yy}|}{|\sum_{yy}|}$$

where $\sum_{yy} = \text{cov}(\varepsilon_{y,t})$ and $\sum'_{yy} = \text{cov}(\varepsilon'_{y,t})$ are relatively the residuals covariance matrices of the full and reduced regression model; $|\sum|$ is the determinant of the residuals covariance matrix of a VAR model, called the generalized variance (Barnett and Seth, 2014). Judging on several grounds like transformation invariance, frequency decomposition, information-theoretic interpretation and consistency with the maximum likelihood formation, Barrett et al. (2010) argue that generalized variance is an appropriate measure of model prediction error. Thus, G-causality in (8) gauges the reduction in prediction error when the past of \mathbf{X} is included to predict \mathbf{Y} . As asymptotically equivalent to information-theoretic transfer entropy (Barnett and Bossomaier, 2012), G-causalities can be meaningfully compared with due attention to statistical significance (Barnett and Seth, 2014).

Note that the null hypothesis test of no causality is:

$$H_0 : A_{yx,1} = A_{yx,2} = \dots = A_{yx,p} = 0$$

Thus $\mathcal{F}_{\mathbf{X} \rightarrow \mathbf{Y} | \mathbf{Z}}$ can be interpreted as "the degree to which the past of \mathbf{X} helps predict \mathbf{Y} beyond the degree to which \mathbf{Y} is already predicted by its own past and the past of \mathbf{Z} " (Barnett and Seth, 2014). In case \mathbf{X} and \mathbf{Y} are two individual variables, we

have pairwise conditional G-causality (PWGC). When X and Y both contains a group of variables, we have multivariate conditional G-causality (MVGC). MVGC is used to estimate return spillovers among currency groups, taking into account within group interactions, while PWGC is used to construct weighted and directed networks of currencies, following (Billio et al., 2012).

2.2. Network connectedness

In this research, weighted, directed networks are constructed based on PWGC. The idea is as follows: each exchange rate is treated as a NODE; if exchange rate x Granger causes exchange rate y conditional on a set of other exchange rates z, then there is a directional LINK or directional EDGE from node x to node y and $F_{x \rightarrow y|z}$ becomes the WEIGHT of this link/edge.

	E1	E2	...	Ei	...	Ej	...	En
E1	0	w_{12}	...	w_{1i}	...	0	...	w_{1n}
E2	w_{21}	0	...	w_{2j}	...	w_{2j}	...	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Ei	w_{i1}	0	...	0	...	w_{ij}	...	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
Ej	0	w_{j2}	...	w_{ji}	...	0	...	w_{jn}
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
En	0	w_{n2}	...	w_{ni}	...	0	...	0

Table 1: Connectedness Matrix

(Source: Author’s calculation, 2023)

Once the network is constructed, the first important task is to investigate the centrality of the exchange rates to determine which are the most connected. To this aim, we use the following three centrality criteria:

Node degrees. Node degree measures the total number of links a particular node has. In a directed network, the degree of a node includes in-degree and out-degree. In-degree is the sum of all links that point to the node. Out-degree, on the contrary, is the sum of all links that depart from the node.

Node strength. Node strength is the weighted sum of all links that a node has. Like node degree, node strength of a directed network comprises of node out-strength and node in-strength. Node out-strength measures the weighted sum of links that go out of a node whereas node in-strength is the weighted sum of links that go into a node. In Diebold and Yılmaz (2014) node strength is also named total connectedness, node out-strength called to-other-connectedness whereas node in-strength called from-other-connectedness.

Betweenness centrality. Node betweenness centrality is the fraction of all shortest paths in the network that contain a given node.

$$B(y) = \sum_{s \neq y \neq t \in V} \frac{\sigma_{st}(y)}{\sigma_{st}}$$

where $\sigma_{s,t}$ denotes shortest path from node s to node t , $\sigma_{s,t}(y)$ denotes shortest path from node s to node t that contains node y , V is the set of nodes in the network G . Nodes with high values of betweenness centrality participate in a large number of shortest paths. In some sense, it measures the influence a node has over the spread of information through the network (Newman, 2010).

3. Empirical data and results

3.1. Data

To minimize missing data and ensure global characteristics we focus on 35 most traded currencies surveyed by BIS (2016) in the period from 1999 to 2017. It is reported from successive BIS triennial surveys from 2001 to 2016 that trading volumes of these currencies account for around 96 99.8% of global daily trans- actions. From the list of these currencies, we have a sample of 34 exchange rates against USD. We choose USD as the base currency following several studies and because USD is the most liquid, most traded and most important reserve currency world-wide. Furthermore, trading between these currencies against USD accounts for around 80% of all pairs. We will use EUR for robust study, acknowledging that numeraire currencies could effect analysis results. Multilateral exchange rates like nominal effective exchange rates (NEER) are not utilized since we believe that interactions among bilateral exchange rates better capture and more timely reflect concurrent processes in the foreign exchange market, effects from other financial markets and especially behaviours of investors. In similar vein, the Special Drawing Rights (SDR) of the International Monetary Funds is also not considered as it has little business meaning. Data is taken from Bloomberg terminal. The rates are mid-point spot exchange rates at the end of each day based on the calendar of the United States. Missing data for non-trading days inUS is filled using last-price carry-forward principle. For simplicity, the exchange rates of any currency against the USD is written under that currency's interna- tional code. For example EURUSD is written as EUR while USDJPY is written as JPY. It is obvious from the list of currencies in Table 2 that our sample is un- balanced in terms of continents with strong bias towards Europe and Asia while South African Rand (SAR) is the only representative of African currencies.

A more balanced way to structure these 34 currencies is to group them corre- sponding to the level of development of countries that issue them. Accordingly we have two broad groups: advanced economies (16) and emerging economies (18). As advanced or emerging economies are also heterogeneous, we further divide them into: Group of Eleven (G11), Other Advanced Economies (OAE) Emerg- ing Leading and Growth economies (EAGLES), and Other Emerging Economies (OEE). G10 includes ten currencies of developed countries: EUR, JPY, GBP, AUD, CAD, CHF, SEK, NZD, NOK and DKK. OAE comprises of six currencies from Singapore, Hong Kong, Taiwan, South Korea, Czech Republic and Israel (IMF, 2017). Nine currencies that fall into

EAGLES are: BRL, RUB, INR, CNY, MXN, IDR, PHP, MYR and TRY. The rest nine currencies belong to other emerging economies group.

To gauge the dynamics of global currency connectedness, besides using rolling samples, we divide the whole period into six subsamples namely: 1999-2002, 2003- 2007, 2007-2009, 2009-2012, 2012-2015 and 2016-2017. The first subsample begins from the launch of EUR, covering the dot-com bubble and the economic recession 2001. The second subsample is arguably the period of economic expansion in the US and world major economies. The third and fourth sub-periods are global financial crisis and European sovereign debt crisis. The first crisis lasts from 03 July 2007 to 14 May 2009 as suggested by Dungey et al. (2015) while the latter dates back to 16 October 2009, coinciding with the revising upwards of Greece's budget deficit to 12.5% of its GDP, and ends on 12 September 2012 when the European Stability Mechanism got the go-ahead from a German court. The fifth sub-sample serves as after-crisis period while the period from 01 January 2016 till the end of 2017 tracks recent historic events and trends including Brexit, populism in Europe and the United States and rising protectionism. We use log return in percentage which is computed as follows:

$$r_{i,t} = \ln \left(\frac{P_{i,t}}{P_{i,t-1}} \right) \times 100$$

where $r_{i,t}$ is the daily log return of currency i at time t , $P_{i,t}$ and $P_{i,t-1}$ are exchange rates of currency i against USD at time t and $t - 1$ relatively.

Basic information about characteristics of these series is provided in Table 2. The mean daily log returns of all currencies are not significantly different from zero with exception of TRY, RON and CNY. Mean daily returns of TRY and RON are significantly positive value while that of CNY is significantly negative. This means that on average CNY have more daily appreciation against USD than the other way round and vice-versa for TRY and RON. All log returns series exhibit excess skewness, especially excess kurtosis. Excess kurtosis or fat tail implies high likelihood of extreme values are expected with all series, especially TRY, PHP, SAR and CHF. The Turkish lira, TRY, also has highest excess skewness, which translates into this currency having very high likelihood of extreme one day depreciation against USD. While BRL shows highest standard deviation of returns, daily volatility and the range of daily returns for HKD and SAR belong to top lowest group. This is reasonable since SAR and HKD is pegged against USD while CNY is managed floating with strong intervention from the People's Bank of China. Table 2 also shows all return series are stationary, thus fit for our analysis. Finally, the fact that Jacques - Berra test for normality is strongly rejected fits with properties of skewness and kurtosis, implying normal distribution is not appropriate to model exchange rate returns.

3.2. Node-wise connectedness

3.2.1. Centrality and connectedness structure

Figure 1 visualizes the network connectedness among thirty-four currencies from January 1999 to December 2017. Shapes and colors are used to show the blocs to which each currency belong. Square represents Europe while diamond and circle represent Asia

and Latin America respectively. Currencies in green colors or triangles all come from Commonwealth nations. The arrows exhibit Granger-cause directions while their thickness is proportional to the Granger- cause strength.

On the other hand, Figure 2 shows how networks' topology changes through time and which exchange rates are most connected in each sub- period. In the sub-figures, each filled circle represents a node, each curve represents a directional link between two nodes following clock-wise direction. For example, in Figure 2a, the blue curve between RON and RUB on the left indicates an edge originating spillover from RON to RUB, the curve between JPY and KRW represents a spillover from JPY to KRW. The bigger the circle, the higher the total strength of a node and similarly, the thicker the edge, the higher the weight or magnitude of connectedness. Edges' colors take colors of the source nodes. Regarding nodes' colors, the bluer the nodes, the higher their degrees.

Node centrality shows which nodes are the most connectedness in the web of connections. To this end, we first combine total degree, total strength and betweenness centrality to judge the total connectedness of a particular node. Betweenness centrality can go with total degree and total strength since high ranking on this criterion requires a node to have both inward links and outward links to be on shortest paths between two any other nodes. Table 3 provides a rather mixed picture on which node is the most central for each period of time. For instance, over the period 1999 - 2017, total degree indicates that MYR is the most connected while total strength picks KRW, betweenness points to ZAR. A combination of these three criteria is thus appropriate for final judgment. Only those which appear in the top 10 of three criteria are considered. Accordingly, it is easy to tell that MYR is the most central for the whole sample, RUB for 1999-2002, CLP for 2007-2009, IDR for 2007-2012 and 2016 - 2017 and finally KRW for 2012-2015. However, in other periods, it is not so clear cut. For 2003- 2007, it is hard to tell which between MXN and JPY are the most connected. For 2009 - 2012, it should be the competition between SGD and CAD. Overall, we can see that the most connected currencies mostly fall onto 2 groups: EAGLES or Advanced economies, where EAGLES is more dominant.

It is reasonable for positions of RUB and JPY in 1999-2001, JPY in 2003-2007 given the effects of Russian Default of 1998 and Japanese Quantitative Easing in early 2000s (Fawley et al., 2013). The centrality of MXN in 2003-2007 is also understandable thanks to the special relationship between Mexico and the United States, thus enjoyed the benefits from US' economic expansion in this period. Similarly, highest connect- edness rankings of CLP, GBP, TWD, AUD in 2007 - 2009 are expected because of close trade and investment relationship between Chile, the United Kingdom, Tai- wan, Australia with the United States. G11 currencies marked their presence in chaotic periods from 2007 to 2015 and uncertain period over the last two years. We can see currencies from this group in the top five of all criteria in these 4 sub-periods. It is also interesting to see that the two currencies most affected by Brexit, namely EUR and GBP make their ways to top 5 most central currencies in 2016-2017. The presence of CNY in the top 10 these last two years also fit with the efforts of China to turn CNY into a global currency, coinciding with the

fact that CNY was included into the currency basket for SDR by the International Monetary Funds from 1 October 2016.

Connectedness structure

Network analysis does not only investigate properties of nodes but also explore the connectedness structure or topology of the network. To investigate the connectedness structure, we use Louvain community detection algorithm for a directed weighted network developed by Rubinov and Sporns (2010). Result for the entire period is shown on Figure 3, where nodes with the same color fall into one community.

Our analysis show that each community possesses two main characteristics. First, almost all of them are dominated by currencies having either similar geographical condition or similar level of development regarding economies that issue the currencies. Second, there are core or central members that connect the rest of each community. For example, the orange community is typically Latin America- or EAGLES- dominated in which BRL, MXN and, to a less extent, IDR are the core nodes that tie members together in one group. Interactions among these currencies can be driven by regional economic cooperation (Southeast Asia, Latin America) or by currency investors/risk managers who consider these currencies having similar risk characteristics (EAGLES group).

Table 2: Descriptive statistics of foreign exchange rate returns

Code	Currencies	Obs	Min	Max	Mean	Median	Stdev	Skew	Kurt	J-B	ADF
AUD	Australian dollar	4752	-7.94	7.31	0.00	-0.04	0.82	0.40	8.67	***	***
NZD	New Zealand dollar	4752	-4.29	6.52	-0.01	-0.03	0.83	0.36	2.60	***	***
ZAR	South African Rand	4752	-6.63	15.50	0.02	-0.02	1.10	0.90	10.96	***	***
BRL	Brazilian real	4752	-10.34	8.70	0.02	0.00	1.12	0.25	10.15	***	***
CAD	Canadian dollar	4752	-4.00	3.61	0.00	-0.01	0.57	0.16	3.02	***	***
COP	Colombian peso	4752	-7.60	6.02	0.01	0.00	0.72	0.03	9.14	***	***
CLP	Chilean peso	4752	-5.09	4.68	0.01	0.00	0.63	0.29	5.26	***	***
MXN	Mexican peso	4752	-6.14	7.98	0.01	-0.01	0.71	0.85	11.80	***	***
PEN	Peruvian new sol	4752	-2.85	2.32	0.00	0.00	0.29	0.09	13.92	***	***
CHF	Swiss franc	4752	-19.38	8.95	-0.01	0.00	0.74	-3.49	103.99	***	***
CZK	Czech koruna	4752	-4.67	5.33	-0.01	-0.01	0.78	0.15	3.21	***	***

DKK	Danish krone	4752	-3.50	2.77	0.00	-0.01	0.64	-0.01	1.44	***	***
EUR	Euro	4752	-3.48	2.77	0.00	-0.01	0.64	-0.01	1.42	***	***
GBP	Pound sterling	4752	-2.92	8.44	0.00	0.00	0.59	1.05	12.34	***	***
HUF	Hungarian forint	4752	-5.50	6.86	0.00	0.00	0.91	0.40	4.12	***	***
ILS	Israeli new shekel	4752	-2.68	3.00	0.00	0.00	0.48	0.22	4.14	***	***
NOK	Norwegian krone	4752	-4.97	4.87	0.00	-0.01	0.77	0.19	2.52	***	***
PLN	Polish zloty	4752	-6.55	7.53	0.00	-0.03	0.88	0.35	5.31	***	***
RON	new Romanian leu	4752	-6.54	12.63	0.03	0.03	0.76	1.24	23.78	***	***
RUB	Russian rouble	4752	-17.35	17.00	0.02	0.00	0.82	0.62	91.54	***	***
SEK	Swedish krona	4752	-4.98	5.32	0.00	-0.01	0.77	0.11	2.71	***	***
TRY	Turkish lira	4752	-8.28	35.69	0.05	0.00	1.11	7.75	236.91	***	***
<hr/>											
CNY	Chinese yuan	4752	-2.03	1.83	-0.01	0.00	0.11	-0.63	54.35	***	***
HKD	Hong Kong dollar	4752	-0.61	0.31	0.00	0.00	0.03	-2.00	48.84	***	***
INR	Indian rupee	4752	-3.32	3.97	0.01	0.00	0.39	0.50	12.05	***	***
IDR	Indonesian rupiah	4752	-8.98	8.80	0.01	0.00	0.76	-0.24	20.99	***	***
JPY	Japanese yen	4752	-3.78	5.50	0.00	0.00	0.66	-0.05	3.65	***	***
KRW	Korean won	4752	-13.24	10.26	0.00	-0.01	0.67	-0.81	53.12	***	***
MYR	Malaysian ringgit	4752	-3.47	1.99	0.00	0.00	0.35	-0.33	8.52	***	***
PHP	Philippine peso	4752	-11.10	3.15	0.01	0.00	0.41	-4.41	121.14	***	***
SAR	Saudi riyal	4752	-0.56	0.59	0.00	0.00	0.02	1.75	211.05	***	***
SGD	Singapore dollar	4752	-2.38	2.67	0.00	-0.01	0.34	0.03	4.15	***	***
TWD	new Taiwan dollar	4752	-2.62	2.19	0.00	0.00	0.26	-0.05	8.95	***	***
THB	Thai baht	4752	-3.31	3.81	0.00	0.00	0.34	0.14	11.08	***	***

(Source: Author's calculation, 2023)

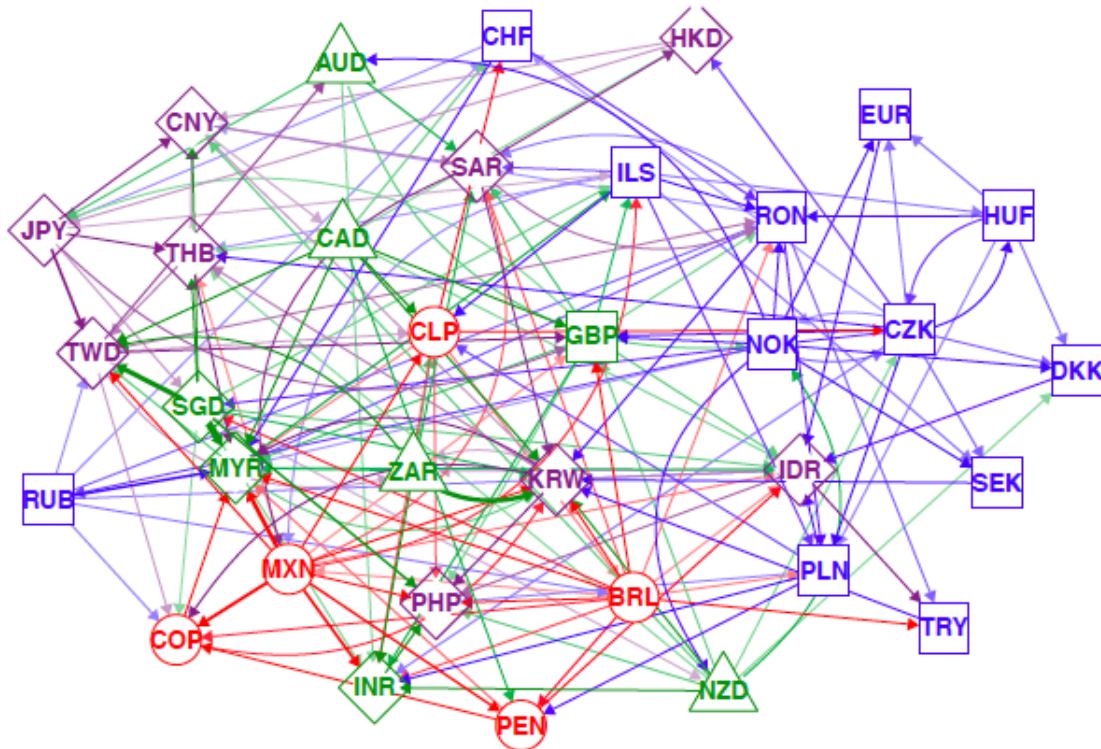


Figure 1: Global currency network 1999 - 2017

(Source: Author's calculation, 2023)

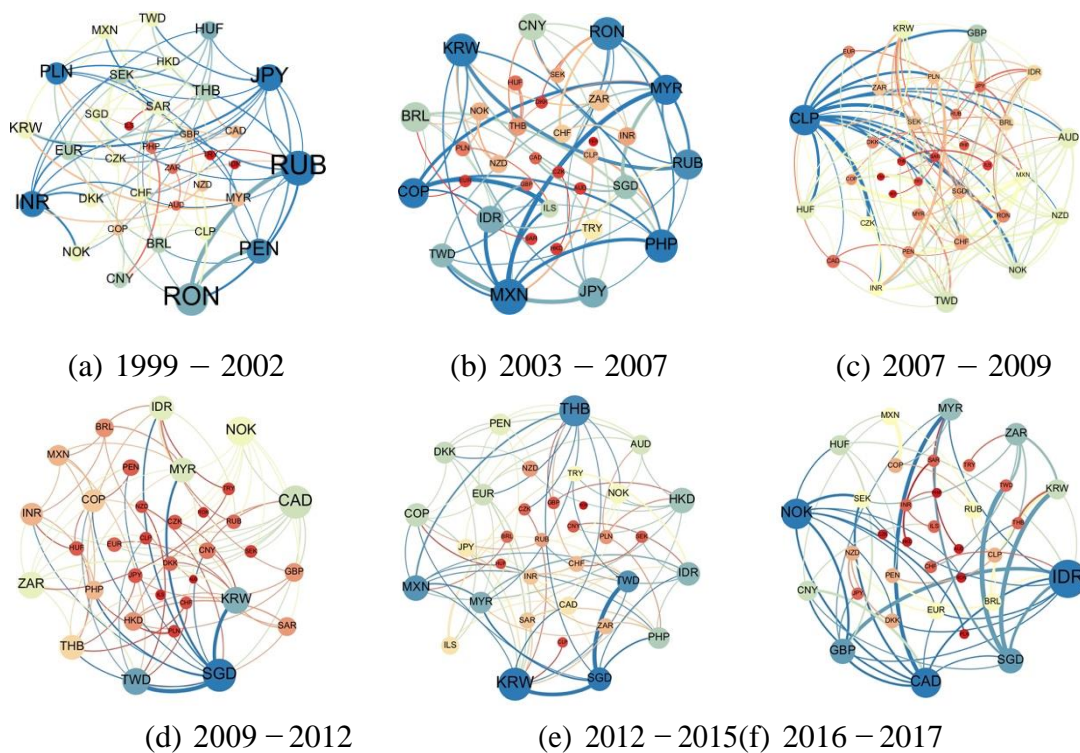


Figure 2: Global currency network over time

(Source: Author's calculation, 2023)

Table 3: Node Total connectedness

Criteria	1999/17	1999/02	2003/07	2007/09	2009/12	2007/12	2012/15	2016/17
Ranking								
1	MYR	RUB	MXN	CLP	SGD	IDR	KRW	IDR
2	SGD	RON	MYR	GBP	TWD	NOK	SGD	CAD
3	MXN	JPY	PHP	NOK	KRW	KRW	THB	SGD
4	KRW	INR	COP	TWD	CAD	GBP	TWD	NOK
5	TWD	PEN	KRW	AUD	MYR	CLP	MXN	GBP
Degree	ZAR	PLN	RON	HUF	IDR	INR	MYR	KRW
7	INR	HUF	RUB	NZD	ZAR	HUF	IDR	MYR
8	GBP	KRW	JPY	KRW	NOK	TWD	HKD	ZAR
9	BRL	THB	IDR	MXN	THB	ZAR	PHP	CNY
10	CZK	EUR	TWD	INR	COP	CZK	COP	MXN
<hr/>								
1	KRW	JPY	MXN	CLP	SGD	IDR	KRW	IDR
2	MYR	RUB	RON	TWD	CAD	CLP	THB	NOK
3	BRL	INR	KRW	AUD	NOK	NOK	MXN	CAD
4	CZK	PLN	PHP	GBP	TWD	TWD	HKD	SGD
5	GBP	PEN	JPY	KRW	KRW	GBP	IDR	GBP
Strength	MXN	RON	RUB	HUF	ZAR	KRW	SGD	MYR
7	IDR	HUF	BRL	NOK	IDR	ILS	COP	ZAR
8	RON	BRL	MYR	NZD	MYR	HUF	TWD	KRW
9	TWD	THB	COP	IDR	THB	AUD	PHP	CNY
10	ILS	CNY	CNY	BRL	INR	INR	MYR	HUF
<hr/>								
1	ZAR	RUB	JPY	TWD	CAD	IDR	IDR	IDR
2	CLP	PEN	RUB	CLP	HKD	ILS	SEK	SGD

3	TWD	JPY	KRW	MYR	TWD	TWD	THB	EUR
4	MYR	BRL	BRL	BRL	THB	CLP	CHF	CNY
5	ILS	INR	COP	AUD	MYR	AUD	CAD	ZAR
Betweenness	KRW	NZD	TRY	SGD	SGD	CZK	EUR	RUB
7	CZK	PLN	CNY	COP	NOK	RON	KRW	TRY
8	IDR	NOK	RON	GBP	SAR	MXN	PHP	CHF
9	NZD	HUF	MXN	KRW	CNY	RUB	ILS	COP
10	BRL	CHF	IDR	NOK	COP	GBP	NOK	MYR

(Source: Author's calculation, 2023)

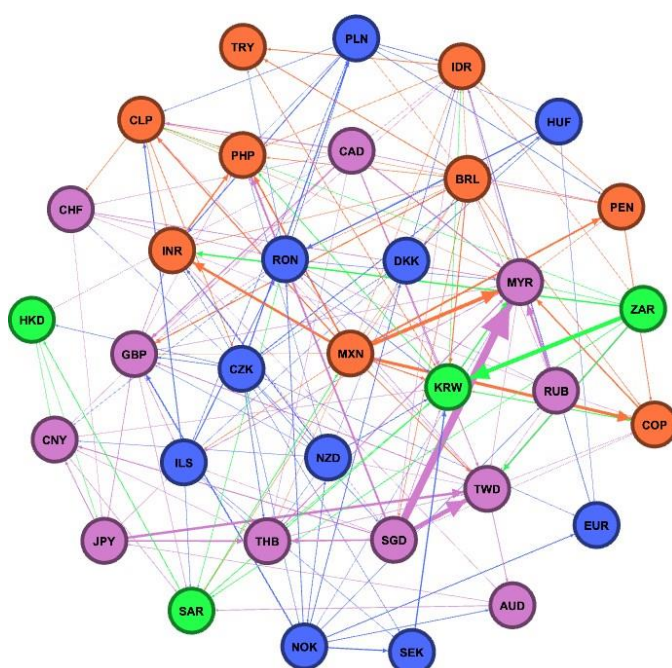


Figure 3: Network structure 1999 - 2017

(Source: Author's calculation, 2023)

Seven out of eleven currencies in the purple community are from advanced economies, namely CAD, GBP, JPY, AUD, SGD, CHF and TWD. From one perspective, the community is Asia-dominated since more than half of it are from Asia and three out of four core currencies are Asian, including SGD, TWD and MYR (Figure 1). From another perspective, this community is somewhat commonwealth since it contains five commonwealth currencies (AUD, CAD, GBP, MYR, SGD) and two of which are core members.

By similar reasoning, we can argue that the green community is in fact Asia-dominated. Within the community, SAR is the core node that connects HKD, KRW and ZAR together. This is possible since South Korea is among the main trade partners of Saudi Arabia, the latter, in turn, is one of the principal import partners of South Africa² while both Hong Kong and Saudi Arabia peg their currencies to the USD. The last community is undoubtedly European as eight among nine of its members are currencies of European countries and Israel, which is geographically in between Europe and Asia. Furthermore, it is the two European currencies including NOK, CZK that are the centers of this community. Overall, there are reasonable economic and geographical reasoning behind each group of currencies and the community structure fits very well with what can be seen from Figure 1.

3.2.2. *Dynamic node connectedness*

Rolling to-others connectedness reflect the effect of one currency on the system while from-others connectedness captures the opposite direction effects. Brown lines in Figure 4 show the dynamic rolling from- and to-connectedness of selected currencies (to save space). In each figure, the first vertical dashed blue line coincides with the collapse of Lehman Brothers on 15 September 2009, and the second one is on 12 September 2012 when the German Court approved the European Stability Mechanism. It can be seen that, these two events exerted considerable impacts on both series of connectedness: both see a spike in between the events. Another striking feature observed in Figure 4a is a big jump in mid 2005 in all series except for HKD.

Similar phenomenon is observed in CNY's to-others rolling connectedness. It turns out these spikes occurred on 22 July 2005, one day after the People's Bank of China announced its policy shift from pegging to managed floating exchange rate. Given the potential growth of Chinese economy, its positive states of current and financial accounts and international reserves, CNY would appreciate against USD and other major currencies. Quick market responses make the outgoing connectedness of CNY to others rose from 0.0143 the previous day to an all-time height of 9.2 on 22 July 2005, dropped back to 1.46 and 0.54 over the next two business days then stabilized around 0.39 to 04 August 2005. This big spillover then was absorbed by most other currencies. The mean from-other connectedness rose from 0.0113 to 0.28 from 21 to 22 July 2005, fell back to 0.054 on 25 July before sustained around 0.02 to mid-August of the same year. The impacts from Chinese exchange rate policy, the Lehman Brothers' collapse and approval of European Stability Mechanism can also be seen on Figure 8 regarding total connectedness.

² According to the CIA World Fact Book, in 2017, Saudi Arabia is the third biggest import partner of South Africa. In the same year, South Korea is the third most important export partner and the seventh most important import partner of Saudi Arabia (See: <https://www.cia.gov/library/publications/resources/the-world-factbook/>)

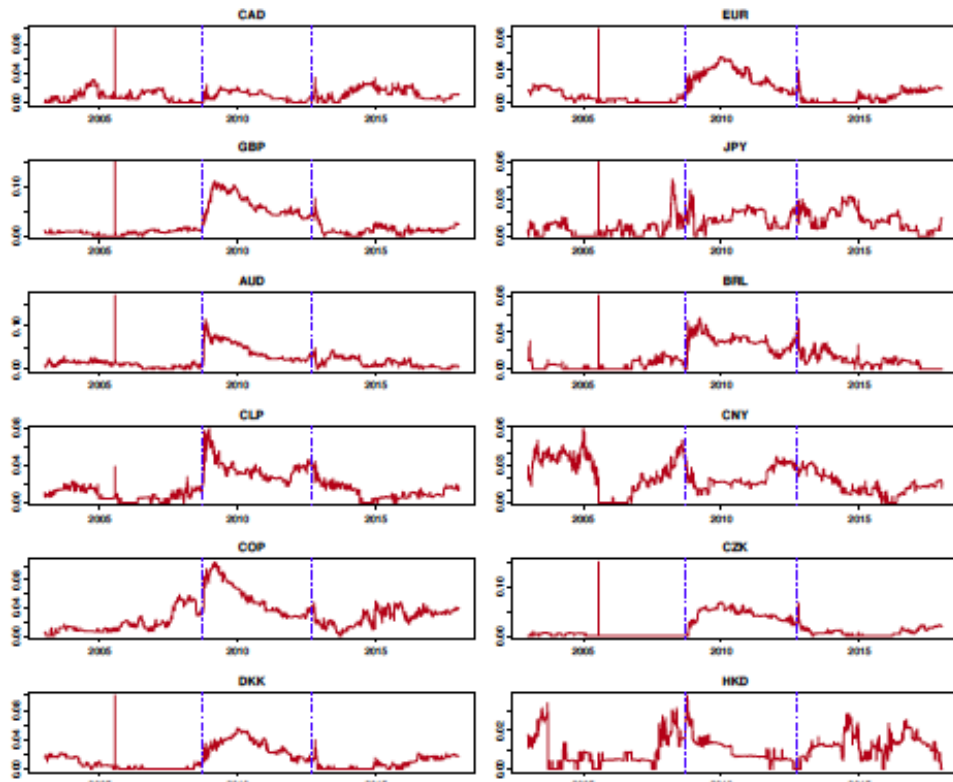


Figure 4a: From-others connectedness

(Source: Author's calculation, 2023)

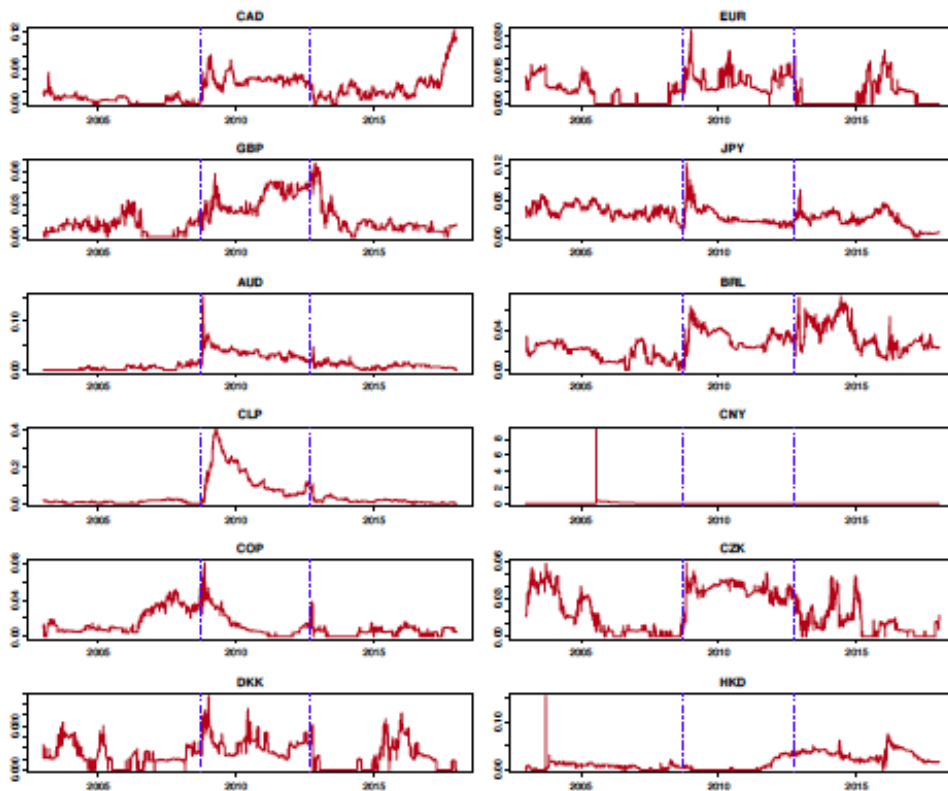


Figure 4b: To-others connectedness

(Source: Author's calculation, 2023)

3.3. Group-wise connectedness

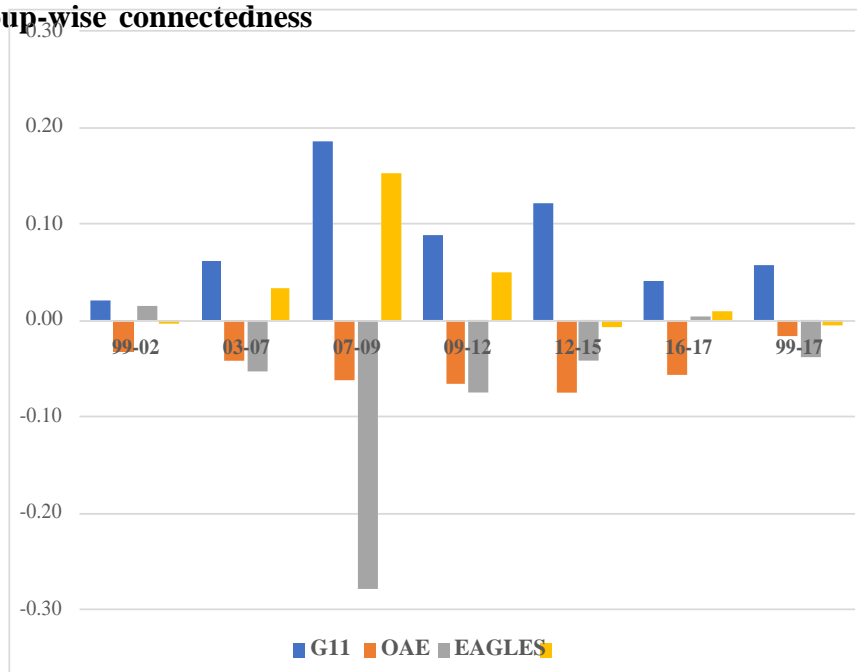


Figure 5: Net connectedness among currency groups

(Source: Author's calculation, 2023)

Figure 5 shows the dynamics of net connectedness among the four currency blocs G11, OAE, EAGLES and OTH over time. Net to-others connectedness of a particular bloc is the difference between to-others connectedness and from-others connectedness. Different from connectedness of a node, bloc connectedness is measured using MVGC framework, which, according to Barnett and Seth (2014), already accounts for intra-group connections. Net connectedness in this case, is net return spillover, reflecting whether a group is a net receiver or transmitter of change in exchange rates. Figure 6 reveals several interesting information. Firstly, the magnitude of spillovers varies through time, highest in 2007-2009 and lowest in 1999-2002. Secondly, the bloc of major currencies G11 plays as net transmitter while EAGLES and OAE are net receivers. Changes in values of EAGLES's currencies were driven the most by changes in other blocs while changes values of G11 currencies exerted highest impact on others, especially during the two crises. Regarding OTH bloc, overall spillover this bloc received balanced with what they spread out. Nevertheless, the bloc was net spillover over sub-periods from 2003 to 2012, with highest magnitude seen in 2007-2009. Given generally higher interest for this group, literature suggests that carry trade activities may have a say (Melvin and Taylor, 2009; Kohler, 2010).

3.5. System-wide connectedness

As put forward by Billio et al. (2012), network density reflects the global connectedness among assets or institutions and is measured by the ratio of realized edges per total number of possible edges. We call this the breath dimension of connectedness and introduce another dimension, namely depth connectedness, calculated by average weighted degrees of nodes. While the breath dimension tends to capture the quantity of linkages, the depth dimension reflects the strength of connection between nodes.

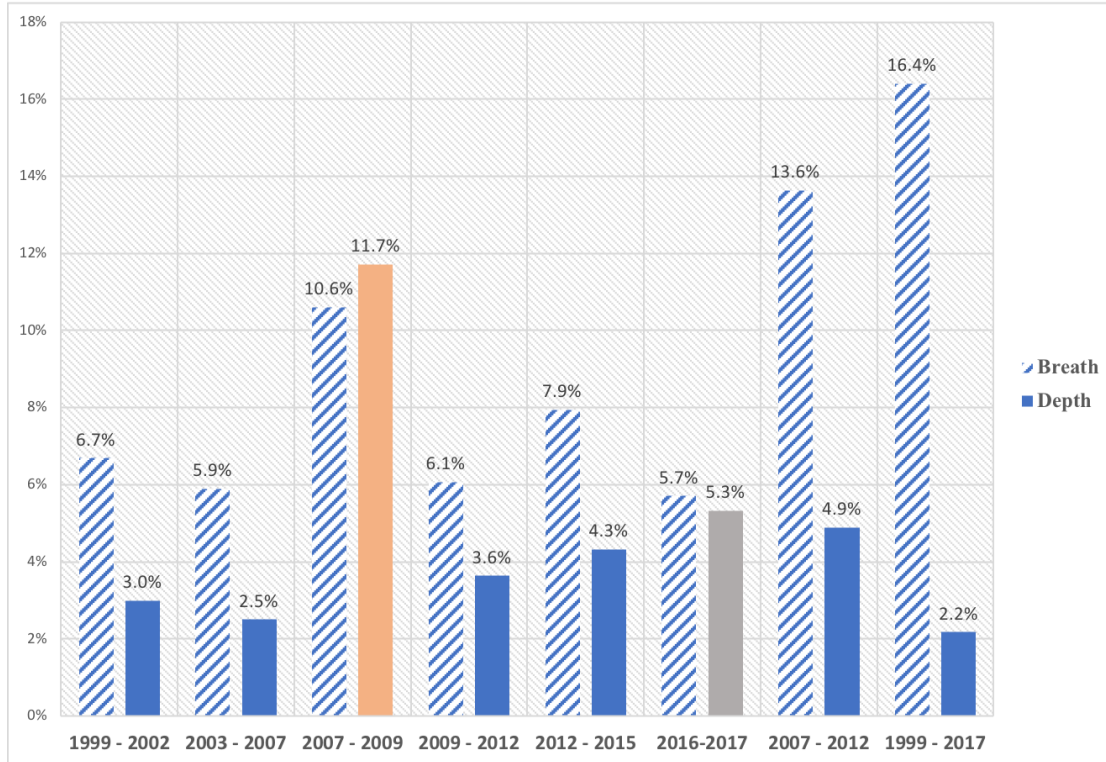


Figure 6: Snapshots of Network Total Connectedness

(Source: Author's calculation, 2023)

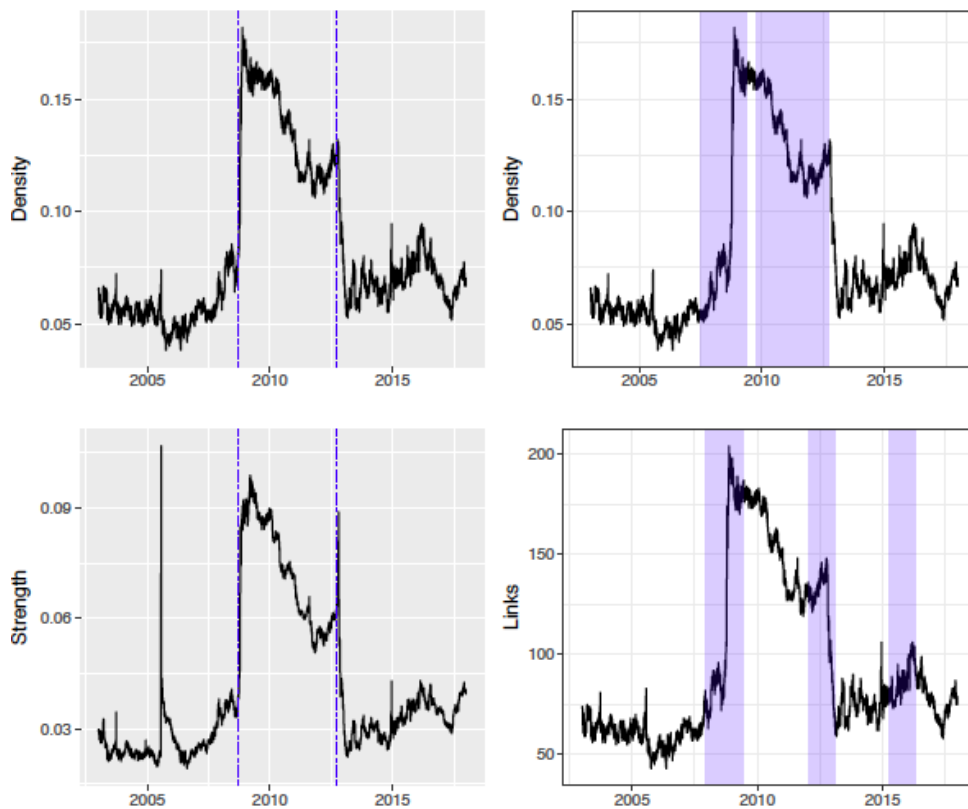


Figure 7: System-wise connectedness and systemic events

(Source: Author's calculation, 2023)

Figure 6 shows network connectedness over the study period 1999 - 2017, subdivided into six short periods. It seems that breadth connectedness is very sensitive period's length whereas the depth connectedness is not. Though covering less time span, depth connectedness of the double crisis period is higher than the whole period. This phenomenon is easily seen in the global financial crisis period 2007 - 2009, when a big spike in connectedness is witnessed, especially in the depth. This reflects the fact that the sub-prime credit exerts a huge impact on the connectedness, boosted both the number of connections and the strength of connections in the global foreign exchange. Lower connection's density and strength in 2009 - 2012 as compared to 2007 - 2009 may reflect the fact that the surprising or unexpected factors may have dropped. The higher in both dimensions of 2012 - 2015 compared to 2009 - 2012 is potentially due to longer time span but could capture the ups and downs in this period due to: oil price fluctuation, instability in Europe. Noticeably the connectedness strength in 2016- 2017 is second highest only after that of the great depression period, well reflecting the uncertainty over the last two years created by Brexit and triumph of populism in the United States and rising populism in several countries in Europe. Our depth dimension of connectedness thus helps to adequately capture the effects of systemic events and better identify chaotic and uncertain periods. These can be seen more clearly with four-year rolling connectedness on Figure 7.

4. Conclusion and future research

The purpose of this study is to investigate connectedness among globally traded currencies from all three perspectives: node-wise, group-wise and system-wise. To achieve this, we rely on the concept network connectedness in Diebold and Yilmaz (2015) and Billio et al. (2012) and enhance their measurement approach using conditional granger causality from Barnett and Seth (2014) and Barrett et al. (2010). We first employed pairwise conditional granger causality to construct a weighted directed network based on 34 exchange rates of most traded currencies vis-à-vis USD and examine connectedness over time on three scales, including node-wise, group-wise and system-wise. Global currency network exhibited dynamics over the last nineteen years, when no currency is uniquely most central. We found that the top connected currencies are usually either currencies from advanced economies or from emerging and leading growth economies (EAGLES). Among G11 currencies, NOK and CAD were the most connected and influential. The global currencies were structured into different communities depending on the number of links and more importantly, the strength of linkage among them. All communities have cores, with are highly and strongly connected. The rolling to- and from-connectedness as well as total breadth and depth connectedness among these exchange rates varied in accordance with global risks and could capture major systemic events over the re- search period. The behaviour of rolling system-wide connectedness matches well with different crisis periods in foreign exchange market pointed out by Melvin and Taylor (2009). Furthermore, rolling total connectedness is counter-cycle, negatively correlated with fed funds rate and positively correlated with all risk indicators. With these properties, our proposed measurement of connectedness based on conditional granger causality

complement those of Billio et al. (2012) and Diebold and Yilmaz (2015) and should be considered as an indicator of systemic risk. Policy makers can design real-time global currency connectedness index based on this result to gauge the development of systemic risk, especially when a systemic-risk event has been triggered. Future research should quantify the relationship between the centrality positions and risks as well as returns of exchange rates. Another direction is to identify the determinants of total rolling connectedness as well as whether or not this series can predict chaos in currency markets as well as stock markets. Finally, it is interesting to investigate the conditional granger-caused network in different quantiles, especially the lower- and upper-tail, of exchange rate returns.

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CHALLENGES IN BUILDING AND DEVELOPING GREEN INTERNATIONAL LOGISTICS CENTERS IN VIETNAM

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Abstract: *Although the concept of sustainable logistics has been around since 1980 and logistics activities resulting in sustainability and environmentally friendly businesses have been a top priority on every agenda, green logistics has still been underestimated in developing countries like Vietnam. With COP 26, Vietnam has just committed to using renewable and recycled energy. Therefore, in the next few years, green logistics, in general, and green logistics centers have become indispensable trends that both governments and firms must focus on to transform conventional performance towards sustainable ones. However, in order to achieve this long-term goal, stakeholders in the logistics field, besides specific advantages, also have to face a dilemma. This research aims to investigate the current status of green logistics application in the operations of logistics centers in developing countries like Vietnam based on indicators and criterion researchers have presented. By doing this, this study identified 22 key performance indicators making a international logistics center “green” and the current disadvantages in Vietnam as well as solutions to build and develop ILCs with green operations to achieve sustainable growth...*

Keywords: *Green Economic, Green Logistics, ILC, Sustainable Development, Vietnam,*

THÁCH THỨC TRONG XÂY DỰNG VÀ PHÁT TRIỂN TRUNG TÂM LOGISTICS QUỐC TẾ XANH Ở VIỆT NAM

Tóm tắt: *Mặc dù khái niệm về logistics bền vững xuất hiện từ năm 1980 và các hoạt động logistics mang lại sự bền vững và kinh tế thân thiện với môi trường đã trở thành ưu tiên hàng đầu trong mọi diễn đàn quốc tế và khu vực, tuy nhiên, logistics xanh vẫn bị đánh giá thấp ở các nước đang phát triển như Việt Nam. Gần đây, với thỏa thuận COP 26, Việt Nam cam kết sử dụng năng lượng tái tạo và tái chế. Do đó, trong những năm tới, logistics xanh nói chung và trung tâm logistics xanh nói riêng đã trở thành xu hướng không thể thiếu mà chính phủ và các doanh nghiệp phải tập trung để chuyển đổi các hoạt động kinh doanh theo xu hướng bền vững. Tuy nhiên, để đạt được mục tiêu dài hạn này, các bên liên quan trong lĩnh vực logistics, ngoài những lợi thế cụ thể, cũng phải đối mặt với khó khăn bất lợi nhất định. Nghiên cứu này đã xác định được 22 tiêu chí để xây dựng một trung tâm logistics quốc tế xanh, đồng thời phân tích những thách thức ở Việt Nam cũng như đề xuất các giải pháp để các trung tâm này có thể xây dựng và phát triển theo hướng xanh hóa, tạo tiền đề cho việc phát triển bền vững...*

Từ khóa: *Kinh tế xanh, Logistics xanh, ILC, Phát triển bền vững, Việt Nam*

1. Introduction

1.1. Context

The most significant environmental issues caused by logistics include air and noise pollution, stealing of land, and transportation accidents (Graham, S., Graham, B., Holt, D., 2018). There has been an increase in interest in how logistics affects climate change. Because new research has revealed that the harm posed by global warming is larger than previously believed by the public. The emissions caused by moving freight vary depending on the fuel type used by the vehicles. The majority of the time, businesses favor diesel-powered rails and trucks, with less freight movements occurring when gasoline-powered vehicles are used. Both hydrogen and carbon are present in diesel and gasoline.

When the Kyoto Protocol was ratified in 1997, the United Nations Intergovernmental Panel on Climate Change listed 27 greenhouse gasses that were divided into 6 groups. Electric-powered trucks and freight trains are used to transport smaller amounts of freight. In these situations, pollution occurs throughout the power generation process, and the type of pollution depends on the energy source employed. Each mode of logistics performance has a different emission level and, consequently, a different carbon footprint, so it is possible for every logistics organization to select a more environmentally friendly mode of raw material and product transportation, taking into account each situation, throughout the supply chain of a product, from the supply stage and its production to its storage and distribution to the final consumer and no exception for logistics centers (Srivastava, S.K., 2007).

The logistics center may be viewed as a foundation for economic growth with a focus on the logistics sector, including strategies to increase investment or small and very small firms's ability to compete. The presence of logistics hubs is viewed as a catalyst for development, resulting in greater employment possibilities and economic success for the nation. By 2025, the research projects that the logistics sector would account for 8% to 10% of Vietnam's GDP. In order to surpass this figure, a fresh strategy must be created that would enhance logistics competitiveness in the nation by 2025. The greatest consumer market in Vietnam, in particular, is Ho Chi Minh City. Moreover, it serves as the south's major supply and distribution hub. The city must be traversed by goods intended for import and export from the South and trade. As a result, a project concentrating on the construction of three logistics facilities in the southern region is under way with the intention of luring enterprises to use specialist logistics services and reducing unneeded expenses. Also, the strategy is fostering the development of logistics hubs in the area and provinces like Hai Phong, Hanoi, Can Tho, Da Nang, Lao Cai, etc. as well as the attraction of investment money into the region's logistics infrastructure.

Without intervention, the number of delivery vehicles in the top 100 worldwide cities would rise by 36% through 2030 to match the rising demand for online shopping, according to a World Economic Forum research in November 2020. According to the Google, Temasek, Bain & Co. October 2022 annual report on Southeast Asia's digital economy, carbon emissions and transportation-related activities may be decreased by 30-40% and 20-30%, respectively, if e-commerce-related logistics are streamlined. This has

an impact on the environment since it is predicted that by 2050, emissions from these vehicles would contribute 6 million tons of CO₂. A daily trip for one person will take an additional 11 minutes on average due to traffic congestion, which is expected to rise by more than 21%. Many Asian nations are using greener logistics solutions. The most evident is the development of new, greener forms of transportation, including those powered by electric or hybrid engines. Global shipping company Maersk stated in September that it will employ electric cars for deliveries in India that could reach 100% charge in less than 45 minutes. The company will concentrate on a 100-kilometer radius for business-to-business (B2B) distribution in the initial phase of implementation, with the goal of having 50 cars by the end of this year. The retail chain Lotus and the freight service company Kuehne & Nagel collaborated to make Lotus the first grocery retailer in Thailand to deliver cakes using electric trucks. Hence, becoming greener in logistics activities, especially in logistics centers has been an inevitable trend (Seuring, S., Müller, M., 2008).

1.2. Question research

Based on this context, this research will solve these following questions:

- *What are the key performance indicators of green operations in logistics centers?*
- *With these indicators, what is status-quo in application of green logistics in Vietnam?*
- *Solutions to promote the development of green performance in logistics centers?*

1.3. Methodology

To answer these questions, this research bases on the following process. The first step is that authors make a systematic review to find out about indicators that researchers have built to assess green logistics with logistics service providers and logistics centers. The second step is to organize an in-depth interview to check these indicators with experts in the logistics field. After that, through using indicators, authors can analyze practical activities of logistics centers and logistics fields in Vietnam to evaluate advantages and disadvantages of applying green standards. From that, authors will give potential solutions to promote this trend.

1.3.1. Data sources to do systematic review

This article is based on the Web of Science resource Science Citation Index Expanded (WOS). A well-known paper database used globally is WOS. More than 12,000 trustworthy references are included, as well as academic publications with high impact factors from SCIE and SSCI. Several scholars have conducted literature searches using the WOS platform. The retrieval mode for this work is mostly influenced by the two retrieval terms "green logistics" and "environmental". The search's topic is green logistics or developing green logistics facilities. The retrieval period runs from 2012 to 2022, with a deadline for retrieval of December 31, 2022. A total of 91 references were saved in accordance with the requirements for the test based on the research direction (engineering, mathematics, social issues, business economics, operation research management science, transportation, environmental sciences, ecology, energy fuels, computer science, science

and technology, social science, and other topics), language (English), document type (Article), and other factors from among the 947 results that were retrieved (SCI, SSCI).

1.3.2. Analysis method based on in-depth interview.

The authors have developed a variety of semi-structured interview methods in order to gather in-depth information on these green logistics features. The interview is the main method for learning about respondents' experiences and irrational viewpoints (Whipp, 1997). The interview's goal was to generate responses relevant to the study hypotheses. The theory in this instance relates to the limits of the present green logistics facilities in Vietnam. Although interview forms can vary, one extreme is the one where questions are asked in a rigid framework and order. The open or unstructured interview is at the opposite extreme of the spectrum; it is very helpful for discussing sensitive topics and is often used in "elite" interviewing. Instead of using a predetermined list of questions, semi-structured interviews use lists of themes or major concerns. Table 1 lists the structure of the interview experts and their roles. As many of the responders were logistics service providers with somewhat high administrative positions, access had to be regularly bargained.

Table 1. The organization of experts and their functions

Respondent group	Name	Function	Expert number
Logistics service providers	Senior managers	Building and performing strategic plan	5
Exporters	Managers	Performing business plans	1
Importers	Managers	Establishing business plan	1
Sea ports	Sale employees and managers	Negotiating with shipping lines	2
Logistics centers	Employees and Managers	Establishing and performing business plan	4
Warehouse	Leaders of teams	Performing operations	5

(Resources: Authors)

These five strategic dimensions, which are acknowledged as the essential elements of a green logistics system and which interact to form a comprehensive and cogent structure, may be used to evaluate the Vietnamese green logistics centers. Understanding the Vietnamese logistics hubs and their link to these five green logistics indicators requires the use of this standardized framework for green logistics. The authors have developed a variety of semi-structured interview methods in order to gather in-depth information on these four logistical variables. Semi-structured interviews are a general word for a variety of distinct interviewing techniques, most frequently employed in qualitative research (Lewis-Beck et al, 2004). Semi-structured interviews differ from structured interviews in

that they have a flexible and fluid framework instead of a predefined series of questions that must be asked uniformly to every interviewee.

An interview guide often serves as the framework for a semi-structured interview. Instead of a scripted series of standardized questions, this provides topics, themes, or regions to be discussed throughout the interview. In most cases, the goal is to guarantee flexibility in the way and the order in which questions are asked, as well as in whether and how certain themes may be followed up on and expanded with various interviews. This allows the interviewee's understanding and the researcher's interests to both influence the conversation. The effectiveness and validity of the semi-structured interview, however, depend on how accurately the respondents' thoughts are captured. The questions raised in the trade literature about contemporary logistics methods were whether these approaches were being used in Vietnam and how prevalent they were there. Due to access, time, and resource restrictions, the sample procedure was non-probabilistic; nonetheless, at least two to three stakeholders replied to the semi-structured protocols for each logistics-related sector. As a result, it was feasible to learn about these challenges from both the private and public perspectives. In this study, it was shown that the elite responder was more "open" when the interview was less formal.

Table 2. Interview themes

Theme	Key points	Objectives
Business strategies in firms	Policies, management system, regulations to protect environment	Comparing between indicators in research with practice
Operation in warehouse	Renewable energy, environmentally - friendly equipment, technology, treating waste	Evaluate whether operations in warehouse can influence on green rules
Transport	The role of rail and inland water way, standard of vehicles, maintaining process, electronic energy, empty vehicles, optimizing transport	The role of green transport in logistics centers
Packaging	Biodegradable material, optimize packaging process	How packaging material contribute to green indicator
Reverse logistics	collection of products, handling waste and removed package	Consider the percentage of the role of reverse logistics in Vietnam

(Resources: Authors)

2. Literature review

2.1. Green logistics

The term "green logistics" refers to a set of practices and strategies in supply chain management that aim to reduce the environmental and energy impact of distributing goods.

This involves managing material handling, waste, packaging, and transportation. According to Lorentz, H., Shi, Y., Hilmola, O.P., Srari, J.S., Lau, K.H. (2011), green logistics is an extension of green supply chain management, where companies consider environmental issues and integrate them into their supply chain management to improve the environmental performance of suppliers and customers. Activities related to green logistics include measuring the environmental impact of distribution strategies, reducing energy consumption, reducing waste, and managing waste treatment. From the perspective of sustainable development, green logistics refers to the production and distribution of goods in a sustainable manner, while taking into account environmental and social factors. This definition aligns with the definitions of sustainable development and corporate responsibility. The concept of green logistics encompasses all activities related to the efficient management of the flow of products and information to create added value for customers and meet their needs.

Although switching a company's logistics operations to green logistics operations may initially be expensive, the rewards of such an investment may be substantially greater (Abareshi, A., Molla, A., 2013). The use of green logistics practices, such as the environmentally friendly method of driving company cars may significantly lower the amount of gasoline consumed and, as a result, the financial and environmental expenses to the company (Govindan, K., Bouzon, M., 2018). Another instance of a green activity that can directly assist organizations in lowering environmental and financial costs is the implementation of a successful reverse logistics system. This is done by reusing waste that would otherwise be useless after the consumption of the materials and final products. A further motivation for firms to embrace green practices is the growing public concern for the environment. By offering green goods and services to the public, businesses may build a trustworthy reputation by projecting an approachable and responsible image (Seroka-Stolka, O., Ociepa-Kubicka, A., 2019). Consumers may verify the process of product manufacture and delivery, as well as the effects of these procedures on the environment, through initiatives like the creation of carbon footprint reports. Customers see businesses as trustworthy when they are sensitive to environmental concerns (PBLV, 2018).

Organizations in the same industry compete fiercely with one another, therefore businesses that make very comparable items and sell them for the same price might gain a crucial competitive edge by implementing green operations. In addition to the growing popular concern for the environment, the government is also becoming more concerned about environmental issues. Certain manufacturing, storage, and distribution requirements are demanded by local, national, and international governmental agencies from the organizations (Younis, H., Sundarakani, B., Vel, P., 2016). The restrictions that the government authorities put on organizations must be followed or they risk paying hefty penalties or having their ability to produce constrained. Companies can also take advantage of tax credits if they make an attempt to lessen the negative effects of their logistical activities, such as by decreasing car emissions and employing renewable energy sources (Bouzon, M., Govindan, K., Rodriguez, C.M.T., Campos, L.M., 2016).

In Vietnam, the group of authors including Tran, Vu and Nguyen also did research

with the current situation of green supply chain and lessons for Vietnam supply chain with SWOT method. About using green logistics to reducing operating costs, Huynh Dang Khoa, Tran Thi Bich Nhung

introduce the trend of green logistics applications illustrated by typical successful situation of business in Vietnam. Xuan Hung Nguyen, Tuan Anh Le analyse the impact of global green supply chain management practices on performance. The objective of this paper is to assess the impact of green supply chain management on global collaboration capability and firm performance of Vietnamese enterprises.

2.2. Role of green logistics in sustainable development in logistics system and supply chain

In today's world, sustainable development is an essential goal for businesses across various industries. The logistics system and supply chain are no exception. The role of green logistics becomes increasingly crucial in promoting sustainable development in these areas.

Green logistics involves implementing eco-friendly practices across transportation, warehousing, and distribution activities. This can include the use of alternative fuel vehicles, optimizing delivery routes to minimize mileage, reducing packaging waste, and integrating reverse logistics to reduce waste and improve recycling rates. By adopting green logistics strategies, businesses can minimize their carbon footprint and contribute to the preservation of natural resources (Abdel-Baset, M., Chang, V., Gamal, A., 2019).

One significant benefit of green logistics is cost savings. Companies can reduce costs associated with fuel consumption, packaging, and waste disposal while increasing operational efficiency by making better use of space, time, and resources. This ultimately leads to higher profits, which can be reinvested in developing sustainable technologies or expanding green logistics practices.

Additionally, green logistics can help enhance a company's reputation and brand image (Alonso, L., Rubio, E.M., de Agustina, B., Domingo, R., 2017). Consumers are becoming more environmentally-conscious and are actively seeking out products and services that align with their values. Businesses that prioritize green logistics can create a competitive edge by addressing this demand for sustainable options.

Moreover, green logistics plays an important role in contributing to a more sustainable future by reducing the environmental impact of logistics operations. By minimizing greenhouse gas emissions, reducing waste, and conserving natural resources, companies can contribute to global efforts to address climate change and preserve our planet's ecosystems.

The role of green logistics cannot be overstated in promoting sustainable development within the logistics system and supply chain. It provides cost savings, enhances brand reputation, and contributes to a sustainable future. As businesses continue to prioritize sustainability, implementing green logistics practices is becoming increasingly important for achieving long-term success.

2.3. Key performance indicators (KPIs) on Green logistics for International Logistics Center (ILC)

By researching journal articles, authors have made a list of primary indicators divided into 5 groups including business strategies, warehouse, transport, packaging, reverse logistics. These main categories can be analyzed into 22 sub-categories which influence the building of green logistics centers.

Table 3. Key performance Indicators of green logistics centers

Numbers	Key performance indicators	Researcher
Business Strategies in Firms		
1	Issuing policies and strategies with regard to protecting environment	Mumtaz, U., Ali, Y., Petrillo, A., 2018
2	Apply ISO 14001 - environmental management system	Abdel-Baset, M., Chang, V., Gamal, A., 2019
3	Imposing regulations and processes to solve pollution	Lorentz et.al, 2011
4	Establishing the target of reducing emission in business aims	Rodríguez, P.D., Bastias, F.A., Arena, A.P., 2019
Warehouse		
5	Using renewable energy in warehouse	Abdel-Baset, M., Chang, V., Gamal, A., 2019
6	Using environmentally friendly equipment and vehicle in warehouse	Rodríguez, P.D. et al., 2019
7	Taking advantage of technology to optimize operations	Rodríguez, P.D. et al., 2019
8	Imposing the process of treating waste	MacArthur, E., 2017.
9	Having contract with companies specializing in solving waste	Rodríguez, P.D. et al., 2019
Transport		
10	Using rail and inland water way transport instead of road	He, Z., Chen, P., Liu, H., Guo, Z., 2017
11	Using vehicles being suitable for EURO6 standard	
12	Applying arranged maintaining process	Xiao, F., Hu, Z.H., Wang, K.X., Fu, P.H., 2015
13	Using vehicles with electronic fuels and biofuels instead of petrol	VLA, 2022
14	Reducing empty vehicles with turning route	Seuring, S., Müller, M., 2008
15	Establishing processes solving environmental issues during transport	Lorentz, 2011
16	Using technology to optimize transportation	He, Z., Chen, P., Liu, H.,

		Guo, Z., 2017
Packaging		
17	Using biodegradable packaging	Lorentz, 2011
18	Applying solution to optimize packaging process	Lorentz, 2011
19	Information Technology System	
20	Using digital system to replace paper documents	Rodríguez, P.D., Bastias, F.A., Arena, A.P., 2019
Reverse logistics		
21	Equipping systems to collect products and packages	Guarnieri, P., Cerqueira-Streit, J.A., Batista, L.C., 2020
22	Building system to handling waste, package	Rogers, D.S., Tibben-Lembke, R., 2001

(Resource: Authors have collected by systematic review)

3. Status-quo of green logistics activities in ILC

3.1. Transportation

3.1.1. Road transport

According to a report of the Ministry of natural resources and environment 2019, on average, transport released about 30 million tons of CO₂. Road transport accounts for 85% of emission. Besides this, GreenHouse gas in Vietnam has been higher than that of developing countries and underdeveloped countries. The primary reason almost certainly comes from the poor infrastructure, vehicles, and unsuitable ability to manage and organize road transport service.

Table 4. The level of logistics development and the amount of Green House gas

Nation	LPI rank	The amount of Green House gas (gam CO ₂ /GDP)
Germany	1	100
Japan	5	190
Singapore	7	155
USA	14	300
Korea	25	460
Vietnam	39	1090
India	44	900
Brazil	56	200

(Resource: World Bank, Report of Logistics 2019)

The second section is inland water transport with 10% while air transport makes up 5%. The reason comes from the pattern of the road vehicle fleet which has 68% of blower-5 tones categories out of a total 1.2 million trucks registered in Vietnam. The percentage of 5-10 ton category made up 11% while the group of 10-20 ton represented 14%. The minority fell into over-20 ton types, with mere 7%. This figure is significantly lower than the other countries like Germany, USA or Asean countries which often use heavy vehicles to transport goods.

In Vietnam, the fleet is 7.5 years old on average. A World Bank report in 2019 demonstrates that 94% of the truck fleet is older than five years, with a significant part falling into the 8 to 12-year age range. Trucks that are zero to five years old make up a substantially greater percentage in developed nations like Germany and the UK—nearly 41% and 37%, respectively. A younger, more effective fleet is more desired since the older fleet results in greater logistical costs and GHG emissions due to higher total cost of operations and reduced fuel efficiency. Vietnam may aim for a mandated fleet renovation of vehicles older than eight years, as figure 2.12 also shows.

One of the most serious problems of road transport is the high rate of empty trucks (Vietnam Logistics Report, 2022). The result of a survey in Vietnam logistics resort in 2022 shows that 13% of firms have to suffer from an empty rate of trucks up to 50%. The figure with the ratio 10% to 30% is 40,3% while 39% of participants answered that they often cope with 10% empty. The primary reason for this phenomenon is that the goods resources is not adequate for return routes which comes from the lack of information share among transport companies.

3.1.2. Rail transport

Although rail transport has released the lowest quantity of emission among different types of transport, VietNam's railroad has so far been slow. For many years, the Central budget's investment in transport infrastructure was only approximately 3% of the entire investment in the railway sector. The railway network of VietNam now consists of 7 main railway lines, totaling 3,162.9 km in length, of which 2,703.2 km are main lines and 459.7 km are station inner lines and branch lines. The 1,000 mm gauge lines still make up 84% of the country's total railway length (2,656.2 km), even though most other nations no longer use them. The 1,435 mm gauge lines make up 190.5 km, or 6%, while the remaining length is mixed-gauge (1,435mm and 1,000 mm). In contrast to the developed nations of the world, where the average speed of passenger trains is about 150-200 km/hour, high-speed rail is over 300 km/hour, and super high speed rail can reach more than 500 km/hour, Viet Nam's railways only operate at speeds of 50-60 km/h for freight trains and 80-90 km/h for passenger trains. The railway system in Vietnam is still using diesel technology, which is the second technological platform (the first technology is a steam locomotive). The third technology, electricity, and the fourth technology, electromagnetic technology, are currently used in industrialized nations. Moreover, Viet Nam's railway network lacks a synchronous connection with other modes of transportation, including airports, big seaports, and interregional connections in the Central Highlands and Mekong River Delta.

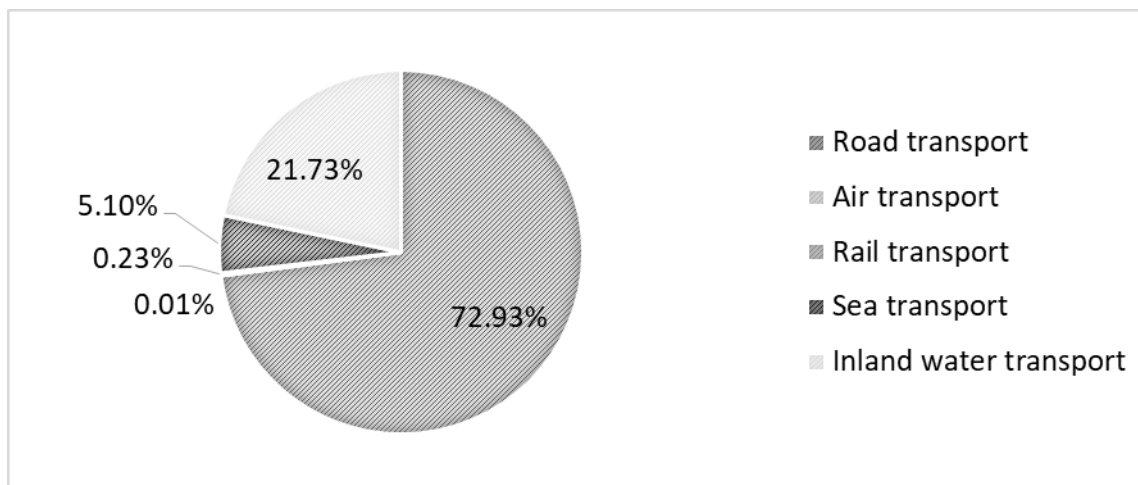


Figure 1. Structure of transport in Vietnam

(Source: General statistics office, Report the first 6 months 2022)

3.2. Warehouse and Container Yard

Generally, the quality of the warehouse system in Vietnam is lower than that of other countries in Asia. As for energy for warehouses, the ratio of enterprises which do not use renewable energy in business performance in warehouses comprise 68,6%. The system often uses electricity as the main energy source to take light and control temperature. Common reasons mostly come from the lack of financial resources and first-time expense for investment in using environmentally friendly facilities is relatively high.

In addition to this, distribution warehouses and CFS do not have any system to connect with their customers to intensify, store, manage, supervise shipments. The number of warehouses which apply the warehouse management system (WMS) only represented the minority, about 36.2%. Among these warehouses using WMS, 32.90% answered that WMS can help them control operations effectively while the figure with the answer of relative efficiency was 58.90%. (Vietnam Logistics Report, 2022). By exploiting WMS, firms can use the sources at the maximum level which help optimize warehouse's operation leading to reduction of negative influence on the environment.

3.3. Packaging

In the survey of VLA in 2022, packages from paper gained the highest proportion with 43% whereas recycled plastic accounted for 11%. The rate of nylon and polystyrene material only got 12%, 13% respectively. Furthermore, firms also have tried to use reusable packaging like wooden palette, plastic to limit waste from the storage process.

3.4. Information system

FMS (forwarding managing system), TMS (transport management system), WMS (Warehouse managing system), ERP (enterprise resource planning) only contribute a minor percentage in logistics operations. These aforementioned systems cannot almost certainly connect together as expected because each firm has a different system with

various features. This disadvantage makes logistics centers do not almost certainly share the use of resources like vehicles, space in warehouses.

3.5. Reverse logistics

Reverse logistics activities in general and in logistics centers in particular are not focused fully in Vietnam compared to other developed countries. The majority of firms in Vietnam only carry out reverse logistics for default products from customers, they do not have adequate ability to collect and recycle expired products from markets. The reasons result from the combination of capability of firms and the law system. Besides this, the treatment of waste from logistics centers and logistics activities is managed by too many relevant authorities inappropriately without reasonable allocation in responsibility. This often leads to the difficulty in treatment processes of reverse logistics, especially waste (Senthil, S., Murugananthan, K., Ramesh, A., 2018).

4. Analysis and Discussions

4.1. Opportunity to establishing green ILCs

Given the development of technology, Vietnam has achieved a lot of advantages and opportunities in developing green logistics in logistics centers through digital transformation which can create modern and effective management. With automatic systems, operations in ILCs could be simple and reduce errors and mistakes which enable stakeholders to save time, costs. Moreover, operations among relevant partners of ILCs are connected fluently and quickly.

Not only ILCs and logistics service providers but also clients have more responsibility and awareness in using green logistics, which encourages stakeholders to apply this absolute trend. In a survey of Foreign trade University 2022, one quarter of consumers agreed with the use of environmentally-friendly vehicles, materials with higher costs. Only a small percentage of participants disagreed with these solutions.

Currently, there have been 4 projects of constructing logistics centers throughout Vietnam including: ICD Vinh Phuc, ECP VN Binh Duong, ITL Da Nang, North Central Region. These projects all put indicators about green logistics activities like: ISO 14000 - environmental management system Imposing regulations and processes to solve pollution Establishing the target of reducing emission in business aims Using renewable energy in warehouse... This marks a new generation of ILCs which concentrate on sustainability by make business performance become greener.

The role of government has also become essential in the green development of ILCs by issuing and imposing a mixed variety of policies and laws, regulations to instruct, control firms. As for the international aspect, the Vietnamese government has signed the United Nations Framework Convention on Climate Change, UNFCCC 1992, approval in 1994. In 1998, the Kyoto protocol was signed and approved in 2002, and then in 2015 Vietnam submitted national contributions (INDC) to approve the Paris agreement in 2016. 2016 was the year the President issued plans to perform the Paris agreement with 68 important tasks. In the 26th conference of the UN about climate change (COP26), Vietnam

committed to build and carry out solutions to reduce carbon dioxide emissions at 0 level by domestic and international sources in 2050 and reduce methane emission at 30% in 2030. As for the domestic aspect, 2020, Vietnam parliament approved the law of protecting the environment consisting of 16 chapters and 171 articles to show responsibility and right of firms and organizations in protection of environment. In 2021, “national strategy about green development of Vietnam” was issued with specific targets to restructure the economy towards sustainable and green economy. After that, in 2022, a plan to develop a circular economy was announced to decrease greenhouse gas at least 15% in 2030 as opposed to 2014 and 0% in 2050. With these commitments and laws, logistics organizations and ILCs must follow and apply particular policies to make their activities become greener and more sustainable.

4.2. Dilemma facing the logistics system in VN in building green ILCs.

4.2.1. Rising Expenses

Managers at logistics facilities could feel conflicted about how to balance economics with customer demands or social duty. During the past ten years, regulatory measures from all around the world have made it plain that what is currently a choice may become necessary. Cost constraints are real, and the following ones could arise when businesses work to make their operations in LCs greener:

- The cost of employing and using experts to provide advice on novel systems, regulations, and procedures.
- The cost of adding more procedural steps and checkpoints to the workflow.
- The cost of screening suppliers or changing sourcing practices to satisfy specified sustainability or environmental standards.
- The cost of monitoring new metrics across the supply chain.
- The cost of noncompliance.
- The cost of ineffective suppliers or transporters.
- The cost of reputational harm brought on by negative environmental

Since public opinion has shifted so rapidly in favor of corporate social responsibility, many people feel that the gap between low-cost procurement and sustainability is decreasing. Costs are thus definitely reasonable and are likely to be repaid in the long run. Selecting carriers, for instance, who have invested in (or partnered to invest in) emission-efficient vehicles, such as trucks, planes, etc., is a long-term strategy that requires a higher initial outlay but produces a return over time.

4.2.2. The logistics industry as a whole lacks a sustainability framework

The dilemma of how to create a sustainability framework for all logistical activities persists, regardless of how far LCs has come in this area or if it is still in the early stages. Companies rely on multiple internal and external systems in order to function; they do not run in a vacuum. Because to this, the issue of green LCs is frequently one of systemic importance and is dealt with at the highest level of governance. Companies all around the area are putting plans in place to comply with these requirements, and laws are likely to

follow this drive. Building frameworks that satisfy any legal obligations and enable the maintenance of new, sustainability-focused policies and procedures will be crucial for LCs.

4.2.3. Putting green development into practice

To implement this green trend in logistics hubs, a sizable number of stakeholders must be prepared. This dilemma is extremely pressing and lacks a fast or simple answer due to the nature of economic interconnections, the aforementioned government activities, and a number of other aspects. Ecological integrity as a norm and sustainability in logistics centers as a common practice are being advanced by researchers, analysts, and industry leaders, but it is probable that — at least globally — this will require more time. This is not an overnight change. Yet, enduring change can be achieved by making small, progressive changes.

4.2.4. The lack of preparation

One side of the coin is determining how efforts to create green logistics hubs will affect current connections and frameworks. What's missing and necessary to create change is the opposite side. These are a few that immediately spring to mind as potential irritants or even significant roadblocks to the process. It is the lack of resources, technical competence, process expertise, general knowledge and experience, management of standard environmental control policies inside a business, visibility of present carbon emissions and places for improvement.

5. Solutions to application of green ILCs

5.1. Perspective from macro level

A sustainable model of green logistics in logistics centers must be developed and used in Vietnam in order to be effective given the country's infrastructure and economic climate. A larger variety of institutions should be actively involved in order to take into account the essential components and objectives of contemporary, lean, and green logistics. Also, the main producers of fresh concepts and innovative methods must be logistical service providers. The major justification for the construction of a specific green model is that Vietnam's railway, ports, and hinterland terminals are underdeveloped, still held by the government, and so subject to government development strategy.

Road transportation is heavily utilized in the freight transport sector as a result of the lack of governmental financial resources, and the percentage of inland freight transport, measured in tonne kilometers, is clearly larger in Vietnam than in other nations. Vietnam's government and business sector must actively participate in developing and implementing macrostrategies throughout the five domains. Governments are responsible for creating a single intermodal network with intermodal terminals located in significant economic basins (El-Kassar, A.N., Singh, S.K., 2019.)

Nonetheless, it is the responsibility of the production sector and logistics service providers to develop more environmentally friendly facilities, employ suitable packaging and transport units, and promote recycling activities. All facets of environmental protection are included into greener facilities. The notion of a global hub transport network should be

integrated with a sustainable site plan for logistics facilities. Vietnam's transportation routes should serve as the primary point of reference, followed by its economic basins.

On the other hand, all of these facilities (closed and open warehouses, terminals, etc.) must establish methods for material selection, save money on water and energy, and decrease light and noise pollution. Greener business practices must be created and used in everyday operations. Environmental quality standards should also be established and regularly assessed. Recycling activities, the final area, play a significant role in green logistics. Regulations in Vietnam regarding packaging, packaging trash, end-of-life vehicles, and electrical and electronic waste have increased awareness of the problem of waste and encouraged the development of recycling techniques that would not have been possible otherwise. In addition, producer responsibility has had a beneficial influence upon the way things are developed.

Producers are primarily responsible for the expenses of recycling, which pushes them to redesign their goods in a way that makes recycling cheaper and easier. They can establish a coordinated network and operations with the aid of logistics suppliers. Every business should consider using recycled materials instead of plastic for packaging purposes, especially in Vietnam where public awareness of green logistics is still developing.

5.2. Measure from enterprises

5.2.1. Applying digital transformation to connect ILCs

Businesses have a variety of green warehousing items to select that will support sustainable logistics after evaluating their warehouses to discover logistics solutions for environmental sustainability: Order-picking technology, a warehouse management system (WMS), bar coding, and radio frequency identification (RFID). With the use of a WMS, retailers, distribution hubs, and warehouses may be digitally coordinated together with shipping and transportation. Green warehouses can run with the right quantity of merchandise thanks to improved inventory control provided by a WMS, minimizing superfluous inventory and maximizing storage space (Mathiyazhagan, K., Govindan, K., NoorulHaq, A., Geng, Y., 2013).

Automating or digitizing order picking using technology can improve accuracy and expedite warehouse orders. The use of less paper is an extra benefit of order-picking technology.

The environmentally friendly distribution techniques of bar coding and RFID also lessen the demand for paper. Across the supply chain, these technologies enhance procedures and boost product visibility.

Skylights to let in natural light, ceiling fans to regulate warehouse temperature, energy-efficient lights and fixtures, green construction materials, and building insulation are further sustainable items. Reduced trash generation is another crucial aspect of a sustainable company.

5.2.2. *Improving operation of vehicles and equipment in ILC*

The expansion of the logistics industry is fueling the need for new warehouses or compelling businesses to rebuild existing infrastructure to satisfy customer demand. In light of this, there are several ways that eco-logistics might be expressed in warehouse design.

Energy conservation promotion and monitoring inside the warehouse may be done in a variety of ways (Geng, R., Mansouri, S.A., Aktas, E., 2017). For instance, the complete automation of several warehouse processes allows for the reduction of the requirement for artificial illumination (emulating the methodology known as lights-out manufacturing). Using adaptive packaging alternatives that are more adaptable or using little packaging on items to reduce resource waste are additional ways to adhere to sustainable logistics practices.

With electric forklifts, there is no need for gas or oil. This is advantageous for the environment as well as the safety of the workforce. Workers are no longer need to come into contact with harmful substances like battery acid, antifreeze, or transaxle fluid. As a result, there may be fewer incidences involving the handling of dangerous products, which boosts revenue. Forklifts that run on electricity merely need to be plugged in before and after use.

5.2.3. *Controlling green logistics at ILC*

The reduction of waste through general process improvement is one of the guiding principles of eco-logistics, and it is followed by creating a more effective storage facility. Reduced travel inside your warehouse can be accomplished, for example, by combining appropriate storage placement management with effective picking strategies. In addition, ILCs must guard against stock damage brought on by physical handling of products. They could utilize automated technologies and robots to tackle this problem in your warehouse. To effectively manage the FIFO (First in First out) requirement for perishable items and keep them from rotting, regulate expirations. Reverse logistics management should be used by ILC owners to set quality control procedures for items that are returned.

While evaluating supplier offers, an ILC's purchasing and procurement policy may incorporate sustainability criteria. These can be used to describe product features, such as purchasing environmentally friendly packaging and reducing the amount of plastic used in packaging. Operations at the center are required to adhere to international rules that provide effective environmental management when it comes to industrial processes. ILC procedures must be ISO 14001 certified in order to guarantee that an environmental management system has been put in place throughout the company's international activities.

6. Conclusion

Green logistics is an indispensable trend in the foreseeable future, which will affect all aspects of the supply chain and logistics system for both import and export activities, especially in developing countries where green standards are relatively low compared to developed countries. Logistics centers have played an essential role as a node to control and create added value for import and export goods in the logistics system. As this article

has mentioned, although the government and relevant authorities have introduced a range of laws to push logistics firms to follow green projects by building and developing green logistics centers, there have been a great deal of challenges that ILCs in developing countries have to overcome, including limitations in transport, the lack of reverse logistics, and prohibitive costs to make operations more environmentally friendly. After analyzing the current condition of ILCs' green level, the research has pointed out some potential solutions not only on a macro-level but also on a micro-level. However, the findings are still qualitative based on interviews with experts in the logistics field. In the next research, the authors will conduct quantitative research to intensify indicators to evaluate the green performance in ILCs and the ratio of these indexes.

NOTES

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ĐÁNH GIÁ HIỆU QUẢ MÔ HÌNH SẢN XUẤT LÚA-RUƠI THEO TIÊU CHUẨN HỮU CƠ, ĐỀ XUẤT GIẢI PHÁP DUY TRÌ, TĂNG TRƯỞNG GẮN VỚI PHÁT TRIỂN KINH TẾ XANH TẠI HẢI PHÒNG

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Tóm tắt: Từ kết quả đánh giá hiệu quả kỹ thuật, kinh tế, xã hội, môi trường và khả năng duy trì, nhân rộng mô hình sản xuất lúa - rươi theo tiêu chuẩn hữu cơ tại huyện Kiến Thụy, thành phố Hải Phòng từ năm 2020 - 2022; Với kết quả đánh giá đó làm cơ sở để lựa chọn được mô hình sản xuất hữu cơ, sản xuất xanh có hiệu quả cao, đồng thời đề xuất được những giải pháp hợp lý để duy trì, nhân rộng mô hình sản xuất đó gắn với phát triển kinh tế xanh thành phố đến năm 2025, tầm nhìn đến năm 2030.

Từ khóa: Kinh tế xanh, mô hình lúa - rươi, tiêu chuẩn hữu cơ, Hải Phòng

EFFECTIVE ASSESSMENT OF RICE- TYLORRHYNCHUS HETEROCHAETUS PRODUCTION MODEL BY ORGANIC STANDARDS; PROPOSED SOLUTIONS TO SUSTAINABLE AND GROW COMBINED WITH GREEN ECONOMIC DEVELOPMENT IN HAI PHONG

Abstracts: From the results of the evaluation of technical, economic, social, environmental efficiency and the ability to maintain and replicate the model of rice - tylorrhynchus heterochaetus production according to organic standards in Kien Thuy district, Hai Phong city from 2020 - 2022; With the results of that assessment as a basis to choose a model of organic production, green production with high efficiency, and at the same time propose reasonable solutions to maintain and replicate that production model in association with the city's green economic development to 2025, vision to 2030.

Keywords: Green economy, rice - tylorrhynchus heterochaetus model, organic standards, Hai Phong

1. Mở đầu

Theo định nghĩa của Chương trình môi trường Liên hiệp quốc (UNEP)[17]: Kinh tế xanh là nền kinh tế mang lại kết quả "cải thiện phúc lợi của con người và công bằng xã hội, đồng thời giảm đáng kể rủi ro môi trường, khan hiếm sinh thái". Còn Tổ chức UNESCAP [18] được định nghĩa là: Kinh tế xanh được coi là mô hình phát triển chất lượng cao hơn, phát triển theo chiều sâu, tăng trưởng xanh với mục tiêu lồng ghép bảo vệ môi trường, giảm phát thải carbon trong sản xuất kinh doanh làm động lực phát triển. Có thể khái quát định nghĩa kinh tế xanh là: nền kinh tế sử dụng tiết kiệm, hiệu quả năng lượng và tài nguyên thiên nhiên, có mức phát thải thấp và giảm thiểu những rủi ro về môi trường và cải

thiện công bằng xã hội [19].

Theo Quyết định số 1658/QĐ-TTg ngày 01/10/2021[1] đưa ra một số quan điểm về Tăng trưởng xanh: là góp phần thúc đẩy cơ cấu lại nền kinh tế gắn với đổi mới mô hình tăng trưởng, nâng cao năng lực cạnh tranh và khả năng chống chịu trước các cú sốc từ bên ngoài...; Là một phương thức quan trọng để thực hiện phát triển bền vững, đóng góp trực tiếp vào giảm phát thải khí nhà kính để hướng tới nền kinh tế trung hòa các-bon trong dài hạn; Là con người làm trung tâm, giúp giảm thiểu tính dễ bị tổn thương của con người trước biến đổi khí hậu; khuyến khích lối sống có trách nhiệm của từng cá nhân đối với cộng đồng và xã hội, định hướng thế hệ tương lai về văn hóa sống xanh, hình thành xã hội văn minh, hiện đại hài hòa với thiên nhiên và môi trường.

Từ Quyết định số 1658/QĐ-TTg ngày 01/10/2021[1], còn đưa ra khái niệm về: *Nông nghiệp thông minh* (CSA) là xu hướng giúp đưa ra hướng dẫn về chuyển đổi hệ thống nông nghiệp hướng đến phát triển hiệu quả và đảm bảo an ninh lương thực trong điều kiện khí hậu thay đổi. CSA gắn liền với 3 mục tiêu chính: tăng trưởng bền vững sản lượng và thu nhập nông nghiệp; thích ứng và nâng cao tính chống chịu với biến đổi khí hậu; giảm và/hoặc loại bỏ phát thải khí nhà kính. Cùng với khái niệm về *Nông nghiệp xanh* là nông nghiệp sản xuất áp dụng đồng bộ các quy trình, công nghệ sử dụng hợp lý, tiết kiệm vật tư đầu vào cho sản xuất nông nghiệp, sử dụng hiệu quả các nguồn tài nguyên thiên nhiên...

Tại vùng đất bãi bồi ven sông của các huyện Tiên Lãng, Vĩnh Bảo, An Lão ở thành phố Hải Phòng có quy mô lên tới 2.000 ha, trong đó vùng bãi nuôi rươi ngoài đê thuộc địa bàn xã Ngũ Phúc và xã Kiến Quốc huyện Kiến Thụy do người dân tự phát canh tác, trồng cây từ nhiều năm.[9] Tuy nhiên sản phẩm có giá trị tập trung chủ yếu vào con rươi được thu hoạch từ tháng 9 đến 12 hàng năm, thời gian còn lại chủ yếu canh tác lúa quảng canh, thu hoạch tôm cá tự nhiên. Diện tích bãi bồi này trong những năm gần đây người dân có gieo cấy lúa, tuy nhiên năng suất không ổn định hoặc không được thu hoạch. Xuất phát từ số nguyên nhân: Chưa có giống lúa, kỹ thuật gieo cấy phù hợp do vậy cho năng suất và chất lượng gạo thấp. Việc tiêu thụ sản phẩm từ lúa gạo gặp khó khăn, giá bán thấp. Đồng thời chưa thiết lập được chuỗi liên kết kinh doanh từ doanh nghiệp phân phối, cung cấp giống tốt, phân bón, nông dân sản xuất, nhà chế biến và hệ thống thị trường buôn bán, tiêu thụ để sản phẩm được sản xuất ra có sự đảm bảo, ổn định chất lượng và mức tiêu thụ chủ động.

Tiêu chuẩn kỹ thuật sản xuất hữu cơ TCVN 11041-1:2017 [13] và TCVN 11041-2:2017 ban hành ngày 29/12/2017[14] có một chuẩn mực quốc tế được Bộ Khoa học và Công nghệ công nhận để áp dụng vào sản xuất thực phẩm hữu cơ nói chung và lĩnh vực trồng trọt nói riêng. Đối với điều kiện tự nhiên, đất đai và nhóm giống khác nhau cần phải có quy trình, kỹ thuật cụ thể; đặc biệt cho đến nay chưa có cơ quan, tổ chức, cá nhân nào xây dựng được hướng dẫn kỹ thuật và mô hình sản xuất lúa ST25 sản xuất hữu cơ trên ruộng rươi có liên kết bao tiêu sản phẩm tại huyện Kiến Thụy, thành phố Hải Phòng.

Để có cơ sở khoa học, cũng như thực tiễn sản xuất lúa ST25 trong mô hình lúa - rươi gắn với phát triển kinh tế xanh Hải Phòng thì cần có sự đánh giá một cách khách quan, khoa học về một số chỉ tiêu kỹ thuật, kinh tế, xã hội, môi trường ...trên cơ sở đó đề xuất được những giải pháp một cách khoa học, tổng thể duy trì, phát triển mô hình lúa rươi

phù hợp với điều kiện và phát triển kinh tế xanh tại Hải Phòng là cần thiết và có ý nghĩa thực tiễn hiện nay. Trong bài báo này, chúng tôi trình bày kết quả đánh giá hiệu quả mô hình lúa rươi trong Chủ đề **Mô hình phát triển nền kinh tế xanh** với nội dung “**Đánh giá hiệu quả mô hình sản xuất lúa-rươi theo tiêu chuẩn hữu cơ, đề xuất giải pháp duy trì, tăng trưởng gắn với phát triển kinh tế xanh tại Hải Phòng**”. Đây là kết quả điều tra, đánh giá tại Công ty Cổ phần Đầu tư Hải Âu Việt, sản xuất từ năm 2020 -2022 tại huyện Kiến Thụy, thành phố Hải Phòng.

2. Tổng quan nghiên cứu, cơ sở lý thuyết và phương pháp nghiên cứu

2.1 Tổng quan nghiên cứu, cơ sở lý thuyết

Hải Phòng là thành phố cảng lớn nhất phía Bắc Việt Nam, có tổng diện tích tự nhiên 151.446,1 km². Dân số năm 2022 trên 2,2 triệu người, chiều dài bờ biển 125 km, 15 quận/huyện (7 quận và 8 huyện, trong đó, có 02 huyện đảo là Cát Hải và Bạch Long Vĩ, 03 huyện đất liền Tiên Lãng, Thủy Nguyên, Kiến Thụy, 03 quận ven biển: Dương Kinh, Đồ Sơn, Hải An[9]. Vùng biển của Hải Phòng vị trí quan trọng đối với miền Bắc Việt Nam nói riêng và cả nước nói chung trong phát triển KT-XH, hội nhập Quốc tế, Quần đảo Cát Bà được Tổ chức Văn hoá - khoa học và giáo dục của Liên hiệp quốc (UNESCO) công nhận Khu dự trữ sinh quyển quần đảo Cát Bà- Việt Nam (Quyết định ngày 02/12/2004 của UNESCO) trong đó Vườn quốc gia Cát Bà là vùng lõi khu dự trữ sinh quyển. [4,5]

Hải Phòng là một trong 10 thành phố trên thế giới bị đe dọa nhiều nhất do biến đổi khí hậu (OECD công bố ngày 5/7/2007). Biến đổi khí hậu (BĐKH) phát sinh các hiện tượng thời tiết cực đoan xảy ra với tần suất cao gây hậu quả nghiêm trọng (nhiệt độ trung bình năm tăng, biến đổi lượng mưa, hiện tượng elnino, gia tăng tần số bão, cường độ bão và thời gian và đường đi của bão khó bắt thường và nước biển dâng) tác động tới tất cả các lĩnh vực hoạt động kinh tế - xã hội. [4,5,]

Bão lớn kết hợp triều cường gây úng ngập trên diện rộng, sạt lở, đất và nước nhiễm mặn luôn diễn ra, do vậy việc thích ứng và giảm thiểu tác động với biến đổi khí hậu phải được thường trực trong cả nhận thức và hành động, phải được xem xét trong mọi kịch bản tác động đến phát triển kinh tế - xã hội, trên tất cả các lĩnh vực, là trách nhiệm của của toàn xã hội. Những năm gần đây những trận mưa lớn kết hợp với triều cường làm cho nhiều hoạt động gần như đình trệ vì bị ngập nước ở đô thị, gây úng cây trồng, phá hủy hệ thống nuôi trồng thủy sản; các hồ nước không phát huy chức năng điều hòa. [4,5,8]

Sự thiệt hại nặng nề nhất do biến đổi khí hậu là ngành nông - lâm - thủy hải sản. Theo đó là sâu bệnh phát sinh trên diện rộng, dịch bệnh gia súc, gia cầm bùng phát ở nhiều vùng gây tâm lý lo ngại, không yên tâm đầu tư phát triển sản xuất, giá các loại vật tư phục vụ sản xuất nông nghiệp, thủy sản không ổn định. Các hệ sinh thái đặc trưng của thành phố như rừng nguyên sinh Cát Bà, Hòn Dấu,...; rừng ngập mặn ở Đồ Sơn, Tân Thành (Kiến Thụy), Vinh Quang (Tiên Lãng) cũng bị ảnh hưởng. Biến đổi khí hậu còn ảnh hưởng và đe dọa sự phát triển bền vững của nhiều ngành kinh tế khác như xây dựng, giao thông thủy bộ, hàng không, công nghiệp, thương mại và dịch vụ, du lịch. [8]

Với Quyết định số 1658/QĐ-TTg ngày 1/10/2021 của Thủ tướng chính phủ phê duyệt “Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050” [1],

phần định hướng chiến lược đã nêu rõ: Tập trung nỗ lực cơ cấu lại nền kinh tế gắn với đổi mới mô hình tăng trưởng, giảm cường độ phát thải khí nhà kính thông qua khai thác và sử dụng tiết kiệm, hiệu quả năng lượng, tài nguyên dựa trên nền tảng khoa học và công nghệ, ứng dụng công nghệ số và chuyển đổi số, phát triển kết cấu hạ tầng xanh, bền vững, xây dựng lối sống xanh, đảm bảo quá trình chuyển đổi xanh theo nguyên tắc, bình đẳng, bao trùm, nâng cao năng lực chống chịu trong toàn bộ nền kinh tế;

Theo đánh giá của các nhà nghiên cứu, điều quan trọng nhất là tăng trưởng xanh kết hợp giữa 3 thành tố bền vững: kinh tế, môi trường và xã hội. Đó là những hoạt động tạo ra giá trị hữu ích, hướng đến phát triển cuộc sống của cộng đồng, đảm bảo công bằng xã hội và được xã hội hưởng ứng. Trong đó kinh tế xanh được phân loại thành nhiều nhóm như tăng trưởng xanh, công ăn việc làm xanh, kinh tế vòng chuyển, kinh tế sinh thái... với 9 nguyên tắc phát triển bền vững, ứng dụng.

Theo Quyết định số 822/QĐ-TTg ngày 22/7/2022 của Thủ tướng chính phủ phê duyệt “Kế hoạch hành động quốc gia về tăng trưởng xanh giai đoạn 2021 - 2030”, Với Chủ đề và nhiệm vụ đã nêu rõ về Kế hoạch hành động tăng trưởng xanh gồm 18 chủ đề, 57 nhóm nhiệm vụ, hoạt động và 134 nhiệm vụ, hoạt động trên 11 lĩnh vực như nông - lâm - ngư nghiệp, công nghiệp, giao thông vận tải, kiến trúc xây dựng, tài nguyên môi trường, du lịch dịch vụ và các lĩnh vực khác. [2]

Hải Phòng là đô thị loại I cấp quốc gia, là thành phố cảng thông thương Quốc tế. Dân số năm 2022 trên 2,2 triệu người, bao gồm 7 quận, 8 huyện và những khu công nghiệp tập trung lớn, có nhu cầu lớn về nông sản an toàn và cao cấp[9]. Do tầm quan trọng đặc biệt, vấn đề sản xuất và cung cấp nông sản an toàn cho thị trường là vấn đề được toàn xã hội quan tâm. Hàng năm diện tích sản xuất lúa của Hải Phòng có khoảng 52.000 ha, cho sản lượng trên 324.800 tấn thóc các loại phục vụ cho thị trường nội địa và xuất khẩu.[9]

Thành phố Hải Phòng đã có những chính sách khuyến khích phát triển nông nghiệp hữu cơ. Tuy vậy, đến nay mới có 40 ha sản phẩm được chứng nhận tiêu chuẩn nông nghiệp hữu cơ quốc gia và việc xuất khẩu những sản phẩm này còn rất hạn chế. Đáng lưu ý, trong số diện tích 40 ha sản phẩm được công nhận hữu cơ chủ yếu là lúa tại vùng sản xuất rươi tại huyện Kiến Thụy [9]. Để kịp thời có những chính sách phù hợp với sản xuất, thành phố đã ban hành Quyết định số 30 ngày 11/11/2020 UBND thành phố Hải Phòng quy định về canh tác hữu cơ trên địa bàn[6], Nghị quyết số 15 ngày 10/2/2021 của HĐND TP Hải Phòng về cơ chế, chính sách khuyến khích phát triển sản xuất nông nghiệp, thủy sản hàng hóa tập trung trên địa bàn giai đoạn 2022-2025 [3] và mới đây nhất thành phố vừa ban hành quyết định số 502/QĐ-UBND ngày 23/2/2023 về Đề án xác định vùng canh tác hữu cơ trên địa bàn thành phố Hải Phòng giai đoạn 2021-2025, định hướng đến năm 2030; theo đề án này đến năm 2030 thì diện tích canh tác hữu cơ đạt khoảng 980 ha, chiếm 2,6% tổng diện tích trồng trọt, với giá trị trồng trọt hữu cơ tăng từ 1,5 - 1,8 lần so với sản xuất phi hữu cơ[7]

Từ kết quả của đề tài nghiên cứu khoa học cấp thành phố đã nghiệm thu năm tháng 8 năm 2019 của Trung tâm Khuyến nông Hải Phòng với đề tài: “Nghiên cứu hoàn thiện và xây dựng mô hình sản xuất lúa hữu cơ tại Hải Phòng”. Kết quả của đề tài đã xây dựng và hoàn thiện quy trình sản xuất lúa hữu cơ trên giống lúa J02 trong vụ xuân và vụ mùa tại xã Ngũ Phúc, huyện Kiến Thụy trên quy mô 05 ha/1 vụ. [15].

Từ các báo cáo kết quả điều tra, đánh giá và nghiên cứu về về hình sản xuất lúa hữu cơ trên ruộng rươi tại huyện Kiến Thụy, thành phố Hải Phòng chúng tôi nhận thấy còn một số khó khăn, hạn chế để duy trì và phát triển mô hình gồm: Chủ yếu sử dụng trên giống lúa J02 và một số giống lúa có năng suất, chất lượng thấp gạo thấp đưa vào sản xuất; Chưa chú trọng áp dụng một số biện pháp canh tác cải tiến áp dụng vào ruộng sản xuất; chủ yếu áp dụng theo kinh nghiệm, sản xuất lúa cho thu nhập thấp, bấp bênh; Việc tiêu thụ sản phẩm từ lúa gạo gặp khó khăn, giá bán thấp do không có doanh nghiệp thu mua. Chưa thiết lập được chuỗi liên kết kinh doanh từ doanh nghiệp phân phối, cung cấp giống tốt, phân bón, nhà chế biến, chưa thương hiệu sản phẩm, hệ thống chứng nhận chất lượng hàng hóa; Chính quyền cũng chưa quan tâm đúng mức đối với sản xuất lúa -rươi của người dân... Từ những vấn đề nêu trên, từ kết quả thành công của mô hình sản xuất lúa ST25 trên ruộng rươi của Công ty Cổ phần Hải Âu Việt, chúng tôi tập trung vào nghiên cứu, đánh giá hiệu quả mô hình lúa rươi theo tiêu chuẩn hữu cơ đồng thời đề xuất giải pháp duy trì, tăng trưởng gắn với phát triển kinh tế xanh tại Hải Phòng.

2.2 Phương pháp nghiên cứu

2.2.1 Phương pháp tiếp cận chung: Phương pháp: thu thập tài liệu, số liệu; Thực nghiệm đồng ruộng; Phân tích trong phòng; Phân tích và xử lý số liệu

2.2.2 Phương pháp cụ thể:

* *Phương pháp thu thập tài liệu, số liệu và khảo sát:* dựa vào báo cáo của ngành nông nghiệp, số liệu sản xuất của Công ty Cổ phần Hải Âu Việt từ năm 2020 - 2022[16]; Khảo sát thực tế tại địa phương.

* *Phương pháp thực nghiệm đồng ruộng:*

Đối tượng nghiên cứu: Mô hình sản xuất lúa -rươi

Vật liệu nghiên cứu: Giống lúa ST25 (giống lúa xác nhận)

Địa điểm nghiên cứu: xã Kiến Quốc, Ngũ Phúc, huyện Kiến Thụy, thành phố Hải Phòng.

Thời gian thực hiện: từ năm 2020 đến năm 2022

Quy mô mô hình: 10 ha (đất bãi ngoài đê)

Bố trí mô hình thực nghiệm: Áp dụng theo TCVN 11041-1:2017, TCVN 11041-2:2017 ban hành ngày 29/12/2017 Về Yêu cầu chung đối với sản xuất, chế biến, ghi nhãn sản phẩm nông nghiệp hữu cơ (Phần 1) và Trồng trọt Hữu cơ (Phần 2)[13,14].

- **Biện pháp kỹ thuật áp dụng cho mô hình thực nghiệm:**

+ Áp dụng theo Quy trình kỹ thuật canh tác lúa hữu cơ trên ruộng rươi do Trung tâm Khuyến nông Hải Phòng ban hành năm 2019[15].

+ Cải tiến một số biện pháp kỹ thuật trong mô hình thực nghiệm: Bón lót: bằng phân bò ủ hoai mục (theo hướng dẫn của Trung tâm Nông nghiệp hữu cơ, Học viện Nông nghiệp Việt Nam)[15] với lượng từ 10-12 tấn/ha; bón phân khi lồng cây (bừa cấy) trước khi cấy vụ xuân từ 25 - 30 ngày. Làm mạ ST15: mạ được gieo bằng khay, cấy tay; Bỏ sung phân bón lá: 3 lần trên cây lúa qua các thời kỳ sinh trưởng. Thu hoạch: kết hợp thủ công và cơ giới (gặt bằng tay, vận chuyển bằng thuyền, máy mức và tuốt lúa). Bảo quản, chế biến:

lúa tươi thu hoạch được đóng bao chở về nhà máy tiến hành sấy khô; sấy khô khi độ ẩm hạt đủ tiêu chuẩn, tiến hành đóng bao bảo quản. Gạo được xay xát, đóng bao theo tiêu chuẩn hữu cơ, có đăng ký với các cơ quan, tổ chức trên địa bàn thành phố. [16].

* *Phương pháp phân tích trong phòng*: đánh giá các chỉ tiêu về vệ sinh an toàn thực phẩm đối với đất, nước, sản phẩm trong mô hình (Theo quy định của TCVN 11041-1:2017 và TCVN 11041-2:2017[13,14]; Giới hạn cho phép tại QCVN08-2:2011/BYT[10]; TT 50/2016-BYT) [12].

* *Phương pháp phân tích và xử lý số liệu*: số liệu được phân tích bằng Exell 2010.

* **Hệ thống các chỉ tiêu theo dõi**:

- *Chỉ tiêu về kỹ thuật*:

+ Năng suất thóc tươi thu hoạch (tấn/ha)

+ Năng suất rươi thu hoạch (kg/ha)

+ Năng suất tôm, cua, cá thu hoạch (kg/ha)

- *Chỉ tiêu về vệ sinh an toàn thực phẩm*:

+ Đất trồng: theo đảm bảo theo QCVN 03-MT: 2015/BTNMT ngày 31.12.2015 của Bộ Tài nguyên và Môi trường Về Quy chuẩn kỹ thuật quốc gia về chất lượng đất trồng trọt. [11].

+ Sản phẩm gạo: các chỉ tiêu vệ sinh, an toàn thực phẩm đạt Giới hạn cho phép tại QCVN08-2:2011/BYT[10]; TT 50/2016-BYT [12].

- *Chỉ tiêu về hiệu quả kinh tế*:

+ Tổng chi (1000 đ/ha) = Chi phí vật chất + công lao động + Chi khác

+ Tổng thu (1000 đ/ha) = Năng suất thu hoạch x giá bán thực tế

+ Lợi nhuận (1000 đ/ha) = Tổng thu - Tổng chi

+ Hiệu quả đầu tư (lần) = Lợi nhuận/Tổng chi

- *Chỉ tiêu về hiệu quả xã hội và môi trường*

- *Chỉ tiêu về hiệu quả duy trì và nhân rộng mô hình*

3. Kết quả nghiên cứu

3.1. Đánh giá về chất lượng đất trồng địa điểm thực hiện mô hình

Bảng 3.1. Kết quả phân tích hàm lượng tổng số của một số kim loại nặng tàng đất mặt trong mô hình lúa -rươi từ năm 2020 tại huyện Kiến Thụy [16]

TT	Thông số	Đất sản xuất nông nghiệp (mg/kg đất khô)		Phương pháp thử
		Kết quả 10/2020	Mức tối đa theo QCVN 03-MT: 2015/BTNMT	
1	Asen (As)	KPH	15,00	TCVN 8467:2010
2	Cadimi (Cd)	0,910	1,50	TCVN 6496:2009

3	Chì (Pb)	45,30	70,00	TCVN 6496:2009
4	Crom (Cr)	87,90	150,00	TCVN 6496:2009
5	Đồng (Cu)	38,21	100,00	TCVN 6496:2009
6	Kẽm (Zn)	170,50	200,00	TCVN 6496:2009

Ghi chú: Đất trồng theo QCVN 03-MT: 2015/BTNMT ngày 31.12.2015 của Bộ Tài nguyên và Môi trường Về Quy chuẩn kỹ thuật quốc gia về chất lượng đất; KPH: Không phát hiện

Các chỉ tiêu về kim loại nặng trong đất cây lúa ST25 đều đảm bảo theo theo QCVN 39:2011/BTNMT ngày 12.12.2011 của Bộ Tài nguyên và Môi trường về Quy chuẩn kỹ thuật quốc gia về chất lượng nước dùng cho tưới tiêu. Vì vậy địa điểm chọn xây dựng mô hình sản xuất lúa ST25 theo tiêu chuẩn hữu cơ trên ruộng rươi tại xã Kiên Quốc đủ điều kiện an toàn thực phẩm theo tiêu chuẩn sản xuất hữu cơ tại TCVN 11041-1:2017 và TCVN 11041-2:2017 năm 2017[13,14].

3.2. Đánh giá năng suất thu hoạch lúa, rươi và chất lượng gạo ST25 trong mô hình qua các năm sản xuất

Kết quả từ số liệu cung cấp của Công ty Cổ phần đầu tư Hải Âu Việt qua sản xuất từ năm 2020 đến năm 2022; số liệu được trình bày tại bảng 3.2.

Qua bảng 3.2 chúng tôi nhận thấy:

Năng suất lúa tươi ST25 thu hoạch trong mô hình lúa -rươi tăng cao qua các năm: Trong đó 2020 đạt 1800,0 kg/ha, tương đương 42,9 %; năm 2021 đạt 1920,0 kg/ha, tương đương 42,9 %; và năm 2022 đạt 2180,0 kg/ha, tương đương 47,9 % so với sản xuất thông thường của người dân, trong đó năm 2022 tăng năng suất cao nhất so với 2 năm còn lại; chất lượng gạo ST25 trong mô hình đảm bảo vệ sinh an toàn thực phẩm, mô hình được cấp chứng nhận hữu cơ năm 2020, chứng nhận OCOP 4 sao năm 2021 trên quy mô 10 ha.

Năng suất rươi thu hoạch trong mô hình lúa -rươi tăng cao qua các năm: Trong đó 2020 đạt 50 kg/ha, tương đương 16,7 %; năm 2021 đạt 35,0 kg/ha, tương đương 10 %; và năm 2022 đạt 80,0 kg/ha, tương đương 20 % so với sản xuất thông thường của người dân, trong đó năm 2022 tăng năng suất cao nhất so với 2 năm còn lại; chất lượng rươi đảm bảo tiêu chuẩn vệ sinh an toàn thực phẩm, giá bán cao và ổn định, được người tiêu dùng ưa chuộng.

Năng suất Tôm, cua cá thu hoạch trong mô hình lúa -rươi tăng cao qua các năm: Trong đó năm 2021 đạt 20,0 kg/ha, tương đương 20 %; và năm 2022 đạt 24,0 kg/ha, tương đương 20 % so với sản xuất thông thường của người dân, trong đó năm 2022 tăng năng suất cao nhất so với 2 năm còn lại; chất lượng tôm, cua cá đảm bảo tiêu chuẩn vệ sinh an toàn thực phẩm, giá bán cao và ổn định, được người tiêu dùng ưa chuộng.

Bảng 3.2. Kết quả đánh giá năng suất lúa ST 25, rươi và tôm cá trong mô hình lúa - rươi từ năm 2020 - 2022 tại huyện Kiến Thụy [16]

Chỉ tiêu đánh giá	Đơn vị tính	Mô hình sản xuất Lúa- rươi theo TC Hữu cơ	Sản xuất thông thường	(+/-) so với Sản xuất thông thường	% tăng (giảm) so với Sản xuất thông thường
Năm 2020					
Năng suất lúa tươi ST25	kg/ha	6000,0	4200,0	1800,0	42,9
Năng suất Rươi	kg/ha	350,0	300,0	50,0	16,7
Năng suất Tôm, cua, cá	kg/ha	100,0	100,0	0,0	0,0
Năm 2021					
Năng suất lúa tươi ST25	kg/ha	6400,0	4480,0	1920,0	42,9
Năng suất Rươi	kg/ha	385,0	350,0	35,0	10,0
Năng suất Tôm, cua, cá	kg/ha	120,0	100,0	20,0	20,0
Năm 2022					
Năng suất lúa tươi ST25	kg/ha	6800,0	4620,0	2180,0	47,2
Năng suất Rươi	kg/ha	480,0	400,0	80,0	20,0
Năng suất Tôm, cua, cá	kg/ha	144,0	120,0	24,0	20,0



Hình 3.1: Một số hình ảnh sản xuất lúa ST25 trong mô hình lúa -rươi từ năm 2020 - 2022 tại huyện Kiến Thụy [16]

Các chỉ tiêu về kim loại nặng và Dư lượng thuốc bảo vệ thực vật nhóm clo hữu cơ trong sản phẩm gạo ST25 đều đảm bảo theo theo Giới hạn cho phép tại QCVN8-2:2011/BYT năm 2011[10] và Thông tư số TT 50/2016-BYT năm 2016[12] về dư lượng

kim loại nặng. Vì vậy sản phẩm gạo ST25 theo tiêu chuẩn hữu cơ trên ruộng rươi tại xã Kiến Quốc đủ điều kiện an toàn thực phẩm theo tiêu chuẩn sản xuất hữu cơ tại TCVN 11041-1:2017 [13] và TCVN 11041-2:2017 năm 2017[14].

Bảng 3.3. Kết quả phân tích một số chỉ tiêu về chất lượng vệ sinh an toàn thực phẩm của gạo ST25 trong mô hình lúa -rươi từ năm 2020 tại huyện Kiến Thụy [16]

TT	Chỉ tiêu	Đơn vị tính	Gạo ST25		Phương pháp thử
			Kết quả 10/2020	Giới hạn cho phép tại QCVN8-2:2011/BYT; TT 50/2016-BYT	
1	Asen (As)	mg/kg	KPH	-	TCVN 7604:2007
2	Cadimi (Cd)	mg/kg	KPH	0,40	TCVN 8126:2009
3	Chì (Pb)	mg/kg	KPH	0,20	TCVN 8126:2009
4	Nitrat (NO ₃ ⁻)	mg/kg	87,90	150,00	TCVN 8742:2011
5	Aflatoxin tổng số	µg/kg	KPH	-	TCVN 7596:2007
6	E.Coli	CFU/g	< 10	-	TCVN 7924:2:2008
7	<i>Salmonella</i> spp	CFU/25 g	KPH	-	TCVN 10780:1:2017
8	Dư lượng thuốc BVTV nhóm Clo hữu cơ	mg/kg	KPH	0,50	TS-KT-SK-14:2020

Ghi chú: Sản phẩm gạo theo Giới hạn cho phép tại QCVN8-2:2011/BYT năm 2011 về dư lượng Kim loại nặng, Giới hạn theo Thông tư số TT 50/2016-BYT năm 2016 về dư lượng kim loại nặng của Bộ Y tế; KPH: Không phát hiện

Như vậy có thể nói rằng, canh tác lúa ST25 trong mô hình lúa -rươi từ năm 2020 - 2022 làm tăng năng suất lúa ST25 từ 42,90 - 47,90%, tăng năng suất rươi thu hoạch từ 10,00 - 29,00%; tăng năng suất tôm, cua, cá thu hoạch tới 10,00 % so với sản xuất thông thường của người dân. Điều này có thể khẳng định, mô hình lúa - rươi canh tác theo tiêu chuẩn hữu cơ có hiệu quả kỹ thuật cao hơn so với sản xuất thông thường của người dân qua 3 năm đánh giá, đây cũng là cơ sở để có thể duy trì, nhân rộng mô hình sản xuất này.



Hình 3.2: Chứng nhận hữu cơ năm 2020 và chứng nhận OCOP 4 sao năm 2021 gạo ST25 trong mô hình lúa -rươi từ năm 2020 -2022 tại huyện Kiến Thụy [16]

3.4. Đánh giá hiệu quả kinh tế

Kết quả tính toán hiệu quả kinh tế mô hình sản xuất lúa rươi từ năm 2020 - 2022 được cung cấp bởi Công ty cổ phần Hải Âu Việt được trình bày ở bảng 3.4 như sau:

Bảng 3.4. Kết quả đánh giá hiệu quả kinh tế mô hình lúa -rươi từ năm 2020 - 2022 tại huyện Kiến Thụy [16]

Chỉ tiêu đánh giá	Đơn vị tính	Mô hình sản xuất Lúa- rươi theo TC Hữu cơ	Sản xuất thông thường	(+/-) so với Sản xuất thông thường	% tăng (giảm) so với Sản xuất thông thường
Năm 2020					

Tổng chi	1000đ/ha	127.380	102.620	24.760	24,1
Tổng thu	1000đ/ha	257.500	187.000	70.500	37,7
Lợi nhuận	1000đ/ha	130.120	84.380	45.740	54,2
Hiệu quả sản xuất	lần	0,51	0,45	0,05	12,0
Năm 2021					
Tổng chi	1000đ/ha	132.380	102.620	29.760	29,0
Tổng thu	1000đ/ha	281.250	212.300	68.950	32,5
Lợi nhuận	1000đ/ha	148.870	109.680	39.190	35,7
Hiệu quả sản xuất	lần	0,53	0,52	0,01	2,5
Năm 2022					
Tổng chi	1000đ/ha	142.530	107.820	34.710	32,2
Tổng thu	1000đ/ha	332.400	238.200	94.200	39,5
Lợi nhuận	1000đ/ha	189.870	130.380	59.490	45,6
Hiệu quả sản xuất	lần	0,57	0,55	0,02	4,4

Qua bảng 3.4 chúng tôi nhận thấy:

Tổng chi phí sản xuất trong mô hình lúa -rưới tăng qua các năm: Trong đó 2020 tăng 24,76 triệu đồng/ha, tương đương 24,1 %; năm 2021 tăng 29,76 triệu đồng/ha, tương đương 29,0 %; và năm 2022 tăng 34,71 triệu đồng/ha, tương đương 32,2 % so với sản xuất thông thường của người dân, trong đó năm 2022 tăng năng suất cao nhất so với 2 năm còn lại; mức chi phí tăng do giá nhân công tăng đều qua các năm.

Tổng thu trong mô hình lúa -rưới tăng qua các năm: Trong đó 2020 tăng 70,5 triệu đồng/ha, tương đương 37,7 %; năm 2021 tăng 68,95 triệu đồng/ha, tương đương 32,5 %; và năm 2022 tăng 94,2 triệu đồng/ha, tương đương 39,5 % so với sản xuất thông thường của người dân, trong đó năm 2022 tăng năng suất cao nhất so với 2 năm còn lại; Tổng thu tăng do năng suất lúa, rưới, tôm cua cá tăng đều giữa các năm, giá bán thóc ST25 cũng cao hơn so với sản xuất thông thường của người dân.

- Lợi nhuận mô hình lúa -rưới tăng qua các năm: Trong đó 2020 tăng 45,74 triệu đồng/ha, tương đương 54,2 %; năm 2021 tăng 39,19 triệu đồng/ha, tương đương 35,7 %; và năm 2022 tăng 59,49 triệu đồng/ha, tương đương 45,6 % so với sản xuất thông thường của người dân, trong đó năm 2020 tăng năng suất cao nhất so với 2 năm còn lại; Lợi nhuận tăng là do tổng thu tăng và chi phí giảm.

Như vậy có thể nói rằng, canh tác lúa ST25 trong mô hình lúa -rưới từ năm 2020 - 2022 làm tăng chi phí sản xuất từ 24,76 - 32,2 %, nhưng tổng thu cũng tăng từ 32,5- 39,5 %; Lợi nhuận cũng tăng từ 35,7-54,2%, hiệu quả sản xuất tăng từ 2,5- 12,0% so với sản xuất thông thường của người dân. Điều này có thể khẳng định, mô hình lúa - rưới canh tác theo tiêu chuẩn hữu cơ có hiệu quả kinh tế cao hơn so với sản xuất thông thường của người dân qua 3 năm đánh giá, đây cũng là cơ sở để có thể nhân rộng mô hình sản xuất này.

3.5. Đánh giá hiệu quả văn hóa, xã hội, môi trường và khả năng duy trì nhân rộng mô hình lúa rưới

Kết quả theo dõi, đánh giá mô hình trong 03 năm từ năm 2020- 2022 theo số liệu

của Công ty Cổ phần Đầu tư Hải Âu Việt và điều tra, đánh giá tại địa bàn huyện Kiến Thụy, chúng tôi thu được kết quả ở bảng 3.5.

Bảng 3.5. Kết quả hiệu quả văn hóa, xã hội, môi trường và khả năng duy trì, nhân rộng mô hình lúa -rươi từ năm 2020 - 2022 tại huyện Kiến Thụy

Chỉ tiêu đánh giá	Mô hình sản xuất Lúa- rươi theo TC Hữu cơ	Sản xuất thông thường	Ghi chú
Văn hóa, xã hội			
Tập quán canh tác	Thay đổi, cải tiến	Vẫn theo tập quán cũ	
Liên kết chuỗi sản xuất, tiêu thụ sản phẩm khép kín	Chặt chẽ, hiệu quả	Không có, thiếu ổn định	
Năng lực cạnh tranh sản phẩm	Cao	Thấp	
Chứng nhận theo tiêu chuẩn hữu cơ	Đạt chứng nhận	Không có	
Chứng nhận sản phẩm OCOP địa phương	Đạt chứng nhận	Không có	
Môi trường			
Môi trường đất, nước	Được bảo vệ	Được bảo vệ	
Sức khỏe người sản xuất	An toàn, được bảo vệ	An toàn	
Sức khỏe người tiêu dùng	An toàn, được bảo vệ	An toàn	
Duy trì và nhân rộng			
Khả năng duy trì và nhân rộng	Cao	Thấp	
Khả năng phát triển	Cao	Thấp	
Tính bền vững	Cao	Thấp	

Đối với tiêu chí hiệu quả văn hóa, xã hội: Đã cơ bản thay đổi được tập quán canh tác của người nông dân, chuyển sản xuất tự do sang chuyên nghiệp hóa, từ các công đoạn sản xuất, quản lý, tiêu thụ sản phẩm trong sản xuất lúa ST25 hữu cơ chất lượng cao khu vực thực hiện mô hình. Đồng thời nâng cao được năng lực cạnh tranh của sản phẩm tại địa bàn thành phố, các tỉnh thành bạn và hướng tới xuất khẩu thông qua các hợp đồng liên kết bao tiêu sản phẩm; gia tăng chuỗi giá trị thông qua các sản phẩm chế biến từ gạo hữu cơ chất lượng cao.

Hiệu quả môi trường: Bảo vệ được môi trường sống, môi trường làm việc, sức khỏe người sản xuất, tiêu dùng và sản xuất bền vững. Góp phần giảm thiểu sự suy thoái về đất đai canh tác lúa, nguồn nước phục vụ sản xuất và tiêu dùng, sức khỏe người trồng lúa, môi trường sống được bảo vệ. Góp phần ngăn ngừa và hạn chế rủi ro từ các nguy cơ ô nhiễm về hóa học, sinh học, vật lý ảnh hưởng đến chất lượng, an toàn của sản phẩm lúa gạo; môi trường, sức khỏe, an toàn lao động và phúc lợi xã hội của người lao động trong sản xuất trong mô hình lúa - rươi.

Hiệu quả duy trì và nhân rộng: Sản phẩm gạo ST25 trong Mô hình lúa - rui đã được cấp Giấy chứng nhận sản phẩm Gạo hữu cơ Kiến Quốc số 2177/2020/QĐ-TQC ngày 12/11/2020[16]. Và Giấy chứng nhận sản phẩm OCOP 4 sao năm 2021 số 3380/QĐ-UBND thành phố Hải Phòng ngày 24/11/2021[16]. Mô hình sản xuất lúa - rui theo tiêu chuẩn hữu cơ có khả năng duy trì, nhân rộng mô hình sản xuất khoảng 1000 ha đến năm 2030 tại các huyện Tiên Lãng, Vĩnh Bảo, An Lão và các địa phương có điều kiện tương đồng; hướng tới xuất khẩu gạo hữu cơ sang Mỹ và châu Âu vào năm 2024-2025.

4. Đề xuất giải pháp

Trên cơ sở đánh giá hiệu quả sản xuất mô hình lúa - rui theo tiêu chuẩn hữu cơ tại Hải Phòng giai đoạn 2020- 2022, chúng tôi có một số đề xuất như sau:

Một là: Nâng cao nhận thức và hoàn thiện cơ chế, chính sách, hành lang pháp lý về phát triển kinh tế xanh đối với các cấp, các ngành, các địa phương và toàn thể xã hội; đặc biệt cần thực hiện nghiêm túc, hiệu quả Quyết định số 1658/QĐ-TTg ngày 01/10/2021 về “Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050” và Quyết định số 822/QĐ-TTg ngày 22/7/2022 về “Kế hoạch hành động quốc gia về tăng trưởng xanh giai đoạn 2021 - 2030” của Thủ tướng chính phủ.

Hai là: Nghiên cứu và có giải pháp mang tính chiến lược, ổn định trong quy hoạch phát triển nông nghiệp, cần chú trọng đến các khu vực đất nông nghiệp thấp, trũng có khả năng ngập lụt cao, nhất là vùng ven biển; tiến tới chuyển đổi một số vùng đất ngập nước sang nuôi trồng thủy sản; tăng cường một số cây trồng có khả năng thích ứng với sự thay đổi do biến đổi khí hậu như các giống lúa chịu hạn, các loài cây chịu mặn...Đổi mới, nâng cao năng lực thích ứng, giáo dục và tuyên truyền; nâng cao nhận thức cộng đồng về tác động của biến đổi khí hậu nhằm thích ứng và phòng tránh, giảm nhẹ thiệt hại. Cần có chính sách mua chứng chỉ carbon một cách phù hợp và đánh thuế cao đối ngành phát thải nhiều carbon.

Ba là: Xây dựng tốt mối quan hệ chặt chẽ, hài qua giữa các bên trong sản xuất hữu cơ nói chung, mô hình lúa- rui nói riêng giữa các bên: nhà nước- nhà doanh nghiệp- nhà khoa học- nhà băng- nhà nông; nhà nước cần có chính sách phù hợp hỗ trợ kinh phí trong nghiên cứu, xây dựng và chuyển giao mô hình sản xuất do các cơ quan nghiên cứu thực hiện, đồng thời có cơ chế hỗ trợ chứng nhận, quảng bá sản phẩm, hỗ trợ lãi suất ngân hàng đối với sản phẩm hữu cơ; các ngân hàng hỗ trợ vốn vay lãi suất thấp, tín chấp và giảm thuế đối với doanh nghiệp sản xuất; Nhà nước có chính sách, luật đất đai hợp lý: như dòn điền, bỏ hạn mức sở hữu đất nông nghiệp, được thuê đất sản xuất tối thiểu 10 năm, hỗ trợ cơ sở hạ tầng hợp lý (Đường, điện, hệ thống tưới tiêu, thông tin liên lạc)..., người dân được hỗ trợ vốn sản xuất, vật tư trả chậm, được bán sản phẩm cho công ty bao tiêu, sản xuất trong các mô hình. Các nhà quản lý hỗ trợ và làm trọng tài giữa các bên để ký kết các hợp đồng liên kết, bao tiêu sản xuất và tiêu thụ sản phẩm của mô hình lúa- rui đúng quy định pháp luật.

Bốn là: Xây dựng các mô hình ứng dụng tiên bộ về canh tác cây trồng theo tiêu chuẩn hữu cơ quốc tế, hữu cơ bền vững.... Các mô hình sản xuất sạch, an toàn, sử dụng chế phẩm sinh học trong nông nghiệp cần được nhân rộng và huy động đông đảo

nông dân hưởng ứng thông qua các câu lạc bộ về nghề nông tại địa phương. Đồng thời sử dụng giống cây trồng có tính chống chịu cao, giống lúa có chất lượng, phù hợp với điều kiện canh tác của địa phương, có tính cạnh tranh cao trên thị trường như giống lúa ST25, lúa Thảo dược... bên cạnh đó phát huy được thế mạnh, giữ được năng suất, chất lượng và thương hiệu con rươi, tôm cá vùng sản xuất hữu cơ. Ngoài ra có thể chuyển đổi cơ cấu cây trồng cho phù hợp với tình hình cụ thể: từ cấy lúa kém hiệu quả sang trồng rau, củ, quả có chất lượng cao với một số loại rau: măng tây, hành tây, hành lá hoặc trồng lạc, đậu, khoai, ngô theo tiêu chuẩn hữu cơ đối với những vùng đất quá chua mặn, khó khăn trong sản xuất lúa.

Nhận xét: Thực hiện nghiêm túc, hiệu quả Nghị quyết số 15 ngày 10/2/2021 của Hội đồng nhân dân thành phố Hải Phòng về cơ chế, chính sách khuyến khích phát triển sản xuất nông nghiệp, thủy sản hàng hóa tập trung trên địa bàn giai đoạn 2022-2025, Quyết định số 30 ngày 11/11/2020 Về canh tác hữu cơ trên địa bàn thành phố và Quyết định số 502/QĐ-UBND ngày 23/2/2023 về Đề án xác định vùng canh tác hữu cơ trên địa bàn thành phố Hải Phòng giai đoạn 2021-2025, định hướng đến năm 2030 của UBND thành phố Hải Phòng.

5. Kết luận

Mô hình lúa-rươi từ năm 2020 - 2022 làm tăng năng suất lúa ST25 từ 42,90 - 47,90%, tăng năng suất rươi thu hoạch từ 10,00 - 29,00%; tăng năng suất tôm, cua, cá thu hoạch tới 10,00 % so với sản xuất thông thường của người dân; chất lượng gạo đảm bảo giới hạn về chỉ tiêu vệ sinh an toàn thực phẩm theo Giới hạn cho phép tại QCVN8-2:2011/BYT năm 2011 và Thông tư số TT 50/2016-BYT về dư lượng kim loại nặng.

Mô hình lúa -rươi từ năm 2020 - 2022 làm tăng chi phí sản xuất từ 24,76 - 32,2 %, nhưng tổng thu cũng tăng từ 32,5- 39,5 %; Lợi nhuận cũng tăng từ 35,7-54,2%, hiệu quả sản xuất tăng từ 2,5- 12,0% so với sản xuất thông thường của người dân. Điều này có thể khẳng định, mô hình lúa - rươi canh tác theo tiêu chuẩn hữu cơ có hiệu quả kinh tế cao hơn so với sản xuất thông thường của người dân qua 3 năm đánh giá, đây cũng là cơ sở để có thể nhân rộng mô hình sản xuất này.

Đã cơ bản thay đổi được tập quán canh tác của người nông dân, chuyển sản xuất tự do sang chuyên nghiệp hóa, từ các công đoạn sản xuất, quản lý, tiêu thụ sản phẩm trong sản xuất lúa ST25 hữu cơ chất lượng cao khu vực thực hiện mô hình. Đồng thời nâng cao được năng lực cạnh tranh của sản phẩm tại địa bàn thành phố, các tỉnh thành bạn và hướng tới xuất khẩu thông qua các hợp đồng liên kết bao tiêu sản phẩm; gia tăng chuỗi giá trị thông qua các sản phẩm chế biến từ gạo hữu cơ chất lượng cao.

Bảo vệ được môi trường sống, môi trường làm việc, sức khỏe người sản xuất, tiêu dùng và sản xuất bền vững. Góp phần giảm thiểu sự suy thoái về đất đai canh tác lúa, nguồn nước phục vụ sản xuất và tiêu dùng, sức khỏe người trồng lúa, môi trường sống được bảo vệ.

Sản phẩm gạo ST25 trong Mô hình lúa - rươi đã được cấp Giấy chứng nhận sản phẩm Gạo hữu cơ Kiến Quốc số 2177/2020/QĐ-TQC ngày 12/11/2020. Và Giấy chứng nhận sản phẩm OCOP 4 sao năm 2021 số 3380/QĐ-UBND thành phố Hải Phòng ngày 24/11/2021. Mô hình sản xuất lúa - rươi theo tiêu chuẩn hữu cơ có khả năng duy trì, nhân

rộng mô hình sản xuất khoảng 1000 ha đến năm 2030 tại các huyện Tiên Lãng, Vĩnh Bảo, An Lão và các địa phương có điều kiện tương đồng; hướng tới xuất khẩu gạo hữu cơ sang Mỹ và châu Âu vào năm 2024-2025.

Đề xuất được năm giải pháp duy trì, phát triển mô hình lúa - rươi trên địa bàn thành phố Hải Phòng gắn với phát triển kinh tế xanh của thành phố giai đoạn đến năm 2025, tầm nhìn đến năm 2030.

Kết quả của bài báo có ý nghĩa thực tiễn, cơ sở để lựa chọn được mô hình lúa - rươi sản xuất hữu cơ phù hợp, và có những giải pháp phù hợp để duy trì, nhân rộng mô hình sản xuất đó gắn với phát triển kinh tế xanh thành phố đến năm 2025, tầm nhìn đến năm 2030.

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SOME PROPOSALS IMPROVE THE ENVIRONMENTAL RECOVERY COST ACCOUNTING FOR FIXED ASSETS TO DEVELOP GREEN ACCOUNTING IN VIETNAM

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Abstract: *In recent years, the policy of Vietnam's economic development has been to renovate the economy towards fast and sustainable development, but this development must protect the environment, solve socio-economic problems. This will be possible if the factors in the economy are fully built and completed such as: green credit, green accounting, green marketing.... In which, green accounting is a element that need to be research, construction and finishing; because, Vietnamese accounting and international accounting practices still have many differences. One of these differences that may affect the development of green accounting in Vietnam is the lack of elements in accounting reflection; which is typical as environmental recovery cost accounting for fixed assets. Aware of the importance of this issue, I have focused my research on the accounting principles of green accounting, environmental recovery cost accounting for fixed assets. I also generalized the issues of accounting theory to implement environmental recovery cost accounting in Vietnam and international accounting practices. Thereby, I will propose orientations to implement environmental recovery cost accounting for fixed assets in order to develop green accounting in Vietnam.*

Keywords: *The green accounting, The environmental recovery cost accounting, The fixed assets, The green economy*

MỘT SỐ ĐỀ XUẤT NHẪM HOÀN THIỆN KẾ TOÁN CHI PHÍ HOÀN NGUYÊN MÔI TRƯỜNG ĐỐI VỚI TÀI SẢN CÓ ĐỊNH ĐỂ PHÁT TRIỂN KẾ TOÁN XANH TẠI VIỆT NAM

Tóm tắt: *Trong những năm gần đây, chủ trương phát triển nền kinh tế của Việt Nam là đổi mới nền kinh tế theo hướng phát triển nhanh, bền vững nhưng sự phát triển này phải bảo vệ môi trường, giải quyết các vấn đề kinh tế - xã hội. Điều này sẽ thực hiện được nếu các yếu tố trong nền kinh tế được xây dựng và hoàn thiện một cách đầy đủ như: tín dụng xanh, kế toán xanh, marketing xanh.... Trong đó, kế toán xanh là yếu tố cần được nghiên cứu, xây dựng và hoàn thiện; bởi vì, kế toán Việt Nam và thông lệ kế toán quốc tế vẫn còn nhiều điểm khác biệt. Một trong số những điểm khác biệt này có thể ảnh hưởng đến quá trình phát triển kế toán xanh tại Việt Nam là sự thiếu hụt của các yếu tố trong phản ánh kế toán; mà điển hình như kế toán chi phí hoàn nguyên môi trường đối với tài sản cố định. Nhận thức được tầm quan trọng của vấn đề này, tôi đã tập trung nghiên cứu trên góc độ nguyên lý kế toán về kế toán xanh, kế toán chi phí hoàn nguyên môi trường đối với tài sản cố định. Tôi cũng đã khái quát các vấn đề về lý luận kế toán được xây dựng để thực hiện kế*

toán chi phí hoàn nguyên môi trường tại Việt Nam và thông lệ kế toán quốc tế. Qua đó, tôi sẽ đề xuất những định hướng để thực hiện kế toán chi phí hoàn nguyên môi trường đối với tài sản cố định nhằm phát triển kế toán xanh tại Việt Nam.

Từ khóa: *Kế toán xanh , Kế toán chi phí hoàn nguyên môi trường, Tài sản cố định, Kinh tế xanh*

1. Introduction

The need for rapid and sustainable economic restructuring and growth is the desire of most countries in the world in general and Vietnam in particular. However, this will create many pressures and disadvantages for environmental protection. Therefore, developing the economy in a sustainable way while ensuring a balance in environmental protection is an issue that countries around the world are aiming for. However, a green economy will only be formed if it is built and completed with the necessary elements. One of these factors is green accounting. This is a very important factor for the economy. Because, green accounting is a useful tool, it will affect and regulate businesses in particular and the economy in general in transforming the mode of operation and development towards a better economy - green economy. To do so, accounting standards, accounting elements ... must be developed and completed in accordance with green accounting orientation. However, this is not simple; because, Vietnamese accounting still lacks many elements and contains many differences compared to international accounting practices. These differences exist in many accounting angles and contents, namely: the lack of environmental accounting, environmental recovery cost accounting for fixed assets ...ect.

Fixed assets are an important factor for the formation and development of an enterprise. Fixed assets determine the competitiveness and business advantages in the production and business process of enterprises. Therefore, fixed asset accounting is considered as one of the leading focus jobs in corporate accounting, in the development of green accounting. In Vietnam, accounting for fixed assets is built and completed through a system of accounting standards and accounting regulations. However, with the trend of developing green accounting, Vietnam's fixed asset accounting has many differences compared to international accounting. One of them is the difference in environmental recovery cost accounting for fixed assets. This difference makes the process of fixed asset accounting will only focus mainly on providing information about the business and production situation of the enterprise, but it does not provide much information about the environment or environmental protection obligations of enterprises. This will increase environmental and public health risks. This fixed asset accounting process will not help businesses achieve environmental impact reduction and sustainable development; it will limit the process of developing and perfecting green accounting. Therefore, studying and perfecting the environmental recovery cost accounting for fixed assets is a problem for State management agencies, agencies that develop and draft standards and regulations accounting determination.

Recognizing the importance of this issue for businesses in particular and the economy in general, I have focused my research on the perspective of accounting

principles on green accounting and environmental recovery cost accounting for fixed assets to meet the development needs of green accounting. Through this article, I will conduct research and clarify the following contents:

- Overview of green accounting and environmental recovery cost accounting for fixed assets in the trend of green accounting development.

- Overview of the principles of environmental recovery cost accounting for fixed assets in the development trend of green accounting in Vietnam and international accounting practices.

- Proposing some of orientations to implement environmental recovery cost accounting for fixed assets in order to develop green accounting in Vietnam

2. Literature review, theoretical framework and methods

2.1. Literature review

Green growth and green economic development are common trends of the world economy. Therefore, green accounting has gradually become popular in many countries. In Vietnam, the trend of developing a green economy has been paid attention and the State has issued legal regulations to limit the exploitation that adversely affects environmental resources and pollution. However, for the accounting field, green accounting is still a relatively new issue. This has not been fully and synchronously developed and implemented in production, business activities of enterprises. In which, fixed assets is a very important field and determines the production and business process of enterprises. Through production and business activities in enterprises, fixed assets can be factors that directly affect and affect the surrounding environment, such as: mining, natural resources...etc. Therefore, the cost to restore the environment back to the status quo before exploitation and use is essential; it represents the obligations of enterprises after the process of exploiting environmental resources. However, environmental recovery cost accounting has not been mentioned and guided in detail in Vietnamese accounting. This has caused difficulties for businesses when applying and it has hindered the development of green accounting in Vietnam.

Many authors have realized the importance of this issue and they have studied it from different angles. However, there are not many studies on environmental recovery cost accounting for fixed assets to meet the needs of developing green accounting. Some research on this issue is done in the form of scientific articles. Typical studies include:

- Article: "Solutions to apply green accounting associated with sustainable development in Vietnam" by Nguyen Van Hoa; published in the Journal of Accounting & Auditing, December 2020 issue.

In this article, the author has generalized the views on green accounting and the benefits of green accounting for the economy and the business community. At the same time, the author also mentions the challenges and barriers in applying green accounting and solutions to apply green accounting associated with sustainable development in Vietnam.

The author has proposed solutions that can be applied to many subjects such as: management agencies, training institutions, universities and colleges, and the business community.

However, the article only briefly mentions about green accounting, but the author has not focused on solving accounting factors in Vietnamese accounting to promote the process of green accounting in Vietnam. The solutions proposed by the author are very valuable for orientation and coverage with many target groups; however, the solutions proposed by the author have not helped to solve the accounting factors that are the difference between Vietnamese accounting and international accounting practices; accounting factors whose appearance is of great value in promoting the development of green accounting in Vietnam.

- Article: "Application of green accounting in Vietnam and some problems" by Dao Thi Thuy Hang; was published in the Financial Journal, Term 1, November 2019.

In this article, the author briefly introduced about green accounting, the benefits of green accounting for businesses and the limitations in the process of applying green accounting in Vietnam. However, this article only gives a brief overview and introduction about green accounting, about the benefits of green accounting, but it has not provided a specific theoretical basis in building and applying green accounting in Viet Nam. In addition, this article only gives views on the difficulties that businesses may encounter in the process of applying green accounting in Vietnam, but it has not provided solutions and orientations to solve this problem for Vietnamese accounting. Especially, the article only provides theoretical content and solves problems for green accounting in general, but it does not deal with accounting factors that can affect the construction and application of green accounting in Vietnam.

- Article: "Effective application of green accounting in the trend of sustainable development" by Tran Thanh Thuy; was published in the Financial Journal, Term 1, April 2020. The article gave an overview of green accounting and the benefits of green accounting to the economy. The article also gives the author's point of view on some difficulties and challenges in applying green accounting to the economy. Since then, this article has also proposed solutions to improve the efficiency of applying green accounting for sustainable development. The solutions are proposed for management agencies and for businesses in the economy.

However, the article is limited to generalizing the general theories of green accounting; it has not specifically mentioned accounting factors that can affect the development and application of green accounting in the economy. The solutions proposed in this paper focus on improving the efficiency of applying green accounting in the current period; but currently green accounting is still a relatively new thing for the Vietnamese economy; therefore, the important solutions for the current period are to focus on preparing accounting elements and building green accounting for the Vietnamese economy. Solutions to improve the efficiency of the application of green accounting will be more valuable if green accounting has been developed and implemented in the economy.

In summary, previous studies on green accounting have summarized the theoretical contents of green accounting, the views when assessing green accounting and oriented solutions for applying green accounting. However, these studies only address the arguments for green accounting in the most general way. There are no studies that delve into green accounting in detail. There is no research focusing on solving a single or systematic accounting factors that have the effect of building and applying green accounting in the economy. In particular, there is no research paper on accounting factors such as environmental recovery cost accounting for fixed assets when considering the process of building and applying green accounting in Vietnam.

2.2. Theoretical basis and research methods

The theoretical basis used by me in the article includes:

- + International Accounting Standards System (IAS).
- + International Financial Reporting Standards System (IFRS).
- + Vietnam Accounting Standard System (VAS).
- + Guidance on business accounting regime - Circular 200/2014/TT-BTC issued by the Ministry of Finance on December 22, 2014.
- + Guidance on accounting regime for small and medium enterprises - Circular 133/2016/TT-BTC issued by the Ministry of Finance on August 26, 2016.
- + Guidance on the management, use and depreciation of fixed assets - Circular 45/2013/TT-BTC issued by the Ministry of Finance on April 25, 2013.

And other relevant regulations and accounting circulars...etc.

Research Methods:

On the basis of the research results of previous studies, I have continued to research on the accounting system in Vietnam, the Vietnamese accounting standard system, the international accounting standard system, accounting principles of green accounting and environmental recovery cost accounting for fixed assets. Because this article focuses on research on accounting theory for green accounting, environmental recovery cost accounting, I will not survey the data and information of businesses in the economy about the environmental recovery cost accounting. Instead, I will carry out qualitative research methods, theoretical research, problem analysis and synthesis.....etc. With this article, I will focus on researching and clarifying the following:

- Overview of green accounting and environmental recovery cost accounting for fixed assets in the trend of green accounting development.
- Overview of the principles of environmental recovery cost accounting for fixed assets in the development trend of green accounting in Vietnam and international accounting practices
- Proposing some of orientations to implement environmental recovery cost accounting for fixed assets in order to develop green accounting in Vietnam

3. Result and discussion

3.1. Overview of green accounting and environmental recovery cost accounting for fixed assets in the trend of green accounting development

3.1.1. Overview of green accounting

Today, the trend of economic development will not only stop at fast and strong development. The general trend in the development of the world economy is sustainable development. This is shown through the fact that the world is moving towards developing a green economy with goals such as: green growth, green credit, green accounting...etc. In particular, green accounting is considered by many economic experts as an important tool for the development of a green economy. In 2014, the program "Accounting system for economy and environment - Green Accounting" was implemented by the United Nations. This has contributed to promoting the trend of developing and applying green accounting to the world in general and Vietnam in particular. However, the issue of building and applying green accounting in each country has certain differences; because, each country has different socio-economic characteristics and perspectives in green accounting development.

In each country, green accounting can be viewed, built and developed in different directions. According to Wikipedia, green accounting can be understood as an accounting method that attempts to factor environmental costs into the financial results of a business's operations. According to Nguyen Van Hoa (2020), green accounting can be understood as a modern and comprehensive accounting system to record, summarize and report for an organization, to fully reflect the contents of financial resources assets, liabilities, investment capital, revenues and expenditures for the green environment of the country. This will help businesses get the most complete assessment of the production and business process, including: ensuring economic and environmental goals. From there, businesses will have a sustainable development orientation and it will promote the economy to become a green economy, a sustainable development economy.

Thereby, we can see: ***Green accounting is an accounting process that reflects both the economic information of traditional accounting and information about the business's obligations to the environment.***

3.1.2. Role of environmental recovery cost accounting for fixed assets in the trend of green accounting development

In the production and business activities of enterprises, fixed assets always play an important and valuable role in deciding the competitiveness and existence of the enterprise. Through fixed assets, production and business activities always have an interaction between the environment and the business. The production and business activities of enterprises, more or less, affect the environment and vice versa. Therefore, when conducting production and business activities, enterprises should pay attention to environmental issues; it is necessary to take into account the restoration and return to the original state of the environment after the process of production, business, and use of the environment and natural resources. These costs will usually be associated with the process

of using fixed assets to serve the business's production and business activities. The costs incurred to bring the environment back to its original state before production and business activities are carried out are called costs of environmental recovery.

Therefore, if green accounting is an accounting process that can reflect information about an enterprise's obligations to the environment, environmental recovery cost accounting is an essential accounting element for green accounting. Environmental recovery cost accounting is an indispensable accounting element and it plays a very important role in the formation and application of green accounting in the economy. This is an accounting factor that needs to be researched and perfected when the economy builds and applies green accounting.

3.2. Overview of the principles of environmental recovery cost accounting for fixed assets in the development trend of green accounting in vietnam and international accounting practices

Building and applying green accounting is a development trend of countries in the world in general and Vietnam in particular. However, in Vietnam, green accounting is still a relatively new thing. To be able to build and apply green accounting, Vietnamese accounting must follow each step accurately and methodically. The first step of the work is to form the legal basis, the basic accounting elements in order to create favorable conditions for the birth and application of green accounting. These accounting elements need to be built and associated with the production and business activities of the enterprise. Through fixed assets, production and business activities always have an interaction between the environment and the business. Therefore, the cost of environmental recovery is incurred when enterprises adopt fixed assets to carry out production and business activities. This is an accounting element that needs to be researched and perfected. In Vietnam, environmental recovery cost accounting has not been mentioned in Vietnamese Accounting Standards. This issue has only been mentioned in Circular 200/2014/TT-BTC issued by the Ministry of Finance on December 22, 2014 - Guiding the corporate accounting regime.

According to Circular 200/2014/TT-BTC, enterprises need to make provision for environmental recovery costs, site clean-up, restoration and return expenses. Enterprises will conduct accounting and record in expenses in the period to make deductions. Enterprises that need to make provision for costs of environmental recovery are those that operate in the fields of mineral and resource extraction or have offices and factories on leased land and enterprises must be obliged to restore and return the ground to the original condition to the landowner when the lease term ends. The cost of environmental recovery is deducted through account 352 - Provision for payable. This account is used to record the existing provisions for payables, the setting up and use of provisions for payables of the enterprise. (*Ministry of Finance, 2014*).

Costs for environmental recovery are deducted through accounting account 352 with secondary account 3524 - Provision for other payables. The enterprise will make a provision for the cost of environmental recovery and record an increase in the value made on account 352, and the accountant will record an increase in the corresponding expense

account such as: general production costs, selling expenses or administrative expenses. When preparing financial statements, enterprises will determine the amount of provisions for payables that need to be set up. Depending on each specific case, the enterprise will make additional deductions or reverse the difference. (*Ministry of Finance, 2014*).

In Vietnam, environmental recovery cost accounting is being done through provisioning. This is a departure from international accounting practices. In the International Accounting Standard System (IAS), the environmental recovery cost is mentioned in many standards such as: International Accounting Standard No. 16 (IAS 16) - Property, Plant and Equipment ; International Accounting Standard 37 (IAS 37) - Provisions, Contingent Liabilities and Contingent Assets ...etc. But this article only focuses on environmental recovery cost accounting for fixed assets so I will only do analysis and research on international accounting standards IAS 16.

According to International Accounting Standards (IAS), the cost for environmental recovery is mentioned in International Accounting Standard No. 16 (IAS 16) - Property, Plant and Equipment. Under IAS 16, recognizing an item of property, plant, and equipment is initially measured at its cost. The cost elements of an asset, plant, and equipment include:

- Its purchase price, including import duty and non-refundable purchase tax, after deducting trade discounts and rebates.

- Any costs directly attributable to bringing the asset to the location and condition necessary to enable it to function in the manner intended by management.

- An initial estimate of the cost of dismantling, removing the item, and restoring it to its location, the obligation an entity incurs when the item is purchased or as a result of its use in a specific period for purposes other than the production of inventory during that period. (*IASB, 2014*).

Thus, according to international accounting standards (IAS), the cost of environmental recovery is determined and recognized immediately in the historical cost of fixed assets. This difference will create certain impacts on the process of building and applying green accounting. As follows:

- According to International Accounting Standards - IAS 16, environmental recovery cost accounting has clearly shown the responsibility of enterprises for the environment. At that time, the cost of environmental recovery is recognized in the cost of fixed assets; This cost will be gradually allocated to reasonable expenses in each accounting period by the enterprise through depreciation of fixed assets. Thus, the responsibility of enterprises for the environment is carried out continuously and throughout the whole production and business process. Obligations towards the environment of enterprises will end when the process of production, business and exploitation of resources ends.

- According to Vietnamese accounting, the cost of environmental recovery is payable by the enterprise that makes provision. Although this still shows the responsibility of the business to the environment, this responsibility is not clearly expressed and it

contains many difficulties in the implementation process. Costs for environmental recovery to be paid by the enterprise for provisioning; this means that the responsibility of the business to the environment will only be possible when the process of using and exploiting environmental resources ends. In other words, the responsibility of the enterprise towards the environment must not be carried out continuously throughout the production and business process or the exploitation and use of environmental resources of the enterprise; it will only be executed when the process is finished. This contains many risks and difficulties for the business's environmental obligations. If an enterprise has a risk in the process of production and business and it loses the ability to make provisions or the ability to fulfill obligations towards the environment, the entire cost of environmental recovery of the enterprise in the previous period that won't be done either. Because, all costs will be set aside and perform obligations at the end of the operation process or a predetermined time by the enterprise.

In summary, environmental recovery cost accounting for fixed assets according to Vietnamese accounting still contains many risks and it does not have high value in the development of green accounting.

4. Conclusions or/ and policy implications

4.1 Some proposals improve the environmental recovery cost accounting for fixed assets to development green accounting in Vietnam

Environmental recovery cost accounting for fixed assets is an accounting element that plays a very important role in the formation and application of green accounting. In Vietnam, environmental recovery cost accounting has been studied and applied; however, this accounting process still has many potential risks and it is not of high value in developing green accounting. Therefore, environmental recovery cost accounting is a matter of great interest to many scientists and state management agencies. To solve this problem, it is necessary to have a scientific and specific implementation roadmap, which must be suitable to the socio-economic conditions of Vietnam. In order for environmental recovery cost accounting to be of high value when applied and contribute to the development of green accounting in Vietnam, I think it is necessary to have specific directions and solutions as follows:

Firstly, in the face of the trend of building and applying green accounting of the world economy, it is very necessary to perfect the environmental recovery cost accounting of Vietnamese accountants. Adjustments in environmental recovery cost accounting will help increase corporate responsibility for the environment and contribute to the development of green accounting. However, this adjustment will only bring high efficiency if it is suitable with the socio-economic environment and characteristics of the market economy of our country. Therefore, the directions and solutions to improve the environmental recovery cost accounting need to be considered carefully in the context of the current socio-economic situation of Vietnam.

Currently, the Vietnamese accounting standard system has not mentioned in detail about environmental recovery cost accounting. This issue is only guided in Circular

200/2014/TT-BTC issued by the Ministry of Finance on December 22, 2014 - Guiding the corporate accounting regime. In order to ensure that environmental recovery cost accounting is implemented effectively and synchronously in accounting application, helping to increase the responsibility of enterprises for the environment; the State management agencies, the Ministry of Finance need to study and build a theoretical foundation, a legal corridor, and a system of accounting standards to ensure uniformity and consistency. Therefore, the State management agencies, the Ministry of Finance need to review and update the issued standards; or add new standards that refer to the cost of environmental recovery to ensure consistency and harmony with international accounting standards, creating a basis for the implementation of environmental recovery cost accounting in the economy and help develop green accounting in Vietnam.

Environmental recovery cost accounting has been mentioned in Circular 200/2014/TT-BTC issued by the Ministry of Finance on December 22, 2014 - Guiding the corporate accounting regime. However, many issues of environmental recovery cost accounting do not have specific guidelines; for example: when to make provision, how to determine the provisioning value... etc. This can cause difficulties for businesses or it reduces efficiency when performing environmental recovery cost accounting. Therefore, the State management agencies need to study and issue specific instructions for businesses in applying environmental recovery cost accounting.

Secondly, the cost for environmental recovery is usually determined through an estimate of future costs. Therefore, environmental recovery cost accounting will only be accurate if it has all the accounting elements, accounting tools and economic tools to support cost estimation. Therefore, in addition to building and perfecting the system of standards, circulars, and guidelines for accounting, state management agencies also need to study and build estimates; price calculation tool, valuation ...etc to assist businesses in determining the exact cost of environmental recovery to be done in the future.

Thirdly, there are many differences between environmental recovery cost accounting in Vietnamese accounting and international accounting practices. Cost accounting for environmental reversion according to IAS 16 brings more advantages than Vietnamese accounting in developing green accounting. Therefore, the State management agencies and the Ministry of Finance can research and choose the most appropriate orientation to implement environmental recovery cost accounting to help bring about high effective value, help develop green accounting in Vietnam. In addition to the need to develop green accounting, Vietnamese accounting is also gradually transforming towards applying IFRS to match the general trend of international accounting. Therefore, Vietnamese accounting needs to have a specific roadmap in perfecting the environmental recovery cost accounting for fixed assets in Vietnam according to the orientation of IAS 16. In my opinion, Vietnamese accounting can study and perform environmental recovery cost accounting for fixed assets in stages with the following orientations:

- The first stage: in this stage, the environmental recovery cost accounting is still carried out through provisioning because the accounting elements have not been completed and fully developed to comply with IAS 16. However, Vietnamese accounting needs to

increase corporate responsibility for the environment. Specifically: we need to have regulations on determining the level of provisioning; about the time of making deductions; about the time to carry out the responsibility of the enterprise towards the environment after a period of exploitation and use ...etc.

- The second stage: in this phase, Vietnamese accounting needs to study, develop and complete the necessary elements to apply environmental recovery cost accounting according to international accounting practices - IAS 16. Such factors must be mentioned such as: Valuation methods for environmental recovery costs; necessary accounting standards for the implementation of environmental recovery cost accounting; legal basis for the implementation of environmental recovery cost accounting; necessary accounting guidelines and circulars for performing accounting...etc

- The third stage: in this phase, supporting elements for the implementation of environmental recovery cost accounting in accordance with IAS 16 have been developed and completed. At that time, Vietnamese accounting will gradually implement for businesses in the economy. During this period, the State management agencies need to update the feedback from businesses in the process of accounting. From there, the State management agencies will have to guide, adjust or perfect the system of standards, regulations and other relevant factors to ensure conformity with socio-economic characteristics Vietnamese.

Conclusion

The environmental recovery cost accounting is an important accounting factor and plays a huge role in the development and application of green accounting. However, Vietnamese accounting still has many similarities with international accounting practices. Typical is the difference in environmental recovery cost accounting. In Vietnam, environmental recovery cost accounting has gradually revealed potential risks and limitations in corporate environmental responsibility compared to accounting according to international accounting practices. To solve this problem, Vietnamese accounting need to study and gradually improve according to the trend of applying green accounting. In the coming time, it is hoped that with the orientations and solutions implemented synchronously and effectively in each specific period, in the not too distant future the limitations of environmental recovery cost accounting will be solved; Vietnamese accounting standards will be closer to and more similar to international accounting standards to meet the requirements of building and applying green accounting in Vietnam.

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**MỘT SỐ ĐỀ XUẤT GIÚP THỨC ĐẨY MÔ HÌNH ESCO
NHẪM NÂNG CAO NĂNG LỰC QUẢN LÝ, ĐIỀU TIẾT VÀ BẢO ĐẢM AN NINH
NĂNG LƯỢNG TÁI TẠO TẠI VIỆT NAM**

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Tóm tắt: *Phát triển Kinh tế xanh là một trong những chính sách mang tính chiến lược trong định hướng phát triển kinh tế xã hội được Việt Nam đề ra nhằm đảm bảo sự phát triển bền vững. Một trong những vấn đề cốt lõi của Phát triển kinh tế xanh là sử dụng năng lượng một cách hiệu quả. Phương pháp giúp điều tiết và quản lý năng lượng đang được nhiều quốc gia áp dụng là mô hình ESCO với hiệu quả tiết kiệm năng lượng lên tới 25%, tuy nhiên ở Việt Nam mô hình này chưa được phổ biến. Trong bối cảnh đó, cần phải có các đề xuất giúp kích thích việc phát triển nhân rộng mô hình này, giúp giải quyết được vấn đề sử dụng hiệu quả nguồn năng lượng tái tạo.*

Từ khóa: *ESCO, Energy Service Company, Kinh tế xanh, năng lượng tái tạo*

**THE SUGGESTIONS FOR DEVELOPMENT ABILITY OF MANAGE,
COORDINATION, ENSURE ENERGY SECURITY IN VIET NAM**

Abstract: *Green economy is a strategic policy proposed by Vietnam for sustainable development. Most importantly of green economic development is energy efficiency. The method for energy management applied by many countries is the ESCO, that have energy saving is 25%. However, ESCO 's Vietnam has not been popularized. So, Vietnam needs to develop policies for development ESCO, that make renewable energy more efficiently.*

Keyword: *ESCO, Energy Service Company, Green Economy, Renewable energy*

1. Đặt vấn đề

Chính sách kinh tế xanh là một trong những sáng kiến được Liên Hợp Quốc đưa ra vào năm 2008 và chính thức được công nhận là một công cụ để đạt được sự phát triển bền vững trong Hội nghị thượng đỉnh của Liên Hợp Quốc tại Rio de Janeiro, Brazil vào năm 2012, sau hơn 10 năm thực hiện, chính sách này đã trở thành một trong những ưu tiên hàng đầu trong chiến lược nhằm khắc phục những hệ lụy của kinh tế nâu. (United Nations, 2012)

Kinh tế xanh là sự kết hợp giữa ba yếu tố: kinh tế, xã hội và môi trường; khuyến khích sự phát triển sáng tạo, đổi mới công nghệ và sử dụng hiệu quả các nguồn năng lượng tái tạo nhằm mục tiêu xây dựng một nền kinh tế giúp cải thiện đời sống con người và tài sản xã hội, đồng thời chú trọng giảm thiểu những hiểm họa môi trường và sự khan hiếm tài nguyên.

Nhiều quốc gia trên thế giới đã có những bước đi dài trong phát triển mô hình kinh tế xanh, như Hàn Quốc, Nhật Bản, Trung Quốc ở châu Á; Đức, Anh, Pháp, Hà Lan... Các quốc gia này đã thúc đẩy tăng trưởng xanh với nhiều nội dung quan trọng, như: đẩy mạnh

tiêu dùng xanh, sản xuất xanh hướng đến sử dụng năng lượng tái tạo, hạn chế phát thải khí nhà kính, ứng phó với biến đổi khí hậu... Tuy nhiên, việc phát triển kinh tế xanh ở các nước trên thế giới vẫn còn gặp nhiều khó khăn và thách thức như: sự khác biệt về mức độ phát triển và cam kết giữa các quốc gia, sự thiếu hợp tác và hỗ trợ quốc tế, sự thiếu nhất quán và minh bạch trong các chính sách và tiêu chuẩn xanh...

Là một trong những nước đang phát triển, tham gia nhiều tổ chức và khối khu vực và quốc tế, Việt Nam hiện cũng gặp phải hàng loạt các thách thức tương tự trong quá trình chuyển đổi sang kinh tế xanh. Để thực hiện mục tiêu này, Việt Nam đã có nhiều nhiều chính sách nhằm giải quyết các thách thức trên. Từ văn kiện Đại hội Đảng VI đến đại hội XIII, vấn đề về phát triển kinh tế đồng thời bảo vệ môi trường và tài nguyên thiên nhiên, giảm thiểu ô nhiễm và biến đổi khí hậu, tạo ra các cơ hội kinh tế mới và đạt được sự hài hòa giữa phát triển kinh tế và xã hội luôn là một trong những quan điểm mang tính chiến lược trong định hướng phát triển kinh tế xã hội. Đặc biệt, Đại hội XIII đã đề ra chiến lược phát triển kinh tế - xã hội 10 năm 2021 - 2030 với chủ đề: Khơi dậy khát vọng phát triển đất nước, phát huy mạnh mẽ giá trị văn hóa, con người Việt Nam và sức mạnh thời đại, huy động mọi nguồn lực, phát triển nhanh và bền vững trên cơ sở khoa học, công nghệ, đổi mới sáng tạo và chuyển đổi số. (Đảng cộng sản Việt Nam, 2021)

Trong hội thảo “Kinh tế xanh và Phát triển bền vững” do Tổng cục Môi trường, bộ Tài nguyên Môi trường tổ chức tại TP Hạ Long năm 2012 đã đưa ra quan điểm về vấn đề cốt lõi trong kinh tế xanh là giải quyết được bài toán năng lượng. Một trong những phương pháp để giải bài toán năng lượng thường được sử dụng là chuyển dịch năng lượng theo hướng xanh, sạch, bền vững, tăng tỷ trọng năng lượng tái tạo, giảm phụ thuộc vào năng lượng nhập khẩu, năng lượng hóa thạch. Tuy nhiên vấn đề năng lượng tái tạo có tính bất định cao và chất lượng điện năng không ổn định, nên cần có các giải pháp về quản lý, điều tiết và bảo đảm an toàn hệ thống điện quốc gia.

Hệ số đàn hồi tăng trưởng điện/tăng trưởng GDP của Việt Nam có xu hướng giảm. Cụ thể, trong giai đoạn 2001 - 2010, hệ số đàn hồi là 2,17, trong giai đoạn 2011 - 2015 là 1,84, giai đoạn 2016 - 2020 là 1,44. Tuy nhiên, hệ số đàn hồi của Việt Nam nhìn chung vẫn cao so với các nước trong khu vực và trên thế giới. (Ban biên tập Tạp chí năng lượng Việt Nam, 2021)

Một số nguyên nhân gây ra tình trạng này là: Sử dụng các công nghệ sản xuất cũ, hệ thống dây chuyền, máy móc tiêu hao nhiều năng lượng; Ý thức sử dụng năng lượng tiết kiệm hiệu quả của doanh nghiệp và người dân còn hạn chế; Tổn thất điện năng trên đường dây và hệ thống vào khoảng 8-9%. Điều này cho thấy, ngoài việc chuyển đổi loại hình năng lượng, việc sử dụng năng lượng một cách hiệu quả cũng đóng vai trò cấp thiết trong quá trình phát triển kinh tế xanh.

2. Tổng quan nghiên cứu, cơ sở lý thuyết và phương pháp nghiên cứu

2.1. Mô hình ESCO và vai trò của mô hình ESCO trong việc giải quyết vấn đề điều tiết và bảo đảm an ninh năng lượng

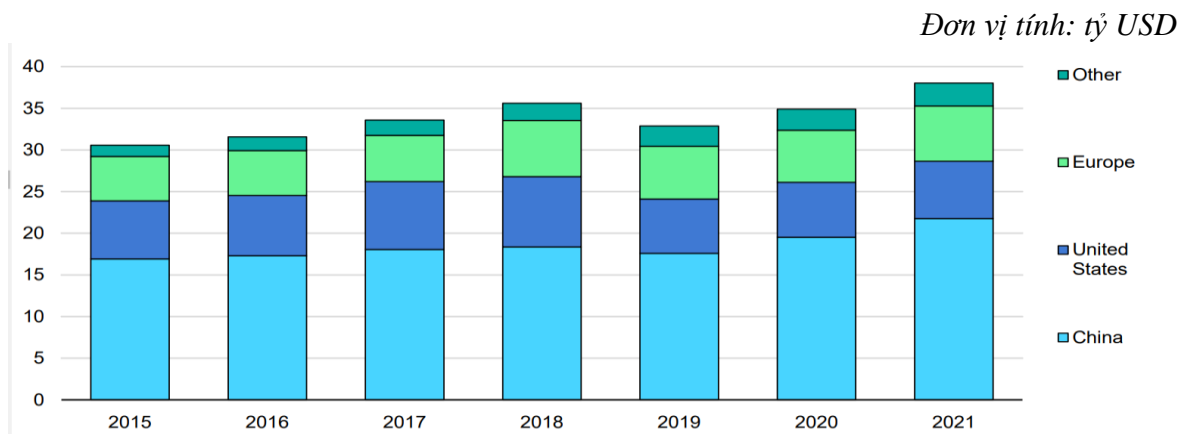
ESCO là viết tắt của Energy Service Company, là mô hình cung cấp dịch vụ năng lượng và các giải pháp năng lượng toàn diện cho khách hàng của mình, bao gồm kiểm toán, thiết kế lại và thực hiện các thay đổi đối với cách khách hàng tiêu thụ năng lượng, với

mục tiêu chính là cải thiện hiệu quả sử dụng năng lượng. ESCO thường ký hợp đồng hiệu suất năng lượng (EPC) với khách hàng của họ, đảm bảo một mức tiết kiệm năng lượng nhất định và thiết lập các điều khoản thanh toán. (IEA, 2018)

Hình thành từ cuộc khủng hoảng năng lượng cuối những năm 1970, khi thị trường yêu cầu các doanh nghiệp phải tìm giải pháp tiết kiệm năng lượng và chia sẻ lợi ích với khách hàng, mô hình ESCO đã ra đời, một trong những ví dụ sớm nhất là công ty Time Energy ở Texas, Mỹ. Ban đầu ngành công nghiệp ESCO tăng trưởng chậm qua các năm 1970 và 1980, do thiếu khách hàng tiềm năng và cơ chế chính sách hỗ trợ. Phải đến năm 1990, ngành công nghiệp ESCO mới bắt đầu phát triển do có sự thay đổi về chính sách, thị trường và công nghệ. (Bullock, Cary, George Caraghair, 2001) Hiện nay các Mỹ, Trung Quốc là hai quốc gia chiếm thị phần lớn nhất trong ngành công nghiệp ESCO. Theo báo cáo của Cơ quan Năng lượng Quốc tế (IEA), Trung Quốc tiếp tục là thị trường ESCO lớn nhất và phát triển nhanh nhất trên thế giới, có tổng giá trị lên tới 16,8 tỷ USD vào năm 2017. Thị trường tại Hoa Kỳ, nơi ESCO đã hoạt động hơn 30 năm, hiện có tổng giá trị 7,6 tỷ USD vào năm 2017. Tại Châu Âu, thị trường ESCO vẫn còn chưa phát triển so với các khu vực khác, chiếm 10% của tổng thị phần ngành công nghiệp ESCO trên thế giới. (IEA, 2018)

Trung bình, các dự án ESCO đang tiết kiệm năng lượng lên tới 25% (IEA, 2018), điều này có thể chuyển thành tiết kiệm tài chính đáng kể và giảm phát thải cho khách hàng và xã hội. Tuy nhiên, cũng có những thách thức và rào cản cản trở sự phát triển của thị trường ESCO ở một số quốc gia và khu vực, chẳng hạn như thiếu nhận thức và niềm tin giữa các khách hàng tiềm năng, thiếu nhân sự lành nghề và giàu kinh nghiệm trong ngành ESCO, thiếu khả năng tiếp cận các công cụ đánh giá rủi ro tài chính và tín dụng cho các dự án ESCO, thiếu dữ liệu và thông tin về tiêu thụ năng lượng và tiềm năng tiết kiệm cho các ngành và cơ sở khác nhau, và thiếu các chính sách, quy định hỗ trợ cho hoạt động và hiệu quả hoạt động của ESCO

Đến năm 2022, Thị trường ESCO toàn cầu tăng 9% lên 38 tỷ USD vào năm 2021. Tổng vốn đầu tư vào thị trường Trung Quốc, tăng 9% lên 22 tỷ USD. Tháng 11 năm 2022, Ngân hàng Đầu tư Châu Âu đã hoàn tất một quỹ trị giá 220 triệu EUR nhằm mục tiêu tiết kiệm năng lượng và đầu tư vào năng lượng tái tạo sau đồng hồ đo, đồng thời hỗ trợ các ESCO trên toàn thế giới. (IEA, 2022)



Nguồn: IEA (Cơ quan Năng lượng Quốc tế)

Hình 1: Tổng vốn đầu tư vào các dự án ESCO, toàn cầu 2015-2021

ESCO có thể được coi là một công cụ quan trọng để mở khóa đầu tư cho vấn đề sử dụng năng lượng hiệu quả và tiết kiệm, hướng tới đạt mục tiêu tăng trưởng xanh, phát triển bền vững. Tuy nhiên ở Việt Nam, ESCO còn gặp nhiều khó khăn và thách thức. Theo báo cáo của Dự án Hỗ trợ kỹ thuật ngành năng lượng Việt Nam - EU (EVEF), hiện nay ở Việt Nam chỉ có khoảng 10 - 15 công ty hoạt động theo mô hình ESCO và chủ yếu là các công ty nhỏ và vừa.

2.2. Các chính sách ảnh hưởng trực tiếp tới mô hình ESCO tại các quốc gia đứng đầu trong lĩnh vực ESCO

- Tại Trung Quốc, ESCO bắt đầu phát triển từ những năm 1990 và được Chính phủ ủng hộ thông qua các chương trình hỗ trợ tài chính và kỹ thuật. Các mô hình ESCO phổ biến ở Trung Quốc là “thuê mua” (ESCO thuê các thiết bị tiết kiệm năng lượng cho khách hàng và thu tiền từ việc tiết kiệm năng lượng để trả lại cho nhà cung cấp thiết bị) và “thuê sử dụng” (ESCO thuê các thiết bị tiết kiệm năng lượng cho khách hàng và thu tiền từ việc sử dụng thiết bị). Các chính sách ưu đãi về thuế giảm, miễn thuế nhập khẩu, miễn thuế giá trị gia tăng... đã góp phần thúc đẩy thị trường ESCO ở Trung Quốc có thể kể đến như

+ Thành lập các cơ quan chủ chốt cho ESCO, chẳng hạn như Hiệp hội Bảo tồn Năng lượng Trung Quốc (EMCA) và Nhóm Bảo tồn Năng lượng và Bảo vệ Môi trường Trung Quốc (CECEP), để cung cấp hướng dẫn, công nhận, đào tạo và thông tin cho các ESCO. (IEA, 2021)

+ Thu hút các doanh nghiệp nhà nước (DNNN), chiếm khoảng 40% thị trường ESCO của Trung Quốc, để thực hiện các dự án hiệu quả năng lượng trong các cơ sở và công ty con của chính họ, cũng như trong các lĩnh vực khác. (IEA, 2021)

+ Khuyến khích tham gia thị trường bằng cách đưa vào các công ty thương mại, chẳng hạn như ngân hàng, công ty bảo hiểm, nhà đầu tư mạo hiểm và ESCO tư nhân, để cung cấp tài chính, quản lý rủi ro và đổi mới cho các dự án ESCO. (IEA, 2021)

+ Điều chỉnh phát triển ESCO với quá trình chuyển đổi kinh tế xã hội của Trung Quốc, nhằm chuyển từ mô hình tăng trưởng carbon cao và sử dụng nhiều tài nguyên sang mô hình phát triển xanh và carbon thấp. (IEA, 2021)

Các biện pháp chính sách này đã giúp Trung Quốc xây dựng thị trường ESCO lớn nhất và phát triển nhanh nhất thế giới, đạt 16,8 tỷ USD vào năm 2017. Báo cáo cũng khám phá cách các ESCO ở Trung Quốc tiếp tục phát triển, ví dụ bằng cách sử dụng các công nghệ kỹ thuật số để làm cho doanh nghiệp của họ bền vững và sinh lợi hơn. (IEA, 2018)

- Tại Hoa Kỳ, ESCO đã xuất hiện từ những năm 1980 và phát triển mạnh mẽ trong các tổ chức công và khu vực tư nhân. Các mô hình ESCO phổ biến ở Hoa Kỳ là “tiết kiệm chia sẻ” (ESCO và khách hàng chia sẻ lợi nhuận và rủi ro từ việc tiết kiệm năng lượng) và “tiết kiệm đảm bảo” (ESCO đảm bảo cho khách hàng một mức tiết kiệm năng lượng tối thiểu nhất định). Các đạo luật chính về thuế, khấu hao, cho phép sử dụng năng lượng hiệu quả và các chính sách hỗ trợ mô hình ESCO đã được ghi nhận như:

+ Đạo luật Chính sách Năng lượng năm 1992, thiết lập chương trình hợp đồng hiệu suất tiết kiệm năng lượng liên bang (ESPC), cho phép các cơ quan liên bang ký hợp đồng dài hạn với ESCO để thực hiện các dự án hiệu quả năng lượng trong các cơ sở liên bang. (Bullock, Cary, George Caraghair, 2001)

+ Đạo luật An ninh và Độc lập Năng lượng năm 2007, mở rộng chương trình ESPC và đặt mục tiêu giảm 30% việc sử dụng năng lượng trong các tòa nhà liên bang vào năm 2015. (Bullock, Cary, George Caraghair, 2001)

+ Đạo luật Phục hồi và Tái đầu tư Hoa Kỳ năm 2009, cung cấp 11 tỷ USD cho các dự án năng lượng tái tạo và hiệu quả năng lượng trong các tòa nhà liên bang, chính quyền tiểu bang và địa phương, và nhà ở công cộng. (Bullock, Cary, George Caraghair, 2001)

+ Kế hoạch năng lượng sạch năm 2015, nhằm giảm 32% lượng khí thải carbon dioxide từ các nhà máy điện hiện có vào năm 2030, tạo động lực cho các ESCO cung cấp các giải pháp tiết kiệm năng lượng cho khách hàng ngành điện. (Bullock, Cary, George Caraghair, 2001)

+ Đạo luật cắt giảm thuế và việc làm năm 2017, giảm thuế suất doanh nghiệp từ 35% xuống 21%, tăng dòng tiền sau thuế và lợi nhuận của các dự án ESCO. (Bullock, Cary, George Caraghair, 2001)

Các biện pháp chính sách này đã giúp Mỹ duy trì vị thế là một trong những thị trường ESCO lớn nhất và trưởng thành nhất thế giới, với quy mô thị trường đạt 7,6 tỷ USD vào năm 2017. (IEA, 2018)

2.3. Phương pháp xây dựng các đề xuất thúc đẩy tiết kiệm năng lượng

Để xây dựng chương trình hoạt động phục vụ cho các hoạt động của tổ chức, xã hội cần phải tuân theo những quy tắc cơ bản để đảm bảo chính sách công được hoạch định và thực hiện một cách hiệu quả, phù hợp với thực tiễn và pháp luật.

- Nguyên tắc đầu tiên là nguyên tắc pháp chế, các chương trình hoạt động phải tuân thủ theo đường lối chính sách của Đảng, các quy định của pháp luật, và không trái với các nguyên tắc cơ bản của pháp luật. Các văn bản có liên quan trực tiếp đến công tác chỉ đạo nhiệm vụ quản lý, điều tiết và bảo đảm an ninh năng lượng quốc gia có thể kể đến bao gồm:

+ Chính sách năng lượng quốc gia là những biện pháp của nhà nước nhằm định hướng và điều tiết hoạt động của ngành năng lượng, bảo đảm an ninh năng lượng quốc gia, cung cấp đầy đủ năng lượng cho phát triển kinh tế - xã hội và bảo vệ môi trường sinh thái. Trong nghị quyết Số 55-NQ/TW, ngày 11 tháng 02 năm 2020 về “Định hướng chiến lược phát triển năng lượng quốc gia của Việt Nam đến 2030, tầm nhìn đến năm 2045”. Trong nghị quyết, Bộ Chính trị đã đề ra 10 nhiệm vụ và giải pháp chủ yếu trong việc quản lý, điều tiết và bảo đảm an ninh năng lượng quốc gia.

+ Luật Sử dụng năng lượng tiết kiệm và hiệu quả được Quốc hội thông qua ngày 17 tháng 6 năm 2010 và có hiệu lực từ ngày 1 tháng 1 năm 2011 quy định về sử dụng năng lượng tiết kiệm và hiệu quả; đề ra chính sách, biện pháp thúc đẩy sử dụng năng lượng tiết kiệm và hiệu quả; quyền, nghĩa vụ, trách nhiệm của tổ chức, hộ gia đình, cá nhân trong sử dụng năng lượng tiết kiệm và hiệu quả. Từ đó làm cơ sở cho việc xây dựng các chính sách sử dụng năng lượng tiết kiệm và quy định trong việc áp dụng các biện pháp quản lý và kỹ thuật nhằm giảm tổn thất, giảm mức tiêu thụ năng lượng của phương tiện, thiết bị mà vẫn bảo đảm nhu cầu, mục tiêu đặt ra đối với quá trình sản xuất và đời sống

+ Chiến lược phát triển năng lượng quốc gia của Việt Nam đến năm 2020, tầm nhìn đến năm 2050 được Thủ tướng Chính phủ phê duyệt ngày 27 tháng 12 năm 2007. Chiến lược này xác định mục tiêu tỷ lệ tiết kiệm năng lượng trên tổng tiêu thụ năng lượng cuối cùng so với kịch bản phát triển bình thường đạt khoảng 5% vào năm 2020 và khoảng 8% vào năm 2030.

+ Chiến lược phát triển năng lượng tái tạo của Việt Nam đến năm 2030, tầm nhìn đến năm 2050; quyết định này nhằm mục tiêu tăng cường sử dụng năng lượng tái tạo trong cơ cấu nguồn năng lượng quốc gia, góp phần bảo vệ môi trường, đảm bảo an ninh năng lượng và phát triển kinh tế - xã hội bền vững. Quyết định này cũng quy định các ưu đãi về thuế nhập khẩu, thuế thu nhập doanh nghiệp, tín dụng đầu tư, đất đai... cho các dự án phát triển và sử dụng năng lượng tái tạo.

+ Chương trình Quốc gia về sử dụng năng lượng tiết kiệm và hiệu quả giai đoạn 2019 - 2030 được Thủ tướng Chính phủ phê duyệt ngày 13 tháng 3 năm 2019. Chương trình này gồm 12 hoạt động chủ yếu như: xây dựng và hoàn thiện cơ chế chính sách; xây dựng các mô hình điển hình; hỗ trợ xây dựng hệ thống quản lý năng lượng; công nhận cơ sở sử dụng năng lượng xanh; xây dựng trung tâm dữ liệu năng lượng; kiểm tra, giám sát, hướng dẫn triển khai các quy định.

- Thứ hai là nguyên tắc khách quan: trong xây dựng, hoạch định, yêu cầu chính sách công phải dựa trên những căn cứ khoa học, thực tiễn và đánh giá toàn diện các tác động của chính sách. Nguyên tắc này giúp người làm chính sách tránh được những sai lầm, thiếu sót và thiên vị do sự ảnh hưởng của quan điểm cá nhân, lợi ích nhóm hay áp lực chính trị. Nguyên tắc này cũng giúp nâng cao tính khoa học, khách quan và minh bạch của quá trình hoạch định và thực hiện chính sách. Các căn cứ khoa học phải dựa trên cơ sở thực tiễn từ các mô hình thành công và bài học kinh nghiệm của các mô hình thất bại. Ngoài ra cần có sự tham khảo kinh nghiệm của các quốc gia đã áp dụng trên thế giới. Ví dụ như việc nghiên cứu các mô hình ESCO đã thành công tại Việt Nam như: Dự án cung cấp hơi - điện và sấy khô bã hèm cho nhà máy bia Heineken tại Bà Rịa - Vũng Tàu do Công ty Cổ phần Đầu tư Xuất nhập khẩu Đông Dương (DDG); Dự án nâng cấp hệ thống chiếu sáng cho các trường học, bệnh viện và các cơ quan Nhà nước tại Hà Nội, Hải Phòng, Đà Nẵng, TP HCM và Cần Thơ do Công ty TNHH MTV Năng lượng và Môi trường Việt Nam (VietEsco); Dự án nâng cấp hệ thống điều hòa không khí cho các tòa nhà văn phòng tại Hà Nội và TP HCM do Công ty TNHH MTV Năng lượng và Môi trường Việt Nam (VietEsco) phối hợp với Công ty TNHH Thương mại và Kỹ thuật Điện lạnh Á Châu (AIC) triển khai; ...

Các phương pháp trên là công cụ cơ sở cho việc xây dựng các đề xuất cho chính sách năng lượng quốc gia nhằm đảm bảo khung pháp lý và quy chế, đảm bảo việc kích thích và điều tiết các chỉ số và tiêu chuẩn về năng lượng, các cơ chế giám sát và đánh giá hiệu quả của chính sách. Sao cho phù hợp với nguyên tắc của chính sách năng lượng quốc gia, chiến lược phát triển kinh tế - xã hội quốc gia, tuân thủ các cam kết quốc tế về an ninh năng lượng và biến đổi khí hậu, khuyến khích sự tham gia của các bên liên quan trong ngành năng lượng, đảm bảo tính minh bạch và công bằng trong quản lý và sử dụng nguồn năng lượng

3. Các đề xuất trong việc phát triển mô hình ESCO tại Việt Nam

3.1 Các mô hình Esco đã được áp dụng thành công tại Việt Nam và bài học kinh nghiệm.

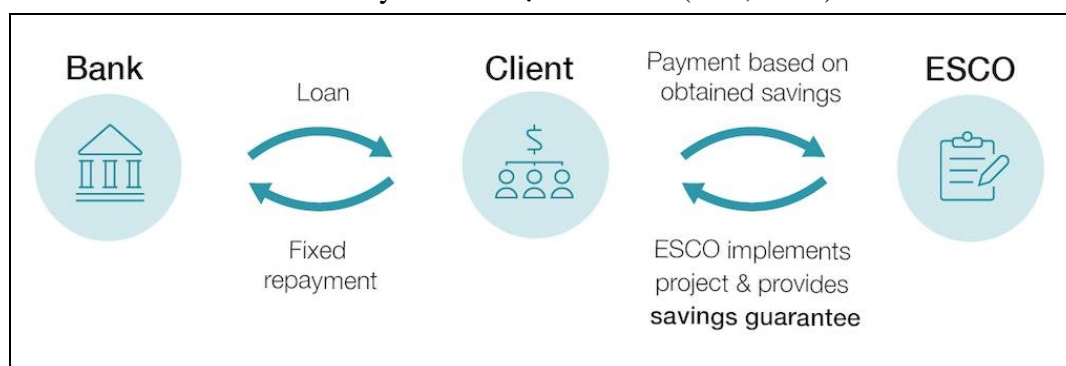
3.1.1. Các mô hình Esco tại Việt Nam

Các mô hình hoạt động của ESCO tại Việt Nam có thể được phân loại theo các hình thức hợp đồng khác nhau, tùy thuộc vào yêu cầu và điều kiện thực hiện dự án. Có hai hình thức hợp đồng phổ biến nhất là:

Hình thức cam kết mức tiết kiệm: Mô hình ESCO cam kết mức tiết kiệm là một hình thức hợp đồng trong đó ESCO sẽ đảm bảo cho doanh nghiệp một mức tiết kiệm năng lượng nhất định khi thực hiện các giải pháp tiết kiệm năng lượng do ESCO đề xuất.

Cụ thể về cơ chế hoạt động, ESCO sẽ tiến hành khảo sát, đo đạc, tính toán và đưa ra mức cam kết tiết kiệm năng lượng cho doanh nghiệp dựa trên nhu cầu và điều kiện của doanh nghiệp. ESCO sẽ thực hiện các giải pháp tiết kiệm năng lượng và chịu trách nhiệm về kết quả. Doanh nghiệp sẽ trả cho ESCO một khoản phí dịch vụ cố định hoặc theo tỉ lệ của mức tiết kiệm năng lượng. ESCO sẽ chịu trách nhiệm trả tiền chênh lệch nếu không đạt được mức tiết kiệm cam kết. Mô hình ESCO cam kết mức tiết kiệm mang lại lợi ích cho cả hai bên. Đối với doanh nghiệp, họ có thể giảm chi phí năng lượng, được đầu tư đổi mới thiết bị và công nghệ trong khi không cần bỏ chi phí và hạn chế rủi ro. Đối với ESCO, họ có thể tăng lợi nhuận nhờ vào sự cam kết và uy tín của mình.

ESCO có thể cung cấp tài chính, cũng như chi phí triển khai và phát triển dự án, với khoản tiết kiệm năng lượng được chia sẻ giữa ESCO và khách hàng trong thời gian hợp đồng. Mô hình này yêu cầu ESCO phải có khả năng vay nợ và có các dự án với dòng doanh thu đảm bảo các khoản vay có thể được hoàn trả. (IEA, 2018)



Nguồn: IEA (Cơ quan Năng lượng Quốc tế)

Hình 2 : Mô hình ESCO hoạt động theo hình thức cam kết mức tiết kiệm

Mô hình này hiện đã được áp dụng trong dự án cung cấp hơi - điện và sấy khô bã hèm cho nhà máy bia Heineken tại Bà Rịa - Vũng Tàu do Công ty Cổ phần Đầu tư Xuất nhập khẩu Đông Dương (DDG) đầu tư theo mô hình ESCO. Cụ thể Công ty Đông Dương đầu tư xây dựng và vận hành hệ thống cung cấp hơi - điện và sấy khô bã hèm cho nhà máy bia Heineken. Công ty Đông Dương sẽ chịu trách nhiệm về chất lượng và hiệu quả của hệ thống. Nhà máy bia Heineken sẽ trả tiền cho công ty Đông Dương theo mức giá thấp hơn so với chi phí hơi và điện hiện tại. Công ty Đông Dương sẽ thu hồi vốn đầu tư và lợi nhuận

từ tiền tiết kiệm năng lượng của nhà máy bia Heineken trong một khoảng thời gian nhất định. Sau khi kết thúc thời gian hợp đồng, nhà máy bia Heineken sẽ sở hữu và tiếp tục sử dụng hệ thống cung cấp hơi - điện và sấy khô bã hèm.

Dự án đã hoàn thiện hai giai đoạn với tổng kinh phí 65 triệu USD. Giai đoạn 1 bao gồm lắp đặt hệ thống lò hơi CS 75 tấn/giờ và hai hệ thống sấy bã hèm bia. Giai đoạn 2 bao gồm lắp đặt hệ thống lò hơi cao áp công suất 45 tấn/giờ, hệ thống thu hồi khí CO2 công suất 80 tấn và mở rộng hệ thống sấy bã hèm bia đôi số 3. Dự án đã giúp nhà máy tiết kiệm được 30% năng lượng và giảm được 40% lượng khí thải CO2. Dự án cũng giúp giảm 2/3 chi phí hơi cho nhà máy bia Heineken.

Một trong những nguyên nhân chính giúp cho dự án thành công là nhờ việc chính quyền địa phương đã tích cực trong việc hỗ trợ cấp phép đầu tư, giải quyết các vấn đề liên quan đến đất đai, môi trường và an ninh. Đồng thời, chính quyền địa phương cũng đã tạo điều kiện thuận lợi cho dự án tiếp cận các nguồn vốn hỗ trợ từ các tổ chức quốc tế như dự án “Thúc đẩy việc sử dụng và vận hành nồi hơi công nghiệp hiệu quả năng lượng tại Việt Nam” của Bộ Công Thương và UNIDO.

Bên cạnh đó, xây dựng và hoàn thiện khung thể chế và luật pháp thúc đẩy sử dụng năng lượng tiết kiệm và hiệu quả trong tất cả các ngành kinh tế của đất nước như: Luật sử dụng năng lượng tiết kiệm và hiệu quả, cùng với một hệ thống các nghị định, quyết định của Thủ tướng Chính phủ và thông tư của Bộ Công Thương và các bộ ngành có liên quan được ban hành và liên tục được bổ sung hoàn thiện để hướng dẫn thi hành Luật. Từ đó cho thấy, cơ sở để giúp các

Điều này cho thấy việc các chính sách ưu đãi đã kích thích các ESCO có thể thuận lợi cho việc xây dựng và lắp đặt các thiết bị, giảm rủi ro tài chính và nâng cao hiệu quả đầu tư.

Đồng thời việc tìm kiếm và lựa chọn các đối tác ESCO uy tín và có kinh nghiệm trong lĩnh vực cung cấp nhiệt. Một đối tác có uy tín và kinh nghiệm giúp đảm bảo sự phù hợp và tuân thủ các tiêu chuẩn và quy định về chất lượng, an toàn và môi trường trong quá trình cung cấp và sử dụng nhiệt. Tạo nên sự tin tưởng và hợp tác lâu dài giữa nhà máy bia và ESCO. Đồng thời khi thực hiện các hợp đồng ESCO sẽ có tính minh bạch, rõ ràng và công bằng về các điều khoản về mức cam kết tiết kiệm năng lượng, phương thức tính toán và thanh toán, phân chia lợi ích và trách nhiệm giữa các bên.

Hình thức chia sẻ mức tiết kiệm: ESCO sẽ tư vấn và đầu tư thực hiện các dự án tiết kiệm năng lượng cho doanh nghiệp, mức năng lượng tiết kiệm sẽ được chia sẻ giữa ESCO và doanh nghiệp với tỉ lệ và thời gian theo thỏa thuận. Trong hình thức này phần thu của ESCO sẽ được tích theo một tỉ lệ nhất định trên cơ sở mức tiết kiệm đạt được của dự án.

Trong mô hình này hợp đồng giữa ESCO và doanh nghiệp sẽ thỏa thuận với nhau về phần lợi ích mà sẽ được hưởng từ việc tiết kiệm năng lượng trong một khoảng thời gian nhất định, thông thường là 100%. Thời gian này sẽ phụ thuộc vào mức độ thỏa thuận và mức đầu tư của dự án. Thông thường, nếu dự án đầu tư ít thì ESCO sẽ nhận lợi ích trong 1 - 2 năm, còn nếu dự án đầu tư cao thì ESCO sẽ nhận lợi ích trong 2 - 4 năm.

Để thực hiện dự án tiết kiệm năng lượng, ESCO sẽ đầu tư và chi trả cho các khoản chi phí như: Vốn đầu tư, lãi vay, chi phí đánh giá,... ESCO sẽ thu hồi lại các khoản chi phí

này bằng cách nhận toàn bộ phần lợi ích từ tiết kiệm năng lượng trong thời gian hợp đồng. Phần lợi ích vượt quá chi phí sẽ là lợi nhuận của ESCO. Lợi nhuận này sẽ tùy thuộc vào mức độ tiết kiệm năng lượng của dự án. Doanh nghiệp chỉ được hưởng lợi từ tiết kiệm năng lượng sau khi hợp đồng kết thúc, không được hưởng lợi trong giai đoạn hợp đồng. (Dương Trung Kiên, 2017)

Mô hình này được áp dụng trong dự án cải thiện hiệu quả năng lượng cho nhà máy sản xuất dệt may của Công ty CP Dệt may Phú Bài là một trong những dự án hợp tác giữa Việt Nam và các tổ chức quốc tế nhằm thúc đẩy chuyển đổi xanh và bền vững trong ngành dệt may. Dự án được thực hiện bởi Tổ chức Hợp tác Phát triển Đức (GIZ) và Công ty Decathlon, với sự đầu tư của ESCO là 2 triệu USD để thay thế các thiết bị cũ bằng các thiết bị mới hiệu quả hơn. Mức tiết kiệm điện năng hàng năm là 3 triệu kWh, tương đương 300.000 USD. ESCO nhận 100% phần lợi ích từ tiết kiệm năng lượng trong vòng 6 năm. Mục tiêu của dự án là nâng cao năng lực về thích ứng với biến đổi khí hậu, sử dụng hiệu quả nước, năng lượng và quản lý hóa chất tại các nhà máy trong chuỗi cung ứng ngành thời trang tại Việt Nam

Để đạt được kết quả này, Tổ chức Hợp tác Quốc tế Đức và Bộ công thương đã xây dựng ra những cam kết phù hợp về mục tiêu và lĩnh vực hợp tác, phù hợp với chiến lược quốc gia về tăng trưởng xanh của Việt Nam. Đặc biệt là quá trình thực hiện dự án Hỗ trợ Chính sách Kinh tế Xanh (Green Economy Policy Support Project), nhằm tăng cường tính phối hợp đồng bộ và tính liên kết của các chính sách kinh tế của Việt Nam, bao gồm các chính sách kinh tế xanh, chính sách tài khóa xanh, chính sách tín dụng, ngân hàng xanh và chính sách thương mại xanh. Từ đó có các cơ chế tín dụng rõ ràng, yếu tố quan trọng trong việc thực hiện hỗ trợ các doanh nghiệp Việt Nam tiếp cận với các nguồn vốn đầu tư cho các dự án năng lượng tái tạo.

3.1.2. Một số vấn đề thường gặp và kinh nghiệm khắc phục trong quá trình triển khai các dự án Esco tại Việt Nam

Các dự án ESCO tại Việt Nam có thể được triển khai theo các hình thức khác nhau, tùy thuộc và nhu cầu của doanh nghiệp và năng lực của ESCO. Tuy nhiên khác biệt về hình thức triển khai, nhưng các ESCO tại Việt Nam đều gặp phải các vấn đề thường gặp sau: thiếu khung pháp lý và chính sách thúc đẩy; thiếu nguồn vốn và cơ chế tài chính hỗ trợ; thiếu niềm tin và hiểu biết của các khách hàng về mô hình Esco.

Các vấn đề và kinh nghiệm khắc phục về mặt pháp lý

Là một phần trong triển khai Chương trình mục tiêu quốc gia về sử dụng năng lượng tiết kiệm, các hoạt động ESCO ngoài việc phải tuân theo quy định của Luật Sử dụng năng lượng tiết kiệm và hiệu quả và Nghị định 21/2011/NĐ-CP còn có liên quan đến các quy định của “Bộ Xây dựng như Quy chuẩn kỹ thuật quốc gia về các công trình xây dựng sử dụng năng lượng hiệu quả QCVN 09:2017/BXD”. Yêu cầu đặt ra trước khi thực hiện dự án cần phải có sự nghiên cứu và tham chiếu kỹ càng về mặt pháp lý trước khi thực hiện dự án. Các ESCO không chỉ nghiên cứu kỹ lưỡng về nhu cầu và khả năng của khách hàng mà còn phải hợp tác chặt chẽ với các cơ quan chức năng. Nhờ đó, công ty có thể nhận được những lời khuyên chuyên sâu về các vấn đề pháp lý liên quan đến dự án, cũng như những hỗ trợ thiết thực trong việc triển khai các giải pháp tiết kiệm năng lượng cho khách hàng

Trong quá trình thực hiện dự án, ESCO và khách hàng phải phối hợp chặt chẽ với nhau, từ giai đoạn khảo sát, thiết kế, thi công, vận hành và giám sát hiệu quả tiết kiệm năng lượng. ESCO cần tư vấn và truyền đạt rõ ràng cho khách hàng về các giải pháp tiết kiệm năng lượng, chi phí đầu tư, thời gian hoàn vốn, cơ chế chia sẻ lợi ích và các rủi ro có thể xảy ra. Khách hàng cần hỗ trợ và tạo điều kiện cho ESCO thực hiện các công việc liên quan đến dự án.

Các vấn đề và kinh nghiệm khắc phục về mặt tài chính

Mục tiêu của các dự án ESCO là cung cấp các giải pháp tối ưu hóa năng lượng cho các doanh nghiệp và tổ chức từ đó giảm thiểu chi phí và tăng hiệu quả sử dụng năng lượng. Tuy nhiên để biết được mức độ tiết kiệm năng lượng thực tế của các dự án này, cần có các phương pháp đo lường và kiểm chứng tiêu chuẩn, dựa trên các chỉ số và tiêu chí khoa học. Hiện nay, việc thiếu những phương pháp này là một khó khăn lớn, khiến cho việc xác định và đánh giá kết quả của các dự án ESCO trở nên không chính xác và khách quan.

Điều này trực tiếp ảnh hưởng đến vấn đề huy động vốn từ các nguồn tài chính trong và ngoài nước. Các nguồn tài chính trong và ngoài nước sẽ không tin tưởng vào hiệu quả và lợi ích của các dự án ESCO, từ đó dẫn đến việc thiếu những sản phẩm tài chính phù hợp để bảo đảm và thúc đẩy việc thực hiện các dự án này.

Các dự án ESCO thành công tại Việt Nam cho thấy, để có thể dễ dàng tiếp cận nguồn vốn đến từ các tổ chức tài chính, các ESCO tại Việt Nam nên trực tiếp phối hợp với các cơ quan có thẩm quyền trực tiếp trong lĩnh vực quản lý năng lượng, cụ thể hiện nay là Bộ Công thương. Các dự án điển hình có thể thấy là dự án Năng lượng Tái tạo và Hiệu quả Năng lượng (4E) do Tổ chức Hợp tác Quốc tế Đức và Bộ công thương và Bộ Công thương triển khai từ tháng 6/2015; hoặc dự án Thúc đẩy việc sử dụng và vận hành nồi hơi công nghiệp hiệu quả năng lượng tại Việt Nam là một dự án do Bộ Công Thương phối hợp cùng Tổ chức Phát triển Công nghiệp Liên hiệp quốc (UNIDO) triển khai từ tháng 11/2015

Nhờ có sự hỗ trợ và giám sát của Bộ Công thương, các dự án đã tuân thủ nghiêm ngặt các quy định và tiêu chuẩn về kế toán và kiểm toán của dự án. Điều này giúp cho dự án có được sự tin tưởng của các bên liên quan, đồng thời nâng cao hiệu quả và chất lượng của dự án. Từ đó giúp cho ESCO có thể dễ dàng hơn trong việc tiếp cận các cơ chế tài chính.

Các vấn đề và kinh nghiệm khắc phục về mặt truyền thông

Dù là một mô hình đã được áp dụng thành công tại nhiều quốc gia trên thế giới tuy nhiên tại Việt Nam, ESCO vẫn còn khá mới. Do đó ESCO phải đối mặt với sự thiếu tin tưởng của các doanh nghiệp. Nhiều doanh nghiệp chưa hiểu rõ hoặc chưa tin tưởng vào tính khả thi và lợi ích của dự án ESCO. Một trong những vấn đề lớn nhất là việc thuyết phục và hợp tác với các doanh nghiệp tiềm năng. Đây là một rào cản lớn cần được khắc phục để phát triển mô hình ESCO ở Việt Nam.

Để khắc phục vấn đề này các ESCO cần phải có các báo cáo kiểm toán năng lượng chất lượng cao cùng với những tính toán thuyết phục và chi tiết để doanh nghiệp có thể tin tưởng triển khai các giải pháp tiết kiệm năng lượng được đề xuất trong các báo cáo. Đặc biệt là vấn đề minh bạch về chi phí, thời gian và kết quả dự kiến của dự án ESCO.

Ngoài việc có các báo cáo tài chính, các mô hình phù hợp với doanh nghiệp, các ESCO nên thực hiện thêm hoạt động giới thiệu các nguồn vốn hỗ trợ cho doanh nghiệp. Từ

đó giúp doanh nghiệp có thể kết nối với các tổ chức tài chính trong và ngoài nước từ đó dễ dàng trong việc tiếp cận những gói vay ưu đãi, bảo lãnh hoặc chia sẻ rủi ro cho dự án ESCO. Đồng thời tư vấn cho doanh nghiệp về các quy định pháp lý, thuế và hỗ trợ liên quan đến dự án ESCO.

3.2. Một số đề xuất trong việc thúc đẩy mô hình ESCO tại Việt Nam.

Thông qua kinh nghiệm của một số mô hình ESCO đã thành công tại Việt Nam và các quốc gia đã thành công trong việc xây dựng cơ chế phát triển mô hình ESCO. Có thể đưa ra một số đề xuất cụ thể như sau:

3.2.1. Đề xuất về cơ chế pháp lý.

Cải thiện khung pháp lý liên quan đến ESCO tạo điều kiện thuận lợi và bình đẳng hơn cho các công ty ESCO hoạt động và phát triển trên thị trường. Từ đó tăng cường sự tin tưởng và hợp tác giữa các bên liên quan trong mô hình ESCO, như khách hàng, nhà cung cấp công nghệ, tổ chức tài chính...; đồng thời đảm bảo tính minh bạch, rõ ràng và pháp lý của các hợp đồng hiệu quả năng lượng và các quy trình xác định hiệu quả năng lượng và môi trường của các dự án ESCO. Các biện pháp đáng chú ý như sau:

- Ban hành các quy định và hướng dẫn cụ thể về điều kiện kinh doanh, lĩnh vực kinh doanh, quyền và nghĩa vụ của các bên tham gia mô hình ESCO.

- Thông qua các chính sách và cơ chế ưu đãi về thuế, hỗ trợ vốn, đất đai, miễn giảm thuế nhập khẩu cho các thiết bị, phụ tùng, linh kiện tiết kiệm năng lượng.

- Xây dựng và hoàn thiện các tiêu chuẩn và quy trình về mua sắm công xanh, mua sắm công bền vững, đánh giá hiệu quả năng lượng và môi trường của các dự án ESCO.

3.2.2. Đề xuất về cơ chế tài chính.

Tăng cường cơ chế hỗ trợ tài chính cho việc phát triển và triển khai dự án tiết kiệm năng lượng, thiết lập mạng lưới hợp tác về tài chính và công nghệ cho các công ty ESCO là yếu tố quan trọng trong việc giảm thiểu chi phí sản xuất, tăng cường năng lực cạnh tranh, góp phần bảo. Một số các nguồn huy động vốn đáng chú ý.

- Vốn đầu tư công của nhà nước trong việc hỗ trợ bồi thường, giải phóng mặt bằng, xây dựng công trình tạm, cung cấp tài sản công cho các dự án ESCO.

- Các khoản vay ưu đãi hoặc bảo lãnh từ các tổ chức tài chính quốc tế, quốc gia hoặc địa phương, như Ngân hàng Đầu tư Châu Âu (EIB), Ngân hàng Phát triển Châu Á (ADB) hoặc Ngân hàng Phát triển Trung Quốc (CDB), để giảm thiểu rủi ro và chi phí vốn cho các ESCO và các khách hàng của họ. (IEA, 2022) (European Investment Bank, 2021) (Hofer Kathrin, Limaye Dilip, Singh Jas, 2016)

- Vốn huy động của nhà đầu tư: Nhà đầu tư có thể huy động vốn từ các nguồn khác nhau như vay vốn từ các ngân hàng thương mại, phát hành trái phiếu doanh nghiệp, tham gia các chương trình, dự án quốc gia và quốc tế về sử dụng năng lượng tiết kiệm và hiệu quả.

- Vốn ODA của các tổ chức quốc tế: Các tổ chức quốc tế như Ngân hàng Phát triển Châu Á (ADB) có thể cung cấp vốn ODA cho các dự án ESCO tại Việt Nam thông qua các khoản vay, viện trợ hoặc hỗ trợ kỹ thuật.

3.2.3. Đề xuất về xây dựng nền tảng hỗ trợ.

Xây dựng các nền tảng hỗ trợ ESCO (platform support), giúp tư vấn, thiết lập mạng lưới hợp tác về tài chính và công nghệ cho các công ty ESCO bằng cách thành lập các đơn vị có cơ chế tương đồng như EMCA (Trung tâm Dịch vụ Tiết kiệm Năng lượng Quốc gia Trung Quốc). Giúp hỗ trợ doanh nghiệp trong đào tạo và bồi dưỡng đội ngũ tư vấn viên về đánh giá năng lực, cung cấp các kiến thức và kỹ năng cần thiết để có thể trở thành tư vấn viên chuyên nghiệp, có thể áp dụng kiến thức và kỹ năng được giảng dạy vào các dự án liên quan đến tư vấn đánh giá năng lực quản lý, kinh doanh công nghệ, giải quyết vấn đề tại các doanh nghiệp Việt Nam.

- Xây dựng và duy trì một cơ sở dữ liệu về các ESCO và các dự án tiết kiệm năng lượng của họ, bao gồm việc đăng ký, phân loại và công bố các thông tin liên quan. Các nhiệm vụ cần thực hiện bao gồm:

- Yêu cầu các ESCO đăng ký với EMCA để được công nhận là một ESCO hợp pháp và có thể tham gia vào các dự án tiết kiệm năng lượng do chính phủ tài trợ hoặc hỗ trợ.

- Thu thập và lưu trữ các thông tin về các ESCO và các dự án tiết kiệm năng lượng và phân loại các ESCO và các dự án tiết kiệm năng lượng theo các tiêu chí như loại hình dịch vụ, loại hình khách hàng, loại hình năng lượng, loại hình công nghệ, loại hình tài chính và loại hình hợp đồng.

- Công bố các thông tin về các ESCO và các dự án tiết kiệm năng lượng trên trang web của EMCA hoặc qua các báo cáo, tạp chí, hội thảo và các kênh truyền thông khác để nâng cao nhận thức và sự minh bạch của thị trường ESCO.

3.2.4. Đề xuất về hoạt động truyền thông

Tổ chức các hoạt động truyền thông, giúp thúc đẩy và phổ biến để nâng cao nhận thức và sự tin tưởng của công chúng đối với các ESCO và các dự án tiết kiệm năng lượng.

- Xuất bản các báo cáo, tạp chí, tờ rơi và các tài liệu khác để giới thiệu về các ESCO và các dự án tiết kiệm năng lượng thành công của họ, cũng như các lợi ích của việc tiết kiệm năng lượng cho môi trường và xã hội.

- Tổ chức các hội thảo, hội nghị, triển lãm và các sự kiện khác để trao đổi kinh nghiệm, chia sẻ thông tin và thiết lập mối quan hệ với các bên liên quan trong lĩnh vực tiết kiệm năng lượng, như các cơ quan chính phủ, các tổ chức quốc tế, các doanh nghiệp và các nhà khoa học.

- Sử dụng các kênh truyền thông trực tuyến, như trang web, mạng xã hội, email và video để tiếp cận với một lượng lớn khán giả, đặc biệt là các khách hàng tiềm năng của các ESCO và các dự án tiết kiệm năng lượng.

4. Kết luận

Làn sóng Kinh tế xanh hiện đang là một xu hướng phát triển kinh tế nhằm cải thiện đời sống con người và tài sản xã hội đồng thời chú trọng giảm thiểu những hiểm họa môi trường và sự khan hiếm tài nguyên. Để làm được kinh tế xanh, cần có sự đồng thuận và hợp tác của nhiều bên liên quan, từ chính phủ, doanh nghiệp cho đến người dân trong nhiều lĩnh vực từ Pháp luật - Chính trị, văn hóa - xã hội, ... đặc biệt là vấn đề sử dụng năng lượng một cách hiệu quả.

Với các chính sách tiết kiệm năng lượng, Bộ Công Thương đã thúc đẩy chuyển dịch năng lượng theo hướng xanh, sạch, bền vững, tăng tỷ trọng năng lượng tái tạo, giảm phụ thuộc vào năng lượng nhập khẩu, năng lượng hóa thạch, quản lý chặt chẽ việc phê duyệt và triển khai các dự án nhiệt điện than.

Tuy nhiên việc quản lý tiết kiệm điện hiện nay vẫn chưa hiệu quả. Điều này không chỉ làm tăng chi phí sản xuất và sinh hoạt, mà còn gây ra các hậu quả tiêu cực như lãng phí nguồn lực quốc gia, tạo áp lực cho ngành điện lực trong việc đảm bảo cung ứng điện an toàn và ổn định. Cho thấy, việc thúc đẩy các mô hình tiết kiệm năng lượng là rất quan trọng vì nó mang lại nhiều lợi ích cho cả xã hội và môi trường, từ đó giúp giảm thiểu lượng năng lượng tiêu thụ, tăng cường an ninh năng lượng và độc lập năng lượng của quốc gia.

Để thực hiện được mục tiêu này, cần phải có các chính sách nhiều lĩnh vực: kinh tế, chính trị - pháp luật, văn hóa - xã hội, công nghệ, từ đó giúp thúc đẩy việc tiết kiệm năng lượng, sử dụng hiệu quả nguồn năng lượng tái tạo, góp phần thúc đẩy cơ cấu lại nền kinh tế, gắn với đổi mới mô hình tăng trưởng, nâng cao năng lực cạnh tranh và khả năng chống chịu trước các cú sốc từ bên ngoài.

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LOGISTICS XANH TẠI VIỆT NAM - THỰC TRẠNG VÀ GIẢI PHÁP*TS. Nguyễn Thị Tuyết Mai**Trường Đại học Hải Phòng**Email: maintt@dhhp.edu.vn*

Tóm tắt: Sự phát triển của ngành Logistics đang ngày một mở rộng, tạo ra nhiều cơ hội cho quá trình sản xuất, phân phối hàng hóa được triển khai một cách tối ưu và hiệu quả. Nền kinh tế càng phát triển càng ảnh hưởng nhiều tới môi trường, gây nên sự biến đổi khí hậu. Do vậy, các doanh nghiệp thay đổi mô hình logistics truyền thống sang logistics xanh, hướng tới sử dụng hợp lý nguồn năng lượng, giảm tiếng ồn, rác thải và khí thải. Bài viết khái quát những vấn đề liên quan đến logistics xanh, thực trạng logistics xanh tại Việt Nam và nêu lên một số đề xuất nhằm phát triển logistics xanh tại Việt Nam trong thời gian tới.

Từ khóa: Logistics xanh, chuỗi cung ứng, Việt Nam, bảo vệ môi trường

GREEN LOGISTICS IN VIETNAM - SITUATION AND SOLUTIONS

Abstract: The development of the logistics industry is expanding, creating many opportunities for the production and distribution of goods to be deployed optimally and effectively. The more developed the economy, the more it affects the environment, causing climate change. Therefore, businesses need to change the traditional logistics to green logistics, towards rational use of energy sources, reducing noise, waste and emissions.. The article outlines issues related to green logistics, the current status of green logistics in Vietnam and makes some recommendations to develop green logistics in Vietnam in the near future.

Keywords: Green logistics, supply chain, Viet Nam, environmental protection

1. Đặt vấn đề

Đi cùng với sự phát triển của nền kinh tế thế giới là các tác động tiêu cực tới môi trường, hệ quả là sự biến đổi khí hậu. Biến đổi khí hậu đang có diễn biến theo chiều hướng ngày càng khắc nghiệt hơn. Theo kết quả nghiên cứu đã công bố, 5,5% khí thải toàn cầu xuất phát từ Logistics. Do vậy, muốn phát triển bền vững đòi hỏi các doanh nghiệp phải thay đổi mô hình Logistics truyền thống tiêu thụ nhiều năng lượng, giảm thiểu tiếng ồn, rác thải và khí thải. Logistics xanh là động lực thúc đẩy môi trường toàn cầu, và cũng là nền tảng của phát triển bền vững. Hiện tại, Việt Nam là một trong các quốc gia chịu ảnh hưởng nặng nề nhất về biến đổi khí hậu. Các hoạt động xuất nhập khẩu của Việt Nam ngày càng phát triển, thương mại nội địa ngày càng mở rộng, nhu cầu Logistics càng gia tăng thì việc phát triển Logistics xanh mang lại nhiều lợi ích và nâng cao sức cạnh tranh cho doanh nghiệp. Trong thời gian vừa qua, các doanh nghiệp thuộc chuỗi cung ứng tại Việt Nam cũng có nhiều nỗ lực nhằm hạn chế tác động xấu đến môi trường từ các hoạt động của mình, tuy kết quả bước đầu chưa đồng bộ và toàn diện. Trong thời gian tới, các Nhà nước

cùng với các doanh nghiệp cần tích cực thực hiện các giải pháp nhằm xanh hóa hoạt động logistics như mục tiêu đã đề ra, góp phần phát triển bền vững.

2. Tổng quan nghiên cứu

Cho đến nay, có nhiều nghiên cứu tập trung vào hoạt động logistics và logistics xanh trên thế giới cũng như tại Việt Nam. Có thể đề cập đến một số nghiên cứu điển hình như:

Bài báo “Phát triển logistics xanh cho tăng trưởng kinh tế bền vững” của GS.TS Đặng Đình Đào năm 2019 đã đề cập đến một số quy định pháp lý quan trọng, làm cơ sở cho sự phát triển của hoạt động logistics nói chung và logistics xanh nói riêng và thực trạng hoạt động vận tải, kho bãi, quản lý thông tin của ngành logistics Việt Nam. Đồng thời của nêu lên một số kiến nghị phát triển logistics xanh tại Việt Nam.

Tác giả Vũ Phong trong bài viết “Logistics xanh - mắt xích quan trọng cho sự phát triển bền vững” năm 2021 đã đề cập đến những thông tin cơ bản về chuỗi cung ứng xanh như các giai đoạn để xây dựng chuỗi cung ứng xanh, cơ hội của doanh nghiệp khi phát triển lên logistics xanh. Tác giả khẳng định, phát triển logistics xanh song hành với sản xuất xanh sẽ giúp các doanh nghiệp sản xuất nâng cao sức cạnh tranh để tham gia chuỗi cung ứng toàn cầu cũng như khả năng tiếp cận người tiêu dùng. Đồng thời tác giả cũng đề xuất một số giải pháp xanh hóa logistics.

Trương tự, bài viết “Logistics Xanh là gì? Và 4 lợi ích của logistics xanh” năm 2022 của đại học Hồng Bàng đã giới thiệu một cách khái quát thế nào là logistics xanh, các lợi ích của logistics xanh được đề cập khá chi tiết như giúp giảm thiểu khí thải CO₂, tiết kiệm chi phí, tối ưu hóa chuỗi cung ứng, thúc đẩy mạnh mẽ các hoạt động kinh doanh, Bài viết cũng chỉ rõ cơ hội phát triển logistics xanh tại Việt Nam.

Trong nghiên cứu của mình “Phát triển logistics xanh tại Việt Nam” năm 2022, tác giả Nguyễn Thị Phương Liên trình bày một cách khá cô đọng hiện trạng của ngành logistics Việt Nam trong việc tiếp cận logistics xanh thời gian qua. Tác giả khẳng định Chính phủ Việt Nam đã dành nhiều sự quan tâm đặc biệt cho việc bảo vệ môi trường, ứng phó với biến đổi khí hậu bằng những chính sách, văn bản cụ thể phải kể đến như: Chiến lược quốc gia tăng trưởng xanh; Chiến lược quốc gia về biến đổi khí hậu; Kế hoạch hành động quốc gia thực hiện Chương trình nghị sự 2030 vì sự phát triển bền vững; Kế hoạch hành động quốc gia về tăng trưởng xanh...

Qua đây, tác giả đã lên ý tưởng cho bài viết của mình, đó là thực hiện phác họa một cách tổng hợp những lý luận cơ bản về logistics xanh, nghiên cứu xu hướng logistics xanh trên thế giới, đồng thời tìm hiểu hiện trạng xanh hoá ngành logistics tại Việt Nam. Từ đó, đề xuất một số giải pháp nhằm phát triển logistics xanh tại Việt Nam trong thời gian tới để góp phần phát triển kinh tế đất nước một cách bền vững. Tác giả đã sử dụng tổng hợp các phương pháp thu thập, tổng hợp thông tin từ các tài liệu liên quan đến logistics, logistics xanh bao gồm các bài biết, các giáo trình, tài liệu liên quan, các số liệu thống kê của Tổng cục thống kê Việt Nam, kết hợp phương pháp thống kê và phân tích định tính thực hiện bài viết “Logistics xanh tại Việt Nam - Thực trạng và giải pháp”.

3.1 *Khái quát về logistics xanh*

3.1.1 *Khái niệm Logistics xanh*

Logistics là quá trình lên kế hoạch, áp dụng và kiểm soát các luồng chuyển dịch của hàng hóa hay thông tin liên quan tới nguyên nhiên liệu vật tư (đầu vào) và sản phẩm cuối cùng (đầu ra) từ điểm xuất phát tới điểm tiêu thụ (Đặng Đình Đào, 2017).

Dịch vụ logistics là một hoạt động thương mại, theo đó tổ chức hoặc thương nhân đứng ra thực hiện một hoặc nhiều công việc bao gồm: nhận hàng, vận chuyển, lưu kho, lưu bãi, làm thủ tục hải quan hoặc các thủ tục giấy tờ khác. Dịch vụ logistics luôn xuất hiện từ điểm đầu tiên đến nơi tiêu thụ cuối cùng để đáp ứng các nhu cầu của khách hàng.

Logistics xanh (Green Logistics) là thuật ngữ chỉ về hoạt động logistics với việc tính toán và sử dụng các ứng dụng nhằm giảm thiểu các tác động về sinh thái. Nói cách khác, logistics xanh chú trọng tới việc giảm thiểu các chất thải, sử dụng những thiết bị tiên tiến để giảm tình trạng ô nhiễm như không khí, tiếng ồn và giảm thiểu đi lượng rác thải ra môi trường (Đại học Hồng Bàng, 2022).

Có thể hiểu, logistics xanh là hoạt động logistics nhằm hướng tới các mục tiêu lâu dài, bền vững và thân thiện với môi trường. Logistics xanh chú ý vào những nỗ lực và biện pháp nhằm giảm thiểu tác động tiêu cực của hoạt động logistics, qua đó đạt tới sự cân bằng giữa các mục tiêu kinh tế, xã hội và môi trường, đảm bảo cho sự phát triển bền vững của quốc gia. Logistics xanh được chú ý trên các phương diện cơ bản như:

- Vận tải xanh: chú trọng sử dụng vận tải đa phương thức, sử dụng các phương tiện vận tải tạo ra lượng khí thải thấp hơn như xe điện sử dụng năng lượng sạch, vận tải đường thủy...;

- Bao bì xanh: sử dụng các bao bì có khả năng tái chế, tái sử dụng hoặc bao bì dùng vật liệu có thể phân hủy và phân hủy sinh học...;

- Kho bãi xanh: kho bãi được thiết kế theo hướng bền vững, sử dụng năng lượng sạch và hiệu quả.

- Quản lý dữ liệu logistics xanh: ứng dụng công nghệ hiện đại để quản lý dữ liệu nhằm nâng cao hiệu quả hoạt động logistics, giảm tối đa thời gian vận chuyển và giao nhận.

- Phát triển logistics ngược: logistics ngược bao gồm hai hoạt động chính là thu hồi, tái sử dụng sản phẩm và xử lý chất thải. Hoạt động logistics ngược sẽ góp phần bảo vệ môi trường và mang đến nhiều lợi ích cho sự phát triển bền vững của doanh nghiệp.

Như vậy có thể thấy, mục đích của Logistics xanh chính là tạo ra các giá trị bền vững cho doanh nghiệp, vừa phát triển kinh tế vừa bảo vệ môi trường. Logistics xanh là việc phát triển đáp ứng nhu cầu hiện tại mà không làm giảm tính sẵn có và chất lượng tài nguyên. Cốt lõi của xu hướng này là việc áp dụng các biện pháp quản lý và kỹ thuật nhằm giảm tổn thất, giảm mức tiêu thụ năng lượng của phương tiện, thiết bị mà vẫn đảm bảo nhu cầu, mục tiêu đặt ra đối với quá trình sản xuất và đời sống.

3.1.2 *Lợi ích của logistics xanh*

Thứ nhất, logistics xanh góp phần giảm thiểu khí thải CO₂. Thực tế hiện nay, tình trạng ô nhiễm môi trường đang ngày càng tăng với sự gia tăng không ngừng của khí thải CO₂. Việc triển khai Logistics xanh là góp phần cho việc giảm ô nhiễm môi trường và giảm tiêu thụ

nguyên vật liệu, đặc biệt giảm thiểu được khí CO₂, duy trì được không khí sạch và trong lành một cách có hiệu quả.

Thứ hai, logistics xanh giúp doanh nghiệp và khách hàng giảm một lượng chi phí đáng kể như chi phí vận chuyển, lưu trữ và chuyển nhượng sản phẩm từ các doanh nghiệp đến khách hàng. Ngoài ra, Logistics xanh còn làm giảm thiểu chi phí sản xuất và tiết kiệm năng lượng từ môi trường.

Thứ ba, logistics xanh làm tăng khả năng tối ưu hóa chuỗi cung ứng. Logistics xanh đưa hàng hóa đến tay khách hàng trong thời gian ngắn, tiết kiệm chi phí và nâng cao hoạt động hiệu quả. Ngoài ra, logistics xanh còn xây dựng các trung tâm để xử lý các sản phẩm cần thu hồi từ người tiêu dùng, các nhà bán lẻ, nhà phân phối để tái chế các sản phẩm cũ và phục hồi được những giá trị cần thiết (Đại học Hồng Bàng, 2022).

3.1.3 Sự khác biệt giữa logistics xanh và logistics truyền thống

- Sự khác biệt về mục tiêu cuối cùng: Mục tiêu cuối cùng của logistics xanh là phát triển bền vững, dùng sự tiến bộ trong công nghệ logistics làm nền tảng và giảm thiểu các tác nhân ô nhiễm môi trường, biến đổi khí hậu. Logistics xanh không chỉ theo đuổi chất lượng, hiệu quả mà còn hạn chế tác động tiêu cực của logistics đến môi trường. Trong khi đó, logistics truyền thống chỉ muốn đạt hiệu quả cao nhất, các vấn đề xảy ra liên quan đến môi trường là chi phí.

- Sự khác biệt về tác nhân: Tác nhân của logistics xanh không chỉ là các hoạt động logistics trong doanh nghiệp logistics mà còn liên quan mật thiết đến toàn bộ các doanh nghiệp thuộc chuỗi cung ứng. Để đạt được hiệu quả cao thì cần kết hợp giữa các nguồn lực hiện có, sử dụng hiệu quả, tránh lãng phí tài nguyên. Logistics truyền thống chỉ có tác nhân là các hoạt động logistics được chú trọng và khó khăn trong việc phân bổ, liên kết các nguồn lực tự nhiên (Đại học Hồng Bàng, 2022).

3.2 Xu hướng logistics xanh trên thế giới và thực trạng tại Việt Nam

3.2.1 Xu hướng logistics xanh trên thế giới

Hiện nay, xây dựng các chuỗi cung ứng xanh đang là xu thế phổ biến trên toàn cầu, được tiên phong bởi các tập đoàn, doanh nghiệp lớn. Vấn đề biến đổi khí hậu và sự cạnh tranh trong việc thu hút người tiêu dùng chọn lối sống xanh đã khiến cả đơn vị sản xuất và đơn vị cung cấp dịch vụ logistics cùng thay đổi. Xanh hóa ngành logistics và ứng dụng logistics xanh vào kinh doanh sẽ giúp các doanh nghiệp đáp ứng các tiêu chí về môi trường, nâng cao khả năng cạnh tranh và tăng trưởng bền vững. Logistics trên thế giới đang được xanh hoá theo xu hướng chung là giảm phát thải nhà kính với hành động chủ yếu như:

- Sử dụng vật liệu carbon thấp, tăng tỷ lệ vật liệu thân thiện với môi trường.
- Phi carbon hóa chuỗi cung ứng thông qua việc sử dụng năng lượng tái tạo, tiết kiệm năng lượng và sử dụng các nhiên liệu thay thế.
- Tăng cường sử dụng năng lượng điện tái tạo và điện khí hóa phương tiện vận tải.

Nhiều thương hiệu toàn cầu đã đưa ra các cam kết và triển khai các kế hoạch hành động nhằm thiết lập chuỗi cung ứng xanh, giảm lượng phát thải carbon trong chuỗi cung

ứng nhằm góp phần giảm bớt căng thẳng liên quan đến môi trường và khí hậu. Điển hình như Nike đã cam kết giảm 65% phát thải khí nhà kính ở những nơi do họ sở hữu hoặc vận hành và 30% trong toàn bộ chuỗi cung ứng của mình vào năm 2030; Hitachi - Tập đoàn công nghệ lớn của Nhật Bản - cũng đã cam kết sẽ loại bỏ khí thải carbon khỏi hoạt động kinh doanh vào năm 2050, đồng thời tập đoàn sẽ làm việc với hơn 30.000 nhà cung cấp để nhanh chóng hiện thực hóa mục tiêu này. Điềm hình hơn, tập đoàn logistics hàng đầu thế giới Kuehne + Nagel (K+N) - đã cam kết sẽ trung hòa hoàn toàn carbon trong mọi phạm vi hoạt động của mình từ năm 2020, đồng thời chủ động giải quyết dấu chân carbon từ các dịch vụ vận tải được thực hiện bởi các nhà cung cấp của họ như các hãng hàng không, hãng tàu và các công ty vận tải đường bộ... từ cuối năm 2030 (Vũ Phong, 2021) trí địa lý thuận lợi, nằm trong khu vực phát triển năng động của thế giới, nơi luồng hàng tập trung giao lưu mạnh. Với những thuận lợi này, nền kinh tế của đất nước có độ mở lớn, xuất nhập khẩu và thương mại luôn tăng trưởng ở mức hai con số. Việt Nam được đánh giá là một thị trường có nhiều tiềm năng để phát triển dịch vụ logistics.

Trong thời gian qua, bên cạnh những kết quả đạt được, ngành dịch vụ logistics Việt Nam cũng còn nhiều hạn chế, phát triển chưa tương xứng với tiềm năng, lợi thế của đất nước. Hầu hết sản lượng hàng hóa thông qua các cảng biển được tiếp tục lưu chuyển bằng đường bộ, gây áp lực lớn lên hệ thống giao thông. Các phương thức vận tải hàng hóa bằng đường sắt, đường thủy nội địa rất ít được sử dụng. Vấn đề phát triển vận tải đa phương thức nhằm hạn chế tác động của hệ thống vận tải tới môi trường còn chưa được quan tâm đúng mức; Ứng dụng khoa học công nghệ chưa theo kịp yêu cầu của Cuộc cách mạng công nghiệp lần thứ 4. Song song với vấn đề này, tình trạng ô nhiễm môi trường, nhất là lượng phát thải khí nhà kính tiếp tục gia tăng trong ngành vận tải và một số hoạt động dịch vụ logistics khác đã và đang tác động làm hạn chế tới phát triển bền vững của Việt Nam.

Trước thực tế trên, ngành logistics nhận thấy rõ trách nhiệm của mình, vừa thực hiện tốt nhiệm vụ kinh doanh trong chuỗi logistics vừa phải thực hiện các giải pháp bảo vệ môi trường và giảm phát thải khí nhà kính. Điều này đặt ra yêu cầu với ngành logistics Việt Nam cần xanh hóa ngành theo xu hướng toàn cầu, tích cực đẩy mạnh cải tiến quy trình hoạt động, đầu tư công nghệ nhằm cải thiện hiệu suất chuỗi cung ứng đi đôi với cải thiện môi trường. Trong thời gian vừa qua, các doanh nghiệp logistics Việt Nam đã từng bước thực hiện việc xanh hóa hoạt động của mình, lồng ghép các yêu cầu về bảo vệ môi trường trong hoạt động logistics.

** Hoạt động vận tải*

Bảng 3.1 : Mức phát thải CO2 của các phương tiện giao thông

Phương thức vận tải	Lượng phát thải (gCO2/tấn-km)
Hàng không	602
Đường bộ	62
Đường sắt	22
Vận tải thủy nội địa	16
Vận tải biển	8

Nguồn: Báo cáo Logistics Việt Nam 2022

Hoạt động giao thông vận tải nằm trong chuỗi logistics là hoạt động phát thải khí nhà kính chủ yếu, lớn thứ 3 sau ngành năng lượng và công nghiệp với mức đóng góp khoảng 10% lượng phát thải khí nhà kính của cả nước.

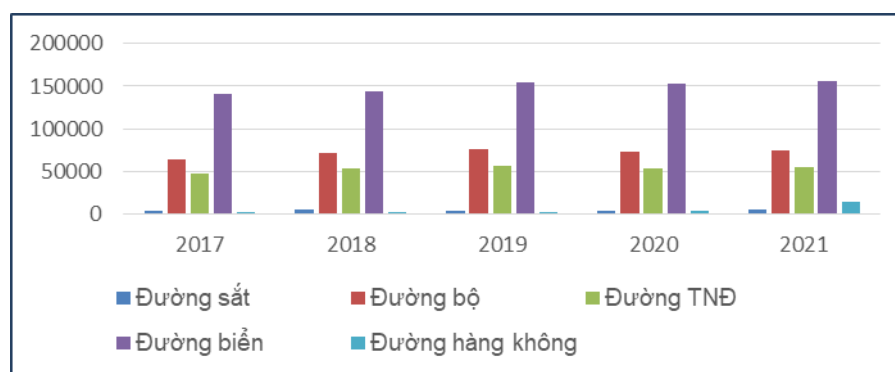
Hình 3.1: Cơ cấu phương thức vận chuyển hàng hóa của Việt Nam (theo lượng hàng)



Nguồn: Bộ Công thương, 2022

Xét theo khối lượng hàng hóa vận chuyển, đường bộ là phương thức vận tải chủ yếu với gần 73% trong tổng khối lượng hàng hóa, tiếp đến là vận tải thủy nội địa với 22%, vận tải đường sắt và đặc biệt là hàng không có khối lượng vận chuyển rất thấp.

Hình 3.2: Khối lượng luân chuyển hàng hóa theo các ngành vận tải tại Việt Nam giai đoạn 2017 - 2021



Nguồn: Tổng cục thống kê Việt Nam, 2022

Trong những năm gần đây, khối lượng luân chuyển hàng hóa trên các phương tiện có xu hướng tăng đều qua các năm, với mức độ cao tập trung ở các phương thức vận tải biển và đường bộ. Đây là hai phương thức vận tải quan trọng trong chuỗi logistics tại Việt Nam. Tỷ trọng hàng hóa luân chuyển của phương thức vận tải sắt và thủy nội địa rất nhỏ.

- *Vận tải đường hàng không:*

Vận tải hàng không đang là phương thức vận chuyển nhanh, an toàn, ít rủi ro, đáp ứng nhu cầu đi lại, du lịch, giao thương và vận chuyển hàng hóa ngày càng gia tăng, tạo việc làm và đóng góp lớn GDP cho nền kinh tế. Tuy vậy, ngành Hàng không đã và đang gây nhiều tác động tiêu cực đến môi trường, trong đó, khí thải máy bay là một trong những nguyên nhân gây ô nhiễm không khí và làm cho trái đất ấm dần lên. Tại Việt Nam, trung bình mỗi năm hoạt động vận tải phát thải khoảng 30 triệu tấn CO₂ thì trong đó vận tải hàng không chiếm 5% (Bộ Công thương, 2022).

Tại Hội nghị lần thứ 26 các bên tham gia Công ước khung của Liên Hiệp Quốc về biến đổi khí hậu (COP26), 150 quốc gia, trong đó có Việt Nam đã cam kết mục tiêu giảm khí thải carbon để đạt mức phát thải ròng về 0 vào năm 2050 (Bộ Công thương, 2022). Theo xu hướng phát triển bền vững của ngành Hàng không thế giới, các hãng hàng không nội địa của Việt Nam đều nhận thức rõ và bắt đầu nghiêm túc thực hiện hướng đi này. Điển hình nhất là hãng hàng không Bamboo Airways đã tiên phong theo đuổi chiến lược phát triển hàng không bền vững, thông qua nhiều chiến dịch, sản phẩm thân thiện với môi trường. Bamboo Airways đã thực hiện nhiều chiến dịch nâng cao nhận thức, giảm thiểu rác thải nhựa trên các chuyến bay, bảo tồn sinh thái tại điểm đến; triển khai kế hoạch mở rộng đội bay với động cơ tiết kiệm nhiên liệu, nhằm xanh hóa các chuyến bay...

Bamboo Airways đã đầu tư máy bay Airbus A320neo từ năm 2019. Đây là dòng máy bay thương mại hàng đầu thế giới, cho phép máy bay giảm tới 15% lượng nhiên liệu tiêu thụ so với các mẫu máy bay cũ hơn. Với 22 máy bay Airbus 321 và nhiều máy bay hiện đại khác, Bamboo Airlines đã thực hiện hàng ngàn các chuyến bay xanh (Fly Green), giảm đồ nhựa dùng một lần, đẩy mạnh quá trình “xanh hóa” tất cả các chuyến bay mà Hãng khai thác, trở thành Hãng hàng không “xanh” đầu tiên tại Việt Nam giảm tối đa đồ nhựa dùng một lần trên tất cả các chuyến bay [2]. Bamboo Airways trở thành hãng hàng không tiên phong tham gia chương trình đánh giá môi trường do IATA khởi xướng (IEnvA), hướng tới mục tiêu giảm thiểu tác động đến môi trường và củng cố chiến lược phát triển “xanh hóa”.

Tuy vậy, ngành hàng không vẫn cần tiếp tục quan tâm, giảm thiểu tác động ô nhiễm tiếng ồn và đặc biệt là vấn đề rác thải tại khu vực xung quanh các nhà ga.

- Vận tải đường bộ:

Ngành logistics Việt Nam hiện đang sử dụng phương thức vận tải đường bộ để lưu thông hàng hóa là chính với vai trò quan trọng phục vụ trên 70% tổng lượng vận tải hàng hóa. Tuy giá thành của vận tải đường bộ cao hơn nhiều so với các loại hình khác như đường thủy, hàng hải, nhưng nhiều doanh nghiệp vẫn lựa chọn phương thức vận tải này, bởi đây là lĩnh vực dễ thâm nhập hơn so với vận tải đường sắt, đường hàng không hay đường biển..

Kết cấu hạ tầng vận tải đường bộ trong những năm qua được Chính phủ không ngừng đầu tư cải thiện chất lượng nhưng vẫn chưa đáp ứng được yêu cầu phát triển. Số lượng phương tiện vận tải hàng hóa đường bộ tại Việt Nam ngày càng tăng nhanh, hiện có khoảng gần 1,2 triệu xe tải được đăng ký chính thức ở Việt Nam; trong đó, 68% có tổng trọng lượng xe nhỏ hơn 5 tấn, 11% từ 5 - 10 tấn, 14% từ 10 - 20 tấn và 7% xe tải hạng nặng với tổng trọng lượng xe trên 20 tấn (Bộ Công thương, 2022). Tỷ lệ xe tải hạng nặng ở Việt Nam thấp nên phải sử dụng số lượng lớn xe tải nhỏ, cũ nhiều gây tình trạng ùn tắc, càng làm tăng nguy cơ phát thải cao, gây ô nhiễm môi trường trầm trọng.

Hiện nay, ngành vận tải đường bộ nhận thức rõ trách nhiệm của mình với môi trường nên đã nghiên cứu, triển khai nhiều biện pháp nhằm hạn chế tác động của ngành tới môi trường như các dự án vận tải xanh với nội dung chủ đạo là thay thế phương tiện vận tải sử dụng nguyên liệu hóa thạch sang phương tiện sử dụng nhiên liệu có khả năng tái tạo. Đối với các doanh nghiệp còn hạn chế về nguồn lực chưa đủ khả năng chuyển đổi phương

tiện vẫn có thể tham gia vào việc giảm phát thải khí nhà kính nhờ áp dụng các giải pháp đào tạo lái xe sinh thái.

Điển hình tại Công ty TNHH Quốc tế Delta đã tổ chức dự án đào tạo khóa lái xe sinh thái lần đầu tiên vào tháng 4/2018 tại chi nhánh thành phố Hồ Chí Minh với sự hỗ trợ của chương trình “Vận tải hàng hoá xanh và đào tạo lái xe sinh thái/phòng vệ để phát triển bền vững” được sáng lập bởi GIZ. Đến nay, Công ty đã tổ chức được 6 khóa đào tạo lái xe sinh thái tại khu vực miền Nam với trên 50 lái xe sinh thái được đào tạo và đang chuẩn bị triển khai tại khu vực phía Bắc. Hiệu quả thiết thực của dự án thể hiện cụ thể thông qua việc giúp công ty giảm 100% tỷ lệ các vụ tai nạn nghiêm trọng và tiết kiệm được từ 5,3 đến 12% chi phí nhiên liệu trong giai đoạn từ 2018 đến nay (Bộ công thương, 2022).

- Vận tải đường sắt:

Đường sắt là phương thức vận tải được coi là thân thiện với môi trường, nhưng tại Việt Nam vận tải đường sắt chưa được đầu tư phát triển tương xứng với tiềm năng khai thác. Hiện nay cơ sở hạ tầng đường sắt của nước ta vẫn còn hạn chế chưa đáp ứng sự gia tăng về lưu lượng hàng hóa, nhất là trên tuyến liên vận qua ga Đồng Đăng.

Phương tiện đường sắt hiện có 244 đầu máy đều là đầu máy diesel, cũ kỹ và nhiều chủng loại, trong đó có 50% được sản xuất từ năm 1985 trở về trước. Số đầu máy thuộc diện mới và hiện đại nhất của đường sắt Việt Nam hiện nay được sản xuất từ năm 2006. Phần lớn các toa xe hàng là loại cũ, lạc hậu được tận dụng do thiếu vốn đầu tư, thiếu toa xe cho hàng container. Hơn nữa, tốc độ của vận tải đường sắt Việt Nam hiện nay chậm hơn nhiều so với vận tải đường bộ, cộng thêm hạn chế về kết cấu hạ tầng, tính kết nối kém nên mặc dù chi phí thấp nhưng không nhiều khách hàng lựa chọn phương thức vận tải này. Bên cạnh đó, trong quá trình vận hành vận tải đường sắt cũng xả một lượng lớn khí thải độc hại và tiếng ồn ra môi trường. Hiện tượng rác và chất thải đường sắt xả trực tiếp xuống hai bên đường ray, gây ra các phản ứng phá hủy thiết bị đường sắt, ô nhiễm môi trường và ảnh hưởng đến cuộc sống của cộng đồng dân cư.

Trong thời gian qua, ngành đường sắt cũng đã có nhiều cố gắng trong việc xâg giảm tiếng ồn, hạn chế chế rác và chất thải xả ra trong quá trình vận hành. Để giảm thiểu tiếng ồn cả bên trong và bên ngoài đoàn tàu, Tổng công ty đường sắt Việt Nam đã và đang nghiên cứu áp dụng những biện pháp chính như: Tiệm lại mặt lăn bánh xe và mài ray, dùng các bánh xe giảm chấn, ứng dụng khoa học công nghệ mới trên thế giới nghiên cứu giải pháp hàn liền các ray với nhau để giảm thiểu tiếng ồn do va chạm giữa bánh tàu và đường ray.

- Vận tải đường biển:

Theo bảng 3.1, mức phát thải CO₂ của vận tải biển và thủy nội địa ở mức thấp nhất trong các phương tiện vận tải, Tuy nhiên theo công bố của Tổ chức Hàng hải quốc tế (IMO) về phát thải khí nhà kính lần thứ 4 vào tháng 8/2020, lượng phát thải khí nhà kính của ngành vận tải biển (quốc tế, nội địa và đánh bắt cá) đã tăng gần 9,6% trong giai đoạn 2012 - 2018. Chỉ tính riêng phát thải khí CO₂ đã tăng từ 962 triệu tấn lên 1.056 triệu (Bộ Công thương, 2022). Do đó, xanh hóa cảng biển đang là xu hướng tất yếu của thế giới trong đó có Việt Nam. Hội đồng Mạng lưới dịch vụ cảng APEC đã đưa ra bộ tiêu chí để

đánh giá công nhận cảng xanh. Để được xem xét công nhận cảng xanh, cảng biển phải đạt được tối thiểu 60/100 điểm (60% số điểm của các tiêu chí).

Bảng 3.2: Tiêu chí đánh giá cảng xanh

TT	Tiêu chí	Điểm tối đa
1	Nhận thức về cảng xanh	5
2	Sử dụng tài nguyên	15
3	Quản lý chất lượng môi trường	50
4	Sử dụng năng lượng	15
5	Ứng dụng công nghệ thông tin	5
6	Giảm phát thải, ứng phó với biến đổi khí hậu, nước biển dâng	10

Nguồn: Bộ Công thương, 2022

Tân Cảng - Cát Lái tại TP. Hồ Chí Minh là cảng biển lớn và hiện đại nhất Việt Nam, đồng thời đứng trong TOP 21 cảng container lớn và hiện đại nhất thế giới với quy mô 160 ha bãi, 2.040m cầu tàu, thiết bị xếp dỡ và công nghệ quản lý tiên tiến, là cảng đầu tiên của Việt Nam đạt danh hiệu Cảng xanh. Điểm mấu chốt trong việc xanh hóa cảng biển của doanh nghiệp là tiết kiệm nguồn tài nguyên; chất lượng môi trường cảng; sử dụng năng lượng sạch tại cảng, xử lý chất thải tại cảng, ứng dụng công nghệ 4.0.

- *Vận tải thủy nội địa:*

Hiện nay, Việt Nam có khoảng trên 300.000 phương tiện thủy nội địa đăng ký, tổng trọng tải khoảng 19,6 triệu tấn, độ tuổi bình quân 14 năm. Do nhiều phương tiện quá cũ, lạc hậu, hiệu suất đốt cháy nhiên liệu thấp và chưa có hệ thống xử lý khí thải nên phát thải nhiều khí độc. Điển hình, các cảng thủy nội địa tại thành phố Hồ Chí Minh đang phát thải một khối lượng lớn khí CO₂ ra môi trường: cảng Bến Nghé mỗi năm thải trên 5.000 tấn CO₂; cảng Sài Gòn - Hiệp Phước khoảng 7.750 tấn CO₂/năm; cảng container khoảng 101 tấn CO₂/năm; cảng xăng dầu Thanh Lễ phát thải khoảng 385 tấn CO₂/năm; cảng sửa chữa, đóng tàu cũng phát thải 2.278 tấn CO₂/năm (Bộ Công thương, 2022).

Trước hiện trạng trên, Chính phủ đã ban hành Nghị định số 08/2021/NĐ-CP quy định về quản lý hoạt động đường thủy nội địa, trong đó quy định bảo vệ môi trường trong hoạt động đường thủy nội địa. Trong đó, có quy định, chủ dự án các công trình xây dựng, bảo trì, cải tạo, nâng cấp kết cấu hạ tầng đường thủy nội địa có trách nhiệm tổ chức lập báo cáo đánh giá tác động môi trường hoặc kế hoạch bảo vệ môi trường trình cơ quan có thẩm quyền phê duyệt hoặc xác nhận theo quy định của pháp luật về bảo vệ môi trường. Đồng thời, Nghị định cũng quy định, người quản lý khai thác cảng, bến thủy nội địa có trách nhiệm xây dựng và thực hiện kế hoạch ứng phó sự cố tràn dầu theo quy định đối với cảng thủy nội địa và bến thủy nội địa kinh doanh xăng dầu; bố trí nhân sự quản lý, thực hiện công tác bảo vệ môi trường cảng, bến.

Hiện nay, một số doanh nghiệp thực hiện vận tải đa phương thức phương thức (vận tải bộ - thủy nội địa, vận tải bộ - sắt, vận tải biển - thủy nội địa) nhằm nâng cao hiệu quả khai thác của mình. Phương thức vận chuyển này được cho là tạo ra lượng khí thải thấp hơn 4-5 lần, đường sắt, thấp hơn 7-8 lần so với vận tải bằng đường bộ. Tuy nhiên, do hạ

tầng cơ sở lạc hậu, thiếu tính kết nối nên vận tải đa phương thức chưa được phát triển mạnh mẽ như kỳ vọng.

** Hoạt động kho bãi*

Nhìn chung, hệ thống kho bãi của Việt Nam tương đối lạc hậu, có chất lượng thấp hơn so với các nước Châu Á khác. Nhiều kho bãi không có sàn bê tông, chỉ được xây bằng gạch trên mặt nền cát, sàn nhà kho không bằng phẳng, dễ làm hư hỏng hàng hóa. Tại đây, năng lượng được sử dụng chủ yếu là điện. Rất thiếu các kho bãi có các tính năng thân thiện với môi trường như sử dụng năng lượng mặt trời, ánh sáng tự nhiên. Có tới 68,6% số doanh nghiệp trả lời chưa sử dụng năng lượng có khả năng tái tạo trong vận hành hoạt động kho tại doanh nghiệp hoặc chưa thuê kho có sử dụng năng lượng tái tạo (Bộ Công thương, 2022).

3.2.3 Hoạt động đóng gói bao bì

Trước sự tuyên truyền của cộng đồng và ngành, nhiều doanh nghiệp đã chủ động sử dụng các bao bì làm từ vật liệu tái chế hoặc dễ phân hủy trong môi trường tự nhiên. Nhiều doanh nghiệp đã thực hiện khâu đóng gói bao bì hàng hóa như sử dụng các màng bọc được làm từ nguyên liệu bao bì đơn giản nhất, có thể phân hủy trong tự nhiên. Ngoài ra, sử dụng pallet (gỗ, nhựa,...) để đặt sản phẩm thay vì sử dụng bao bì chiếm diện tích kho, đảm bảo an toàn hàng hóa cũng như hạn chế việc sử dụng quá nhiều các bao bì, giấy chèn lót sản phẩm tạo ra rác thải môi trường.

Trong thời gian gần đây, hoạt động đóng gói tại các doanh nghiệp được chuyển dần sang xu hướng xanh hoá, tỷ trọng bao bì thân thiện với môi trường như bao bì bằng giấy và carton đã được tới 42,9% các doanh nghiệp sử dụng, 1,2% doanh nghiệp sử dụng bao bì bằng gỗ. Các loại bao bì kém thân thiện với môi trường hơn xốp, nilon, nhựa tái chế được lần lượt 12,5%, 11,9% và 11,3% số doanh nghiệp tham gia khảo sát sử dụng. (Bộ Công thương, 2022). Bên cạnh đó, hầu hết các doanh nghiệp đều tự mình xử lý chất thải từ bao bì theo đúng tiêu chuẩn quy định hoặc thuê bên thứ ba xử lý.

** Hệ thống thông tin*

Hầu hết các doanh nghiệp có hoạt động logistics mới chỉ sử dụng các công cụ công nghệ thông tin cơ bản như điện thoại, tin nhắn SMS, thư điện tử, fax, website, mạng LAN, WAN. Do hạn hẹp về vốn đầu tư nên các ứng dụng IT quan trọng đối với ngành logistics như hệ thống quản lý giao nhận (FMS), quản lý vận tải (TMS), quản lý kho hàng (WMS), quản lý nguồn lực (ERP)... được thực hiện manh mún, không đồng bộ. Chỉ các hãng vận tải biển mới áp dụng hệ thống định vị GPS trong hoạt động của mình.

** Logistics ngược*

Quản lý logistics ngược tại Việt Nam bao gồm hai nội dung chính là quản lý hành chính gắn liền với quá trình quản lý hoạt động thu gom, xử lý chất thải của các Bộ, ngành và quản lý hoạt động gắn liền với sự tham gia của các thành viên trong chuỗi cung ứng với trách nhiệm là người thu gom, người xử lý, người phân phối lại.

Hiện nay, hệ thống xử lý chất thải của Việt Nam hoạt động theo hai hình thức tổ chức chính thức và phi chính thức. Trong đó, hệ thống chính thức do Nhà nước quản lý hoặc các công ty tư nhân dựa trên cơ sở hợp đồng thu gom và xử lý chất thải. Do hệ thống

chính thức chưa đáp ứng được yêu cầu thu gom và xử lý sản phẩm loại bỏ và chất thải thì hệ thống phi chính thức được xem là giải pháp hữu hiệu hiện nay. Hệ thống phi chính thức nhỏ lẻ, tự phát, phân tán và không có hợp đồng giữa các thành viên tham gia hệ thống. Tuy nhiên, hệ thống logistics ngược đảm nhận quá trình xử lý chất thải đang được quản lý một cách chông chéo bởi nhiều Bộ, ngành và chưa có sự phân chia trách nhiệm rõ ràng. Do đó, hoạt động logistics ngược, đặc biệt trong quá trình xử lý chất thải gặp không ít khó khăn.

3.3 Một số biện pháp nhằm phát triển logistics xanh tại Việt Nam

Thời gian qua, bên cạnh những kết quả đạt được, hoạt động của ngành logistics Việt Nam chưa thực hiện việc xanh hóa hoạt động của mình một cách toàn diện và triệt để: Cơ sở vật chất còn lạc hậu và thiếu đồng bộ, phát triển vận tải đa phương thức nhằm hạn chế tác động của hoạt động vận tải tới môi trường còn chậm, việc ứng dụng khoa học công nghệ chưa theo kịp yêu cầu của Cuộc cách mạng công nghiệp lần thứ 4, tình trạng ô nhiễm môi trường, nhất là lượng phát thải khí nhà kính tiếp tục gia tăng trong ngành vận tải và một số hoạt động dịch vụ logistics khác đã và đang tác động làm hạn chế tới phát triển logistics xanh tại Việt Nam.

Trong thời gian tới, ngành logistics Việt Nam cần tích cực thể hiện vai trò hàng đầu trong nỗ lực bảo vệ môi trường và giảm phát thải khí nhà kính. Để đạt được điều này, ngành logistics cần xây dựng các giải pháp đảm bảo vai trò của logistics trong việc duy trì các chuỗi cung ứng hàng hóa, dịch vụ vừa phải đảm bảo cải thiện môi trường và phát triển bền vững.

Giải pháp từ phía các Doanh nghiệp:

- Chủ động xây dựng, điều chỉnh và hoàn thiện chiến lược logistic xanh của doanh nghiệp mình phù hợp với Chiến lược chung của ngành.

- Cải tiến chất lượng phương tiện vận tải nhằm đạt hiệu quả kinh tế cao, đồng thời giảm tối đa khí thải ra môi trường; Ngoài việc mua các phương tiện chạy sạch hơn, để hạn chế lượng khí thải, cần sử dụng các hệ thống hỗ trợ lập kế hoạch tuyến đường giao hàng và ưu tiên phân chia tải trọng.

- Đẩy mạnh vận tải đa phương thức (vận tải đường bộ - thủy nội địa, vận tải đường sắt - thủy nội địa...) nhằm giảm thiểu chi phí vận chuyển đồng thời giảm khí phát thải ra môi trường.

- Chỉnh trang, cải tạo kho bãi hiện đại, tiện lợi, nghiên cứu sử dụng năng lượng mặt trời thay thế dần năng lượng điện.

- Sử dụng nguyên liệu có thể tái sử dụng, tái chế để làm kệ, pallet, bao bì đóng gói. Việc tận dụng sử dụng các nguyên liệu tái sử dụng là một vấn đề quan trọng trong việc tối ưu, cắt giảm chi phí logistics. Các doanh nghiệp sản xuất cần chú ý đến thiết kế của sản phẩm và bao bì, đều phải được thiết kế để giảm thiểu tác động đến môi trường của chúng. Sử dụng nguồn cung cấp một cách hợp lý bằng cách tái sử dụng các thùng chứa và tái chế bao bì.

- Tích cực nghiên cứu, ứng dụng công nghệ tiên tiến trong quản lý thông tin.

- Tận dụng các ưu đãi của Nhà nước trong việc nâng cấp cải tạo cơ sở hạ tầng, phương tiện vận tải, kho bãi theo hướng xanh hóa hoạt động logistics.

- Đào tạo nguồn nhân lực có năng lực chuyên môn để áp dụng các kỹ thuật mới trong quá trình sản xuất, cung ứng để tối ưu hoá, đồng thời có hiểu biết tốt về tối ưu hoá chuỗi cung ứng theo hướng thân thiện môi trường.

- Tuyên truyền, vận động người lao động nghiêm túc giữ vệ sinh môi trường, thu hồi và xử lý rác thải theo đúng quy trình.

Giải pháp từ phía Nhà nước:

- Nhà nước cần nhanh chóng xây dựng và hoàn thiện chiến lược phát triển logistics đến năm 2030, trong đó cần đặc biệt chú trọng đến phát triển logistics xanh.

- Cần tiếp tục hoàn thiện khung pháp lý đồng bộ cho hoạt động logistics xanh, đặc biệt là các quy định về kiểm soát ô nhiễm không khí, điều chỉnh phát thải khí thải, hạn chế lượng khí CO₂ từ các phương tiện vận tải, thúc đẩy các doanh nghiệp lựa chọn các phương tiện đạt tiêu chuẩn về phát thải và tiếng ồn.

- Xây dựng bộ tiêu chí đánh giá mức độ phát triển logistics xanh. Đây là cơ sở quan trọng để các doanh nghiệp phấn đấu cũng như tự đánh giá, đề ra các biện pháp phù hợp để nhanh chóng đạt được các tiêu chí của logistics xanh.

- Dành phần đủ lớn ngân sách cho việc đầu tư, nâng cấp cơ sở hạ tầng hiện đại và toàn diện, tạo điều kiện thuận lợi để phát triển vận tải đa phương thức.

- Đẩy nhanh quá trình chuyển đổi số, thúc đẩy việc áp dụng công nghệ thông tin trong quản lý, vận hành hoạt động logistics nhằm nâng cao hiệu quả hoạt động của chuỗi cung ứng.

- Xây dựng các chương trình nâng cao nhận thức cho doanh nghiệp logistics về tầm quan trọng của logistics xanh, lợi ích của việc hoạt động kinh doanh giảm thiểu tác động đến môi trường.

4. Kết luận

Xây dựng chuỗi cung ứng xanh là một trong những yếu tố quan trọng trong chiến lược phát triển bền vững và quá trình chuyển đổi sang nền kinh tế xanh. Đây là xu hướng phát triển tất yếu trên thế giới cũng như tại Việt Nam. Thực hiện “xanh hóa” chuỗi cung ứng được xem như một phần trong chiến lược đầu tư xanh, giúp các doanh nghiệp sử dụng hiệu quả nguồn lực tự nhiên, thân thiện với môi trường, từ đó nâng cao khả năng cạnh tranh và hiệu quả kinh doanh. Nhiều doanh nghiệp logistics Việt Nam đã từng bước “xanh hóa” hoạt động của mình, góp phần lớn vào việc cải thiện môi trường, nâng cao vị thế của mình trên bản đồ ngành. Bài viết đã phân tích thực trạng logistics xanh tại Việt Nam, từ đó đề xuất một số giải pháp nhằm phát triển hơn nữa logistics xanh trong thời gian tới.

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**CÁC TIÊU CHÍ ĐÁNH GIÁ
SỰ PHÁT TRIỂN KINH TẾ XANH ĐỐI VỚI HOẠT ĐỘNG DU LỊCH
TẠI HUYỆN ĐẢO BẠCH LONG VĨ GIAI ĐOẠN 2020-2025**

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Tóm tắt: Hải Phòng là thành phố công nghiệp có bề dày phát triển, theo định hướng mới Hải Phòng sẽ trở thành Thành phố quốc tế, điểm đến nổi tiếng trong và ngoài nước. Do đó phát triển kinh tế xanh là hướng đi chủ đạo để xây dựng tất cả các địa phương thuộc thành phố trong đó có cả huyện đảo Bạch Long Vĩ. Trong các xu hướng phát triển kinh tế của huyện đảo thì định hướng phát triển hoạt động dịch vụ du lịch cũng là mục tiêu quan trọng nhằm phát triển huyện đảo trong tương lai. Mặc dù hoạt động khai thác du lịch tại huyện đảo Bạch Long Vĩ chưa thu hút được nhiều du khách và nhà đầu tư do khó khăn về khoảng cách và phương tiện di chuyển, nhưng với sự phong phú về nguồn lợi hải sản và cảnh quan thiên nhiên hoang sơ yên bình sẽ là những yếu tố quan trọng để thu hút du khách và phát triển ngành dịch vụ du lịch. Tuy nhiên, việc phát triển kinh tế nói chung và ngành dịch vụ nói riêng tại Bạch Long Vĩ rất cần có sự quy hoạch đảm bảo phát triển mà không làm ảnh hưởng đến cảnh quan thiên nhiên cũng như bảo vệ môi trường và nguồn lợi thủy hải sản nhằm đảm bảo cho sự phát triển bền vững. Chính vì vậy, phát triển kinh tế xanh trong lĩnh vực du lịch là một xu hướng tất yếu. Trong phạm vi nghiên cứu của mình, tác giả nghiên cứu sẽ đánh giá về phát triển kinh tế xanh trong lĩnh vực du lịch thông qua 10 tiêu chí đánh giá cụ thể áp dụng tại huyện đảo Bạch Long Vĩ với mong muốn góp phần phát triển kinh tế chung của huyện đảo, tạo công ăn việc làm và nâng cao chất lượng đời sống cho người dân trên đảo.

Từ khóa: Phát triển kinh tế xanh, huyện đảo Bạch Long Vĩ, du lịch xanh

**CRITERIA FOR EVALUATING GREEN ECONOMIC DEVELOPMENT OF
TOURISM ACTIVITIES IN BACH LONG VY ISLAND DISTRICT IN 2020-2025**

Abstract: Hai Phong is an industrial city with a long history of development. Under the new orientation, Hai Phong will become an international city, a famous destination of both domestic and foreign visitors. Therefore, developing green economy is the main direction to build all localities of the city, including Bach Long Vi island district. Among the economic development trends of the island district, the orientation to develop tourism services is an important goal to develop the island district in the future. Although tourism activities in Bach Long Vi island district have not attracted many tourists and investors due to the difficulty of distance and means of transportation, the abundance of seafood resources, peaceful and intact nature will be important factors to attract tourists and develop the local tourism. However, Bach Long Vi's economic development in general and the service industry in particular need planning to ensure development without affecting the natural landscape as well as protecting

the environment and aquatic resources, ensuring its sustainable development. Therefore, developing a green economy in the field of tourism is an inevitable trend. Within the scope of the research, the author will evaluate green economic development in the field of tourism through specific evaluation criteria for Bach Long Vi island district with the desire to contribute to the development of the island district's economy, creating jobs and improving the quality of life for the locals.

Key words: *Developing green economy, Bach Long Vi island district, green tourism*

1. Đặt vấn đề

Phát triển kinh tế xanh là một định hướng quan trọng trong chính sách phát triển của thành phố Hải Phòng. Tăng trưởng kinh tế xanh phải dựa vào thể chế và phương pháp quản trị hiện đại, khoa học và công nghệ tiên tiến, nguồn nhân lực chất lượng cao phù hợp với bối cảnh quốc tế và điều kiện trong nước. Tăng trưởng kinh tế xanh định hướng vào đầu tư công nghệ tiên tiến, chuyển đổi số, kết cấu hạ tầng thông minh. Đầu tư là nhân tố đóng vai trò quan trọng trong phát triển kinh tế xanh.

Kinh tế xanh là sự nghiệp của hệ thống chính trị, toàn dân, toàn cộng đồng doanh nghiệp các cơ quan tổ chức với khát vọng phát triển đất nước phồn vinh, hạnh phúc. Theo kế hoạch tăng tốc giai đoạn 2021-2025, Hải Phòng tập trung vào 3 trụ cột phát triển gồm công nghiệp công nghệ cao; kinh tế biển, cảng biển logistics và du lịch, thương mại. Đặc biệt, để hiện thực hóa “Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050” theo Quyết định số 1658/QĐ-TTg của Thủ tướng Chính phủ, thành phố đã mạnh dạn đề xuất Trung ương lựa chọn Hải Phòng là địa phương áp dụng thí điểm “Chỉ số tăng trưởng xanh tổng hợp”. Như vậy, hướng tới mô hình tăng trưởng xanh là mục tiêu đã được Hải Phòng đề ra rất cụ thể, như khẳng định của Phó Thủ tướng Lê Văn Thành khi còn giữ cương vị Bí thư Thành ủy Hải Phòng: “Đây chính là con đường ngắn nhất hướng tới sự phát triển bền vững”.

Do đó phát triển kinh tế xanh là hướng đi chủ đạo để xây dựng tất cả các địa phương thuộc thành phố trong đó có cả huyện đảo Bạch Long Vĩ. Với vị trí cảnh quan đặc biệt và nguồn tài nguyên biển phong phú, huyện đảo Bạch Long Vĩ đã xây dựng các chủ trương phát triển du lịch nhằm tạo thêm sinh kế cho người dân cũng như góp phần phát triển kinh tế cho huyện đảo. Tuy nhiên, việc phát triển du lịch cũng cần có định hướng khai thác và phát triển theo hướng xanh và bền vững thì mới đảm bảo được hài hòa giữa lợi ích và việc bảo tồn tài nguyên thiên nhiên cũng như nguồn thủy hải sản của huyện đảo. Do đó, nghiên cứu các tiêu chí đánh giá sự phát triển kinh tế xanh đối với hoạt động du lịch tại huyện đảo Bạch Long Vĩ là vấn đề vô cùng cần thiết không chỉ mang ý nghĩa về mặt kinh tế mà còn mang ý nghĩa về mặt chính trị trong việc giữ gìn và phát triển biển đảo tiền tiêu của tổ quốc.

2. Tổng quan nghiên cứu, cơ sở lý thuyết và phương pháp nghiên cứu

2.1. Tổng quan nghiên cứu

Trong những năm vừa qua, có rất nhiều công trình nghiên cứu liên quan đến “Tăng trưởng xanh”, “Kinh tế xanh”, “Du lịch xanh”, có thể kể đến một số công trình nghiên cứu

như: Hoàng Thị Diệp (2013), *Sổ tay hướng dẫn cấp nhãn du lịch xanh cho điểm tham quan du lịch*, Bộ Văn hóa Thể thao và Du lịch, Tổng cục du lịch; Nguyễn Văn Đình (2020), *Phát triển du lịch xanh Việt Nam*, đăng tại: <http://www.vtr.org.vn/>, ngày đăng 23/06/2020; Nguyễn Huy Hoàng (2014), *Nghiên cứu nội dung và giải pháp xây dựng mô hình phát triển du lịch cộng đồng nhằm bảo tồn văn hoá, giảm nghèo và bảo vệ môi trường tỉnh Sơn La*, Đề tài khoa học và công nghệ cấp tỉnh; Nguyễn Thị Thao (2020), *Du lịch xanh - giải pháp phát triển du lịch bền vững của huyện đảo Phú Quốc*, đăng tại địa chỉ: <http://tapchicongthuong.vn/>, ngày đăng 08/03/2020; Tỉnh ủy Sơn La, *Nghị quyết Đại hội đại biểu Đảng bộ tỉnh Sơn La lần thứ XV, nhiệm kỳ 2020 - 2025* (Nghị quyết số 15-NQ/ĐH ngày 24/9/2020),... Tuy nhiên đối với vấn đề phát triển kinh tế xanh trong hoạt động du lịch tại huyện đảo Bạch Long Vĩ vẫn là vấn đề cấp thiết và mới do nhiều nguyên nhân chủ quan và khách quan, đặc biệt do vị trí địa lý và khả năng tiếp cận khó khăn do hạn chế phương tiện di chuyển do huyện đảo nằm xa đất liền và diện tích không lớn để có thể đầu tư phát triển mở rộng các loại hình dịch vụ du lịch có sức chứa lớn.

2.2. Cơ sở lý thuyết và cơ sở thực tiễn

Về cơ sở lý thuyết phục vụ nghiên cứu nhóm tác giả sẽ dựa theo một số khái niệm về “Tăng trưởng xanh”, “Kinh tế xanh” và “Du lịch xanh” để tiếp cận vấn đề nghiên cứu. Theo định nghĩa của Chương trình môi trường Liên hiệp quốc (UNEP): “Tăng trưởng xanh với trụ cột là kinh tế xanh (Green Economy) nhằm cải thiện hạnh phúc con người, công bằng xã hội và giảm thiểu đáng kể những nguy cơ kiệt quệ về môi sinh... làm chậm lại sự gia tăng của hàm lượng các-bon và ngăn chặn biến đổi khí hậu, có lợi cho sức khỏe con người, bảo đảm tính chịu đựng của hành tinh và sự sống còn của nhân loại”. Theo đánh giá của các nhà nghiên cứu, điều quan trọng nhất là tăng trưởng xanh kết hợp giữa 3 thành tố bền vững: kinh tế, môi trường và xã hội. Đó là những hoạt động tạo ra giá trị hữu ích, hướng đến phát triển cuộc sống của cộng đồng, đảm bảo công bằng xã hội và được xã hội hưởng ứng.

Có nhiều định nghĩa khác nhau về kinh tế xanh - Green Economy, trong đó, Liên minh châu Âu (EU) cho rằng “Kinh tế xanh là nền kinh tế tăng trưởng thông minh, bền vững và công bằng”; Nhóm Liên minh kinh tế xanh định nghĩa kinh tế xanh là “nền kinh tế tạo ra chất lượng cuộc sống tốt hơn cho tất cả mọi người trong giới hạn sinh thái của Trái đất”; Phòng Thương mại Quốc tế xem xét kinh tế xanh từ góc độ kinh doanh và cho rằng: “Kinh tế xanh là nền kinh tế mà tăng trưởng kinh tế và trách nhiệm môi trường đi đôi với nhau và tương hỗ cho nhau, đồng thời hỗ trợ quá trình phát triển xã hội”. Báo cáo của Ủy ban các vấn đề Kinh tế - Xã hội của Liên Hợp Quốc (UNDESA, 2012) tổng hợp các định nghĩa của nhiều quốc gia và chỉ ra điểm chung mà một nền kinh tế xanh cần hướng tới là việc giảm các tác động tiêu cực của hoạt động kinh tế tới môi trường và xã hội.

Khái niệm “du lịch xanh” đã được đề cập đến nhiều từ những năm 1980 nhưng không được hưởng ứng rộng rãi cho tới khi có khái niệm về du lịch sinh thái. Nhiều học giả đã đưa ra các quan điểm riêng về du lịch xanh nhấn mạnh đến ý nghĩa khác nhau về mặt quy mô, coi trọng thiên nhiên, và giảm thiểu tác động tới môi trường. Theo định nghĩa của tác giả Martin Oppermann, (Bách khoa toàn thư về Du lịch, tác giả Jafar Jafari và Honggen Xiao (2002) “du lịch xanh là một hình thức du lịch thay thế thường liên quan đến du lịch nông thôn, là một hình thái của du lịch thiên nhiên, thân thiện với môi trường và

hầu như không tạo ra tác động về sinh thái tại điểm đến du lịch”. Như vậy, theo cách hiểu này, du lịch xanh đã được sử dụng thay thế cho các khái niệm như du lịch sinh thái, du lịch thiên nhiên, và du lịch nông thôn (Sung-kwon và cộng sự. 2003). Nhiều doanh nghiệp đã tiếp nhận quan điểm về du lịch xanh với một ý nghĩa rộng lớn hơn: bất kỳ hoạt động du lịch nào theo cách thân thiện với môi trường đều được xem là du lịch xanh. Tại Việt Nam, tác giả Trần Văn Hùng trong bài nghiên cứu “Du lịch xanh tại Việt Nam” đã xác định: Du lịch xanh là loại hình du lịch dựa vào tự nhiên và văn hoá, có giáo dục môi trường, đóng góp cho nỗ lực bảo tồn và phát triển bền vững, có sự tham gia tích cực của cộng đồng địa phương. Như vậy, du lịch xanh có thể được hiểu là du lịch dựa trên nền tảng khai thác hợp lý và hiệu quả các nguồn tài nguyên, phát triển gắn với bảo vệ môi trường, bảo tồn đa dạng sinh học, giảm phát thải khí nhà kính và thích ứng với biến đổi khí hậu [12].

Nhìn chung các khái niệm về “Tăng trưởng xanh”, “Kinh tế xanh” hay “Du lịch xanh” đều có nội hàm chung về phát triển kinh tế (kinh tế du lịch) đều phải dựa trên nền tảng thân thiện với môi trường, khai thác hợp lý và hiệu quả các nguồn tài nguyên, phát triển gắn với bảo vệ môi trường, bảo tồn đa dạng sinh học, giảm phát thải khí nhà kính và thích ứng với biến đổi khí hậu. Do đó, nhóm tác giả sẽ tiếp cận lồng ghép nghiên cứu nội dung vấn đề dựa trên cả ba khái niệm trên.

Những định hướng phát triển kinh tế xanh của thành phố Hải Phòng giai đoạn 2020-2025:

Quyết định số 1658/QĐ-TTg ngày 1/10/2021 của Thủ tướng Chính phủ Lê Văn Thành phê duyệt “Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050”, phần định hướng chiến lược đã nêu rõ: Tập trung nỗ lực cơ cấu lại nền kinh tế gắn với đổi mới mô hình tăng trưởng, giảm cường độ phát thải khí nhà kính thông qua khai thác và sử dụng tiết kiệm, hiệu quả năng lượng, tài nguyên dựa trên nền tảng khoa học và công nghệ, ứng dụng công nghệ số và chuyển đổi số, phát triển kết cấu hạ tầng xanh, bền vững, xây dựng lối sống xanh, đảm bảo quá trình chuyển đổi xanh theo nguyên tắc, bình đẳng, bao trùm, nâng cao năng lực chống chịu trong toàn bộ nền kinh tế.

Nghị quyết Đại hội 16 Đảng bộ thành phố Hải Phòng cũng xác định rõ: “Hải Phòng tiếp tục phát huy hiệu quả các tiềm năng, lợi thế, đổi mới mô hình tăng trưởng, cơ cấu lại nền kinh tế, nâng cao sức cạnh tranh, hướng tới xây dựng thành phố Cảng xanh, văn minh, hiện đại”. Tăng trưởng xanh lấy con người là trung tâm, giúp giảm thiểu tính dễ bị tổn thương của con người trước biến đổi khí hậu, khuyến khích lối sống có trách nhiệm của cá nhân con người với xã hội cộng đồng, hình thành xã hội tương lai với lối sống xanh, xây dựng xã hội văn minh, hiện đại hài hòa với môi trường thiên nhiên.

Hải Phòng cụ thể hóa các chiến lược phát triển kinh tế của thành phố đến từng lĩnh vực, thông qua các văn bản như Quyết định 2000/QĐ-UBND ngày 19/10/2017 về việc ban hành chương trình hành động thực hiện nghị quyết số 08/NQ-TW của Bộ Chính trị về việc phát triển du lịch trọng điểm mũi nhọn giai đoạn 2017-2020 tầm nhìn 2030. Đây là quyết định có vai trò kim chỉ nam đối với phát triển du lịch tại thành phố.

Các văn bản trên là những định hướng quan trọng về giải pháp chung, tổng thể cho sự phát triển của Thành phố Hải Phòng và riêng trong lĩnh vực du lịch tại huyện đảo Bạch

Long Vĩ, đây có thể coi là những căn cứ quan trọng để nhóm tác giả lựa chọn thực hiện đề tài nghiên cứu

Sau khi đại dịch Covid bùng phát đã ảnh hưởng rất lớn đến du lịch cả nước nói chung và Hải Phòng nói riêng, tuy nhiên từ năm 2022 với chính sách phát triển du lịch mở cửa trở lại theo hướng bình thường mới lượng khách du lịch đã tăng nhanh đối với cả khách du lịch trong nước và khách du lịch quốc tế, tăng 89% so với cùng kỳ, vượt 55% kế hoạch năm 2022, trong đó khách quốc tế tăng 948% so với cùng kỳ. Doanh thu du lịch đạt 6.300 tỉ, tăng 98% so với cùng kỳ năm 2021. Chỉ trong 03 tháng đầu năm 2023, thành phố đã đón và phục vụ 1.387,089 nghìn lượt khách, tăng 17,86% so với cùng kỳ năm 2022, trong đó khách quốc tế đạt 226,751 nghìn lượt, doanh thu đạt 1.248,4 tỷ đồng [7].

Bảng 1. Lượt khách và doanh thu du lịch Hải Phòng giai đoạn 2020 - Quý 1/2023

Chỉ tiêu	Năm 2020	Năm 2021	Năm 2022	Quý 1/2023
Lượt khách (nghìn lượt)	10.400	3.707	7.000	1.387,089
- Nội địa	10.100	3642,3	6.318	1.160,338
- Quốc tế (nghìn lượt)	300	64,7	682	226,751
Doanh thu (tỷ đồng)	3.900	50	6.300	1.248,4

(Nguồn: Tổng hợp từ các số liệu trong niên giám thống kê [3] thành phố Hải Phòng và Báo cáo của Sở Du lịch Hải Phòng [7])

Nghị quyết Đại hội Đảng bộ huyện đảo Bạch Long Vĩ cũng đã xây dựng chương trình hành động thực hiện nghị quyết Đại hội với mục tiêu phát triển kinh tế tăng 15.02%/năm, cơ cấu kinh tế chuyển dịch theo hướng thương mại dịch vụ với tỉ trọng thương mại dịch vụ đạt 46.42%, trong đó giá trị sản xuất thương mại dịch vụ tăng bình quân 17,04%/năm. Như vậy, có thể thấy huyện đảo Bạch Long Vĩ đã xây dựng chương trình hành động rõ ràng và có định hướng đối với hoạt động dịch vụ du lịch ở huyện đảo.

2.3. Phương pháp nghiên cứu

Để đảm bảo nội dung khoa học của bài viết, nhóm tác giả thực hiện các phương pháp nghiên cứu chính như: Phương pháp phân tích tài liệu thứ cấp sử dụng để thu thập thông tin từ các công trình nghiên cứu, tài liệu, sách, báo, tạp chí, Internet và các phương tiện thông tin đại chúng khác. Sau khi thống kê và tổng hợp dữ liệu, nhóm tác giả sẽ tiến hành khoanh vùng và phân nhóm dữ liệu cần thiết với đề tài. Từ đó, phân tích, so sánh để xử lý dữ liệu với mục đích đưa ra các nhận định làm cơ sở cho việc đề xuất các giải pháp phát triển du lịch xanh tại huyện đảo Bạch Long Vĩ.

3. Kết quả và thảo luận

3.1. Thực trạng phát triển kinh tế xanh đối với hoạt động du lịch tại huyện đảo Bạch Long Vĩ giai đoạn 2020- 2025

3.1.1. Điều kiện tự nhiên, điều kiện xã hội của huyện đảo Bạch Long Vĩ

Huyện đảo Bạch Long Vĩ là một trong huyện đảo xa xôi của thành phố Hải Phòng. Cách Hòn Dấu- Đồ Sơn khoảng 110km. Nhìn từ trên cao xuống đảo hình tam giác, với

diện tích khoảng 6,5 km², đảo Bạch Long Vĩ có vị trí đặc biệt quan trọng trong chiến lược phát triển kinh tế, tăng cường quốc phòng ở Vịnh Bắc Bộ. Huyện đảo Bạch Long Vĩ (thành phố Hải Phòng) được thành lập năm 1992. Từ một hòn đảo xa bờ nhất Vịnh Bắc Bộ, không điện, không nước ngọt thì đến nay, huyện đảo đã có hệ thống hạ tầng khá đồng bộ với hệ thống cung cấp nước ngọt, đường xá, cầu cảng... Và để huyện đảo phát huy được lợi thế, tiềm năng vốn có, thành phố Hải Phòng đang đẩy mạnh đầu tư để đưa Bạch Long Vĩ trở thành trung tâm du lịch, hậu cần nghề cá và tìm kiếm cứu nạn khu vực phía Bắc. Với diện tích khoảng 6,5 km², đảo Bạch Long Vĩ có vị trí đặc biệt quan trọng trong chiến lược phát triển kinh tế, tăng cường quốc phòng ở Vịnh Bắc Bộ. Huyện đảo Bạch Long Vĩ (thành phố Hải Phòng) được thành lập năm 1992. Đảo nằm xa bờ (ở khoảng giữa Vịnh Bắc Bộ của Việt Nam, cách Hòn Dấu, Đồ Sơn, Hải Phòng 110 km và cách đảo Hạ Mai, Vân Đồn, Quảng Ninh khoảng 70 km). Vùng biển Bạch Long Vĩ là ngư trường tốt nhất Vịnh Bắc Bộ, với nhiều hải sản quý, nguồn lợi thủy sản có giá trị kinh tế cao và tài nguyên dầu khí tiềm ẩn địa có trữ lượng khá dồi dào. Từ một hòn đảo xa bờ nhất Vịnh Bắc Bộ, không điện, không nước ngọt thì đến nay, huyện đảo đã có hệ thống hạ tầng khá đồng bộ với hệ thống cung cấp nước ngọt, đường xá, cầu cảng... Và để huyện đảo phát huy được lợi thế, tiềm năng vốn có, thành phố Hải Phòng đang đẩy mạnh đầu tư để đưa Bạch Long Vĩ trở thành trung tâm du lịch, hậu cần nghề cá và tìm kiếm cứu nạn khu vực phía Bắc, Đảo Bạch Long Vĩ là một trong tám ngư trường lớn ở vịnh Bắc Bộ, là ngư trường cá lớn nhất, tập trung khoảng 395 loài, 229 loài thuộc họ hải sản với cá nục sò, cá tra. Là nơi nổi tiếng với đặc sản bào ngư có hàm lượng chất dinh dưỡng cao nhất. Đảo Bạch Long Vĩ nằm trong vị trí trung tâm các khu du lịch Cô Tô, Hạ Long, Trà Cổ, Đồ Sơn, Cát Bà... do đó các tàu lữ hành có thể ghé qua đảo thường xuyên.

3.1.2. Các chỉ tiêu kinh tế của huyện đảo Bạch Long Vĩ

Năm 2022, tổng giá trị sản xuất các ngành kinh tế của huyện đảo Bạch Long Vĩ ước hơn 494 tỷ đồng, đạt 101% kế hoạch. Huyện đã tập trung đầu tư các dự án, công trình hạ tầng quan trọng phục vụ phát triển kinh tế và đời sống của nhân dân như Dự án đầu tư xây dựng Cảng và khu neo đậu tàu phía Tây Bắc đảo Bạch Long Vĩ (giai đoạn I); Dự án Xây dựng Trạm cứu hộ động vật hoang dã và sản xuất giống hải sản phục vụ tái tạo nguồn lợi thủy sản trong khu bảo tồn biển và chương trình số hóa, cải thiện chất lượng công tác y tế, giáo dục và các hoạt động văn hoá; đảm bảo nhiệm vụ quốc phòng, an sinh xã hội...

Định hướng phát triển kinh tế của huyện đảo được chỉ rõ trong Nghị quyết của Đại hội VI của Đảng bộ Huyện nhiệm kỳ 2020- 2025. Trong đó nhấn mạnh mục tiêu kinh tế Xây dựng đảo Bạch Long vĩ trở thành trung tâm hậu cần nghề cá và tìm kiếm cứu nạn khu vực phía Bắc. Ngoài ra phát triển du lịch bền vững nhằm đưa đảo Bạch Long Vĩ trở thành địa điểm du lịch xanh với các tour du lịch sinh thái, khám phá địa hình đảo như bãi đá ven đảo, ngắm san hô bằng thuyền đáy kính, tour câu cá ngoài biển... Du lịch gắn với bảo vệ môi trường, đánh giá được sức tải du lịch để đưa ra quy mô theo từng giai đoạn 2021 - 2025, 2025 - 2030. Cho đến thời điểm nghiên cứu, các số liệu thống kê về du lịch trong những năm gần đây của huyện đảo chưa được Sở Du lịch Hải Phòng cập nhật vì liên quan đến thời gian dịch bệnh Covid cho nên lượng khách du lịch rất ít và khó thống kê cho nên nghiên cứu vẫn sử dụng các số liệu được công bố một số chỉ tiêu về du lịch của đảo Bạch Long Vĩ giai đoạn 2018-2019.

Bảng 2. Một số chỉ tiêu về du lịch tại đảo Bạch Long Vĩ

TT	Chỉ tiêu	ĐVT	Năm 2018	Năm 2019
1	Tổng lượt khách	1000 lượt	750	769
2	Doanh thu du lịch	Tỷ đồng	2,5	2,9
3	Cơ sở lưu trú du lịch	Cơ sở	4	6
4	Khu, điểm du lịch	Khu, điểm	5	5

Nguồn: Sở Du lịch Hải Phòng

Để thực hiện được việc đưa huyện đảo trở thành trung tâm dịch vụ hậu cần nghề cá thì các nhiệm vụ cần phải giải quyết đang đặt ra như: Huyện đảo phải đánh giá được quy mô cung cấp cho số lượng tàu theo quy định, đưa các giải pháp bảo vệ môi trường; đồng thời trở thành trung tâm nuôi trồng thủy sản công nghệ cao. Đánh giá điều kiện tự nhiên, nguồn nhân lực, vật lực để định hướng các công nghệ nuôi thủy sản phù hợp thực tế. Nuôi thủy sản phù hợp công nghệ cao để giảm phát thải môi trường, tránh điều kiện khí hậu, sóng gió tại Bạch Long Vĩ.

Nhìn chung, mô hình kinh tế Bạch Long Vĩ hiện nay là mô hình kinh tế vẫn còn mang tính tự phát, bị tác động với nhiều yếu tố và chưa có tính liên kết bền vững. Cần phải xây dựng mô hình hướng đến sự bền vững của huyện đảo để xứng với vị trí huyện đảo.

3.2. Đánh giá phát triển kinh tế xanh đối với lĩnh vực du lịch tại huyện đảo Bạch Long Vĩ

Kinh tế xanh là một nền kinh tế có mức phát thải thấp, sử dụng hiệu quả và tiết kiệm tài nguyên thiên nhiên, đảm bảo tính công bằng về mặt xã hội. Trong nền kinh tế xanh, sự tăng trưởng về thu nhập, việc làm thông qua việc đầu tư của Nhà nước và tư nhân cho nền kinh tế làm giảm thiểu phát thải cacbon, giảm thiểu ô nhiễm môi trường, sử dụng hiệu quả năng lượng và tài nguyên, ngăn chặn sự suy giảm đa dạng sinh học và dịch vụ của hệ sinh thái. Các nghiên cứu đều thống nhất quan điểm, xu hướng phát triển kinh tế xanh tập trung vào 3 trụ cột chính, đó là: Công nghiệp, nông nghiệp và dịch vụ.

Cụ thể, xu hướng phát triển công nghiệp xanh tập trung vào 2 mục tiêu chính là hạn chế phát thải khí CO₂, hóa chất độc hại từ các khu công nghiệp, khu chế xuất ra ngoài môi trường; đồng thời, nghiên cứu phát triển các nguồn năng lượng mới, máy móc kỹ thuật mới thân thiện với môi trường. Việc ứng dụng các nguồn năng lượng sạch vào sản xuất công nghiệp như năng lượng gió, năng lượng mặt trời, năng lượng sinh học đã và đang được nhiều nước, nhất là các nước phát triển đặc biệt quan tâm. Trong xu hướng phát triển công nghiệp xanh, các nước đang tập trung phát triển nhiên liệu biogas. Nhiên liệu biogas là năng lượng tái tạo từ các chất hữu cơ, chất thải chăn nuôi, bùn thải, có thể thay thế điện hay các nhiên liệu đốt trong để vận hành máy móc, dây chuyền sản xuất mà không gây ô nhiễm môi trường. Đây được coi là một nghiên cứu ứng dụng khả thi, giảm dần sự phụ thuộc vào các nguồn nhiên liệu hóa thạch có hại cho môi trường.

Để đánh giá phát triển kinh tế xanh đối với lĩnh vực du lịch tại huyện đảo Bạch Long Vĩ, nhóm tác giả đã lựa chọn một số tiêu chí được xây dựng kế thừa của một số công trình nghiên cứu để đánh giá phát triển du lịch xanh tại huyện đảo Bạch Long Vĩ [8]. Cụ thể:

Các tiêu chí phát triển kinh tế xanh đối với lĩnh vực du lịch trên địa bàn huyện đảo Bạch Long Vĩ

Tiêu chí 01: Tiêu chí liên kết giữa đảo - đất liền: Trước đây việc liên kết giữa đảo Bạch Long Vĩ và đất liền còn gặp nhiều khó khăn do chưa có phương tiện tàu thuyền ra đảo, hoặc các phương tiện phục vụ thì thô sơ chủ yếu là tàu cá của ngư dân, tàu thuyền chưa được trang bị trạm phát sóng, wifi, internet thì vài năm trở lại đây việc đầu tư trang thiết bị, phương tiện kết nối giữa đất liền với đảo được thành phố đầu tư và quan tâm đúng mức.

Phương tiện ra đảo phổ biến hiện nay là đi bằng tàu cao tốc Bạch Long, Hoa Phượng Đỏ xuất phát từ Bến Bính, Hải Phòng. Thời gian di chuyển khoảng 6 tiếng đồng hồ, tùy vào điều kiện thời tiết. Từ tháng 7 năm 2020, dự án đóng mới tàu thủy chở hàng và chở khách mang tên Tàu Hoa Phượng chính thức được đưa vào sử dụng đã giải quyết được nhu cầu vận chuyển hàng hóa và đi lại giữa đảo và đất liền và rút ngắn thời gian đi lại. Tàu chạy miễn phí 3 lần/tháng, cư dân trên đảo có thể về đất liền bằng các phương tiện khác. Tàu Hoa Phượng đỏ có trọng tải 220 tấn, với chiều dài hơn 52 m, chiều rộng gần 11 m, chiều cao mạn 4,7 m và tầm hoạt động 750 hải lý; tàu có năng lực chở trên 200 người và 50 tấn hàng hóa, trong đó có 4 phòng VIP, 56 giường nằm thường... Tàu hoạt động được trong điều kiện sóng cấp 6, cấp 7 và gió cấp 8, cấp 9; trong điều kiện thời tiết tốt, thời gian hành trình từ Hải Phòng ra đảo Bạch Long Vĩ hoặc ngược lại chỉ khoảng 5 giờ. Đặc biệt là với vị trí trung tâm cách các điểm du lịch nổi tiếng như Cô Tô, Hạ Long, Cát Bà, Đồ Sơn, Sầm Sơn, Trà Cổ trong khoảng thời gian từ 2h đến 3h30 bằng tàu thủy cao tốc, đặc biệt nếu xuất phát từ Cát Bà chỉ mất trên hai tiếng bằng tàu thủy cao tốc ra đến đảo. Ngoài ra hệ thống Internet cũng đã tương đối ổn định, đáp ứng nhu cầu thông tin liên lạc giữa đảo và đất liền. Hệ thống thông tin liên lạc, hệ thống điện thoại cố định đã có mạng internet và 02 hệ thống điện thoại di động Viettel và Vinaphone phục vụ nhu cầu thông tin liên lạc của quân, dân trên đảo và ngư dân hoạt động trên vùng biển quanh đảo [1] [2].

Như vậy tiêu chí liên kết đảo đã có song thành phố cần có những chính sách hỗ trợ nhằm tiếp tục thúc đẩy tiêu chí này như có thêm số lượng tàu Hoa Phượng, tăng tần suất chuyến chạy mỗi ngày để việc di chuyển sẽ thuận lợi hơn hoặc các thiết bị hiện đại được trang bị trên tàu đảm bảo thông tin liên lạc trong quá trình di chuyển.

Tiêu chí 02: Tiêu chí về hệ thống đường cơ sở trên đảo, âu tàu - bến cảng

Hiện nay, tiêu chí về hệ thống đường cơ sở trên đảo cũng khá hoàn thiện, đảm bảo nhu cầu đi lại của người dân cũng như đối với du khách thăm đảo, các âu tàu bến cảng đang dần được nâng cấp hoàn thiện đáp ứng nhu cầu phát triển du lịch trong tương lai.

Tiêu chí 03: Tiêu chí về điện lưới quốc gia

Hệ thống điện trên huyện đảo cũng đã đảm bảo được nhu cầu của người dân, nguồn điện sinh hoạt trên đảo dựa vào điện lưới từ máy phát điện và hai nguồn điện năng lượng tái tạo. Nguồn điện phục vụ sinh hoạt trên đảo đến từ dự án cấp điện cho đảo Bạch Long Vĩ do Tổng Công ty Điện lực miền Bắc là chủ đầu tư. Hiện có 01 tua bin gió và 01 trạm trại điện mặt trời đang hoạt động và cung cấp điện liên tục. Việc cung ứng điện ổn định cũng sẽ góp phần tạo động lực phục vụ phát triển kinh tế biển, hoạt động du lịch biển, đáp

ứng điều kiện để Bạch Long Vỹ trở thành trung tâm chế biến, dịch vụ hậu cần nghề cá và tìm kiếm cứu nạn cho các tỉnh ven biển Bắc Bộ [1] [2].

Tiêu chí 04: Tiêu chí về trạm xử lý nước sạch và lưu trữ nước

Nguồn nước ngọt trên đảo được tích trữ trong hồ chứa, công trình do Tổng đội Thanh niên xung phong Hải Phòng là chủ đầu tư. Tháng 7/2020, dự án hoàn thành với quy mô hồ chứa 60 nghìn mét khối trên diện tích 40 nghìn mét vuông, bước đầu đáp ứng nhu cầu nước thô cho người dân. Tháng 3/2022, thành phố Hải Phòng khởi công tiếp dự án cấp nước sạch và khánh thành trạm cấp nước Bạch Long Vỹ vào tháng 4/2022 [4].

Tiêu chí 05: Tiêu chí về nguồn vốn tự nhiên

Hiện tại nguồn vốn đầu tư trên đảo chỉ là nguồn vốn của nhà nước, chưa thu hút được nguồn vốn tư nhân và nguồn vốn nước ngoài đầu tư. Nguồn vốn đầu tư này gia tăng đáng kể do việc thành phố chủ trương đầu tư xây dựng các công trình trọng điểm trong giai đoạn 2020- 2030. Dự án Nhà máy điện gió ngoài khơi đảo Bạch Long Vỹ hay Trang trại điện gió ngoài khơi Bạch Long Vỹ có quy mô xây dựng và vận hành 3.300 MW điện gió ngoài khơi. Dự án được phân kỳ đầu tư thành 2 giai đoạn, trong đó giai đoạn 1 công suất 800 MW đưa vào vận hành năm 2030; giai đoạn 2 công suất 2.500 MW đưa vào vận hành năm 2035. Tổng vốn đầu tư dự án là 256.000 tỷ đồng (khoảng 11 tỷ USD). Nguồn vốn do doanh nghiệp thu xếp và vay các tổ chức tín dụng trong và ngoài nước. Cơ cấu kinh tế có sự chuyển dịch rõ nét, từng bước tăng tỷ trọng thương mại, dịch vụ; nông nghiệp, thủy sản. Tổng vốn đầu tư phát triển 3 năm đạt hơn 881 tỷ đồng, trong đó vốn ngân sách 165,6 tỷ đồng; vốn của nhân dân và doanh nghiệp đạt 716 tỷ đồng [11].

Tiêu chí 06: Tiêu chí kiểm soát chất thải từ hoạt động du lịch, sử dụng vật liệu thân thiện với môi trường

Việc thu gom rác trên đảo còn gặp nhiều khó khăn, việc xử lý rác còn chưa triệt để, cùng với đặc thù của huyện là nơi tránh trú bão của nhiều tàu thuyền hoạt động đánh bắt tại vịnh Bắc Bộ nên nhiều thuyền viên khi lưu trú tại đảo còn chưa có ý thức trong việc giữ gìn vệ sinh chung, nhiều ngư dân còn xả rác thải ra môi trường biển, đặc biệt là rác thải nhựa sau mỗi hành trình dài lênh đênh trên biển. Bí thư Huyện ủy, Chủ tịch UBND huyện Bạch Long Vỹ, năm 2019, Ban Quản lý Khu bảo tồn biển Bạch Long Vỹ đã phối hợp với Tổ chức Bảo tồn Thiên nhiên Quốc tế (IUCN) và Trung tâm Hỗ trợ Phát triển xanh (GreenHub) tổ chức tập huấn và triển khai 2 đợt tập huấn theo dõi, giám sát rác thải nhựa. Theo đó, Ban Quản lý Khu bảo tồn biển Bạch Long Vỹ đã tổ chức tập huấn cho lực lượng đoàn viên thanh niên huyện Bạch Long Vỹ cùng triển khai giám sát rác thải nhựa vùng triều ven đảo. Kết quả sơ bộ đã có cơ sở dữ liệu về đặc điểm thành phần rác, xuất xứ, mật độ và tổng lượng rác thải nhựa vùng triều xung quanh đảo. Đây cũng cơ sở thông tin, dữ liệu quan trọng để Ban Quản lý Khu bảo tồn biển Bạch Long Vỹ tiếp tục nghiên cứu và đề xuất, trình các cơ quan ban ngành liên quan giải pháp quản lý, xử lý rác thải nhựa hiệu quả.

Tiêu chí 07: Tiêu chí về mức độ tiếp cận của người làm du lịch với hệ sinh thái trên đảo và trên biển.

Hiện tại, các cá nhân, các hộ dân và doanh nghiệp đã bước đầu được triển khai các văn bản và tài liệu hướng dẫn về khai thác các hệ sinh thái trên đảo và trên biển cũng như các yêu cầu cụ thể từ chính quyền, cơ quan quản lý nhà nước của huyện đảo Bạch Long Vỹ.

Tiêu chí 08: Thu nhập của người dân trên đảo

Đạt mức bình quân thu nhập trung bình quốc gia, trung bình thu nhập theo thống kê của UBND huyện đảo được sắp xỉ 8 triệu đồng/người/tháng.

Tiêu chí 09: Tiêu chí về hoạt động hướng dẫn của chính quyền địa phương đến người dân làm du lịch về mô hình du lịch theo định hướng kinh tế xanh

Cho đến thời điểm hiện tại, tỉ lệ người dân tiếp cận làm du lịch đạt khoảng 40%. Các hộ dân làm du lịch đều có tài liệu hướng dẫn của chính quyền đảo Bạch Long Vĩ. Các mô hình du lịch đều theo định hướng kinh tế xanh.

Tiêu chí 10: Tiêu chí về tính chuyên nghiệp của hoạt động du lịch

Hoạt động du lịch tại đảo Bạch Long Vĩ đã được khởi phát nhiều năm qua nhưng đa số thể hiện ở việc đón khách ra thăm đảo bắt đầu với những chuyến đi thăm thân, các chuyến đi của các tổ chức hoạt động Đoàn thể, thanh niên, sinh viên, đoàn viên với ý nghĩa thăm đảo tiên tiêu của tổ quốc. Hoạt động du lịch thực sự được thống kê khoảng từ năm 2012 với những chuyến đi khám phá và trải nghiệm cảnh quan và cuộc sống của người dân trên đảo. Cho đến thời điểm nghiên cứu, hiện tại trên huyện đảo đã thực hiện một số hoạt động du lịch trải nghiệm, khám phá, tâm linh với sản phẩm du lịch cụ thể tương đối đa dạng như: tắm biển, thưởng thức hải sản, khám phá cảnh quan thiên nhiên hùng vĩ, tour du lịch sinh thái, khám phá địa hình đảo như bãi đá ven đảo, ngắm san hô bằng thuyền đáy kính, tour câu cá một ngày...[9].

Số lượng, chất lượng nguồn lao động du lịch tại đảo Bạch Long Vĩ cơ bản đáp ứng nhu cầu hiện tại, tuy nhiên trong tương lai, khi hoạt động du lịch tại Bạch Long Vĩ phát triển thì cũng cần có những định hướng, chính sách nhằm nâng cao số lượng và chất lượng nguồn nhân lực du lịch tại huyện đảo.

Kết luận: Thông qua nghiên cứu 10 tiêu chí đánh giá để có thể phát triển kinh tế xanh đối với lĩnh vực du lịch trên địa bàn huyện đảo Bạch Long Vĩ có thể nhận thấy cơ bản cho đến thời điểm nghiên cứu có thể xây dựng mô hình kinh tế xanh trong lĩnh vực du lịch tại huyện đảo Bạch Long Vĩ. Tuy nhiên, có thể nhận thấy những khó khăn lớn tại đảo tiên tiêu Bạch Long Vĩ khiến cho số lượng khách đến tham quan hạn chế, thực tế chỉ đáp ứng được 5% nhu cầu khách muốn đến tham quan huyện đảo là do những nguyên nhân sau [4]:

Thứ nhất, sóng biển tại đảo thường xuyên đạt cấp 6 cấp 7, trong khi đó tàu ra đảo đa số chịu được sóng cấp 4 cấp 5 nên khó khăn trong việc tiếp cận đảo. Ngoài ra, tần suất chuyến tàu cũng không nhiều cho nên du khách thường không chủ động được thời gian. Ngoài ra điều kiện thời tiết cũng là một yếu tố ảnh hưởng nhiều đến việc tiếp cận huyện đảo.

Thứ hai, mặc dù nguồn cung cấp điện và nước cũng bước đầu đáp ứng được nhu cầu sinh hoạt của nhân dân, tuy nhiên với việc phát triển du lịch và phục vụ lượng lớn du khách sẽ cần nguồn cung cấp điện và nước công suất lớn và ổn định hơn.

Thứ ba, cơ sở hạ tầng du lịch tại huyện đảo còn chưa thực sự đảm bảo, nhà nghỉ và khách sạn chưa nhiều nên chưa thể đáp ứng được số lượng khách du lịch lớn đến với huyện đảo.

Thứ tư, âu cảng phía Tây Bắc, một trong hai âu cảng được Chính phủ và thành phố Hải Phòng đầu tư để thực hiện mục tiêu phát triển đảo Bạch Long Vĩ thành trung tâm hậu

cần nghề cá vẫn đang trong thời gian thi công. Qua 5 năm tiến hành xây dựng, đến nay dự án với tổng mức đầu tư hơn 560 tỷ đồng này vẫn rất chậm tiến độ do thiếu vốn.

Thứ năm, quy hoạch tổng thể phát triển kinh tế - xã hội huyện đảo Bạch Long Vĩ giai đoạn 2010 đến năm 2020 đã được triển khai nhưng còn chậm, chưa đáp ứng tiến độ do đó ảnh hưởng tới kết quả tổng thể về phát triển kinh tế - xã hội tại huyện đảo.

Thứ sáu, hành lang pháp lý về tăng trưởng xanh trong du lịch còn thiếu, chưa đồng bộ; việc lồng ghép các chỉ tiêu tăng trưởng xanh vào kế hoạch phát triển kinh tế - xã hội chưa đầy đủ; các dự án mới dừng ở mức thí điểm, chưa được triển khai rộng; nhận thức về tăng trưởng xanh còn hạn chế; việc quản lý tài nguyên, khoáng sản chưa thực sự hiệu quả; hệ thống kết cấu hạ tầng chưa thực sự đồng bộ, hiện đại...

3.3. Một số đề xuất, kiến nghị

Về công tác quy hoạch: Theo Báo cáo sơ kết 5 năm thực hiện Nghị quyết số 04/NQ-TU về đẩy mạnh phát triển du lịch thành phố Hải Phòng giai đoạn 2016-2020, định hướng đến năm 2030, ngày 08/8/2022), đơn vị chủ trì là UBND huyện Cát Hải, đơn vị phối hợp là các sở ngành có liên quan và UBND huyện đảo Bạch Long Vĩ là “*Mở rộng không gian du lịch tại Đồ Sơn, Cát Bà; kết nối du lịch Vịnh Lan Hạ - Long Châu - Bạch Long Vĩ, phát triển sản phẩm du lịch cao cấp với loại hình du lịch sinh thái nghỉ dưỡng Kinh phí thực hiện: ngân sách kết hợp xã hội hóa; Tiến độ thực hiện 2022-2025*” [6]. Có thể nói việc đưa vào quy hoạch mở rộng không gian kết nối với huyện đảo Bạch Long Vĩ là một chính sách đúng đắn thể hiện sự quan tâm đối với huyện đảo trong phát triển du lịch. Tuy nhiên, để thực hiện mục tiêu quy hoạch cần phải có sự kết hợp đồng bộ giữa các đơn vị, Bộ, ngành có liên quan, tránh việc chậm trễ hoặc thiếu phối kết hợp ảnh hưởng đến tiến độ thực hiện giai đoạn 2022-2025.

Đề nghị Thường trực Thành ủy nghiên cứu ban hành nghị quyết riêng về phát triển Bạch Long Vĩ; tăng tổng mức đầu tư công cho huyện; nâng cấp các tuyến đường trên đảo; khơi thông các dự án du lịch, phát triển du lịch biển đảo; tạo điều kiện phát triển điện gió ngoài khơi; phủ sóng viễn thông và nâng cao chất lượng đường truyền; tiếp tục quan tâm tháo gỡ khó khăn cho huyện về cấp điện, cấp nước, y tế và một số vấn đề khác...

Thông nhất quan điểm cần tiếp tục quan tâm đầu tư, hỗ trợ, tạo điều kiện cho Bạch Long Vĩ phát triển. Thúc đẩy dự án đầu tư xây dựng Cảng cá loại 1, nghiên cứu mô hình xử lý rác thải phù hợp, vì muốn hướng tới một nền kinh tế xanh đặc biệt trong lĩnh vực du lịch thì vấn đề giảm thiểu ô nhiễm môi trường, có mô hình xử lý thu gom rác đúng quy chuẩn là một trong những mục tiêu nhằm phát triển du lịch xanh theo hướng bền vững.

UBND thành phố Hải Phòng và huyện ủy Bạch Long Vĩ cần ưu tiên mục tiêu phát triển du lịch, đầu tư đóng tàu mới để rút ngắn thời gian di chuyển từ đất liền ra đảo theo công suất thiết kế tiên tiến từ 7 giờ xuống 3 giờ như một số loại tàu ở các địa phương tỉnh thành khác ở Việt Nam.

Nỗ lực triển khai xây dựng công trình Cảng và khu neo đậu tàu phía tây bắc (giai đoạn 1) và khu hậu cần, bến neo đậu tàu và đón trả khách tuyến Hải Phòng- Bạch Long Vĩ tại xã Hoa Động, Thủy Nguyên; hỗ trợ ngành điện lắp đặt và đưa hệ thống sản xuất điện bằng năng lượng gió và năng lượng mặt trời, kết hợp với điện máy phát vào khai thác, bảo

đảm cấp điện ổn định cho huyện đảo; hỗ trợ Công ty Cấp nước hoàn thành hệ thống cấp nước sinh hoạt... Đồng thời, đã thành lập Trạm tìm kiếm cứu nạn Bạch Long Vĩ; hình thức vận chuyển cấp cứu các ca bệnh nặng bằng trực thăng được triển khai...

UBND TP Hải Phòng cũng như các ban ngành liên quan cần có sự quan tâm, đầu tư hơn nữa đối với Bạch Long Vĩ để các dự án, công trình có ý nghĩa đặc biệt quan trọng đối với phát triển kinh tế - xã hội của huyện đảo sớm được hoàn thiện, đáp ứng sự mong mỏi của quân và dân hòn đảo “đuôi rồng trắng”.

4. Kết luận

Nghiên cứu phân tích các tiêu chí đánh giá sự phát triển kinh tế xanh đối với hoạt động du lịch tại huyện đảo Bạch Long Vĩ là một nghiên cứu cần thiết, đặc biệt trong giai đoạn hiện nay liên quan đến nâng cao đời sống vật chất và tinh thần cho người dân bám trụ trên đảo Bạch Long Vĩ, ngoài ra về mặt chính trị, việc khẳng định chủ quyền biển đảo là một vấn đề liên quan đến khẳng định chủ quyền của quốc gia. Với việc phân tích 10 tiêu chí trong nội dung bài viết đã phân nào đánh giá được sự phát triển kinh tế xanh đối với hoạt động du lịch tại Bạch Long Vĩ là khả thi và hoàn toàn có thể triển khai được trong thời gian tới. Muốn thực hiện được mục tiêu này, đòi hỏi sự quan tâm hơn nữa của các cấp chính quyền trong việc xây dựng chính sách phát triển, công tác quy hoạch, kêu gọi đầu tư của các tập đoàn lớn. Bên cạnh đó, nghiên cứu cũng đã đưa ra các đề xuất và kiến nghị nhằm phát triển kinh tế du lịch xanh tại huyện đảo Bạch Long Vĩ Hải Phòng trong thời gian tới.

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PHÁT TRIỂN HOẠT ĐỘNG TÍN DỤNG XANH TẠI VIỆT NAM*ThS. Nguyễn Anh Thư**Trường Đại học Thương mại**Email: thu.na@tmu.edu.vn*

Tóm tắt: Để phát triển bền vững nền kinh tế, nhiều quốc gia trên thế giới đã và đang thực hiện chiến lược phát triển nền kinh tế xanh, tăng trưởng xanh, trong đó hoạt động tín dụng xanh đóng vai trò rất quan trọng trong việc triển khai thành công chiến lược này. Tại Việt Nam, tín dụng xanh đang có những chuyển hướng tích cực, phát triển thông qua các dự án như dự án năng lượng tái tạo, điện gió, dự án nông nghiệp xanh, nông nghiệp ứng dụng công nghệ cao hướng tới mục tiêu phát triển bền vững, tuy nhiên, sự phát triển của tín dụng xanh được đánh giá còn khá khiêm tốn. Dựa trên đó, bài viết trình bày các khái niệm, phân tích thực trạng hoạt động tín dụng xanh tại Việt Nam, làm cơ sở đề xuất một số giải pháp thúc đẩy phát triển hoạt động tín dụng xanh tại Việt Nam trong thời gian tới.

Từ khóa: Tín dụng xanh, tăng trưởng xanh, tăng trưởng bền vững

DEVELOPING GREEN CREDIT ACTIVITIES IN VIETNAM

Abstract: To sustainably develop the economy, many countries around the world have been implementing a strategy to develop a green economy and green growth, in which green credit activities play a critical role in the successful implementation of this strategy. In Vietnam, green credit is having positive results, developing through projects such as renewable energy projects, wind power projects, green agriculture projects, and high-tech agriculture towards the goal of sustainable development, however, the development of green credit is considered to be quite modest. Based on that, the article presents the concepts, and analyses the current status of green credit activities in Vietnam, as a basis for proposing some solutions to promote the development of green credit activities in Vietnam in the future.

Keywords: Green credit, green growth, sustainable growth

Đặt vấn đề

Phát triển bền vững là xu hướng phát triển chung của thế giới nhằm hạn chế và loại bỏ các tác động xấu của biến đổi khí hậu đến chất lượng cuộc sống, đặc biệt là đến các thế hệ tương lai. Việt Nam đã đưa ra cam kết, chính sách và các biện pháp giảm phát thải khí nhà kính đạt mức phát thải ròng bằng “0” vào năm 2050. Với cam kết này, trong thời gian tới, dòng vốn đầu tư cho các lĩnh vực xanh chảy vào Việt Nam được kỳ vọng sẽ tiếp tục gia tăng với sự hỗ trợ của các định chế tài chính quốc tế; đồng thời, bản thân các ngân hàng, doanh nghiệp cũng tự tin đẩy mạnh cho vay, đầu tư vào các dự án tăng trưởng xanh. Bài viết cung cấp thực trạng hoạt động tín dụng xanh tại Việt Nam trong thời gian qua và đưa ra các giải pháp cần thiết cho Việt Nam để phát triển hoạt động tín dụng xanh trong thời gian tới.

NỘI DUNG

1. Tổng quan về tín dụng xanh

1.1. Quan điểm về tín dụng xanh

Tín dụng xanh là đối tượng nghiên cứu của nhiều công trình nghiên cứu về lĩnh vực tài chính bền vững, tài chính xanh trong thời gian gần đây. Tuy nhiên, khái niệm tín dụng xanh vẫn chưa được đưa ra một cách chính thức, thống nhất, mà có nhiều cách tiếp cận khác nhau trong các nghiên cứu, báo cáo về tài chính xanh của các nhà nghiên cứu, tổ chức tài chính quốc tế. Điều này cũng đặt ra sự cần thiết có một định nghĩa hoặc sự đồng thuận trong ý hiểu chung về khái niệm “tín dụng xanh”.

Trên thế giới:

- Theo Nguyên tắc tín dụng xanh được ban hành vào năm 2018 (gọi tắt là GLP 2018) bởi Hiệp hội Thị trường Tín dụng (Loan market Association - LMA) và Hiệp hội thị trường Tín dụng châu Á - Thái Bình Dương (Asia Pacific Loan Market Association - APLMA) thì tín dụng xanh được định nghĩa là bất kỳ loại cho vay nào được cung cấp riêng để cấp vốn hoặc tái cấp vốn toàn bộ hoặc một phần các dự án xanh đủ điều kiện mới và/hoặc hiện có. Theo đó, mục đích sử dụng của khoản vay thể hiện trong các báo cáo tài chính hoặc các tài liệu quảng cáo của doanh nghiệp sẽ quyết định tính chất “xanh” của khoản vay. LMA đã đưa ra một danh mục các dự án xanh, các khoản vay được cấp cho các dự án thuộc danh mục này sẽ được coi là khoản vay xanh.

- Theo quan điểm của Ngân hàng phát triển Châu Á (ADB), tín dụng xanh là hệ thống các chính sách được sắp xếp và thực hiện bởi các ngân hàng nhằm cung cấp các khoản vay hoặc các công cụ tài chính thúc đẩy các hoạt động bảo tồn năng lượng, giảm phát thải ra môi trường.

- Tại Trung Quốc, tín dụng xanh được sử dụng rộng rãi theo định nghĩa trong “Nguyên tắc Xích đạo” (2003), tín dụng xanh là chính sách tài chính xanh, đề cập đến một loạt các thỏa thuận về chính sách và thể chế nhằm thu hút đầu tư vốn tư nhân vào các ngành công nghiệp xanh như tiết kiệm năng lượng, năng lượng sạch, năng lượng tái tạo. Tín dụng xanh được hiểu là những khoản tín dụng mà ngân hàng cấp cho các nhu cầu tiêu dùng, dự án đầu tư, sản xuất - kinh doanh mà không gây rủi ro đến môi trường, bảo vệ môi trường, góp phần bảo vệ hệ sinh thái chung.

Tại Việt Nam:

- Theo Phạm Xuân Hoà (2015) định nghĩa tín dụng xanh là bất cứ khoản cấp tín dụng nào mà ngân hàng cấp cho các dự án không gây rủi ro hoặc nhằm bảo vệ môi trường. Hay, tín dụng xanh là những khoản cấp tín dụng dưới dạng tài trợ vốn, cho vay và các hình thức cấp tín dụng khác, mà trong đó có tính đến tác động môi trường và tăng cường bền vững môi trường.

- Theo Lê Thị Tuấn Nghĩa (2019), tín dụng xanh là việc các tổ chức tín dụng cho vay đối với các hoạt động đầu tư, sản xuất xanh, bao gồm các hoạt động tiêu dùng, đầu tư, sản xuất - kinh doanh thân thiện với môi trường. Theo Nguyễn Thanh Phương và Nguyễn Thị Liên Hương (2019), tín dụng xanh có thể hiểu là các khoản tín dụng được ngân hàng

cấp cho các dự án sản xuất - kinh doanh xanh không gây rủi ro cho môi trường nhằm đối phó với những thách thức của môi trường và xã hội.

-Tại Luật Bảo vệ môi trường năm 2020 được Quốc hội ban hành, lần đầu tiên khái niệm tín dụng xanh được quy định (Khoản 1 Điều 149). Theo đó, “ tín dụng xanh là tín dụng được cấp cho dự án đầu tư sau đây: Sử dụng hiệu quả tài nguyên thiên nhiên; ứng phó với biến đổi khí hậu; quản lý chất thải; xử lý ô nhiễm, cải thiện chất lượng môi trường; phục hồi hệ sinh thái tự nhiên; bảo tồn thiên nhiên và đa dạng sinh học; tạo ra lợi ích khác về môi trường”.

Tổng quát lại, tín dụng xanh được hiểu là các dòng vốn tín dụng mà các tổ chức tín dụng (TCTD) cho vay đối với các dự án, các hoạt động sản xuất - kinh doanh, nhu cầu tiêu dùng, đầu tư không làm tổn hại tới môi trường, giảm nguy cơ gây biến đổi khí hậu (như giảm phát thải carbon, tiết kiệm năng lượng...), tăng khả năng thích ứng biến đổi khí hậu, sử dụng tài nguyên thiên nhiên hiệu quả, góp phần bảo vệ hệ sinh thái chung. Theo đó, tín dụng ngân hàng được xem là công cụ phổ biến trong các công cụ nợ cung ứng nguồn tài chính cho các doanh nghiệp và thực hiện các dự án xanh. Các hoạt động kinh doanh thân thiện với môi trường và các ngành công nghiệp tiết kiệm năng lượng được các ngân hàng xanh ưu tiên cấp tín dụng xanh.

1.2.Đặc điểm của tín dụng xanh

Thứ nhất, tín dụng xanh được cấp cho các dự án sản xuất, kinh doanh xanh mà không gây rủi ro về môi trường.

Ngoài các nguyên tắc trong hoạt động cấp tín dụng nói chung, khi ngân hàng cấp tín dụng xanh, bắt buộc ngân hàng phải thẩm định kỹ yếu tố “ xanh” của các dự án và không phải dự án nào có yếu tố “xanh” cũng được cấp tín dụng, các ngân hàng cũng có những tiêu chí nhất định. Đối với doanh nghiệp, các dự án phải chứng minh được tính hiệu quả, minh bạch thông tin, kinh doanh có lợi nhuận, có kinh nghiệm trong lĩnh vực công nghệ “xanh” tối thiểu một năm, đặc biệt phải chứng minh được đầu ra của sản phẩm. Đối với cá nhân, phải chứng minh được năng lực tài chính, có hồ sơ “sạch”, không có nợ xấu tại ngân hàng.

Thứ hai, nguồn vốn chủ yếu được sử dụng để cấp tín dụng xanh là nguồn vốn xanh.

Tín dụng xanh cho vay chủ yếu bằng vốn huy động của các thành phần trong xã hội chứ không phải hoàn toàn là vốn huy động của ngân hàng và nguồn vốn được sử dụng để cấp tín dụng xanh là nguồn vốn xanh. Các ngân hàng có thể tiếp cận nguồn vốn xanh thông qua các hợp đồng ủy thác của ngân hàng trung ương (NHTW) hay Ngân hàng Nhà nước (NHNN), các quỹ hỗ trợ tín dụng xanh hoặc trực tiếp phát hành trái phiếu xanh trên thị trường để huy động nguồn vốn xanh.

Thứ ba, hoạt động cấp tín dụng xanh của ngân hàng liên quan đến nhiều cơ quan chức năng.

Các dự án xanh được cấp tín dụng xanh thường có chi phí đầu tư lớn, thời gian thu hồi vốn dài. Vì vậy, để khuyến khích các nhà đầu tư, Chính phủ hỗ trợ thông qua các chính sách thuế và cam kết đầu ra ổn định cho các doanh nghiệp đầu tư cho các dự án thuộc diện ưu tiên hướng tới bảo vệ môi trường, ngân hàng cam kết cung cấp vốn dài hạn, lãi suất ưu

đãi. Như vậy, tín dụng xanh chỉ có thể đạt hiệu quả cao khi có sự hợp tác, nhất trí của các bên liên quan như các bộ, ban, ngành chủ quản; các tổ chức tín dụng; các tổ chức quốc tế về tài chính xanh; các doanh nghiệp và người tiêu dùng.

1.3. Vai trò của tín dụng xanh

Vai trò của tín dụng xanh đối với nền kinh tế:

Tín dụng xanh giúp việc điều hoà nguồn vốn góp phần ổn định thị trường tiền tệ, phát triển cân đối các ngành trong nền kinh tế quốc dân, chuyển dịch sang cơ cấu kinh tế xanh nhằm phát triển bền vững quốc gia. Tín dụng xanh là đòn bẩy kinh tế thực hiện tái sản xuất mở rộng, ứng dụng công nghệ, kỹ thuật hiện đại, nâng cao sản xuất, kinh doanh và tạo hiệu quả kinh tế, tạo ra nhiều sản phẩm có khả năng cạnh tranh, đáp ứng nhu cầu tiêu dùng hàng hoá, sản phẩm xanh của thị trường trong nước và tăng thị phần xuất khẩu ra thị trường trên thế giới.

Vai trò của tín dụng xanh đối với môi trường:

Tín dụng xanh là một giải pháp quan trọng để thực hiện các mục tiêu chống biến đổi khí hậu và bảo vệ môi trường thông qua việc cấp tín dụng cho các dự án liên quan đến môi trường như xây dựng và khai thác các cơ sở năng lượng tái tạo, năng lượng sạch; tiết kiệm năng lượng, nước, nhiên liệu; giảm phát thải carbon;... tạo sự cân bằng, hài hòa giữa kinh tế, môi trường và xã hội, tránh được rủi ro về môi trường và xã hội.

Vai trò của tín dụng xanh đối với các ngân hàng thương mại:

Tín dụng xanh ngoài việc mang lại doanh thu và lợi nhuận cho các ngân hàng thương mại (NHTM) trong nước còn tạo điều kiện phát triển các dịch vụ ngân hàng khác. Các dịch vụ ngân hàng khác được phát triển trên chính các chủ thể có quan hệ tín dụng xanh với ngân hàng. Ngoài ra, tín dụng xanh giúp các NHTM thực thi các hoạt động kiểm soát hỗ trợ cho các khoản đầu tư trực tiếp của ngân hàng vào doanh nghiệp.

Vai trò của tín dụng xanh đối với doanh nghiệp và người tiêu dùng:

Tín dụng xanh giúp cho các doanh nghiệp có cơ hội tiếp cận nguồn vốn vay ưu đãi trong và ngoài nước; cơ hội nhận được sự hỗ trợ của Nhà nước, của các tổ chức tài chính, tín dụng xanh quốc tế. Nhờ có nguồn vốn tín dụng xanh, các doanh nghiệp sản xuất gắn liền với bảo vệ môi trường có điều kiện huy động, bổ sung nguồn vốn nhằm cải tiến kỹ thuật, áp dụng các công nghệ xanh để tăng tính cạnh tranh, giảm thiểu tác động xấu đến môi trường và đem lại sự phát triển bền vững cho chính doanh nghiệp. Bên cạnh đó, người tiêu dùng có cơ hội sử dụng các sản phẩm sạch, thân thiện với môi trường, hạn chế được việc sử dụng sản phẩm độc hại; sống trong môi trường trong sạch; lợi ích lâu dài cho thế hệ kế cận.

2. Thực trạng triển khai hoạt động tín dụng xanh tại các ngân hàng thương mại

2.1. Nền tảng chính sách điều chỉnh hoạt động tín dụng xanh tại các ngân hàng thương mại hiện nay.

Tại Việt Nam trong những năm vừa qua, Quốc hội, Thủ tướng Chính phủ, các Bộ, ban, ngành có liên quan đã ban hành nhiều Chương trình, Nghị quyết, Nghị định, Quyết định nhằm tăng cường bảo vệ và cải thiện chất lượng môi trường. Triển khai lồng ghép

chủ trương chính sách Pháp luật của Đảng và Nhà nước có thể thấy ngành ngân hàng đã có những bước đi ban đầu trong việc thể chế hóa vào các chính sách của ngành, cụ thể:

- Quyết định số 1604/QĐ-NHNN, ngày 07/8/2018 về việc phê duyệt Đề án phát triển ngân hàng xanh tại Việt Nam quy định nội dung “Tăng cường nhận thức và trách nhiệm xã hội của hệ thống ngân hàng đối với việc bảo vệ môi trường, chống biến đổi khí hậu, từng bước xanh hóa hoạt động ngân hàng, hướng dòng vốn tín dụng vào việc tài trợ dự án thân thiện với môi trường, thúc đẩy các ngành sản xuất, dịch vụ và tiêu dùng xanh, năng lượng sạch và năng lượng tái tạo; góp phần tích cực thúc đẩy tăng trưởng xanh và phát triển bền vững” Quyết định này cũng đề ra mục tiêu chiến lược về phát triển tín dụng xanh đến năm 2025, cụ thể: 100% ngân hàng xây dựng được quy định nội bộ về quản lý rủi ro môi trường và xã hội trong hoạt động cấp tín dụng; 100% các ngân hàng thực hiện đánh giá rủi ro môi trường xã hội trong hoạt động cấp tín dụng, áp dụng các tiêu chuẩn về môi trường cho các dự án được ngân hàng cấp vốn vay và kết hợp đánh giá rủi ro môi trường như một phần trong đánh giá rủi ro tín dụng của ngân hàng; ít nhất 10-12 ngân hàng có đơn vị/bộ phận chuyên trách về quản lý rủi ro môi trường và xã hội; 60% ngân hàng tiếp cận được nguồn vốn xanh và triển khai cho vay các dự án tín dụng xanh.

- Theo Quyết định số 34/QĐ-NHNN ngày 7/1/2019 của Thống đốc Ngân hàng Nhà nước về việc ban hành Chương trình hành động của ngành Ngân hàng thực hiện Chiến lược phát triển ngành Ngân hàng Việt Nam đến năm 2025, định hướng đến năm 2030 thì việc “triển khai hoạt động ngân hàng xanh thông qua việc gia tăng nhận thức và trách nhiệm đối với môi trường xã hội của ngành Ngân hàng trong kinh doanh; tăng cường năng lực các TCTD để phát triển sản phẩm huy động và cho vay vốn tín dụng vào năng lượng tái tạo, năng lượng sạch, các ngành sản xuất và tiêu dùng ít các bon để góp phần bảo vệ môi trường, nâng cao hiệu quả sử dụng tài nguyên, năng lượng”. Đây là một trong 11 nhiệm vụ trọng tâm và được thực hiện thường xuyên của ngành Ngân hàng Việt Nam và được các TCTD, Vụ Tín dụng các ngành kinh tế, Cục Công nghệ thông tin, Cơ quan thanh tra giám sát ngân hàng, Vụ Truyền thông, Viện Chiến lược ngân hàng và các đơn vị liên quan cùng phối hợp triển khai thực hiện.

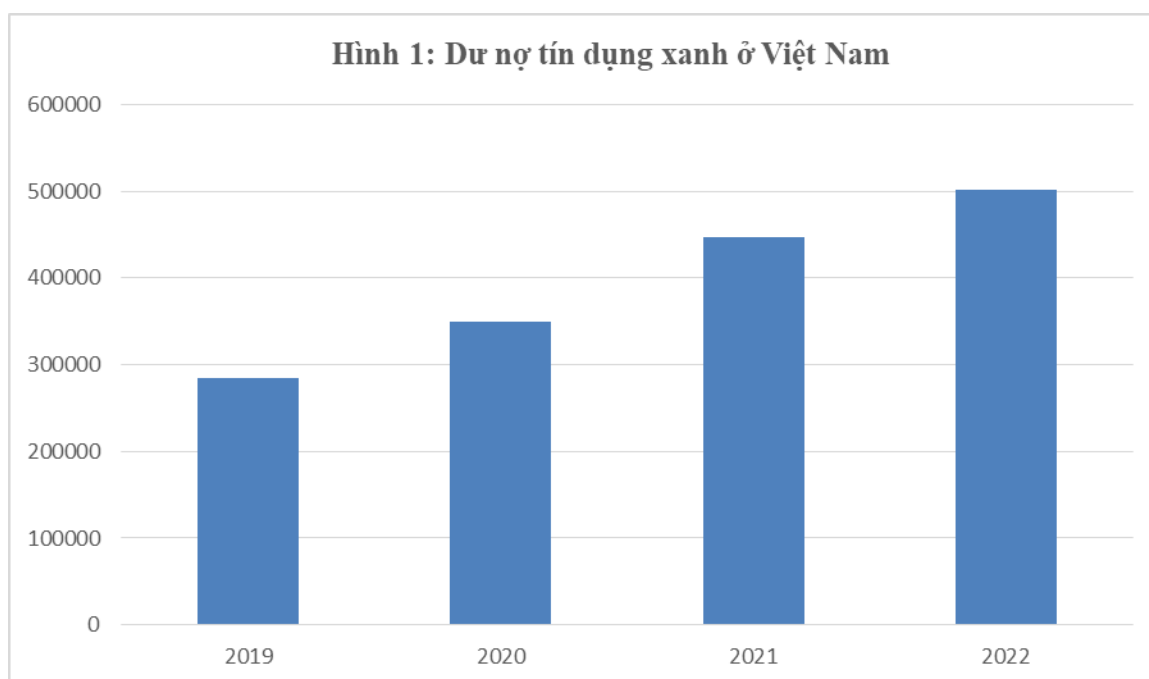
Ngoài ra, NHNN Việt Nam cũng ban hành các văn bản liên quan đến hoạt động tín dụng xanh của hệ thống ngân hàng như: Quyết định số 1552/QĐ-NHNN ngày 6/8/2015 của thống đốc NHNN ban hành kế hoạch hành động của ngành ngân hàng thực hiện Chiến lược quốc gia về tăng trưởng xanh đến năm 2020; Chỉ thị số 03/CT-NHNN ngày 24/3/2015 về việc thúc đẩy tín dụng xanh và quản lý rủi ro môi trường và xã hội trong hoạt động cấp tín dụng; Thông tư số 27/2015/TT-NHNN ngày 15/12/2015 hướng dẫn thực hiện cho vay trồng rừng sản xuất, phát triển chăn nuôi theo quy định tại Nghị định số 75/2015/NĐ-CP ngày 9/9/2015 của Chính phủ về cơ chế, chính sách bảo vệ và phát triển rừng, gắn với chính sách giảm nghèo nhanh, bền vững và hỗ trợ đồng bào dân tộc thiểu số giai đoạn 2015-2020;...

2.2. Thực trạng tín dụng xanh ở các ngân hàng thương mại Việt Nam

Thứ nhất, về dư nợ tín dụng xanh

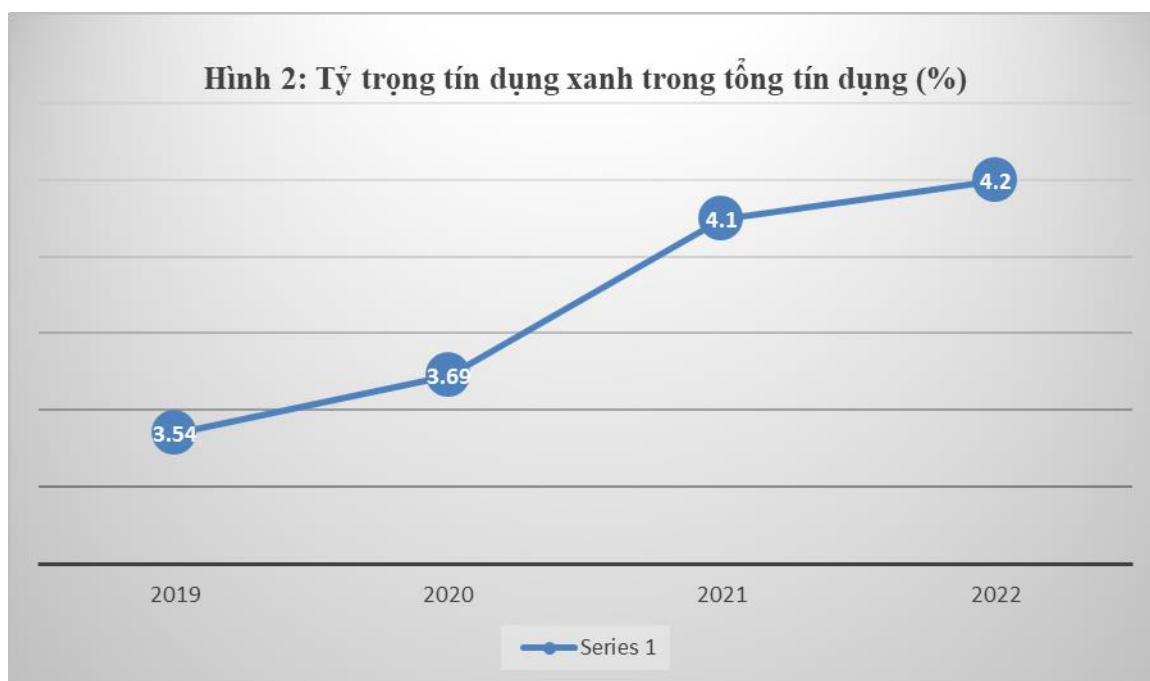
Thị trường tín dụng xanh tăng trưởng mạnh mẽ và trở thành kênh dẫn vốn chính cho các dự án đầu tư xanh trong giai đoạn vừa qua, tăng từ 71.020 tỷ đồng vào cuối năm

2015 lên mức hơn 447.624 tỷ đồng vào cuối năm 2021. Tính đến 31/12/2022, dư nợ cấp tín dụng đối với các dự án xanh (12 ngành xanh do NHNN xây dựng và ban hành từ năm 2017) đạt gần 500.000 tỷ đồng (chiếm khoảng 4,2% tổng dư nợ nền kinh tế), tập trung vào lĩnh vực năng lượng tái tạo, năng lượng sạch (chiếm tỷ trọng cao nhất 47%), tiếp đến là nông nghiệp xanh (chiếm trên 30%). Đáng chú ý, giai đoạn 2017 - 2022, dư nợ cấp tín dụng của hệ thống đối với các lĩnh vực xanh có mức tăng trưởng dư nợ bình quân đạt hơn 25%/năm, cao hơn tốc độ tăng bình quân tín dụng chung nền kinh tế. Đặc biệt, trong năm 2021 và năm 2022, tốc độ tăng trưởng dư nợ tín dụng xanh cao hơn so với năm 2019 và năm 2020, bất chấp ảnh hưởng nặng nề của đại dịch Covid-19. Điều đó cho thấy các NHTM Việt Nam đang dần chú trọng phát triển hoạt động cấp tín dụng hướng tới tăng trưởng kinh tế xanh. Đây là điều kiện cho việc phát triển bền vững, xanh hoá dòng vốn đầu tư thúc đẩy tăng trưởng xanh tại Việt Nam.



Về lãi suất, để hỗ trợ các dự án xanh của doanh nghiệp và người dân, tùy theo điều kiện huy động vốn và năng lực tài chính của từng ngân hàng và tính chất của từng lĩnh vực, các TCTD đã áp dụng các mức lãi suất khác nhau, song mức bình quân thấp hơn so với mức lãi suất cho vay thông thường trên thị trường. Cụ thể, lãi suất cho vay đã và đang được các TCTD áp dụng đối với các lĩnh vực xanh ngắn hạn từ 5-8%/năm, trung và dài hạn từ 9-12%/năm.

Mặc dù tăng trưởng nhanh trong những năm qua nhưng quy mô tín dụng xanh vẫn còn tương đối nhỏ so với tổng tín dụng của hệ thống. Tỷ trọng dư nợ tín dụng xanh đã tăng từ mức 1,55%/tổng dư nợ tín dụng hệ thống vào cuối năm 2015 lên mức 4,2%/tổng dư nợ tín dụng hệ thống vào cuối năm 2022. Dư nợ được đánh giá rủi ro môi trường và xã hội đạt hơn 2.283 nghìn tỷ đồng, chiếm gần 20% dư nợ cho vay của nền kinh tế, với hơn 1,1 triệu món vay.

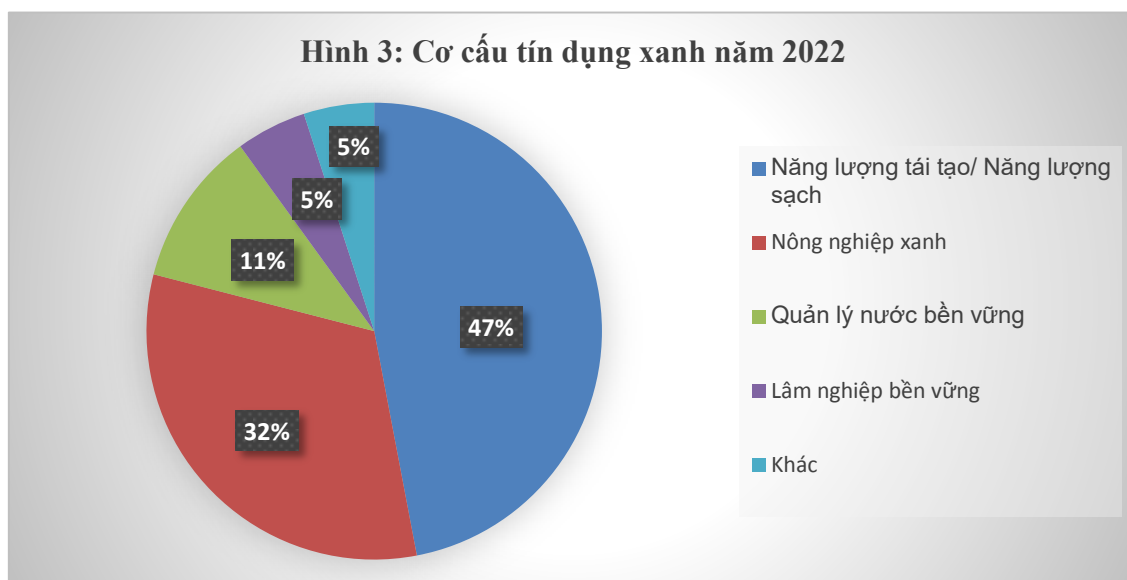


(Nguồn: Vụ tín dụng các ngành kinh tế, Ngân hàng Nhà nước Việt Nam)

Thứ hai, về cơ cấu tín dụng xanh

Nguồn vốn tín dụng xanh đã được phân bổ cho các lĩnh vực như nông nghiệp xanh, năng lượng tái tạo, năng lượng sạch, quản lý nước bền vững, nông nghiệp bền vững,... Đây đều là những lĩnh vực quan trọng cần đầu tư vốn phát triển để hướng đến nền kinh tế xanh, bền vững. Trong nhiều năm gần đây, cơ cấu tín dụng xanh tập trung vào hai lĩnh vực chủ yếu là năng lượng tái tạo, năng lượng sạch và nông nghiệp xanh.

Trong đó, tỷ trọng dư nợ trong lĩnh vực nông nghiệp xanh trong tổng dư nợ tín dụng xanh năm 2022 và năm 2021 là 32%, giảm 8 phần trăm so với năm 2020 (40%); ngược lại, tỷ trọng dư nợ trong lĩnh vực năng lượng tái tạo, năng lượng sạch từ hơn 30% (2020) tăng lên 46% (2021) và tăng lên trên 47% năm 2022, quản lý nước bền vững tại khu vực đô thị và nông thôn chiếm 11% và lâm nghiệp bền vững chiếm 5%. Có thể thấy tín dụng xanh cho lĩnh vực năng lượng tái tạo, năng lượng sạch đã có sự đột phá với tổng dư nợ tăng hơn 100% (từ gần 100 nghìn tỷ lên hơn 200 nghìn tỷ) trong năm 2021.



Thứ ba, về các sản phẩm tín dụng xanh

Các sản phẩm tín dụng xanh trên thị trường ngày càng phong phú, được phát triển bởi nhiều ngân hàng và hướng tới đa dạng hoá lĩnh vực ngành nghề đầu tư hơn.

Về năng lượng tái tạo:

Bảng 1: Một số sản phẩm cho vay trong lĩnh vực năng lượng tái tạo

Ngân hàng	Sản phẩm cho vay
BIDV	Cấp tín dụng cho nhiều dự án lớn về điện gió: Dự án Hướng Linh 1 và Hướng Linh 2 (Quảng Trị) với tổng công suất 60 MW và Dự án Phương Mai 3 (Bình Định) có công suất 20,7 MW.
Vietinbank	Tài trợ 400 dự án năng lượng tái tạo, nhiều dự án có quy mô và công suất lớn hơn 100 MW gồm các nguồn năng lượng tái tạo đa dạng như: Dự án điện mặt trời Trung Nam (Trà Vinh), Dự án điện gió Hướng Tân (Hòa Bình), Dự án thủy điện Thuận Hòa (Hà Giang)...
HDBank	Tham gia chương trình phát triển điện mặt trời áp mái và năng lượng tái tạo tại các khu chế xuất-khu công nghiệp Thành phố Hồ Chí Minh giai đoạn 2020-2024. Đến năm 2019, HDBank đã tài trợ 9.803 tỷ đồng cho các doanh nghiệp điện mặt trời với quy mô dự án đạt 725 MWp. Đối với chủ đầu tư, HDBank tài trợ vốn với tỷ lệ tài trợ đến 70% tổng mức đầu tư.

(Nguồn: Ngân hàng Nhà nước Việt Nam)

Về nông nghiệp xanh:

Bảng 2: Một số sản phẩm cho vay trong lĩnh vực nông nghiệp xanh

Ngân hàng	Sản phẩm cho vay
Agribank	Triển khai chương trình tín dụng ưu đãi quy mô tối thiểu 50.000 tỷ đồng phục vụ sản xuất “Nông nghiệp sạch
HDBank	Theo định hướng 5 lĩnh vực ưu tiên của NHNN Việt Nam, năm 2019, HDBank đã triển khai gọi cho vay nông nghiệp công nghệ cao với hạn mức 11.012 tỷ đồng, tăng 38% so với năm 2018 và cao hơn 3 lần so với mức tăng trưởng tín dụng chung 13% của HDBank.

(Nguồn: Ngân hàng Nhà nước Việt Nam)

Ngoài ra, các NHTM còn mở rộng phạm vi cấp tín dụng xanh cho nhiều lĩnh vực khác như cấp nước sạch, phát triển lâm nghiệp, thủy sản, bảo vệ môi trường,...

Bảng 3: Một số sản phẩm cho vay trong các lĩnh vực khác

Ngân hàng	Sản phẩm cho vay
Agribank, BIDV, ACB, Sacombank, HSBC	Cho vay dự án phát triển ngành nghề như: phát triển ngành lâm nghiệp, bảo vệ và phát triển vùng đất ngập nước ven biển miền Nam Việt Nam,...
SHB	Cho vay các doanh nghiệp ứng dụng công nghệ cao, công nghiệp hỗ trợ xử lý nước thải thông minh, doanh nghiệp ngành xây dựng, các doanh nghiệp trong lĩnh vực quản lý và xử lý rác thải, nước thải như: Dự án Rivara Park Sài Gòn, Tổ hợp dự án du lịch và giải trí CocoBay,...

(Nguồn: Ngân hàng Nhà nước Việt Nam)

2.3. Thực trạng triển khai hoạt động tín dụng xanh của một số ngân hàng tại Việt Nam.

2.3.1. Thực trạng triển khai hoạt động tín dụng xanh của ngân hàng Nông nghiệp và Phát triển Nông thôn Việt Nam

Ngân hàng Nông nghiệp và Phát triển Nông thôn Việt Nam (Agribank) là NHTM dẫn đầu cho vay nông nghiệp, nông thôn (nguồn vốn chiếm 51% thị phần tín dụng nông nghiệp, nông thôn tại Việt Nam), Agribank nhận thức sâu sắc về những nguy cơ khi nông nghiệp Việt Nam đang đối mặt với những khó khăn, thách thức trong quá trình hội nhập kinh tế quốc tế, biến đổi khí hậu, ô nhiễm môi trường và vệ sinh an toàn thực phẩm... Chính vì vậy, Agribank quyết tâm đi đầu thực hiện chỉ đạo của NHNN Việt Nam về thúc đẩy tăng trưởng tín dụng xanh, quản lý rủi ro môi trường và xã hội trong hoạt động cấp tín dụng, xây dựng nền nông nghiệp an toàn, phát triển bền vững.

Từ tháng 11 năm 2016, Agribank đã triển khai chương trình tín dụng ưu đãi quy mô tối thiểu 50.000 tỷ đồng phục vụ sản xuất “Nông nghiệp sạch”. Đối tượng khách hàng vay vốn của Chương trình là doanh nghiệp, hợp tác xã, liên hiệp hợp tác xã, chủ trang trại... tham gia các khâu trong chuỗi sản xuất sản phẩm nông nghiệp an toàn, quy mô lớn với lãi suất cho vay giảm từ 0,5%/năm đến 1,5%/năm so với lãi suất ưu đãi cho vay đối với

lĩnh vực nông nghiệp nông thôn theo quy định hiện hành của NHNN Việt Nam và Agribank. Đến hết năm 2022, doanh số cho vay từ khi bắt đầu triển khai chương trình của Agribank đã đạt trên 30.000 tỷ đồng, dư nợ đạt trên 5.000 tỷ đồng với gần 4.000 khách hàng. Một số dự án mà Agribank đã đầu tư với quy mô vốn lớn như dự án nhà máy chế biến rau quả thực phẩm, nông sản xuất khẩu tại An Giang, Vĩnh Long (với doanh số cho vay hơn 4.100 tỷ đồng); các dự án nuôi tôm giống, tôm thịt, nuôi bò sữa tại Ninh Thuận (có doanh số cho vay hơn 3.700 tỷ đồng); dự án sản xuất thức ăn chăn nuôi sạch tại Hà Nam (với doanh số cho vay gần 5.000 tỷ đồng)... đã mang lại hiệu quả thiết thực.

Các sản phẩm tín dụng xanh đặc thù đã được Agribank triển khai: cho vay dự án đầu tư xây dựng thủy điện, cho vay ủy thác đầu tư phát triển cao su, tài chính nông thôn RDF I, II, III, cho vay các dự án nông nghiệp nông thôn, dịch vụ du lịch, dự án nâng cao chất lượng an toàn sản phẩm nông nghiệp và phát triển chương trình khí sinh học (QSEAP), cung cấp nước, hoạt động quản lý và xử lý rác thải, nước thải. Ngoài ra, Agribank đã tham gia nhiều dự án có liên quan đến vấn đề bảo vệ môi trường do Ngân hàng Thế giới (WB) và các tổ chức tài chính tài trợ như: Dự án nguồn lợi ven biển vì sự phát triển bền vững; Dự án hỗ trợ nông nghiệp Cacbon thấp; Dự án đưa vốn tín dụng vào công cuộc chống hạn, mặn vùng Đồng bằng sông Cửu Long và miền Trung Tây Nguyên... Bên cạnh đó, Agribank là ngân hàng phục vụ Dự án hiện đại hóa ngành Lâm nghiệp và tăng cường tính chống chịu ven biển (FMCR).

2.3.2. Thực trạng triển khai tín dụng xanh tại Ngân hàng Chính sách xã hội

Ngân hàng Chính sách Xã hội (NHCSXH) được Chính phủ thành lập vào năm 2002 nhằm thực hiện tín dụng ưu đãi đối với hộ nghèo và các đối tượng chính sách khác. NHCSXH xác định mục tiêu tăng trưởng xanh là một trong những nội dung quan trọng trong định hướng phát triển hoạt động của NHCSXH. Trong thời gian qua, NHCSXH luôn chú trọng cho vay các dự án, phương án sản xuất, kinh doanh nông nghiệp trường phát triển an toàn, hiệu quả, bền vững, bảo vệ môi sinh, môi trường. Trong quy trình nghiệp vụ tín dụng, Sổ tay tín dụng của NHCSXH luôn gắn việc thẩm định dự án, phương án vay vốn với vấn đề đảm bảo môi sinh, môi trường.

Hiện nay, NHCSXH đang thực hiện cho vay với hơn 20 chương trình tín dụng chính sách, trong đó dư nợ cho vay nông nghiệp, lâm nghiệp và thủy sản chiếm gần 70% trong tổng dư nợ tín dụng của NHCSXH. NHCSXH đã tham gia thực hiện nhiều chương trình, dự án liên quan đến vấn đề bảo vệ môi trường do Ngân hàng Thế giới (WB) và các tổ chức quốc tế tài trợ như: Chương trình phát triển ngành Lâm nghiệp; Dự án khôi phục rừng và quản lý rừng bền vững (KfW6); Dự án cho vay Rừng ngập mặn miền Nam Việt Nam. Đặc biệt là Dự án phát triển ngành Lâm nghiệp nhằm giúp cho các hộ gia đình ở các tỉnh miền Trung Việt Nam vay vốn trồng rừng nhằm cải thiện sinh kế, góp phần bảo vệ rừng, thiên nhiên với hai trọng tâm chính là: phát triển trồng rừng sản xuất ở một số tỉnh miền Trung Việt Nam và bảo tồn thiên nhiên. Dự án được triển khai tại 6 tỉnh: Thừa Thiên - Huế, Quảng Nam, Quảng Ngãi, Bình Định, Thanh Hóa, Nghệ An. Sau 12 năm thực hiện, tổng dư nợ đạt gần 500 tỷ đồng với hơn 50 nghìn lượt khách hàng vay vốn. Nguồn vốn đến nay đã giúp phủ kín trên 76 nghìn hecta rừng trồng sản xuất.

Bên cạnh đó, Chương trình tín dụng nước sạch và vệ sinh môi trường nông thôn

của NHCSXH là một trong những kênh tín dụng “xanh”, mang lại hiệu quả thiết thực cho cộng đồng nhằm nâng cao chất lượng cuộc sống của người dân. Chương trình giúp các hộ gia đình ở khu vực nông thôn để xây dựng mới hoặc cải tạo, nâng cấp các công trình nước sạch và vệ sinh, bảo đảm theo tiêu chuẩn quốc gia nhằm nâng cao sức khỏe, cải thiện điều kiện sinh hoạt, thúc đẩy phát triển kinh tế - xã hội ở khu vực nông thôn. Sau 13 năm thực hiện, NHCSXH đã triển khai tới 63/63 tỉnh, thành phố với tổng dư nợ trên 26 nghìn tỷ đồng với hơn 2,6 triệu khách hàng còn dư nợ. Tính từ khi bắt đầu triển khai thực hiện Chương trình, đến nay đã có 9.928 nghìn công trình nước sạch, vệ sinh được xây dựng và đưa vào sử dụng.

2.3.3. Thực trạng triển khai tín dụng xanh tại Ngân hàng thương mại cổ phần Công thương Việt Nam

Với vai trò trụ cột, tiên phong trong triển khai các chủ trương, chính sách của Chính phủ và NHNN Việt Nam, Ngân hàng TMCP Công thương Việt Nam (VietinBank) đã thực thi đồng bộ và có hiệu quả các chính sách để hỗ trợ, tháo gỡ những khó khăn về vốn cho người nông dân và doanh nghiệp hoạt động trong lĩnh vực nông nghiệp, đặc biệt là lĩnh vực kinh doanh xanh.

VietinBank đã chủ động xây dựng sản phẩm cấp tín dụng, bảo hiểm dành cho các dự án điện mặt trời mái nhà; các hướng dẫn về việc cấp tín dụng đầu tư dự án solar farm, điện gió. Các sản phẩm tín dụng được VietinBank xây dựng chuyên biệt dành cho từng ngành nghề chuyên biệt như: cho vay tín chấp trên cơ sở quản lý dòng tiền từ các hợp đồng xuất khẩu; bao thanh toán xuất khẩu, chuỗi nông nghiệp nhằm hỗ trợ tài chính cho các cá nhân, tổ chức là một hoặc nhiều mắt xích trong chuỗi liên kết giá trị nông nghiệp với thủ tục nhanh gọn, tài sản bảo đảm là chính hàng hóa luân chuyển hay các khoản phải thu của cá nhân, doanh nghiệp. Đặc biệt là chính sách cho vay lưu vụ áp dụng đối với các cá nhân/doanh nghiệp để nuôi trồng, chăm sóc các cây trồng, vật nuôi có tính chất mùa vụ theo chu kỳ sản xuất liên kế trong năm hoặc các cây lưu gốc, cây công nghiệp có thu hoạch hàng năm.

Bên cạnh đó, VietinBank đã có nhiều chính sách ưu đãi cho các dự án năng lượng tái tạo như dành 10.000 tỷ đồng để đồng hành cùng doanh nghiệp trong các dự án điện mặt trời áp mái. Ngân hàng đã chú trọng phục vụ đồng bộ chuỗi giá trị ngành năng lượng, từ năng lượng sơ cấp, sản xuất, truyền tải, phân phối và dịch vụ phục vụ ngành năng lượng; chú trọng cung cấp giải pháp tài chính toàn diện cho các khách hàng trong lĩnh vực năng lượng... Tính tới hết năm 2020, VietinBank có dư nợ tín dụng xanh trên 22.700 tỷ đồng cho gần 278 dự án, trong đó, tỷ trọng tập trung chủ yếu là dư nợ thuộc ngành năng lượng sạch, năng lượng tái tạo (chiếm 71% dư nợ tín dụng xanh).

2.4.Đánh giá thực trạng tín dụng xanh tại các ngân hàng thương mại Việt Nam

2.4.1.Kết quả đạt được

Thứ nhất, Chính phủ, Thủ tướng và NHNN đã kịp thời ban hành các kế hoạch, chính sách, văn bản pháp luật, văn bản hướng dẫn thực hiện cấp tín dụng xanh. Đây là những khuôn khổ pháp lý ban đầu định hướng hoạt động cấp tín dụng xanh cho hệ thống NHTM theo hướng phát triển xanh, phát triển bền vững.

Thứ hai, dư nợ tín dụng xanh của Việt Nam có xu hướng tăng, các sản phẩm tín dụng xanh ngày càng phong phú và nguồn vốn tín dụng xanh đã được phân bổ tương đối đa dạng cho các lĩnh vực tín dụng xanh ở Việt Nam. Nhờ định hướng và chỉ đạo từ phía NHNN và sự nỗ lực từ các TCTD, tín dụng xanh đang có những chuyển biến tích cực. Tín dụng xanh đã nhận được sự quan tâm của nhiều NHTM, nhà đầu tư và khách hàng. Với xu hướng mở rộng phát triển tín dụng xanh, ngân hàng xanh theo hướng đa dạng về đối tượng, các NHTM đang ngày càng tăng cường các chính sách ưu đãi tín dụng đối với các dự án có yếu tố bảo vệ môi trường, phát triển bền vững.

Thứ ba, ngày càng có nhiều chủ thể tham gia quy trình cấp tín dụng xanh. Các TCTD ngày càng chú trọng tới công tác quản lý rủi ro môi trường và xã hội trong quá trình cho vay, số lượng các TCTD tham gia cấp tín dụng xanh ngày càng gia tăng. Từ sau khi thực hiện Chỉ thị số 03/CT-NHNN, các kênh cho vay hỗ trợ lãi suất đối với hoạt động, dự án bảo vệ môi trường, tiết kiệm năng lượng, năng lượng tái tạo, nông nghiệp xanh được chú trọng hơn bởi các TCTD. Năm 2021 đã có 22 TCTD xây dựng chiến lược quản lý rủi ro môi trường xã hội, trong đó có 13 TCTD tích hợp nội dung quản lý rủi ro môi trường xã hội vào quy trình hoạt động tín dụng xanh, 10 TCTD xây dựng sản phẩm tín dụng ngân hàng cho tín dụng xanh và 17 TCTD sử dụng “ Sổ tay đánh giá rủi ro môi trường và xã hội” cho 10 ngành kinh tế.

2.4.2. Một số hạn chế

Thứ nhất, vẫn còn những bất cập trong khuôn khổ pháp luật điều chỉnh hoạt động cấp tín dụng xanh, cụ thể:

- Tín dụng xanh lần đầu tiên được quy định trong Khoản 1 Điều 149 Luật Bảo vệ môi trường năm 2020, nhưng chưa được quy định trong Luật Các tổ chức tín dụng và các văn bản hướng dẫn thi hành. Luật Các tổ chức tín dụng năm 2010 (sửa đổi năm 2017) quy định, đối với nghiệp vụ cho vay của tổ chức tín dụng đối với khách hàng hiện hành chưa có quy định về hoạt động cho vay đối với dự án đầu tư, kinh doanh đáp ứng yêu cầu của phát triển kinh tế xanh, mà chỉ quy định một nguyên tắc cho vay chung. Bên cạnh đó, các công cụ chính sách tiền tệ, chính sách quản trị NHTM theo chuẩn mực về môi trường, quy định về tỷ lệ dư nợ cho vay xanh, tỷ lệ rủi ro quy đổi đối với dư nợ cho vay xanh, quy định về phòng ngừa rủi ro trong các dự án cấp tín dụng xanh ...vẫn chưa được cụ thể hoá. Bên cạnh đó, Luật Bảo vệ môi trường, Bộ luật Hình sự (phần quy định về tội phạm môi trường) có quy định các chế tài về xử lý ô nhiễm áp dụng với các tổ chức, cá nhân trực tiếp gây ô nhiễm đến môi trường, chưa có quy định chế tài đối với đơn vị tài trợ hay cho vay các dự án gây ô nhiễm. Do không bị quy kết về mặt trách nhiệm, các cán bộ thuộc các tổ chức tín dụng chưa thực sự quan tâm đánh giá đúng mức tác động môi trường trong quá trình thẩm định cho vay.

- Hệ thống pháp luật hiện nay vẫn còn thiếu cơ sở pháp lý phục vụ cho hoạt động tín dụng xanh; thiếu hướng dẫn chuyên ngành của các cơ quan chuyên môn về danh mục các ngành, lĩnh vực xanh với tiêu chí cụ thể như khái niệm, quy định, tiêu chuẩn/điều kiện về danh mục các ngành/lĩnh vực xanh... Thực trạng này dẫn đến việc thiếu cơ sở để các cơ quan quản lý nhà nước xây dựng cơ chế, ưu đãi, khuyến khích, giải quyết khó khăn khi đầu tư vào hoạt động xanh và cấp tín dụng xanh. Đặc biệt, việc thiếu cơ chế, chính sách trong

tiếp nhận nguồn vốn hỗ trợ từ các tổ chức quốc tế cũng là một trong những nguyên nhân dẫn đến việc một số dự án về tăng trưởng xanh của ngành ngân hàng tạm dừng triển khai hoạt động.

Thứ hai, mặc dù dư nợ tín dụng xanh tại Việt Nam hiện nay có xu hướng ngày càng tăng nhanh theo từng năm, nhưng nhìn chung, quy mô dư nợ vẫn còn tương đối nhỏ so với tổng dư nợ của NHTM còn chiếm tỷ trọng thấp. Cơ cấu tín dụng xanh chưa cân đối, dư nợ tín dụng xanh tập trung chủ yếu trong lĩnh vực nông nghiệp xanh và năng lượng tái tạo.

Thứ ba, hiệu quả triển khai tín dụng xanh chưa cao. Trong thời gian qua, dù đã có những tín hiệu tích cực trong tăng trưởng tín dụng xanh, ngân hàng xanh, song các bên liên quan đều nhận định hiệu quả triển khai tín dụng xanh chưa nhanh như kỳ vọng, chưa khai thác hết tiềm năng. Sản phẩm tín dụng xanh các ngân hàng triển khai vẫn còn hạn chế, chưa đa dạng và phong phú. Việc áp dụng và triển khai những chính sách và quy trình quản lý các rủi ro về môi trường-xã hội chưa thực sự được áp dụng chính thức và rộng rãi tại nhiều NHTM cổ phần. Bên cạnh đó, nhiều doanh nghiệp chưa nhận thức rõ ràng về nguồn vốn này và gặp nhiều khó khăn trong việc xin cấp vốn tín dụng xanh, thời gian xin cấp vốn dài, thủ tục vay vốn phức tạp và thiếu tài sản đảm bảo do nhiều doanh nghiệp tiếp cận tín dụng xanh là doanh nghiệp nhỏ và vừa.

3. Một số khuyến nghị cho Việt Nam nhằm thúc đẩy sự phát triển tín dụng xanh

3.1. Định hướng phát triển tín dụng xanh ở Việt Nam

Để phát triển bền vững nền kinh tế, Việt Nam đã xây dựng chiến lược phát triển nền kinh tế xanh, điều này được thể hiện rõ trong Quyết định số 1658/QĐ-TTg ngày 1/10/2021 của Thủ tướng Chính phủ phê duyệt Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021-2030, tầm nhìn 2050. Theo đó, hoạt động tín dụng xanh, ngân hàng xanh đóng vai trò rất quan trọng trong việc triển khai thành công chiến lược này. Trên cơ sở định hướng chỉ đạo của Chính phủ, Thủ tướng Chính phủ, thời gian qua, hệ thống văn bản chính sách, pháp luật về tín dụng xanh, ngân hàng xanh từng bước được hoàn thiện. Ngày 4/7/2022, Thống đốc NHNN đã ban hành Quyết định số 1124/QĐ-NHNN ban hành Kế hoạch hành động của NHNN triển khai thực hiện Nghị quyết số 54/NQ-CP ngày 12/4/2022 của Chính phủ; trong đó, có quy định về tín dụng xanh, ngân hàng xanh nhằm thúc đẩy vốn tín dụng ngân hàng vào các ngành sản xuất và tiêu dùng ít carbon...

Thứ nhất, khuyến khích tín dụng xanh. Chính sách khuyến khích tín dụng xanh lần đầu tiên được đề cập tại Nghị quyết số 24-NQ/TW ngày 03/06/2013 của Hội nghị Trung ương 7 khóa XI về chống biến đổi khí hậu, quản lý tài nguyên, bảo vệ môi trường và định hướng tăng trưởng xanh. Để thực hiện Nghị quyết này, NHNN đã ban hành Chỉ thị số 03/CT-NHNN ngày 23/4/2015 về thúc đẩy tăng trưởng xanh và quản lý rủi ro môi trường trong hoạt động cấp tín dụng, trong đó yêu cầu các TCTD tập trung ưu tiên cấp tín dụng xanh cho một số ngành kinh tế như: (i) Bảo tồn, phát triển và sử dụng hiệu quả tài nguyên thiên nhiên; (ii) Sử dụng các thành tựu khoa học và công nghệ tiên tiến; (iii) Sử dụng năng lượng tiết kiệm và hiệu quả; (iv) Phát triển năng lượng sạch, năng lượng tái tạo; (v) Sử dụng công nghệ thiết bị thân thiện với môi trường và sản xuất những sản phẩm thân thiện với môi trường.

Thứ hai, yêu cầu các ngân hàng xây dựng khung, tiêu chuẩn và thực hiện quản lý rủi ro môi trường và xã hội trong thực hiện nghiệp vụ cho vay. Hướng dẫn này nhằm phục vụ quá trình quản lý rủi ro môi trường và xã hội của các tổ chức tín dụng hoạt động tại Việt Nam, giúp cán bộ tín dụng và cán bộ chuyên ngành thực hiện thẩm định dự án/phương án sản xuất-kinh doanh liên quan một cách hiệu quả, đảm bảo mục tiêu phát triển xanh và bền vững.

Thứ ba, có chính sách ưu đãi/hỗ trợ đối với các ngân hàng cho vay các lĩnh vực nhạy cảm với môi trường, khí hậu, như được cung cấp các khoản vay ưu đãi hoặc áp dụng lãi suất thấp, hoặc cấp bù lãi suất chênh lệch...

Thứ tư, tổ chức đào tạo, tập huấn, hội thảo trao đổi kinh nghiệm, kiến thức về phát triển ngân hàng xanh nhằm tăng cường năng lực cho các NHTM và các tổ chức tài chính trong hoạt động tài chính - tín dụng xanh. Trong thời gian qua, NHNN đã phối hợp cùng nhiều đơn vị tổ chức đào tạo cho các cán bộ nòng cốt về quản lý rủi ro môi trường - xã hội và thẩm định tín dụng tại các TCTD.

3.2. Một số giải pháp nhằm mở rộng và phát triển tín dụng xanh

Thứ nhất, mở rộng quy mô và tăng tỷ trọng tín dụng xanh trong danh mục cơ cấu đầu tư tín dụng

Xây dựng và triển khai thực hiện các giải pháp thúc đẩy tăng trưởng tín dụng xanh nhằm khuyến khích hoạt động kinh doanh thân thiện với môi trường và xã hội, nghiên cứu và phát triển sản phẩm tín dụng xanh, triển khai các chương trình tín dụng, có các chính sách khuyến khích đối với các dự án, phương án sản xuất kinh doanh có mục tiêu tăng trưởng xanh.

Cải thiện chất lượng dịch vụ, tạo điều kiện thuận lợi cho việc tăng trưởng tín dụng xanh, tìm và xin hỗ trợ nguồn vốn để cấp tín dụng cho các dự án, phương án sản xuất kinh doanh thực hiện tăng trưởng xanh. Bên cạnh đó, cần tập trung ưu tiên cấp tín dụng xanh cho các ngành kinh tế thực hiện bảo tồn, phát triển và sử dụng hiệu quả tài nguyên thiên nhiên; sử dụng các thành tựu khoa học và công nghệ tiên tiến; sử dụng năng lượng tiết kiệm và hiệu quả; phát triển năng lượng sạch, năng lượng tái tạo, sử dụng công nghệ, thiết bị thân thiện với môi trường, sản xuất những sản phẩm thân thiện với môi trường.

Ngoài ra, cần tiếp tục xây dựng và hoàn thiện khuôn khổ pháp lý dựa trên pháp lý của NHNN trong đó đưa ra các tiêu chuẩn về tín dụng xanh, danh mục các ngành/lĩnh vực xanh để áp dụng chung, thống nhất, làm cơ sở để các chi nhánh lựa chọn, thẩm định, đánh giá và giám sát khi thực hiện tín dụng xanh.

Thứ hai, chuẩn hoá qui trình cấp tín dụng xanh theo đúng qui định và phù hợp với thông lệ quốc tế

Qui trình cấp tín dụng xanh nằm trong qui trình về cấp tín dụng chung. Tuy nhiên dự án tín dụng xanh mang tính đặc thù, một số bước trong qui trình cần được chuẩn hoá, tạo sự chuyên nghiệp, giảm bớt một số thủ tục để thúc đẩy nhanh quá trình cung ứng vốn. Ngoài ra, một số dự án tín dụng xanh được phân cấp quản lý của một số tổ chức tài chính quốc tế như IFC, WB,.. cần thực hiện theo chỉ dẫn và tư vấn của chuyên gia nước ngoài

trong quá trình thẩm định dự án tín dụng xanh. Đây là cơ hội mà cán bộ tín dụng ở các NHTM Việt Nam có thể học hỏi kinh nghiệm trong việc thẩm định những dự án đặc thù.

Thứ ba, triển khai công tác truyền thông, công nghệ thông tin về quản lý rủi ro môi trường - xã hội và chính sách tín dụng xanh

Ngành ngân hàng cần chú trọng công tác thông tin, truyền thông về quản lý rủi ro môi trường và xã hội, chính sách tín dụng xanh cần được chú trọng trong thực hiện để tạo sự đồng thuận, ủng hộ của dư luận, doanh nghiệp đối với mục tiêu tăng trưởng tín dụng xanh của NHTM nói riêng và ngành ngân hàng nói chung. Đồng thời, tiếp tục hợp tác với các tổ chức tài chính quốc tế có nhiều kinh nghiệm trong lĩnh vực đầu tư bền vững, tín dụng xanh để nâng cao năng lực chuyên môn cho nhân lực ngành ngân hàng trong chiến lược này. Mỗi ngân hàng cần có những biện pháp tuyên truyền, phổ biến rộng rãi thông tin để nâng cao nhận thức của khách hàng về lợi ích và hiệu quả của cung cấp tín dụng xanh. Đồng thời cần tăng cường công tác giáo dục, đào tạo về nhận thức và trách nhiệm bảo vệ môi trường của doanh nghiệp cũng như giúp các doanh nghiệp nắm được điều kiện vay vốn từ chương trình tín dụng xanh, từ đó họ có thể chủ động điều chỉnh hoạt động của mình và tiếp cận được vốn vay từ chương trình tín dụng xanh.

3.3. Kiến nghị

Kiến nghị với Chính Phủ

Thứ nhất, Chính phủ cần xây dựng và hoàn thiện khung pháp lý, chính sách về tiêu dùng xanh sao cho đồng bộ, nhất quán như: đưa ra các chính sách khuyến khích sản phẩm, dịch vụ xanh, phát triển những ngành nghề, lĩnh vực có áp dụng công nghệ sạch, đẩy mạnh xanh hoá sản xuất, ưu tiên phát triển năng lượng tái tạo, sử dụng tiết kiệm và hiệu quả tài nguyên, phát triển công nghệ xanh. Cùng với đó cần phát triển và nhân rộng các mô hình doanh nghiệp xanh, đồng thời hỗ trợ giá đối với các sản phẩm, dịch vụ xanh nhằm kích cầu tiêu dùng đối với các sản phẩm này. Bên cạnh đó, cần đưa ra các tiêu chuẩn về tín dụng xanh, danh mục các ngành/lĩnh vực xanh để áp dụng chung, thống nhất, làm cơ sở để lựa chọn, thẩm định, đánh giá và giám sát khi thực hiện cấp tín dụng xanh cho khách hàng. Đồng thời tiếp tục nghiên cứu và hoàn thiện Sổ tay hướng dẫn đánh giá rủi ro môi trường và xã hội cho 11 ngành kinh tế, xây dựng các giải pháp tập trung nguồn lực để cấp tín dụng cho các dự án thân thiện với môi trường.

Thứ hai, xây dựng các giải pháp tập trung nguồn lực để cấp tín dụng cho các dự án, phương án sản xuất kinh doanh sử dụng các thành tựu khoa học và công nghệ tiên tiến; sử dụng năng lượng tiết kiệm và hiệu quả; phát triển năng lượng sạch, năng lượng tái tạo; sử dụng công nghệ, thiết bị thân thiện với môi trường, sản xuất những sản phẩm thân thiện với môi trường.

Thứ ba, Tiếp tục huy động các nguồn lực để thực hiện chính sách tín dụng xanh tại Việt Nam, bao gồm: nguồn ngân sách nhà nước, nguồn vốn ưu đãi dài hạn từ các tổ chức tài chính quốc tế (WB, IFC, ADB, JICA,...), huy động vốn qua hình thức phát hành trái phiếu xanh để tài trợ các dự án năng lượng tái tạo quy mô lớn, tiết kiệm năng lượng.

Kiến nghị với Ngân hàng Nhà nước và các NHTM

Thứ nhất, NHNN cần tiếp tục hoàn thiện khung pháp lý để hỗ trợ hoạt động tín dụng xanh. Trong đó, cần chủ động nghiên cứu, xây dựng hệ thống quản lý rủi ro môi trường và xã hội trong hoạt động cấp tín dụng xanh. Việc lồng ghép quản lý rủi ro môi trường và xã hội vào quy trình quản lý rủi ro là một yêu cầu cần thiết trong hoạt động tín dụng của các NHTM hướng tới kinh tế xanh và phát triển bền vững. Các ngân hàng cần chủ động xây dựng bộ phận chuyên trách trong việc xây dựng, tư vấn về hệ thống quản lý môi trường và xã hội; ban hành và áp dụng hệ thống quản lý rủi ro môi trường và xã hội trong hoạt động cấp tín dụng xanh theo chuẩn mực và thông lệ quốc tế. Kinh nghiệm các nước trên thế giới cho thấy, các NHTM Việt Nam cần xem xét Nguyên tắc Xích đạo như là một chuẩn mực trong xây dựng hệ thống quản lý rủi ro môi trường và xã hội, trên cơ sở đó cần xây dựng cho riêng mình những bộ tiêu chuẩn về quản lý rủi ro môi trường và xã hội, từng bước tiến tới đăng ký kiểm định được công nhận tổ chức tài chính cam kết thực hiện Nguyên tắc Xích đạo.

Thứ hai, NHNN cần có các chính sách hỗ trợ vốn cho các TCTD tiếp cận nguồn vốn dài hạn, ưu đãi để mở rộng tín dụng xanh. NHNN cần phối hợp với các cơ quan chức năng cân nhắc đưa ra chính sách ưu đãi về vốn, ưu đãi về thuế,... đối với các NHTM thực hiện cấp tín dụng xanh như: giảm tỷ lệ dự trữ bắt buộc đối với phần nguồn vốn ngân hàng huy động để cho vay dự án tín dụng xanh; không tính nguồn vốn cho vay dự án xanh, sạch vào tỷ lệ sử dụng vốn ngắn hạn cho vay trung dài hạn; tái cấp vốn, tái chiết khấu với các ưu đãi về thời hạn và lãi suất; giảm thuế thu nhập doanh nghiệp với các ngân hàng cấp tín dụng xanh;... Tuy nhiên, NHNN cần cân nhắc thận trọng, linh hoạt trong việc sử dụng các công cụ trên theo hướng vừa đảm bảo phát triển tín dụng xanh vừa đảm bảo ổn định các mục tiêu chung trong điều hành chính sách tiền tệ.

Thứ ba, tổ chức đào tạo, tăng cường nguồn nhân lực cho các TCTD, các cá nhân tham gia xây dựng và triển khai cơ chế chính sách cho sản phẩm tín dụng xanh nhằm nâng cao năng lực ầu hệ thống ngân hàng trong việc thực hiện tín dụng xanh. Chất lượng chuyên môn của cán bộ chuyên trách hoạt động cấp tín dụng xanh là một trong những nhân tố quan trọng để thúc đẩy sự phát triển của dòng tín dụng này. Để đảm bảo an toàn tín dụng và phòng ngừa rủi ro, các cán bộ phụ trách tín dụng xanh cần có trình độ chuyên môn nghiệp vụ cao, đạo đức tốt, am hiểu về thị trường và pháp luật, các quy định liên quan đến quản lý rủi ro môi trường và xã hội trong hoạt động cấp tín dụng.

Thứ tư, cần đẩy mạnh các nghiên cứu lý luận và thực tiễn về hoạt động tín dụng xanh, lồng ghép các nghiên cứu này vào các chương trình đào tạo, công tác thông tin, truyền thông của NHNN để nâng cao nhận thức của cán bộ ngân hàng, doanh nghiệp và các nhà nghiên cứu về vai trò và sự cần thiết phải phát triển hoạt động tín dụng xanh trong tương lai tạo sự đồng thuận, ủng hộ của dư luận, doanh nghiệp, ngân hàng đối với mục tiêu tăng trưởng tín dụng xanh, phát triển kinh tế xanh bền vững.

Kiến nghị với các doanh nghiệp

Để tiếp cận được tín dụng xanh các doanh nghiệp cần đảm bảo được 5 nhóm tiêu chí cụ thể gồm: năng lực quản trị điều hành, uy tín tín dụng; tạo việc làm và yếu tố giới; sản phẩm đầu ra đạt chất lượng cao, sử dụng nguyên liệu mới; có tính đổi mới; có yếu tố bảo vệ, thân thiện với môi trường. Đối với nhóm tiêu chí về năng lực quản trị điều hành, uy

tín dụng sẽ chú trọng vào tiêu chí tỷ trọng đầu tư cho sản xuất sạch hơn thể hiện qua việc chủ doanh nghiệp đã có những khoản đầu tư nhất định nhằm cải thiện mức độ thân thiện môi trường của doanh nghiệp. Tỷ lệ này được xác định ít nhất là 30% trên tổng số vốn đầu tư ban đầu hoặc tăng thêm 40%. Còn tiêu chí về lịch sử tín dụng yêu cầu doanh nghiệp không có nợ xấu ngân hàng trong 12 tháng gần nhất. Đây là 5 nhóm được đưa vào sổ tay và được coi là tiêu chí cơ sở để xét chọn các doanh nghiệp nhận được hỗ trợ từ quỹ bên cạnh các điều kiện nhận hỗ trợ theo quy định tại Luật Hỗ trợ doanh nghiệp và các quy định của Nhà nước.

KẾT LUẬN

Bài viết cung cấp kiến thức tổng thể về tín dụng xanh và thực trạng hoạt động tín dụng xanh tại Việt Nam trong thời gian qua. Từ đó xác định xu hướng phát triển của tín dụng xanh trong tương lai là không thể phủ nhận. Thông qua đó, tác giả đưa ra các giải pháp cần thiết và đề xuất một số kiến nghị cho Việt Nam để đẩy mạnh phát triển tín dụng xanh trong thời gian tới.

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**SỬ DỤNG BỀN VỮNG THANH TOÁN KHÔNG DÙNG TIỀN MẶT:
TÁC ĐỘNG CỦA CHẤT LƯỢNG DỊCH VỤ VÀ CẢM NHẬN GIÁ TRỊ XANH**

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Tóm tắt: Mục tiêu của bài viết này giải thích một cơ chế sử dụng bền vững đối với các dịch vụ thanh toán không dùng tiền mặt (TTKDTM) từ góc độ của khách hàng. Bài viết đề xuất một khung nghiên cứu sử dụng mô hình SERVQUAL kết hợp với các yếu tố cảm nhận giá trị xanh nhằm nhận diện các động lực quan trọng của sự hài lòng và dự định tiếp tục sử dụng TTKDTM, từ đó gợi mở các khuyến nghị nhằm thúc đẩy sử dụng bền vững TTKDTM. Dữ liệu thu thập từ 322 khách hàng đang sử dụng TTKDTM từ 29/12/2022 đến 03/02/2023. Khung nghiên cứu được kiểm định thực nghiệm bằng mô hình cấu trúc tuyến tính (SEM) sử dụng AMOS. Kết quả khẳng định các yếu tố của mô hình SERVQUAL (bao gồm tính tin cậy, sự đảm bảo, sự đồng cảm, khả năng tiếp cận) và các yếu tố của cảm nhận giá trị xanh (bao gồm lợi ích TTKDTM đối với môi trường và đổi mới xanh) tác động ý nghĩa đến sự hài lòng khách hàng. Hơn nữa, sự hài lòng đóng vai trò quan trọng phát triển dự định tiếp tục sử dụng TTKDTM. Cuối cùng, hàm ý lý thuyết và thực tiễn được thảo luận nhằm thúc đẩy sử dụng bền vững TTKDTM tại Việt Nam.

Từ khóa: Thanh toán không dùng tiền mặt, Phát triển bền vững, Sự hài lòng khách hàng, Dự định tiếp tục sử dụng, Việt Nam

**SUSTAINABLE USAGE OF CASHLESS PAYMENT SERVICES: EFFECTS OF
GREEN INNOVATION**

Abstract: The work's purpose is to enlighten a mechanism of sustainable usage of cashless payment services (CPSs) from a perspective of customers. A research framework is designed by incorporating green value perceptions into SERVQUAL model to analyze customer satisfaction and continuance intention toward CPSs, accordingly several recommendations are drawn to enhance sustainable development of CPSs. Data are collected from 322 individuals who have experienced using CPSs, from 29 December 2022 to 03 February 2023. The proposed model is examined using Structural Equation Modelling (SEM) and AMOS software. Outcomes opined that SERVQUAL antecedents (i.e., reliability, assurance, empathy, and accessibility) and green value perception factors (i.e., perceived CPS utility for environment and perceived green innovativeness) significantly facilitate customer satisfaction. In addition, satisfaction is an underlying motivation for continuance intention toward CPSs. Finally, theoretical and practical implications are discussed to foster sustainable development of CPSs in Vietnam.

Keywords: Cashless payment services, Sustainable development, Customer satisfaction, Continuance intention, Vietnam.

1. Giới thiệu

Cùng với sự phát triển của công nghệ số trong bối cảnh cuộc cách mạng công nghiệp (CCMCN) 4.0, thanh toán không dùng tiền mặt (TTKDTM) trở thành xu hướng ứng dụng tất yếu trong giao dịch tài chính hiện nay. Đặc biệt, trong và sau bối cảnh đại dịch COVID-19 đã chứng kiến sự thay đổi đáng kể thói quen thanh toán của người dùng Việt Nam, từ thanh toán truyền thống (tiền mặt) sang TTKDTM, đáng chú ý là thanh toán trực tuyến (như ngân hàng di động m-banking hay mã phản ứng nhanh QR-code). Vụ thanh toán của Ngân hàng Nhà nước Việt Nam báo cáo có sự tăng trưởng đáng kể về số lượng liên quan TTKDTM: thẻ đang lưu hành (109 triệu thẻ/tăng 38,7%), thanh toán Internet (282,4 triệu món/tăng 262,5%), thanh toán di động (682,3 triệu món/tăng 980,9%), thanh toán qua POS (218 triệu món/tăng 176,5%), và thanh toán qua ATM (660 triệu món/tăng 38,7%) từ 2016–8/2020. Đồng thời, giá trị giao dịch tăng trưởng nhanh chóng đối với thanh toán Internet (17,4 tỷ đồng/tăng 353,1%), thanh toán di động (7,2 triệu tỷ đồng/tăng 793,6%), thanh toán qua POS (382,86 nghìn tỷ đồng/tăng 139,5%), thanh toán qua ATM (1.818,58 nghìn tỷ đồng/tăng 53,8%) từ 2016–8/2020 (Nguyễn Phương Liên, 2021). Số liệu trên cho thấy sự phát triển ấn tượng của TTKDTM, đặc biệt các kênh thanh toán qua Internet và thiết bị di động. Điều này phù hợp với chiến lược tài chính toàn diện quốc gia đến 2025, định hướng 2030 và Đề án phát triển TTKDTM giai đoạn 2021–2025 của Chính phủ. Tuy nhiên, chuyên gia nhận định rằng TTKDTM của người dân vẫn chiếm tỷ lệ khá cao (Nguyễn Phương Liên, 2021). Khách hàng gia tăng mối quan tâm đến các vấn đề của TTKDTM như tính riêng tư, an toàn và bảo mật thông tin cá nhân, rủi ro giao dịch, tiếp cận thông tin, giải quyết phàn nàn chậm trễ, chính sách và cam kết chưa đồng bộ, hiểu biết và nhu cầu cá nhân khách hàng chưa được đáp ứng (Bùi Nhật Quang & Nguyễn Hữu Thái Thịnh, 2020; Lê, 2021). Điều này đặt ra các ngân hàng thương mại (NHTM) cần chú trọng đầu tư hạ tầng, công nghệ và nguồn nhân lực, nâng cao chất lượng dịch vụ (CLDV), và phát triển TTKDTM bền vững để thích nghi với bối cảnh hiện nay.

Mặt khác, các vấn đề liên quan đến môi trường như ô nhiễm môi trường, cạn kiệt tài nguyên thiên nhiên, biến đổi khí hậu đang ảnh hưởng nghiêm trọng đến lĩnh vực kinh tế-xã hội toàn cầu. Do đó, các tổ chức, doanh nghiệp cần tìm kiếm các giải pháp cung cấp sản phẩm, dịch vụ (SP/DV) xanh để bảo vệ môi trường và phát triển ngành nghề bền vững. Trong lĩnh vực ngân hàng, NHTM đang thực hiện chuyển đổi xanh thông qua phát triển ngân hàng xanh và bền vững khi họ đặt lợi ích của cộng đồng và môi trường cùng lợi ích kinh tế của mỗi NHTM. Việc phát triển này sẽ đảm bảo cân bằng lợi ích về kinh tế-môi trường-xã hội (Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022). Trong đó, phát triển TTKDTM là cách thức nhanh chóng và dễ dàng để chuyển đổi thành ngân hàng xanh và bền vững (Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022). TTKDTM sẽ giúp NHTM giảm chi phí giấy tờ, mực in, giảm đi lại, ách tắc giao thông, và hạn chế tác động xấu đến môi trường. Vì thế, NHTM sẽ nâng cao CLDV thanh toán cho khách hàng bằng việc bổ sung giá trị xanh và bền vững. Tuy nhiên, hiện nay khách hàng chưa thực sự thỏa mãn với CLDV của TTKDTM như hệ thống NHTM chưa đồng bộ, liên kết chặt chẽ và bền vững, tốc độ giao dịch chưa ổn định, lỗi xử lý hệ thống (Nguyễn Thị Ngọc The, 2021). Đồng thời, các vấn đề kỹ thuật như tốc độ đường truyền, lỗi kỹ thuật, chất lượng mạng, rủi ro an

toàn và bảo mật vẫn xảy ra. Hơn nữa, khách hàng chưa có nhận thức đầy đủ về các vấn đề đổi mới xanh, tức là lợi ích của TTKDTM đối với môi trường và áp dụng công nghệ hiện đại vào giao dịch thanh toán. Vì vậy, rất cần thiết để NHTM hiểu rõ nhu cầu khách hàng đối với TTKDTM và tăng cường đổi mới xanh nhằm nâng cao CLDV TTKDTM.

Trước bối cảnh đó, NHTM cần quan tâm đến sự thỏa mãn và sử dụng bền vững TTKDTM và mang đến các giải pháp phù hợp nhằm thúc đẩy khách hàng duy trì sự lựa chọn TTKDTM trong bối cảnh mới. Vì thế, mục tiêu nghiên cứu của bài viết là phân tích các yếu tố ảnh hưởng đến sự hài lòng và dự định tiếp tục sử dụng TTKDTM. Để thực hiện mục tiêu này, nhóm tác giả phát triển mô hình nghiên cứu và thực nghiệm thông qua thu thập dữ liệu từ khách hàng đang sử dụng TTKDTM tại Việt Nam. Trên cơ sở đó, bài viết áp dụng mô hình SERVQUAL và các yếu tố đổi mới xanh để đo lường CLDV (sự hài lòng) và dự định tiếp tục sử dụng TTKDTM của khách hàng.

Các nội dung tiếp theo của bài viết bao gồm (2) tổng quan lý thuyết và thiết kế khung nghiên cứu; (3) phương pháp nghiên cứu; (4) kết quả nghiên cứu; (5) thảo luận và hàm ý; và (6) kết luận và hướng nghiên cứu tương lai.

2. Tổng quan lý thuyết và mô hình nghiên cứu

2.1. Tổng quan lý thuyết

2.1.1. Thanh toán không dùng tiền mặt

TTKDTM là việc thanh toán được thực hiện bằng cách trích chuyển tiền trên tài khoản trong hệ thống các nhà cung cấp dịch vụ thanh toán (NCCDVTT) (trong đó NHTM là tổ chức chủ yếu), hoặc bù trừ công nợ mà không sử dụng tiền mặt (Nguyễn Phương Liên, 2021). Đây là một hình thức vận động của tiền tệ. Trong đó, NCCDVTT đóng vai trò trung gian thực hiện yêu cầu của khách hàng, nhằm thỏa mãn nhu cầu thanh toán khác nhau như thu hộ, chi hộ, chuyển tiền. Theo Nghị định số 10/VBNN-NHNN ngày 22/02/2019, TTKDTM bao gồm thanh toán qua tài khoản và một số dịch vụ thanh toán không qua tài khoản. Các đối tượng tham gia TTKDTM bao gồm: bên mua, bên bán, ngân hàng bên mua (nơi người mua mở tài khoản), và ngân hàng bên bán (nơi người bán mở tài khoản). Một số hình thức TTKDTM như thẻ thanh toán, séc, thư tín dụng/ủy nhiệm chi/thu, ví điện tử, mobile banking, QR-code v.v. Theo Đặng Công Hoàn (2021), TTKDTM ứng dụng công nghệ thanh toán điện tử có xu hướng thay thế thanh toán truyền thống. Bởi vì một số lợi ích của TTKDTM đối với NHTM như tăng thu nhập từ phí dịch vụ, thay đổi cơ cấu thu nhập trong tổng thu nhập, nâng cao khả năng tài chính và phát triển bền vững, NHTM có nguồn dữ liệu về hoạt động tín dụng qua thông tin thanh toán và giao dịch của khách hàng. Lợi ích của khách hàng sử dụng TTKDTM là tiết kiệm chi phí, thuận tiện, giao dịch mọi lúc, mọi nơi, an toàn và hiệu quả, đa dạng lựa chọn thanh toán. Đối với nền kinh tế, TTKDTM góp phần giảm lưu thông tiền mặt trên thị trường, tăng minh bạch và phòng chống tham nhũng, tăng thu ngân sách nhà nước, tăng ổn định hệ thống tài chính, tiền tệ, và chính sách kinh tế vĩ mô (Đặng Công Hoàn, 2021).

Tại Việt Nam, TTKDTM nhận được sự quan tâm rất lớn từ chuyên gia và nhà nghiên cứu. Một mặt, một số nghiên cứu đã phân tích thực trạng triển khai TTKDTM và đưa ra các hàm ý chính sách (Đỗ Thu Hương & Nguyễn Thị Ngọc Hà, 2022; Văn Thị Bích

Ngân & Huỳnh Kim Trọng, 2020). Điển hình, Đặng Công Hoàn (2021) thảo luận lợi ích của TTKDTM từ góc độ chuyên gia, thông qua phương pháp phỏng vấn và tổng hợp từ các công bố quốc tế, nghiên cứu đề xuất các chính sách phát triển TTKDTM trong nền kinh tế số ở góc độ vĩ mô như hoàn thiện hành lang pháp lý, chính sách ưu tiên về thuế, mở rộng sử dụng TTKDTM với dịch vụ công, du lịch, nhà hàng, và vận chuyển. Tương tự, Nguyễn Phương Liên (2021) phân tích xu hướng phát triển TTKDTM với công nghệ điện tử như smartphone và Internet; và nhấn mạnh vai trò của công nghệ số (như dữ liệu lớn, chuỗi khối, trí tuệ nhân tạo) và các ứng dụng (như công nghệ sinh trắc học, QR-code) đối với ngân hàng số. Theo đó, nghiên cứu chỉ ra các khó khăn, nguyên nhân hạn chế, và đề xuất khuyến nghị đối với Chính phủ và cơ quan quản lý, NHTM, tổ chức trung gian và NCCDVTT. Mặt khác, nghiên cứu khác phân tích TTKDTM từ góc độ khách hàng và ngân hàng. Điển hình, Nguyễn Thị Thủy (2021) giải thích các nhân tố đến sự phát triển TTKDTM từ ngân hàng (hạ tầng công nghệ, an toàn bảo mật, mạng lưới cung ứng, nguồn nhân lực, quy mô) và khách hàng (thu nhập, sự hiểu biết và chấp nhận, tâm lý). Một số khác xem xét CLDV (Nguyễn Thị Ngọc The, 2021), sự hài lòng khách hàng và dự định tiếp tục sử dụng (Ngô Đức Chiến, 2022; Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022), sự trung thành (Tạ Văn Thành, 2022) thể hiện sự phát triển TTKDTM. Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh (2022) thiết kế một mô hình về sự hài lòng và dự định tiếp tục sử dụng dịch vụ tại NHTM thông qua ngân hàng xanh thể hiện qua các yếu tố như chất lượng dịch vụ, khả năng tiếp cận thông tin, sự bảo mật và tin cậy, lợi ích kinh tế và trách nhiệm xã hội. Vì vậy, triển khai TTKDTM mang tính tất yếu với NHTM hiện nay, và sự đóng góp của các yếu tố bền vững và xanh hóa sẽ giúp phát triển TTKDTM bền vững hơn.

2.1.2. Mô hình SERVQUAL

SERVQUAL được phát triển bởi Parasuraman & cộng sự (1985) và là mô hình để cập đánh giá CLDV của khách hàng đối với các dịch vụ (DV). CLDV là một cấu trúc đa chiều, tổng hợp của nhiều thuộc tính, các khía cạnh khác nhau liên quan sự tương tác giữa khách hàng và NCCDV. Yếu tố này phản ánh thông qua sự so sánh giữa kỳ vọng và giá trị mà khách hàng nhận được từ NCCDV (Parasuraman & cộng sự, 1985). CLDV được cấu tạo bởi các yếu tố (hay thuộc tính) khác nhau: phương tiện hữu hình, tính tin cậy, sự đảm bảo, sự đồng cảm, khả năng đáp ứng (Ngô Đức Chiến, 2022). CLDV biểu hiện của sự hài lòng mức độ cao của khách hàng (Stefano & cộng sự, 2015). Sự hài lòng phản ánh sự thỏa mãn, đáp ứng nhu cầu của DV mà NCCDV mang lại. Yếu tố này thể hiện phản ứng thỏa mãn hay thất vọng với hiệu suất của SP/DV và sự kỳ vọng của khách hàng (Ngô Đức Chiến, 2022). Do đó, sự hài lòng khách hàng chịu ảnh hưởng bởi năm yếu tố của CLDV (Parasuraman & cộng sự, 1985).

SERVQUAL được áp dụng và mở rộng trong các bối cảnh nghiên cứu khác nhau như khách sạn (Nguyễn Quang Vĩnh, 2022), ví điện tử (Tạ Văn Thành, 2022), xem đánh giá trực tuyến (Chatterjee & cộng sự, 2022). Trong đó, Nguyễn Quang Vĩnh (2022) thiết kế mô hình nghiên cứu về CLDV du lịch và khám phá các yếu tố của SERVQUAL bao gồm khả năng tiếp cận, ứng dụng công nghệ, sự đảm bảo, phương tiện hữu hình, sự đồng cảm, và tính tin cậy ảnh hưởng ý nghĩa đến CLDV. Hơn nữa, các nghiên cứu tiền nhiệm phát triển khung

nghiên cứu sử dụng SERVQUAL để giải thích CLDV và sự hài lòng trong lĩnh vực ngân hàng. Cụ thể, SERVQUAL được áp dụng đối với ví điện tử (Tạ Văn Thành, 2022) và kết quả minh họa sự thuận tiện, hình thức thể hiện, niềm tin, mục đích và giá trị của chương trình khuyến mại ảnh hưởng đến sự thỏa mãn khách hàng; đồng thời sự thỏa mãn gia tăng sự trung thành. Tương tự, Ngô Đức Chiến (2022) giải thích sự thỏa mãn đối với dịch vụ ngân hàng phụ thuộc vào yếu tố của SERVQUAL (bao gồm độ tin cậy, sự đảm bảo, phương tiện hữu hình, sự đồng cảm, khả năng đáp ứng) và hình ảnh tổ chức. Dương Bá Vũ Thi & Trần Thị Hải Quỳnh (2022) khẳng định các yếu tố của SERVQUAL và yếu tố ưu đãi là các động lực quan trọng cải thiện CLDV ngân hàng điện tử. Vì thế, SERVQUAL được mở rộng tùy thuộc đặc trưng của từng ngành dịch vụ bao gồm ngân hàng (Tạ Văn Thành, 2022). Trên cơ sở lý thuyết SERVQUAL và tổng quan nghiên cứu trên, bài viết sẽ tìm hiểu tác động của các yếu tố của SERVQUAL và yếu tố về cảm nhận giá trị xanh (bao gồm lợi ích sử dụng TTKDTM đối với môi trường và đổi mới xanh) để khám phá CLDV (sự hài lòng khách hàng) và dự định tiếp tục sử dụng TTKDTM trong bối cảnh phát triển môi trường bền vững và công nghệ số hiện nay. Vấn đề môi trường cũng nhận được sự quan tâm của nhà nghiên cứu trong các lĩnh vực khác nhau như hành vi tiêu dùng xanh (Trương Đình Thái, 2022), sản phẩm xanh (Mohd Suki & cộng sự, 2022), và khách sạn xanh (Verma & cộng sự, 2019), tuy nhiên DV ngân hàng, cụ thể TTKDTM là giải pháp xanh chưa được nghiên cứu nhiều tại quốc gia đang phát triển, bao gồm Việt Nam.

2.2. Mô hình nghiên cứu và phát triển giả thuyết

Phương tiện hữu hình phản ánh các vấn đề bao gồm cơ sở vật chất, thiết bị, nhân sự, và tài liệu liên quan đến công việc (Parasuraman & cộng sự, 1985). SERVQUAL khái quát khách hàng sẽ hài lòng với cơ sở vật chất và thiết bị hiện đại, nhân viên với trang phục đẹp, và tài liệu bắt mắt trong ngân hàng (Ngô Đức Chiến, 2022). Các nghiên cứu gần đây thảo luận khách hàng đánh giá về phương tiện hữu hình của tổ chức và thể hiện sự hài lòng đối với DV khách sạn (Nguyễn Quang Vĩnh, 2022) và hàng không (Chatterjee & cộng sự, 2022). Đồng thời, mối quan hệ ý nghĩa giữa phương tiện hữu hình và sự hài lòng được khám phá trong DV ngân hàng nói chung (Ngô Đức Chiến, 2022) và ngân hàng Internet (Tran & Nguyen, 2020). Đối với ngân hàng, cơ sở vật chất (như chỗ đỗ xe, tiện nghi, quầy giao dịch) và nhân viên thể hiện tính hữu hình (Tran & Nguyen, 2020); trong khi ngân hàng điện tử, yếu tố này bổ sung thêm đặc điểm của website hay ứng dụng di động như thông tin, hình ảnh, màu sắc, đồ họa, cửa sổ nhúng của màn hình (Dương Bá Vũ Thi & Trần Thị Hải Quỳnh, 2022). Bài viết xem xét phương tiện hữu hình của TTKDTM bao gồm đặc điểm website, ứng dụng di động, cơ sở vật chất và nhân viên, và sẽ dẫn đến sự hài lòng khách hàng. Vì thế:

H1: Phương tiện hữu hình tác động thuận chiều sự hài lòng khách hàng.

Tính tin cậy là khả năng cung cấp DV của tổ chức một cách độc lập và chính xác đến khách hàng (Parasuraman & cộng sự, 1985). Yếu tố này mô tả năng lực mang đến DV như đã hứa của tổ chức. Theo SERVQUAL, tính tin cậy là yếu tố quan trọng của sự hài lòng khi sử dụng DV. Nghiên cứu tiền nhiệm chỉ ra tương quan ý nghĩa giữa tính tin cậy và sự thỏa mãn khách hàng trong lĩnh vực khách sạn (Nguyễn Quang Vĩnh, 2022) và hàng không (Chatterjee & cộng sự, 2022). Tương tự, sự ảnh hưởng tích cực được khẳng định đối

với DV ngân hàng điện tử (Bùi Nhật Quang & Nguyễn Hữu Thái Thịnh, 2020) và ngân hàng Internet (Tran & Nguyen, 2020). Tính tin cậy là vấn đề sống còn của ngành ngân hàng trong bối cảnh công nghệ số. Đồng thời, khách hàng sẽ quan tâm đến vấn đề này khi quyết định duy trì trung thành đối với TTKDTM. Vì thế, ngân hàng cần mang đến giải pháp an toàn, tức là tạo niềm tin của khách hàng cần được quan tâm hàng đầu. Do đó:

H2: Tính tin cậy tác động thuận chiều sự hài lòng khách hàng.

Sự đảm bảo phản ánh kiến thức, năng lực, kỹ năng và khả năng truyền cảm hứng, giải quyết của nhân viên (Parasuraman & cộng sự, 1985). Điều này sẽ thúc đẩy sự an tâm và hài lòng khách hàng khi sử dụng DV. Thực vậy, Tran & Nguyen (2020) chỉ ra sự đảm bảo của ngân hàng Internet (như đầy đủ chuyên môn, sự nhiệt tình, kỹ năng, quan tâm và giải quyết kịp thời, chính xác các vấn đề phát sinh của khách hàng) đóng vai trò tăng cường sự hài lòng. Tương tự, sự ảnh hưởng tích cực này được kiểm chứng thực nghiệm đối với DV khách sạn (Nguyễn Quang Vĩnh, 2022) và ngân hàng (Ngô Đức Chiến, 2022). Vì thế, bài viết giả định rằng sự đảm bảo, tức kiến thức và hành vi của nhân viên để cung cấp và giải quyết vấn đề, tạo sự tin tưởng đối với TTKDTM sẽ gia tăng sự hài lòng của khách hàng:

H3: Sự đảm bảo tác động thuận chiều sự hài lòng khách hàng.

Sự đồng cảm phản ánh đánh giá khách hàng liên quan đến sự quan tâm và cá nhân hóa nhu cầu đến họ (Parasuraman & cộng sự, 1985). Điều này có nghĩa là tổ chức cần hiểu biết về sở thích, nhu cầu của khách hàng. Trong nghiên cứu này, sự đồng cảm mô tả ngân hàng hiểu hơn về nhu cầu, chủ động quan tâm các vấn đề khách hàng gặp phải, thể hiện sự nhiệt tình và thân thiện trong việc mang đến các DV TTKDTM trong bối cảnh kinh tế số. Theo SERVQUAL, sự đồng cảm tác động tích cực đến sự hài lòng đối với các DV (Parasuraman & cộng sự, 1985). Mỗi quan hệ này được chứng minh bởi các nghiên cứu gần đây trong bối cảnh đánh giá trực tuyến của DV hàng không (Chatterjee & cộng sự, 2022) và khách sạn (Nguyễn Quang Vĩnh, 2022). Tương tự, sự đồng cảm dẫn đến sự hài lòng khách hàng đối với DV ngân hàng. Tran & Nguyen (2020) đã phân tích sự hài lòng đối với ngân hàng Internet bằng phát triển mô hình SERVQUAL và chỉ ra mối tương quan ý nghĩa này. Đồng thời, dựa trên bằng chứng thực nghiệm trong nghiên cứu của Ngô Đức Chiến (2022), bài viết đặt ra giả thuyết:

H4: Sự đồng cảm tác động thuận chiều sự hài lòng khách hàng.

Khả năng tiếp cận thông tin phản ánh đánh giá của khách hàng về kết quả tìm kiếm và tiếp cận thông tin về DV. Đây là một trong số tiêu chuẩn để đánh giá CLDV của mô hình SERVQUAL đầu tiên (Nguyễn Quang Vĩnh, 2022). Trong bài viết, yếu tố này sẽ nâng cao CLDV và khả năng tái sử dụng TTKDTM bởi thông tin đóng vai trò then chốt giúp khách hàng hiểu biết về DV của ngân hàng và ra quyết định thực hiện hành vi hiệu quả (Le & Nguyen, 2021). Theo Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh (2022), khi khách hàng dễ dàng tiếp cận thông tin, nội dung đầy đủ, chi tiết, dễ hiểu, truy cập thường xuyên, mọi lúc mọi nơi, họ bày tỏ sự an tâm sử dụng dịch vụ ngân hàng. Tương tự, Nguyễn Quang Vĩnh (2022) khám phá khả năng tiếp cận thông tin, trang thiết bị, và DV khách sạn sẽ giúp khách hàng sử dụng bền lâu và tăng sự hài lòng. Trên cơ sở này, khả năng tiếp cận thông tin đóng vai trò tăng cường sự thỏa mãn đối với TTKDTM. Do đó:

H5: Khả năng tiếp cận thông tin tác động thuận chiều sự hài lòng khách hàng.

Lợi ích môi trường không phải là một chức năng của DV TTKDTM. Yếu tố này thể hiện đóng góp của TTKDTM đối với môi trường (Li & cộng sự, 2022). Khi khách hàng ý thức cuộc sống gắn tính bền vững và xanh hóa, họ gia tăng quan tâm đến môi trường và tác hại đối với môi trường khi thực hiện giao dịch gắn với giấy tờ và mực in. Từ đó, họ sẽ nỗ lực tìm kiếm giải pháp và thực hiện hành động để bảo vệ môi trường. Điền hình, Nguyen (2022) nhận thức giá trị bảo vệ môi trường khi mua sắm truyền thống, người dùng ý thức sự tiện lợi, tiết kiệm, và dễ mang theo của túi đựng trước khi ghé thăm địa điểm mua sắm. Lin & Niu (2018) chỉ ra mối quan hệ ý nghĩa giữa nhận thức giá trị môi trường và thái độ của khách hàng đối với môi trường thông qua tiêu dùng xanh. Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh (2022) khám phá sự ảnh hưởng tích cực giữa trách nhiệm môi trường và sự hài lòng đối với ngân hàng xanh. Tương tự, Herath & Herath (2019) chỉ ra vai trò của quan tâm môi trường đến sự hài lòng tới dịch vụ ngân hàng xanh. Do đó:

H6: Lợi ích của TTKDTM đối với môi trường tác động thuận chiều sự hài lòng.

Sự đổi mới là tài sản vô hình và phản ánh sự vận động của tổ chức để nâng cao hiệu quả kinh doanh và lợi thế cạnh tranh (Chen & cộng sự, 2006). Sự đổi mới xanh là việc tổ chức thực hiện sự cải tiến và cung cấp SP/DV xanh dựa trên công nghệ xanh và thân thiện môi trường (Chu & cộng sự, 2019). Trong lĩnh vực ngân hàng, NHTM cần ứng dụng công nghệ hiện đại để mang đến DV xanh và bền vững (Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022). Đầu tư hạ tầng và công nghệ hiện đại là điều cần thiết để phát triển TTKDTM. Trong đó, ứng dụng công nghệ số sẽ gia tăng giá trị DV TTKDTM của NHTM (Nguyễn Phương Liên, 2021). Wang (2019) chỉ ra đổi mới xanh sẽ thúc đẩy lợi thế cạnh tranh của tổ chức, trong đó mang đến cách thức mới phục vụ và thỏa mãn nhu cầu của khách hàng. Do đó, nhu cầu cá nhân và mong muốn cao của khách hàng đã thúc đẩy tổ chức phải thực hiện đổi mới xanh (Chu & cộng sự, 2019). Tương tự, sự tập trung công nghệ, kỹ thuật và hệ thống công nghệ thông tin là các giải pháp cần thiết để nâng cao sự hài lòng và trung thành của khách hàng đối với DV ngân hàng xanh (Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022). Theo đó:

H7: Đổi mới xanh tác động thuận chiều sự hài lòng khách hàng.

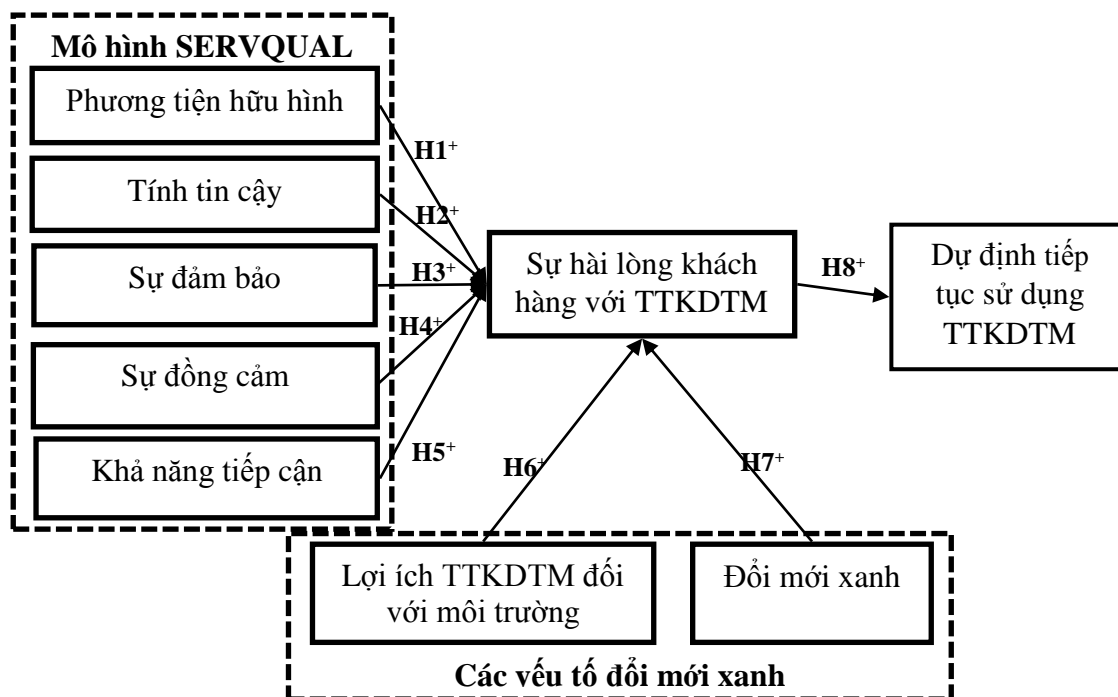
Sự hài lòng là phản ứng cảm xúc cá nhân về sự trải nghiệm tiêu dùng SP/DV. Trong bài viết này, sự hài lòng đối với TTKDTM là phản ứng cảm xúc của khách hàng khi họ đã sử dụng TTKDTM. Mục tiêu của ngân hàng khi cung cấp TTKDTM là thỏa mãn nhu cầu khách hàng thanh toán nhanh chóng, thuận tiện, mọi lúc mọi nơi, và khả năng thay thế thanh toán tiền mặt. Nếu họ sử dụng và thỏa mãn với TTKDTM thì cá nhân có khả năng tiếp tục lựa chọn DV này. Mối quan hệ này được khẳng định trong mô hình SERVQUAL và các nghiên cứu tiền nhiệm. Điền hình, Tạ Văn Thành (2022) chỉ ra sự thỏa mãn khách hàng với ví điện tử dẫn đến sự trung thành và tiếp tục sử dụng TTKDTM này. Mối tương quan này đã được thảo luận trong các bối cảnh nghiên cứu khác nhau như ngân hàng xanh (Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022) và quảng cáo di động (Le & Nguyen, 2021). Nghiên cứu gần đây chỉ ra sự tác động của sự hài lòng đối với CLDV ngân hàng (Tran & Nguyen, 2020) và khách sạn (Nguyễn Quang Vĩnh, 2022). Rõ ràng, sự hài lòng là

một động lực quan trọng thúc đẩy dự định hành vi tiếp tục sử dụng SP/DV. Tương tự, bài viết này sẽ kiểm chứng sự tác động của sự hài lòng đến dự định tiếp tục sử dụng TTKDTM cho giao dịch thanh toán. Vì vậy:

H8: Sự hài lòng khách hàng tác động thuận chiều dự định tiếp tục sử dụng TTKDTM.

Hình 1 minh họa khung nghiên cứu và các giả thuyết.

Hình 1: Mô hình nghiên cứu đề xuất



Nguồn: Tác giả tổng hợp và đề xuất

3. Phương pháp nghiên cứu

3.1. Đo lường

Các thang đo trong bài viết được áp dụng và điều chỉnh từ lý thuyết hiện tại và được đo lường bằng thang đo Likert 5 mức độ, từ ‘1–hoàn toàn không đồng ý’; 2–‘Không đồng ý’; 3–‘Bình thường’; 4–‘Đồng ý’; ‘5–hoàn toàn đồng ý’. Trong đó, Phương tiện hữu hình (3 biến quan sát), Sự đồng cảm (3 biến quan sát), và Sự đảm bảo (4 biến quan sát) được kế thừa từ Akbaba (2006), Stefano & cộng sự (2015); Tính tin cậy (3 biến quan sát) của Agarwal & cộng sự (2009), Martins & cộng sự (2014); Khả năng tiếp cận (4 biến quan sát) của Ahmad & Al-Zu'bi (2011); Lợi ích TTKDTM đối với môi trường (3 biến quan sát) của Singh (2015); Đổi mới xanh (3 biến quan sát) của Wang (2019), Asadi & cộng sự (2020); Sự hài lòng khách hàng (4 biến quan sát) của Hellier & cộng sự (2003); Dự định tiếp tục sử dụng TTKDTM (3 biến quan sát) của Venkatesh & cộng sự (2003).

3.2. Mẫu nghiên cứu

Hair & cộng sự (2010) đề xuất rằng sử dụng phương trình hồi quy tuyến tính yêu cầu cỡ mẫu thuộc khoảng 200–400 tương đương với 10–15 biến quan sát. Nghiên cứu này sử dụng 30 biến quan sát. Vì thế, cỡ mẫu tối thiểu là 150 (=30x5). Để đảm bảo tính thuyết

phục và độ tin cậy, nghiên cứu dự kiến mẫu khảo sát là 375. Kết quả khảo sát thu về và sau khi làm sạch (bởi một số nguyên nhân như câu trả lời giống nhau, chưa hoàn thành câu trả lời), số phiếu hợp lệ 322, chiếm tỉ lệ 85,87%.

Nghiên cứu sử dụng các phương pháp bao gồm nghiên cứu định tính và định lượng. Trong đó, nghiên cứu định tính thông qua việc tổng hợp lý thuyết và kết quả của nghiên cứu tiền nhiệm để phát triển khung nghiên cứu đề xuất. Sau đó, nhóm tác giả đã tiến hành thảo luận với các chuyên gia, nhà nghiên cứu thuộc lĩnh vực ngân hàng để hiệu chỉnh thang đo phù hợp với bối cảnh, từ đó nhóm tác giả hoàn thiện bảng khảo sát. Tiếp theo, nghiên cứu tiến hành khảo sát sơ bộ trên 30 đáp viên. Kết quả ban đầu cho thấy độ tin cậy (α) của các yếu tố $>0,7$ (Hair & cộng sự, 2010). Vì thế, dữ liệu được thu thập dựa trên bảng khảo sát chính thức này. Bảng khảo sát được thiết kế trực tuyến và chia sẻ đường link trên nền tảng nền tảng truyền thông xã hội Facebook. Quá trình khảo sát được thực hiện từ 29/12/2022 đến 03/02/2023. Phần mềm SPSS 21 và AMOS 21 được sử dụng để kiểm định mô hình nghiên cứu.

4. Kết quả nghiên cứu

4.1. Kết quả đặc điểm mẫu

Đặc điểm của mẫu nghiên cứu được mô tả tại Bảng 1. Về giới tính, nam chiếm 54,35% và nữ chiếm 45,67%. Đa số có trình độ cử nhân (55,59%), sau đại học chiếm 28,88%, và trình độ phổ thông chiếm 15,53%. Điều này cho thấy mọi đối tượng đều dễ dàng tiếp cận và sử dụng các DV TTKDTM. Liên quan đến độ tuổi của người tham gia, đối tượng khảo sát có độ tuổi 18–25 (29,19%), 26–35 (26,4%), 36–40 (24,53%), >40 (14,29%), và <18 (5,59%). Đa số có thu nhập ở 10–dưới 15 triệu (36,65%), tiếp theo là 15–20 triệu VND/tháng (21,12%), >20 triệu VND/tháng (18,32%), và <5 triệu VND/tháng (7,14%).

Bảng 1. Kết quả thống kê mô tả mẫu

Đặc điểm mẫu	Thuộc tính	Số lượng	Tỷ lệ (%)
Giới tính	Nam	175	54,35
	Nữ	147	45,67
Trình độ học vấn	Phổ thông	50	15,53
	Cử nhân	179	55,59
	Sau đại học (ThS, TS)	93	28,88
Độ tuổi	Dưới 18	18	5,59
	18–25	94	29,19
	26–35	85	26,4
	36–40	79	24,53
	>40	46	14,29
Thu nhập (triệu đồng Việt Nam (VND)/tháng)	<5	23	7,14
	5–dưới 10	54	16,77
	10–dưới 15	118	36,65
	15–20	68	21,12
	>20	59	18,32

Nguồn: Kết quả phân tích từ SPSS 21

4.2. Kiểm định độ tin cậy

Đầu tiên, bài viết phân tích nhân tố khám phá (EFA) với các tham số và chỉ tiêu cơ bản: chỉ số Kaiser-Meyer-Olkin (KMO)= 0,919 (>0,5), kiểm định Barlett với hệ số Sig.< 0,05, và tổng phương sai trích đạt 75,634 (>50%). Đồng thời, hệ số tải nhân tố đều lớn hơn 0,5 (Bảng 2). Kết quả đánh giá sơ bộ thang đo chỉ ra tất cả nhân tố trong mô hình đề xuất đảm bảo độ tin cậy cần thiết và là một thang đo đơn hướng. Vì thế, kết quả phân tích EFA hoàn toàn phù hợp.

Bảng 2. Ma trận xoay nhân tố

	Phương tiện hữu hình (HH)	Tính tin cậy (TC)	Sự đảm bảo (DB)	Sự đồng cảm (DC)	Khả năng tiếp cận (TT)	Lợi ích đối với môi trường (MT)	Đổi mới xanh (DM)	Sự hài lòng (HL)	Dự định tiếp tục (TSD)
HH1	0,899								
HH2	0,835								
HH3	0,856								
TC1		0,880							
TC2		0,855							
TC3		0,874							
DB1			0,897						
DB2			0,907						
DB3			0,898						
DB4			0,919						
DC1				0,869					
DC2				0,889					
DC3				0,870					
TT1					0,823				
TT2					0,805				
TT3					0,862				
TT4					0,728				
MT1						0,817			
MT2						0,910			
MT3						0,858			
DM1							0,857		
DM2							0,809		
DM3							0,881		
HL1								0,751	
HL2								0,804	
HL3								0,886	
HL4								0,819	
TSD1									0,787
TSD2									0,922
TSD3									0,905

Nguồn: Kết quả phân tích từ SPSS 21

Hơn nữa, nghiên cứu phân tích nhân tố khẳng định (CFA) dựa trên một số chỉ số quan trọng bao gồm α , độ tin cậy tổng hợp (CR), và tổng phương sai trích (AVE). Để kiểm định độ tin cậy của các thang đo, nghiên cứu sử dụng hệ số α . Kết quả chỉ ra $\alpha > 0,7$ (Bảng 3); vì thế, các yếu tố đảm bảo độ tin cậy.

4.3. Kiểm định giá trị hội tụ và giá trị phân biệt

Hệ số CR và AVE được sử dụng để đo lường giá trị hội tụ. Theo đề xuất của Hair & cộng sự (2010), CR cần đạt giá trị lớn hơn 0,7 trong khi AVE cần đạt giá trị lớn hơn 0,5. Bảng 3 cho thấy, hệ số CR và AVE đều đạt yêu cầu. Vì vậy, nghiên cứu thỏa mãn giá trị hội tụ.

Bảng 3. Kết quả giá trị hội tụ

	Loadings	α	CR	AVE
HH1	0,885	0,897	0,898	0,745
HH2	0,837			
HH3	0,867			
TC1	0,898	0,922	0,922	0,797
TC2	0,874			
TC3	0,906			
DB1	0,900	0,948	0,948	0,819
DB2	0,905			
DB3	0,908			
DB4	0,908			
DC1	0,892	0,913	0,913	0,779
DC2	0,882			
DC3	0,873			
TT1	0,810	0,890	0,891	0,671
TT2	0,810			
TT3	0,856			
TT4	0,798			
MT1	0,863	0,900	0,900	0,750
MT2	0,867			
MT3	0,868			
DM1	0,896	0,903	0,903	0,757
DM2	0,809			
DM3	0,903			
HL1	0,836	0,901	0,901	0,696
HL2	0,796			
HL3	0,851			
HL4	0,852			
TSD1	0,789	0,903	0,905	0,762
TSD2	0,917			
TSD3	0,907			

Nguồn: Tác giả tính toán

Tiếp theo, nghiên cứu này xem xét sử dụng căn bậc hai của AVE và sự tương quan giữa các yếu tố để đo lường giá trị phân biệt. Kết quả cho thấy căn bậc hai AVE lớn hơn sự tương quan giữa các yếu tố (Bảng 4). Vì vậy, mô hình nghiên cứu đạt giá trị phân biệt.

Bảng 4. Kết quả giá trị phân biệt

	HH	TC	DB	DC	TT	MT	DM	HL	TSD
HH	0,863								
TC	0,424	0,893							
DB	0,274	0,339	0,905						
DC	0,386	0,500	0,314	0,883					
TT	0,393	0,624	0,374	0,536	0,819				
MT	0,378	0,430	0,243	0,416	0,478	0,866			
DM	0,386	0,590	0,333	0,542	0,597	0,551	0,870		
HL	0,438	0,619	0,491	0,556	0,621	0,521	0,640	0,834	
TSD	0,421	0,694	0,370	0,624	0,663	0,528	0,674	0,646	0,873

Nguồn: Kết quả xử lý từ AMOS 21

4.4. Sự phù hợp của mô hình

Để đánh giá sự phù hợp của mô hình, nghiên cứu sử dụng một số tham số bao gồm hệ số Chi-square/df (>3), CFI, TLI, NFI, IFI, RFI ($\geq 0,9$), và RMSEA (<0,08) (Hair & cộng sự, 2010). Kết quả chỉ ra các tham số trên bao gồm Chi-square/df, CFI, TLI, NFI, IFI, RFI đều thỏa mãn (Bảng 5). Vì thế, nghiên cứu này đạt được phù hợp của dữ liệu nghiên cứu.

Bảng 5. Sự phù hợp của mô hình

Tiêu chuẩn	Giá trị đề xuất	Kết quả
Chi-square/df	< 3	1,520
CFI	$\geq 0,9$	0,975
TLI	$\geq 0,9$	0,971
NFI	$\geq 0,9$	0,931
IFI	$\geq 0,9$	0,975
RFI	$\geq 0,9$	0,920
RMSEA	< 0,08	0,04

Nguồn: Kết quả xử lý từ AMOS 21

4.5. Kết quả kiểm định mô hình

Sau khi đánh giá EFA và CFA, nghiên cứu kiểm định các giả thuyết của mô hình nghiên cứu. Kết quả cho thấy 7/8 giả thuyết có sự tác động ý nghĩa trong mô hình. Yếu tố Sự hài lòng và Dự định tiếp tục sử dụng TTKDTM trong mô hình nghiên cứu giải thích được 67,2% và 50,7% sự biến thiên của các biến phụ thuộc trong mô hình nghiên cứu (Bảng 6 và Hình 2).

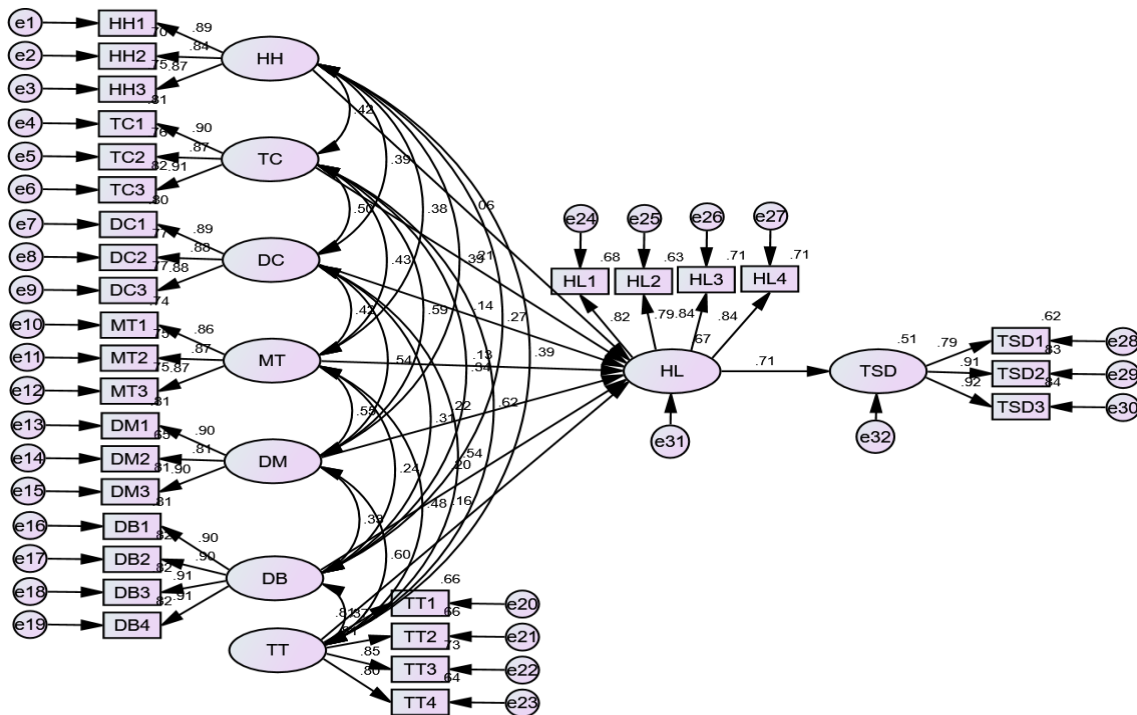
Bảng 6. Kết quả kiểm định mô hình

Giả thuyết	Mối quan hệ	Giá trị β	Giá trị p	Quyết định
H1	HH \rightarrow HL	0,052 ^{n/s}	0,185	Từ chối
H2	TC \rightarrow HL	0,153***	0,000	Chấp nhận
H3	DB \rightarrow HL	0,133***	0,000	Chấp nhận
H4	DC \rightarrow HL	0,109**	0,007	Chấp nhận
H5	TT \rightarrow HL	0,135*	0,013	Chấp nhận
H6	MT \rightarrow HL	0,100*	0,013	Chấp nhận
H7	DM \rightarrow HL	0,162***	0,000	Chấp nhận
H8	HL \rightarrow TSD	0,878***	0,000	Chấp nhận

Ghi chú: * Mức ý nghĩa 0,05; ** Mức ý nghĩa 0,01; *** Mức ý nghĩa 0,001; ^{n/s} Không ý nghĩa thống kê.

Nguồn: Kết quả xử lý từ AMOS 21

Hình 2. Kết quả phân tích mô hình cấu trúc tuyến tính



Nguồn: Kết quả xử lý từ AMOS 21

5. Thảo luận và hàm ý

Một mặt, nghiên cứu mang đến các hàm ý học thuật. Kết quả chỉ ra sự tác động của các yếu tố của mô hình SERVQUAL đến sự hài lòng khách hàng với TTKDTM. Trong đó, tính tin cậy tác động lớn nhất đến sự hài lòng, tiếp theo khả năng tiếp cận thông tin, sự đảm bảo, và sự đồng cảm. Cụ thể, tính tin cậy ($\beta=0,153$, $p<0,001$) tác động tích cực có ý nghĩa thống kê đến sự hài lòng. Kết quả này thống nhất với các nghiên cứu gần đây (Ngô Đức Chiến, 2022; Nguyễn Quang Vĩnh, 2022). Tức là, sự tin tưởng của khách hàng là vấn đề sống còn của ngành ngân hàng hiện nay. Khách hàng quan tâm đến sự tin cậy đối với TTKDTM khi gia tăng sự hài lòng đối với DV này. Tiếp theo, khả năng tiếp cận thông tin

($\beta=0,135$, $p<0,05$) và sự đảm bảo ($\beta=0,133$, $p<0,001$) tác động ý nghĩa, tương tự và là các động lực thúc đẩy sự hài lòng khi sử dụng TTKDTM. Các kết quả này khẳng định giá trị của SERVQUAL và nghiên cứu tiền nhiệm của Tran & Nguyen (2020). Thông tin đóng vai trò quan trọng hỗ trợ khách hàng hiểu hơn về TTKDTM và đưa ra quyết định sử dụng hiệu quả (Nguyen & Le, 2021). Đồng thời, khi NHTM tạo được sự an tâm cho khách hàng thông qua hiểu biết, năng lực, khả năng xử lý tính huống, và hỗ trợ nhiệt tình họ khi giao dịch, khách hàng sẽ thỏa mãn với TTKDTM. Cuối cùng, sự đồng cảm ($\beta=0,109$, $p<0,01$) là yếu tố cơ bản của SERVQUAL và là tiêu chí để đánh giá CLDV của TTKDTM. Nếu khách hàng cảm nhận được quan tâm, am hiểu và sự đồng cảm của NHTM về thói quen, nhu cầu cá nhân, họ gia tăng thỏa mãn đối với TTKDTM. Kết quả này phù hợp với khẳng định của nghiên cứu gần đây (Chatterjee & cộng sự, 2022). Tuy nhiên, kết quả thực nghiệm chỉ ra sự ảnh hưởng của phương tiện hữu hình ($\beta=0,052$, $p>0,05$) đến sự hài lòng không có ý nghĩa thống kê trong bối cảnh TTKDTM. Điều này giải thích rằng các NHTM đều chú trọng đầu tư, trang bị đầy đủ các phương tiện hữu hình (cơ sở vật chất, quầy giao dịch, website, và ứng dụng di động). Do đó, khách hàng cảm nhận không có sự khác biệt lớn giữa các NCCDV về tính hữu hình và đánh giá đó như là điều kiện cơ bản để triển khai TTKDTM.

Hơn nữa, các yếu tố cảm nhận giá trị xanh ảnh hưởng tích cực, có ý nghĩa thống kê đến sự hài lòng khách hàng đối với TTKDTM. *Thứ nhất*, mặc dù lợi ích với môi trường không phải là chức năng của TTKDTM nhưng yếu tố này giúp khách hàng hiểu hơn về đóng góp của TTKDTM đối với xã hội từ khía cạnh môi trường như tiết kiệm chi phí giấy tờ, giảm ô nhiễm môi trường và vấn đề giao thông. Mối quan hệ giữa lợi ích TTKDTM đối với môi trường ($\beta=0,100$, $p<0,05$) và sự hài lòng ủng hộ kết quả của nghiên cứu của Herath & Herath (2019). *Thứ hai*, đổi mới xanh ($\beta=0,162$, $p<0,001$) tác động tích cực đến sự hài lòng. Khi khách hàng đánh giá NHTM đang nỗ lực áp dụng công nghệ xanh và hiện đại để phát triển TTKDTM, họ sẽ ủng hộ và có xu hướng hài lòng với các DV đó. Kết quả này đã được kiểm chứng thực nghiệm trong lĩnh vực logistics (Chu & cộng sự, 2019) và sản xuất (Wang, 2019), nhưng chưa nhận được nhiều sự quan tâm trong bối cảnh TTKDTM (Nguyễn Thị Hà Thanh & Lê Thị Khánh Linh, 2022). Vì thế, kết quả này đóng góp vào cơ sở lý thuyết liên quan hành vi sử dụng TTKDTM bền vững của khách hàng.

Cuối cùng, sự hài lòng ($\beta=0,878$, $p<0,001$) được khám phá có vai trò quan trọng thúc đẩy dự định tái sử dụng TTKDTM. Kết quả này đồng nhất với khẳng định của nghiên cứu gần đây (Chatterjee & cộng sự, 2022; Tạ Văn Thành, 2022). CLDV là biểu hiện sự thỏa mãn của khách hàng ở cấp độ cao và sau khi khách bày tỏ cảm xúc tích cực với trải nghiệm TTKDTM và thỏa mãn những mong đợi, khách hàng sẽ duy trì sự chọn lựa với TTKDTM.

Mặt khác, bài viết mang đến các hàm ý quản trị. *Thứ nhất*, bài viết gợi mở một số khuyến nghị về vai trò của các yếu tố của SERVQUAL đối với sự hài lòng khách hàng. Cụ thể, NHTM cần quan tâm tăng cường tính tin cậy của TTKDTM. Để đảm bảo sự tin tưởng của người dùng, NHTM cần thiết kế các giải pháp công nghệ (như hạ tầng an ninh an toàn, sử dụng chữ ký điện tử, mã hóa) và phi công nghệ (như chính sách bảo mật thông tin, cam kết và chính sách khắc phục, cảnh giác và nhận diện rủi ro, nâng cao nhận thức cho nhân viên và khách hàng bảo vệ tính riêng tư) nhằm giảm thiểu lo lắng, tạo sự an tâm khi sử dụng TTKDTM. Hơn nữa, NHTM tạo điều kiện cho khách hàng tiếp cận thông tin liên quan đến TTKDTM trong môi trường ngoại tuyến và trực tuyến. Một mặt, NHTM bố trí

nhân viên đủ kiến thức và kỹ năng để tư vấn và truyền tải thông tin chính xác, kịp thời về TTKDĐT mà khách hàng quan tâm. Mặt khác, thông tin chính thức cần được công bố qua các kênh truyền thông hiện đại như website, mạng xã hội, ứng dụng di động, và công cụ trợ lý ảo. Điều này hỗ trợ thông tin dễ dàng, tiếp cận mọi lúc mọi nơi, và khách hàng chia sẻ rộng rãi đến cộng đồng. Bên cạnh đó, sự ảnh hưởng của tính đảm bảo đến sự thỏa mãn ngụ ý NHTM cần có cam kết và hành động giải quyết triệt để và hiệu quả các vấn đề, phần này, khó khăn trước, trong và sau thực hiện TTKDĐT. Các DV TTKDĐT, đặc biệt giao dịch trực tuyến vẫn xảy ra các vấn đề như lỗi hệ thống, chậm trễ giao dịch, thiếu thông tin và không kịp thời. Vì thế, NHTM cần phát triển hệ thống hỗ trợ khách hàng tiếp nhận thông tin phản ánh và xử lý nhanh chóng. Đồng thời, NHTM cần cải thiện sự đồng cảm, từ đó tạo sự hài lòng của khách hàng đối với TTKDĐT. NHTM nên có sự hiểu biết sâu sắc về nhu cầu, sở thích, và xu hướng sử dụng các DV TTKDĐT của khách hàng khác nhau. Cùng với việc xây dựng hệ thống kênh truyền thông, NHTM chủ động tiếp nhận thông tin, ý kiến để cải tiến CLDV và phát triển loại hình TTKDĐT phù hợp như mobile banking cho đối tượng học sinh phổ thông, thủ tục đăng ký dịch vụ TTKDĐT trực tuyến qua kênh chính thức khác nhau, ứng dụng công nghệ số trong giao dịch.

Thứ hai, liên quan đến các yếu tố đổi mới xanh, NHTM thông qua giải pháp marketing thường xuyên và hiệu quả đối với TTKDĐT từ góc độ môi trường. Tăng cường các hoạt động tiếp thị, đặc biệt là marketing xanh vừa hướng dẫn khách hàng tạo lập DV TTKDĐT và giao dịch qua các thiết bị điện tử (Nguyễn Thị Ngọc The, 2021) vừa nâng cao nhận thức về vấn đề môi trường, thay đổi thái độ và hành vi sử dụng SP/DV xanh, thân thiện môi trường, và trách nhiệm người dùng với bảo vệ môi trường (Trương Đình Thái, 2022). Đồng thời, NHTM cần phát triển ngân hàng xanh, bền vững với các DV xanh, và cần định hướng khách hàng và đưa các nội dung bảo vệ môi trường vào hoạt động kinh doanh nhằm tác động đến nhận thức và hành động tiêu dùng xanh của khách hàng (Trương Đình Thái, 2022). Bên cạnh đó, NHTM cần cải thiện trách nhiệm xã hội trong bảo vệ môi trường thông qua nghiên cứu và phát triển các DV TTKDĐT bền vững. Đồng thời, NHTM tiếp tục ứng dụng mạnh mẽ công nghệ hiện đại, phát triển TTKDĐT dựa trên thiết bị điện thoại; phối hợp với các doanh nghiệp và người bán trong thương mại điện tử để kết nối và tích hợp giữa hệ thống công nghệ thông tin của họ với hệ thống thanh toán tự động của NHTM (Nguyễn Thị Ngọc The, 2021). NHTM nỗ lực triển khai và ứng dụng công nghệ số (như dữ liệu lớn, chuỗi khối, trí tuệ nhân tạo) và các ứng dụng (như công nghệ sinh trắc học, QR-code) (Nguyễn Phương Liên, 2021) nhằm đa dạng hóa DV TTKDĐT và hướng đến ngân hàng xanh.

6. Kết luận và hướng nghiên cứu tương lai

Bài viết sử dụng mô hình SERVQUAL kết hợp các yếu tố đổi mới xanh để phân tích các yếu tố tác động sự hài lòng và dự định tiếp tục sử dụng TTKDĐT. Kết quả khẳng định vai trò của các thuộc tính của SERVQUAL bao gồm tính tin cậy, khả năng tiếp cận thông tin, sự đảm bảo, và sự đồng cảm nâng cao CLDV của TTKDĐT. Nghiên cứu cũng nhận diện vai trò cần thiết của đổi mới xanh đến sự hài lòng khách hàng trong TTKDĐT. Do đó, các kết quả trên đã khẳng định giá trị của mô hình đề xuất và SERVQUAL đối với hành vi sử dụng bền vững đối với TTKDĐT. Đồng thời, để phát triển bền vững của lĩnh vực ngân hàng, NHTM cần quan tâm đến sự hài lòng và hành vi bền vững (tiếp tục sử dụng) của khách hàng đối với TTKDĐT thông qua CLDV và ngân hàng xanh.

Nghiên cứu vẫn còn một số hạn chế nhất định. *Thứ nhất*, nghiên cứu sử dụng phương pháp thu thập thuận tiện nên thể hiện tính bao quát kết quả của nghiên cứu. *Thứ hai*, mô hình nghiên cứu trong bài viết đề xuất đối với các TTKDTM nói chung và chưa xem xét một loại hình cụ thể. Do đó, nghiên cứu tương lai xem xét mô hình đối với một loại hình TTKDTM hoặc so sánh giữa các TTKDTM. *Thứ ba*, khách thể nghiên cứu là khách hàng cá nhân sử dụng TTKDTM, trong khi khách hàng tổ chức và doanh nghiệp chiếm giá trị giao dịch TTKDTM cao. Do đó, nghiên cứu tương lai có thể mở rộng qui mô mẫu đối với các đối tượng khảo sát này nhằm mang đến hiểu biết sâu sắc và gợi mở các khuyến nghị phù hợp để phát triển TTKDTM bền vững tại Việt Nam.

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HÀNH VI SỬ DỤNG CÁC NỀN TẢNG MUA SẴM THỰC PHẨM CHAY TRỰC TUYẾN: THỰC NGHIỆM TẠI HÀ NỘI

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Tóm tắt: Công nghệ đổi mới đã khuyến khích hành vi mua sắm trực tuyến. Mục đích của bài viết là phân tích các động cơ quan trọng của quyết định sử dụng nền tảng mua sắm thực phẩm chay (TPC) trực tuyến của người dùng. Bài viết đề xuất một mô hình nghiên cứu dựa trên cảm nhận giá trị của nền tảng mua sắm trực tuyến và cảm nhận giá trị sản phẩm nhằm khám phá các yếu tố ảnh hưởng đến ý định sử dụng nền tảng mua sắm TPC trực tuyến. Dữ liệu được thu thập từ 305 khách hàng có nhu cầu mua TPC trực tuyến tại Hà Nội. Mô hình cấu trúc tuyến tính (SEM) được áp dụng để kiểm định mô hình nghiên cứu. Kết quả chỉ ra các yếu tố của giá trị nền tảng mua sắm trực tuyến bao gồm tính thuận tiện, đổi mới cá nhân, và khả năng hấp thu ảnh hưởng ý nghĩa đến ý định sử dụng nền tảng mua sắm TPC trực tuyến. Đồng thời, các yếu tố của giá trị sản phẩm bao gồm cảm nhận an toàn mua sắm, giá trị thể chất, giá trị tinh thần, và nhận thức vấn đề môi trường đóng vai trò thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến. Cuối cùng, hàm ý lý thuyết và thực tiễn được rút ra nhằm tăng cường hành vi lựa chọn nền tảng mua sắm TPC trực tuyến của khách hàng.

Từ khóa: Cảm nhận giá trị, Nền tảng mua sắm TPC trực tuyến, Ý định sử dụng.

USE BEHAVIOR TOWARD ONLINE VEGETARIAN FOOD PURCHASE PLATFORMS: AN EMPIRICAL STUDY IN HANOI

Abstract: Innovative technologies triggers online purchase among consumers. The article aims to analyze the motivations for use behavior toward online vegetarian food purchase platforms (OVFPPs). A research model is developed based on the association between online platform-related value perceptions with vegetarian food-related value perceptions to explore factors influencing use intention toward OVFPPs. Data are collected from 305 consumers who have adopted online purchase intention toward vegetarian foods in Hanoi. Structural equation modelling (SEM) is used to examine the research model. Results show that online platform-related value perceptions significantly influence use intention toward OVFPPs, namely convenience, personal innovation, and absorptive capacity. Furthermore, vegetarian food-related value perceptions, namely purchase safety, physical value, mental value, and environment concerns play an important role in promoting use intention toward OVFPPs. Lastly, theoretical and practical implications are drawn to foster consumer decisions to opt for OVFPPs.

Keywords: Value perceptions, OVFPPs, Use intention.

1. Giới thiệu

Thực phẩm chay (TPC) đang trở thành lựa chọn trong nhu cầu của người tiêu dùng. Giá trị của thị trường TPC toàn cầu đạt 16 tỷ Đô la Mỹ năm 2021 và dự đoán tiếp tục gia tăng trên 22 tỷ Đô la Mỹ năm 2025 (Wunsch, 2021). Nghiên cứu của Buchholz (2022) báo cáo thói quen ăn chay gia tăng tại các quốc gia Châu Âu, Mỹ, Nam Phi, Hàn Quốc, trong khi các quốc gia khác như Ấn Độ, Trung Quốc, Brazil, Mexico duy trì và có xu hướng giảm nhẹ. Sự tiêu dùng này được lý giải rằng Châu Âu và Bắc Mỹ đang gia tăng tỷ lệ mắc chứng rối loạn sức khỏe bởi thói quen sử dụng thực phẩm từ sữa và thịt. Vì thế, thị trường thực phẩm xanh toàn cầu tiếp tục đạt giá trị cao 44,2 tỷ Đô la Mỹ năm 2022 và ước đạt 77,8 tỷ Đô la Mỹ năm 2025 (Statista, 2021). Điều này cho thấy TPC đang là sự lựa chọn của người dùng toàn cầu bên cạnh thực phẩm chế biến từ thịt.

Tại Việt Nam, TPC đang trở nên phổ biến người dân. Đặc biệt, sau đại dịch covid-19 mọi người có ý thức nâng cao đề kháng, tăng cường miễn dịch thông qua chế độ ăn uống và thể dục để đảm bảo cân bằng dinh dưỡng. Khách hàng gia tăng nhu cầu thực phẩm xanh và giảm dần thực phẩm từ thịt. Tiêu dùng TPC không chỉ người theo tôn giáo, có chế độ giảm cân, mà còn được ưa thích bởi mọi đối tượng. Theo đó, sự xuất hiện của cửa hàng, nhà hàng chay truyền thống (Linh, 2021) và nền tảng mua sắm TPC trực tuyến như website, ứng dụng di động, mạng xã hội, hay sàn giao dịch điện tử trở nên phổ biến. Khách hàng dễ dàng tìm kiếm thông tin và mua TPC trực tuyến bởi các lợi thế như tiết kiệm thời gian và chi phí, nhiều sự chọn lựa, và giá cả hợp lý. Mặt khác, mua sắm trực tuyến trở thành phong cách trao đổi hiện đại và được nhiều khách hàng sử dụng (Le, 2021). Tuy nhiên, kênh bán TPC trực tuyến còn khá hạn chế, thông tin sản phẩm chưa đầy đủ, vấn đề chất lượng sản phẩm; do đó, khách hàng chưa tiếp cận nhiều thông tin, sự thuận tiện, và tin tưởng khi mua sắm.

Trước bối cảnh trên, người bán cần quan tâm đến nhu cầu mua TPC dựa trên nền tảng trực tuyến và mang đến các giải pháp phù hợp để thúc đẩy hành vi mua sắm hiện đại trong thời gian tới. Do đó, mục tiêu của bài viết là khám phá các động cơ của ý định sử dụng nền tảng mua sắm TPC trực tuyến. Để thực hiện mục tiêu này, các câu hỏi nghiên cứu được đặt ra: (i) Những yếu tố nào liên quan đến cảm nhận giá trị nền tảng mua sắm TPC trực tuyến sẽ ảnh hưởng đến quyết định sử dụng nền tảng này? (ii) Các yếu tố liên quan đến cảm nhận giá trị sản phẩm thể hiện vai trò như thế nào trong lựa chọn nền tảng mua sắm TPC trực tuyến?

Nghiên cứu tiến hành thực nghiệm tại Hà Nội bởi đây là một thành phố lớn, tập trung đông dân cư và phổ biến mua sắm trực tuyến. Theo đó, bài viết xem xét giá trị nền tảng mua sắm TPC trực tuyến và giá trị sản phẩm để kiểm định ý định sử dụng nền tảng mua sắm TPC trực tuyến. Đồng thời, bài viết mang đến một số đóng góp cụ thể. *Thứ nhất*, bài viết đề xuất một khung nghiên cứu thực nghiệm về hành vi khách hàng đối với sử dụng nền tảng mua sắm TPC trực tuyến từ góc độ của khách hàng cá nhân. *Thứ hai*, bài viết mang đến sự hiểu biết về hành vi sử dụng nền tảng mua sắm TPC trực tuyến thông qua nhận diện các giá trị nền tảng mua sắm và giá trị sản phẩm. Trong đó, kết quả chỉ ra sự ảnh hưởng tích cực, có ý nghĩa thống kê tương đương của các yếu tố thuộc hai nhóm giá trị cảm nhận này, cũng như sự đổi mới cá nhân và nhận thức vấn đề môi trường là các động

ơ then chốt của quyết định sử dụng nền tảng mua sắm TPC trực tuyến. Thứ ba, bài viết gợi mở một số hàm ý thực tiễn nhằm hỗ trợ người bán tập trung chương trình truyền thông và chính sách hiệu quả để đẩy mạnh thói quen tiêu dùng TPC và mua sắm trực tuyến tại Việt Nam.

2. Cơ sở lý thuyết và mô hình nghiên cứu

2.1. Hành vi tiêu dùng và sử dụng nền tảng mua sắm TPC trực tuyến

Thực phẩm chay là thực phẩm có nguồn gốc từ thực vật như ngũ cốc, các loại đậu, hạt, rau, trái cây, nấm, tảo, men và một số thực phẩm không có nguồn gốc động vật khác (như muối), có hoặc không chứa sữa, mật ong và/hoặc trứng. TPC được khách hàng tiêu dùng ngày càng phổ biến. Hành vi tiêu dùng TPC quyết định bởi các yếu tố liên quan đến động cơ đạo đức, niềm tin tôn giáo, và ủng hộ quyền động vật (Buchholz, 2022). Đồng thời, lợi ích về sức khỏe và chuẩn mực xã hội đóng vai trò thay đổi thái độ và hành vi mua TPC (Linh, 2021). Vũ Thị Minh Hằng & cộng sự (2013) thực hiện một nghiên cứu về quan niệm và thói quen tiêu dùng TPC tại Việt Nam và chỉ ra TPC mang lại các lợi ích về giá trị tinh thần như thực hành theo tôn giáo (24% người được khảo sát) và niềm tin nhân quả (14%); giá trị cảm xúc và thể chất như thay đổi khẩu vị (24%), phòng bệnh và chữa bệnh (10%), giảm cân (6%), bảo vệ môi trường (6%) và ảnh hưởng của bạn bè và gia đình (13%). Hơn nữa, Lam (2020) báo cáo TPC gắn liền với chất lượng cuộc sống của người dùng và tiết lộ các yếu tố liên quan đến TPC bao gồm giá trị tinh thần, kiến thức về ăn chay, và chế độ ăn chay ảnh hưởng cải thiện chất lượng cuộc sống. Tổng quan nghiên cứu trên cho thấy các tác động khách quan và chủ quan đã thúc đẩy hành vi tiêu dùng TPC. Tuy nhiên, TPC tiềm ẩn các vấn đề an toàn thực phẩm như không rõ nguồn gốc, xuất xứ, tiền ẩn hóa chất tạo mùi màu (Vân Thảo, 2022) và vấn đề khác như đảm bảo dinh dưỡng, không hợp khẩu vị, cách chế biến (Vũ Thị Minh Hằng & cộng sự, 2013). Dựa trên các nghiên cứu trên, hành vi tiêu dùng TPC có thể bị tác động bởi lợi ích sức khỏe, lợi ích cảm xúc, vấn đề môi trường, và vấn đề an toàn thực phẩm. Trong bối cảnh mua sắm TPC trực tuyến, bài viết cũng xem xét các yếu tố thuộc giá trị sản phẩm bao gồm giá trị thể chất, giá trị tinh thần, sự quan tâm môi trường, và cảm nhận an toàn tiêu dùng tác động đến sử dụng nền tảng mua sắm TPC trực tuyến bởi vì khi khách hàng có nhu cầu sử dụng và đánh giá tích cực giá trị sản phẩm, họ sẽ tìm kiếm thông tin và cách thức khác nhau để mua sắm TPC.

Bên cạnh đó, mạng Internet và đổi mới công nghệ gia tăng cơ hội cho người bán truyền tải thông tin, tương tác và giao dịch thuận tiện với người mua, trong khi người mua có nhiều lựa chọn, tìm kiếm thông tin, và mua sắm mọi lúc mọi nơi thông qua các nền tảng trực tuyến khác nhau. Nền tảng mua sắm trực tuyến được hiểu là các ứng dụng mua sắm hỗ trợ khách hàng tiếp cận thông tin về người bán và sản phẩm, và thực hiện hành vi giao dịch trên mạng Internet và sử dụng thiết bị điện tử. Các nền tảng trực tuyến bao gồm website, ứng dụng di động, mạng xã hội, hay sàn thương mại điện tử (Cu, 2022b; Le, 2021; Le & Chu, 2022). Các nghiên cứu gần đây đã khám phá các động cơ của hành vi sử dụng nền tảng giao dịch trực tuyến. Wang & Dai (2020) khám phá các yếu tố ảnh hưởng đến ý định sử dụng nền tảng thanh toán di động, bao gồm sự đổi mới cá nhân, ảnh hưởng xã hội, cảm

nhận giá trị nền tảng (tính dễ sử dụng/tính thuận tiện và tính hữu dụng). Tương tự, Cu (2022a) phát triển khung nghiên cứu về ý định sử dụng nền tảng dịch vụ nhận diện địa điểm di động (m-LBS); trong đó sự đổi mới cá nhân, sự sẵn sàng công nghệ, tính thuận tiện, và tính hấp thu là các yếu tố liên quan đến giá trị nền tảng ảnh hưởng đến hành vi chấp nhận. Twum & cộng sự (2021) nhấn mạnh vai trò của đổi mới cá nhân, động lực cảm xúc, và ảnh hưởng xã hội thúc đẩy sử dụng nền tảng học tập trực tuyến. Kaur & Thakur (2019) khám phá các yếu tố của cảm nhận giá trị nền tảng mua sắm trực tuyến như đổi mới cá nhân, sẵn sàng công nghệ, sự hứng thú trải nghiệm quyết định đến thái độ và dự định mua sắm tại Ấn Độ. Trong bối cảnh nền tảng ứng dụng di động truy vết covid-19, Cocosila & cộng sự (2022) nhận diện giá trị nền tảng (tính thuận tiện và giá trị xã hội) tác động cùng chiều, trong khi sự đổi mới cá nhân tác động ngược chiều đến ý định sử dụng nền tảng này. Kết quả thực nghiệm trên khái quát cảm nhận giá trị nền tảng là nhóm tiêu chí quan trọng quyết định sự sẵn sàng sử dụng các nền tảng giao dịch trực tuyến. Thống nhất với bằng chứng trên, bài viết sẽ xem xét sự ảnh hưởng của các yếu tố then chốt liên quan đến giá trị nền tảng (bao gồm tính thuận tiện, sự đổi mới cá nhân, và tính hấp thu) đến ý định sử dụng nền tảng mua sắm TPC trực tuyến.

2.2. Mô hình nghiên cứu

Tính thuận tiện phản ánh nhận thức thuận lợi về thời gian, không gian, và khả năng truy cập của một công nghệ cụ thể (Liu & cộng sự, 2015). Trong bài viết, tính thuận tiện phản ánh cảm nhận lợi ích liên quan việc sử dụng nền tảng mua sắm TPC trực tuyến mọi lúc mọi nơi, dễ dàng thu thập thông tin sản phẩm, lựa chọn người bán, và so sánh giá. Vì thế, tính thuận tiện dẫn đến quyết định sử dụng các công nghệ mới. Điền hình, Tang & cộng sự (2021) chỉ ra sự thuận tiện của mạng xã hội trong trò chuyện, trao đổi thông tin, và thanh toán; vì thế, người dùng dễ dàng chấp nhận sử dụng. Tương tự, Lê Xuân Cù (2022) minh họa tính thuận tiện là một động lực thúc đẩy ý định sử dụng thanh toán di động. Trong bối cảnh nghiên cứu, nền tảng mua sắm TPC trực tuyến mang lại cho khách hàng các tiện ích kể trên; do đó, họ sẽ sẵn sàng trải nghiệm mua sắm TPC trực tuyến. Vì vậy:

H1: Tính thuận tiện thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

Sự đổi mới cá nhân mô tả mức độ sẵn sàng trải nghiệm, tiên phong sử dụng công nghệ mới sớm hơn tương đối của khách hàng so với mọi người (Agarwal & Prasad, 1998). Tính đổi mới gắn liền tính chủ động tìm hiểu và sử dụng sản phẩm/dịch vụ và công nghệ mới. Các trải nghiệm thú vị của khách hàng sẽ dẫn đến hành vi sử dụng sản phẩm/dịch vụ và công nghệ mới. Lê Xuân Cù (2022) chứng minh mối quan hệ thuận chiều giữa tính đổi mới và ý định sử dụng thanh toán QR-code. Tương tự, Cu (2022a) khám phá tầm quan trọng của yếu tố này thúc đẩy ý định sử dụng nền tảng dịch vụ LBS. Ủng hộ sự ảnh hưởng ý nghĩa của sự đổi mới cá nhân đến ý định sử dụng thanh toán di động (Wang & Dai, 2020), bài viết này xem xét khách hàng có đặc điểm mong muốn tiêu dùng TPC và trải nghiệm sử dụng nền tảng mua sắm TPC trực tuyến như một cách thức tiêu dùng mới thay thế mua sắm truyền thống, họ sẽ lựa chọn nền tảng mua sắm TPC trực tuyến. Do đó:

H2: Sự đổi mới cá nhân thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

Khả năng hấp thu là một quá trình xử lý kiến thức nhờ vào các khả năng nhận diện giá trị, đồng hóa, và áp dụng kiến thức mới (Cohen & Levinthal, 1990). Trong nghiên cứu này, yếu tố này được hiểu là khả năng đánh giá, tiếp cận, và sử dụng kiến thức về TPC và mua sắm trực tuyến trong ra quyết định sử dụng nền tảng mua sắm TPC trực tuyến của khách hàng. Khả năng hấp thu giúp họ tiếp thu kiến thức nhằm phục vụ cho mục đích và nhu cầu cụ thể. Kết quả, người dùng sẽ quyết định sử dụng sản phẩm/dịch vụ và thực hiện hành vi đổi mới. Điền hình, Cu (2022a) chỉ ra mối quan hệ ý nghĩa giữa khả năng hấp thu kiến thức và dự định sử dụng nền tảng dịch vụ LBS của người dùng. Tương tự, khả năng hấp thu đóng vai trò thúc đẩy hiệu suất sáng tạo, đổi mới của các nhà quản lý trong ngành công nghiệp gỗ tại Bờ Biển Ngà (Fulgence & cộng sự, 2022). Từ kết quả thực nghiệm trên, nghiên cứu đề xuất giả thuyết:

H3: Khả năng hấp thu thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

Cảm nhận an toàn mua sắm là một trong số yêu cầu quan trọng đối với mua sắm trực tuyến (Dsouza & Sharma, 2021). Đặc điểm mua sắm trực tuyến là các giao dịch được thực hiện trên nền tảng mua sắm qua mạng Internet sử dụng thiết bị điện tử và hạn chế sự trao đổi trực tiếp. Điều này dẫn đến khách hàng xem xét vấn đề an toàn mua sắm là một trở ngại cơ bản trong thương mại điện tử (Nguyễn Văn Minh & cộng sự, 2011). Do vậy, rất cần thiết đảm bảo an toàn mua sắm như cung cấp thông tin đầy đủ, chính sách cam kết mua hàng, chất lượng sản phẩm. Báo cáo Thương mại điện tử Việt Nam năm 2022 chỉ ra một số vấn đề an toàn mua sắm trực tuyến như chất lượng kém so với quảng cáo (chiếm 68% đối tượng khảo sát), dịch vụ chăm sóc khách hàng kém (30%), thông tin giá không rõ ràng (16%), website/ứng dụng không chuyên nghiệp (13%) (Cục Thương mại điện tử và Kinh tế số, 2022). Hơn nữa, vấn đề an toàn TPC cũng nhận sự quan tâm của khách hàng. Bởi vì TPC được làm từ tinh bột, ngũ cốc, và đạm thực vật. Nhà sản xuất cho thêm hóa chất tạo mùi, màu sắc, chất định hình, phụ gia, và chất chống ẩm mốc vào thành phẩm để đảm bảo độ dai, mùi vị, và bảo quản lâu dài. Lê Nam Hải & Lê Tuấn Lộc (2022) nhận diện an toàn thực phẩm là động cơ hướng khách hàng tiêu dùng thực phẩm bền vững. Vì thế:

H4: Cảm nhận an toàn mua sắm thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

TPC chế biến từ rau củ quả, không có thịt và chất béo, không chứa nhiều calo; do đó, TPC nâng cao giá trị về thể chất và tinh thần. Dưới góc độ về giá trị thể chất, TPC cung cấp và bổ sung nhu cầu dinh dưỡng, chống lão hóa, giảm béo phì so với người ăn thịt, và tăng tuổi thọ. Dưới góc độ về giá trị tinh thần, ăn chay giúp giải quyết tình trạng lo âu và căng thẳng, và giúp người dùng cảm thấy tĩnh tâm, yên bình và hiền hòa do giảm thiểu hàm lượng chất béo bão hòa Omega-6 và axit arachidonic có trong thực phẩm chế biến từ thịt. Hơn nữa, TPC giúp cải thiện tâm trạng, cảm xúc, sinh lý do đảm bảo cân bằng hormone trong cơ thể. Do đó, TPC mang lại các giá trị tinh thần và thể chất cho người dùng (Dwyer & Harvey, 2022). Renner & cộng sự (2012) khám phá cảm nhận giá trị tinh thần và giá trị thể chất là hai tiêu chí quan trọng thúc đẩy hành vi lựa chọn thực phẩm của người tiêu dùng. Lê Nam Hải & Lê Tuấn Lộc (2022) thực hiện nghiên cứu tổng quan về động cơ về tiêu dùng thực phẩm hữu cơ và chỉ ra cảm nhận giá trị thể chất là yếu tố ảnh hưởng đến tiêu dùng thực phẩm bền vững. Ủng hộ quan điểm này, Linh (2021) chỉ ra vai

trò quan trọng của TPC đối với sức khỏe và thúc đẩy thái độ và quyết định lựa chọn thực phẩm này tại Việt Nam. Mặc dù, các kết quả trước đây đã chỉ ra hành vi tích cực sử dụng thực phẩm sạch và thực phẩm chay xuất phát từ nhận thức sức khỏe cá nhân, nhưng chưa quan tâm nhiều đến cảm nhận giá trị tinh thần khi tiêu dùng TPC. Trên cơ sở đó:

H5: Cảm nhận giá trị tinh thần thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

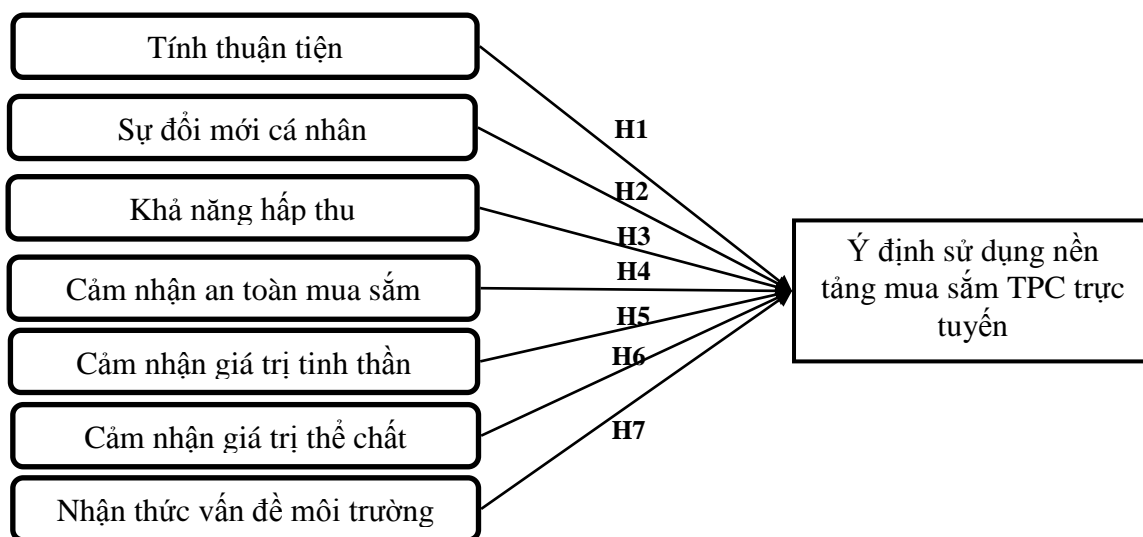
H6: Cảm nhận giá trị thể chất thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

Nhận thức vấn đề môi trường phản ánh nhận thức cá nhân về các vấn đề môi trường và cố gắng giải quyết chúng thông qua sử dụng sản phẩm/dịch vụ thân thiện môi trường. Khi khách hàng ý thức cuộc sống lành mạnh, họ gia tăng quan tâm đến môi trường khi sử dụng sản phẩm gây ra sự mất cân bằng của môi trường. Từ đó, họ nỗ lực tiêu dùng xanh để bảo vệ môi trường. Huỳnh Tịnh Cát & Hồ Diệu Khánh (2021) nhận thức giá trị bảo vệ môi trường khi tiêu dùng thực phẩm hữu cơ, người dùng quyết định mua thực phẩm này tại thành phố Đà Nẵng bởi vì loại thực phẩm này được sản xuất bằng phương pháp canh tác tự nhiên, không gây ô nhiễm đất và nguồn nước. Bài viết giả định rằng khi khách hàng nhận thức việc tiêu dùng sản phẩm thịt gây ra các vấn đề môi trường trong khi TPC góp phần tạo sự cân bằng môi trường tự nhiên và thân thiện môi trường, họ sẽ thay đổi hành vi tiêu dùng TPC. Buchholz (2022) chỉ ra nhận thức vấn đề môi trường như bảo vệ động vật và tiết kiệm tài nguyên dẫn đến việc sử dụng TPC tại Châu Âu và Mỹ. Đồng thời, mua sắm trực tuyến cũng đem lại lợi ích cộng đồng như giảm ô nhiễm môi trường và tắc nghẽn giao thông (Nguyễn Văn Minh & cộng sự, 2011). Vì thế, hành vi mua sắm thực phẩm bền vững qua nền tảng trực tuyến là hành vi thân thiện với môi trường. Do đó:

H7: Nhận thức vấn đề môi trường thúc đẩy ý định sử dụng nền tảng mua sắm TPC trực tuyến.

Mô hình nghiên cứu được minh họa tại Hình 1.

Hình 1: Mô hình nghiên cứu đề xuất



Nguồn: Tác giả tổng hợp và đề xuất

3. Phương pháp nghiên cứu

3.1. Đo lường

Các thang đo trong bài viết được kế thừa từ lý thuyết và các nghiên cứu gần đây. Tính thuận tiện (3 biến quan sát) được kế thừa từ Liu & cộng sự (2015); Sự đổi mới cá nhân (3 biến quan sát) của Agarwal & Prasad (1998); Khả năng hấp thu (3 biến quan sát) của Tho (2017); Cảm nhận an toàn mua sắm (3 biến quan sát) của Dsouza & Sharma (2021); Sự quan tâm vấn đề môi trường (3 biến quan sát) của Lindeman & Väänänen (2000); Cảm nhận giá trị tinh thần (4 biến quan sát) của Steptoe & cộng sự (1995); Cảm nhận giá trị thể chất (3 biến quan sát) của Renner & cộng sự (2012); và Ý định sử dụng nền tảng mua sắm TPC trực tuyến (3 biến quan sát) của Le & Wang (2020) (Bảng 3). Tất cả thang đo được đo lường bằng thang đo Likert 5 mức độ, từ ‘1–Hoàn toàn không đồng ý’ đến ‘5–Hoàn toàn đồng ý’.

3.2. Mẫu nghiên cứu

Nghiên cứu này sử dụng 25 biến quan sát. Vì thế, cỡ mẫu tối thiểu là 125 (=25x5). Để đảm bảo tính thuyết phục và độ tin cậy, nghiên cứu dự kiến mẫu khảo sát là 315. Kết quả khảo sát thu về và sau khi làm sạch, số phiếu có thể sử dụng được là 305.

Các cuộc thảo luận với các chuyên gia marketing và thương mại điện tử để điều chỉnh thang đo cũng như mô hình nghiên cứu để phù hợp với bối cảnh hiện tại. Nghiên cứu tiến hành khảo sát sơ bộ trên 38 đối tượng. Kết quả cho thấy hệ số Cronbach’s alpha của các yếu tố trên 0,7 (Hair & cộng sự, 2018). Theo đó, bảng khảo sát này sử dụng chính thức để tập hợp dữ liệu. Bảng hỏi được thiết kế trên Google Forms và chia sẻ trên Facebook (với 62,84 triệu người dùng) – mạng xã hội lớn nhất tại Việt Nam (Degenhard, 2022). Để đảm bảo mẫu khảo sát trên địa bàn Hà Nội, giới hạn đối tượng được đề cập trong phần giới thiệu bài đăng và phần mở đầu của phiếu khảo sát. Thời gian khảo sát từ 29/12/2022 đến 26/01/2023. Phần mềm SPSS 21 và AMOS 21 được sử dụng để phân tích dữ liệu và kiểm định giả thuyết.

4. Kết quả nghiên cứu

4.1. Kết quả đặc điểm mẫu

Bảng 1 thể hiện kết quả thống kê mẫu. Về giới tính, nữ chiếm 63,28% và nam chiếm 36,72%, điều này thể hiện nữ giới có xu hướng nhu cầu mua sắm TPC và sử dụng nền tảng mua sắm TPC trực tuyến hơn nam giới. Phần lớn đáp viên có trình độ cao đẳng/đại học và sau đại học (74,43%). Về độ tuổi, đa số có độ tuổi từ 23 trở lên (81,31%), trong khi ít nhất là dưới 18 (2,62%). Trong số 305 người khảo sát, 119 người (39,01%) đã ăn chay. Kết quả này cho thấy đáp viên có quan tâm đến TPC. Hà Nội tập trung số lượng lớn người dùng mạng Internet và dịch vụ trực tuyến, nhu cầu mua sắm gia tăng qua ứng dụng di động (37,05%), mạng xã hội (33,11%), website (27,87%), và khác (1,97%).

Bảng 1. Kết quả thống kê mẫu

Đặc điểm mẫu	Thuộc tính	Số lượng	Tỷ lệ (%)
Giới tính	Nữ	193	63,28
	Nam	112	36,72
Trình độ học vấn	THPT	78	25,57
	Cao đẳng/Đại học	206	67,54
	Sau đại học	21	6,89
Độ tuổi	<18	8	2,62
	18–22	49	16,07
	23–30	85	27,87
	31–40	87	28,52
	>40	76	24,92
Trải nghiệm ăn chay chưa	Đã từng	119	39,01
	Chưa từng	186	60,89
Nền tảng mua sắm thường xuyên nhất	Website	85	27,87
	Mạng xã hội	101	33,11
	Ứng dụng di động	113	37,05
	Khác	6	1,97

Nguồn: Kết quả phân tích từ SPSS 21

4.2. Kiểm định độ tin cậy

Đầu tiên, nghiên cứu phân tích nhân tố khám phá (EFA) với hệ số KMO= 0,883 (>0,5), kiểm định Barlett với hệ số Sig.< 0,05, và tổng phương sai trích đạt 74,028. Hệ số tải nhân tố đều lớn hơn 0,5 (Bảng 2). Vì thế, kết quả EFA hoàn toàn phù hợp.

Bảng 2. Ma trận xoay nhân tố

	Tính thuận tiện	Sự đổi mới cá nhân	Khả năng hấp thu	Nhận thức an toàn mua sắm	Cảm nhận giá trị tinh thần	Cảm nhận giá trị thể chất	Nhận thức vấn đề môi trường	Ý định sử dụng
TT1	0,856							
TT2	0,843							
TT3	0,905							
DM1		0,850						
DM2		0,867						
DM3		0,852						
HT1			0,847					
HT2			0,903					
HT3			0,882					
AT1				0,804				
AT2				0,920				
AT3				0,915				
TH1					0,815			
TH2					0,809			
TH3					0,758			

TH4					0,754			
TC1						0,796		
TC2						0,920		
TC3						0,915		
MT1							0,820	
MT2							0,883	
MT3							0,870	
YD1								0,752
YD2								0,912
YD3								0,907

Tiếp theo, nghiên cứu phân tích nhân tố khẳng định (CFA) dựa trên các tham số liên quan độ tin cậy (CA), độ tin cậy tổng hợp (CR), và tổng phương sai trích (AVE). Đầu tiên, nghiên cứu sử dụng hệ số CA để đo lường độ tin cậy. Kết quả minh họa $CA > 0,7$ (Bảng 3). Do đó, các yếu tố đảm bảo độ tin cậy.

4.3. Kiểm định giá trị hội tụ và giá trị phân biệt

Thứ hai, CR và AVE được sử dụng để đo lường giá trị hội tụ. CR cần đạt giá trị $> 0,7$ trong khi AVE cần đạt giá trị $> 0,5$ (Hair & cộng sự, 2018). Bảng 3 cho thấy CR và AVE đều thỏa mãn yêu cầu. Do đó, nghiên cứu đạt giá trị hội tụ.

Bảng 3. Kết quả giá trị hội tụ

Biến quan sát	Loadings	CA	AVE	CR
<i>Tính thuận tiện</i>				
TT1. Tôi có thể mua sắm thực phẩm chay mà không gặp phải trở ngại nào	0,905	0,914	0,778	0,913
TT2. Mua sắm thực phẩm chay trực tuyến không hạn chế thời gian và không gian	0,838			
TT3. Mua sắm TPC trực tuyến được thực hiện trên các thiết bị điện tử khác nhau	0,902			
<i>Sự đổi mới cá nhân</i>				
DM1. Tôi cảm nhận là một trong số người thực hiện mua sắm thực phẩm chay trực tuyến	0,867	0,895	0,740	0,895
DM2. Tôi muốn trải nghiệm mua sắm thực phẩm chay trực tuyến	0,834			
DM3. Khi tôi biết có thể mua sắm thực phẩm chay trực tuyến, tôi sẽ tìm kiếm và trải nghiệm phương thức mua sắm này	0,879			
<i>Khả năng hấp thu</i>				
HT1. Tôi có khả năng nhận ra kiến thức và kỹ năng mới từ thực phẩm chay và mua sắm sản phẩm này trực tuyến	0,879	0,913	0,778	0,913
HT2. Tôi có khả năng tích hợp kiến thức và kỹ	0,897			

năng mới và trước đây liên quan thực phẩm và mua sắm trực tuyến				
HT3. Tôi vận dụng linh hoạt kiến thức và kỹ năng trước đây vào mua sắm thực phẩm chay trực tuyến	0,870			
<i>Nhận thức an toàn mua sắm</i>				
AT1. Mua sắm qua nền tảng trực tuyến sẽ giúp tôi đánh giá sự an toàn thực phẩm	0,877	0,919	0,792	0,919
AT2. Mua sắm qua nền tảng trực tuyến sẽ an toàn hơn các kênh truyền thống	0,901			
AT3. Tôi cảm thấy an toàn hơn với thông tin thực phẩm cung cấp qua nền tảng trực tuyến	0,891			
<i>Cảm nhận giá trị tinh thần</i>				
TH1. Ăn chay giúp tôi thư thái và an lạc	0,809	0,865	0,619	0,867
TH2. Ăn chay giúp tôi đương đầu với căng thẳng	0,820			
TH3. Ăn chay giúp tôi tỉnh táo và hoạt bát	0,755			
TH4. Ăn chay giúp tôi phần chần	0,762			
<i>Cảm nhận giá trị thể chất</i>				
TC1. Ăn chay giúp tôi bổ sung nhu cầu dinh dưỡng (về protein, vitamin, omega)	0,837	0,890	0,731	0,891
TC2. Ăn chay giúp tôi đủ năng lượng cho sinh hoạt và công việc	0,834			
TC3. Ăn chay góp phần duy trì chế độ ăn uống cân đối	0,892			
<i>Nhận thức vấn đề môi trường</i>				
MT1. Thực phẩm chay không làm mất đi sự cân bằng của môi trường tự nhiên	0,839	0,892	0,736	0,893
MT2. Thực phẩm chay sản xuất một cách thân thiện với môi trường	0,871			
MT3. Việc sản xuất thịt sẽ gây hại cho môi trường	0,863			
<i>Ý định sử dụng nền tảng mua sắm TPC trực tuyến</i>				
YD1. Tôi sẽ đặt thực phẩm chay trực tuyến thường xuyên	0,754	0,891	0,740	0,894
YD2. Tôi có kế hoạch đặt thực phẩm chay trực tuyến trong thời gian tới	0,920			
YD3. Tôi sẽ giới thiệu gia đình, bạn bè, và đồng nghiệp mua thực phẩm chay trực tuyến	0,897			

Nguồn: Tác giả tính toán

Thứ ba, nghiên cứu sử dụng căn bậc hai của AVE và sự tương quan giữa các yếu tố để đo lường giá trị phân biệt (Fornell & Larcker, 1981). Bảng 4 cho thấy căn bậc hai của AVE (được in nghiêng) lớn hơn sự tương quan giữa các yếu tố. Do đó, mô hình nghiên cứu đạt giá trị phân biệt.

Bảng 4. Kết quả giá trị phân biệt

	TT	DM	HT	AT	TH	TC	MT	YD
TT	0,882							
DM	0,543	0,860						
HT	0,517	0,353	0,882					
AT	0,617	0,402	0,527	0,890				
TH	0,427	0,403	0,340	0,392	0,787			
TC	0,551	0,390	0,364	0,445	0,319	0,855		
MT	0,381	0,226	0,239	0,363	0,329	0,280	0,858	
YD	0,637	0,589	0,518	0,585	0,546	0,505	0,424	0,860

Nguồn: Kết quả xử lý từ AMOS 21

4.4. Sự phù hợp của mô hình

Nghiên cứu sử dụng các tham số để đánh giá sự phù hợp của mô hình: hệ số Chi-square/df (>3); CFI, TLI, NFI, IFI, GFI ($\geq 0,9$); và RMSEA (<0,08) (Hair & cộng sự, 2018). Kết quả chỉ ra các tham số trên đều thỏa mãn các tiêu chuẩn (Bảng 5). Vì thế, nghiên cứu đạt sự phù hợp của dữ liệu.

Bảng 5. Sự phù hợp của mô hình

Tham số	Tiêu chuẩn	Kết quả
Chi-square/df	< 3	1,053
CFI	$\geq 0,9$	0,998
TLI	$\geq 0,9$	0,997
NFI	$\geq 0,9$	0,955
IFI	$\geq 0,9$	0,998
GFI	$\geq 0,9$	0,937
RMSEA	< 0,08	0,013

Nguồn: Kết quả xử lý từ AMOS 21

4.5. Kết quả kiểm định mô hình

Giá trị R^2 đo lường chất lượng của mô hình nghiên cứu. Cụ thể, ý định sử dụng nền tảng mua sắm TPC trực tuyến được giải thích bởi 61,7% các biến nghiên cứu. Do đó, chất lượng mô hình tương đối tốt.

Liên quan giá trị nền tảng mua sắm, sự đổi mới cá nhân ($\beta=0,213$; $p=0,000$) tác động mạnh nhất đến ý định sử dụng, tiếp theo tính thuận tiện ($\beta=0,117$; $p=0,043$) và khả năng hấp thu ($\beta=0,115$; $p=0,011$). Do đó, nghiên cứu ủng hộ các giả thuyết H1–H3.

Liên quan đến giá trị sản phẩm, ý định sử dụng nền tảng mua sắm TPC trực tuyến lần lượt dưới sự tác động ý nghĩa của giá trị tinh thần ($\beta=0,213$; $p=0,000$), cảm nhận an toàn mua sắm ($\beta=0,131$; $p=0,016$), quan tâm vấn đề môi trường ($\beta=0,119$; $p=0,009$), và giá trị thể chất ($\beta=0,083$; $p=0,039$). Vì vậy, H4–H7 được ủng hộ.

Tóm lại, 7/7 giả thuyết được chấp nhận (Bảng 6). Mô hình nghiên cứu phát hiện có sự ảnh hưởng thuận chiều, có ý nghĩa thống kê, và tương đương của hai nhóm giá trị nền tảng và giá trị sản phẩm đến ý định sử dụng nền tảng mua sắm TPC trực tuyến.

Bảng 6. Kết quả kiểm định mô hình

Giả thuyết	Mối quan hệ	Giá trị β	Giá trị p	Quyết định
H1	TT→YD	0,117*	0,043	Chấp nhận
H2	DM→YD	0,213***	0,000	Từ chối
H3	HT→YD	0,115*	0,011	Chấp nhận
H4	AT→YD	0,131*	0,016	Chấp nhận
H5	TH→YD	0,213***	0,000	Chấp nhận
H6	TC→YD	0,083*	0,039	Chấp nhận
H7	MT→YD	0,119**	0,009	Chấp nhận

Ghi chú: * $p < 0,05$; ** $p < 0,01$; *** $p < 0,001$.

Nguồn: Kết quả xử lý từ AMOS 21

5. Thảo luận và hàm ý

5.1. Hàm ý lý thuyết

Bài viết rút ra các hàm ý lý thuyết. *Một mặt*, nghiên cứu nhận diện các yếu tố liên quan giá trị nền tảng mua sắm trực tuyến ảnh hưởng ý nghĩa đến ý định sử dụng nền tảng mua sắm TPC trực tuyến. Trong đó, sự đổi mới cá nhân tác động mạnh nhất đến ý định sử dụng, tiếp theo là tính thuận tiện và tính hấp thu. Cụ thể, sự đổi mới cá nhân ảnh hưởng tích cực đến ý định lựa chọn nền tảng mua sắm TPC trực tuyến. Điều này tương đối phù hợp đặc điểm người dùng tại một đô thị lớn với trình độ và kỹ năng công nghệ, đổi mới sáng tạo, và mức sống cao. Kết quả này tăng cường bằng chứng thực nghiệm với nghiên cứu gần đây (Cu, 2022a). Kết quả minh họa tính thuận tiện là một động cơ của ý định sử dụng nền tảng. Đây là một trong số thành phần cơ bản của lợi thế tương đối và ảnh hưởng hành vi khách hàng. Đặc biệt, ưu điểm của mua sắm trực tuyến như tiết kiệm thời gian, giá rẻ, nhiều sự lựa chọn, mua sắm mọi lúc mọi nơi. Các lợi thế này đã hướng khách hàng lựa chọn nền tảng mua sắm TPC trực tuyến. Kết quả này thống nhất với nghiên cứu gần đây của Lê Xuân Cù (2022). Hơn nữa, khả năng hấp thu tác động thuận chiều đến ý định sử dụng nền tảng mua sắm TPC trực tuyến. Khi khách hàng tiếp cận thông tin TPC và thành thạo kỹ năng mua sắm trực tuyến, họ sẵn sàng trải nghiệm mua sắm TPC trực tuyến. Kết quả này ủng hộ nghiên cứu trước đây (Cu, 2022a).

Mặt khác, nghiên cứu giải thích ý định sử dụng nền tảng mua sắm TPC trực tuyến thông qua các động cơ về cảm nhận giá trị sản phẩm. Cụ thể, kết quả cho thấy cảm nhận giá trị tinh thần và giá trị thể chất ảnh hưởng thuận chiều đến ý định sử dụng của khách hàng. Điều này khẳng định kết quả nghiên cứu của Linh (2021). Sự ảnh hưởng mạnh nhất của giá trị tinh thần đến ý định sử dụng được lý giải bởi TPC liên quan chặt chẽ đến đạo đức, tôn giáo và hàm ý ý tế hoặc thanh tẩy trong nghi lễ. Điều này giải thích thêm vì phần lớn đối tượng khảo sát trên 31 tuổi (53,44%) và có ảnh hưởng xã hội đến đối tượng khác để tiêu dùng TPC. Tuy nhiên, mối quan hệ này chưa được khám phá thực nghiệm trước đó. Vì vậy, kết quả này bổ sung lý thuyết hiện tại về hành vi tiêu dùng bền vững. Hơn nữa,

nhận thức an toàn mua sắm ảnh hưởng thuận chiều đến việc sử dụng nền tảng mua sắm TPC trực tuyến. Khi mua sắm trực tuyến trở thành thói quen, khách hàng sẵn sàng thay đổi phương thức tiêu dùng từ truyền thống sang trực tuyến, đặc biệt sau đại dịch covid-19 (Le, 2021). Khách hàng có hiểu biết và tiếp cận thông tin người bán và sản phẩm. Điều này thể hiện khách hàng tin cậy nhiều hơn và dễ dàng ra quyết định tiêu dùng. Khám phá này ủng hộ khẳng định trước đây của Lê Nam Hải & Lê Tuấn Lộc (2022). Cuối cùng, nhận thức vấn đề môi trường là động lực quan trọng của hành vi mua sắm TPC trực tuyến qua nền tảng số. Khi khách hàng nhận thức TPC và mua sắm trực tuyến ít gây hại cho môi trường hơn so với thực phẩm từ động vật và mua sắm truyền thống. Sử dụng TPC là hành vi tiêu dùng xanh. Như vậy, người dùng quan tâm môi trường đánh giá cao và hành động sử dụng nền tảng mua sắm TPC trực tuyến.

5.2. Hàm ý thực tiễn

Bài viết mang lại các hàm ý thực tiễn. *Một mặt*, người bán cần quan tâm đến vai trò của giá trị nền tảng mua sắm trực tuyến đến kế hoạch và quyết định chọn lựa TPC trực tuyến. Qua khảo sát đối tượng tiêu dùng TPC, phần lớn (75,63%) người dùng mua sắm TPC tại cửa hàng, nhà hàng truyền thống do hạn chế kênh bán hàng trực tuyến. Do đó, người bán cần phát triển đa kênh như website, ứng dụng di động, và mạng xã hội bởi vì website và ứng dụng di động là kênh chính thức để khách hàng tìm kiếm thông tin và chính sách bán hàng, trong khi mạng xã hội là kênh tương tác hiệu quả (Cu, 2022b). Điều này sẽ thuận tiện và kích thích quyết định mua sắm TPC trực tuyến. Tiếp theo, sự đổi mới cá nhân và khả năng hấp thu là các điều kiện quan trọng thúc đẩy sử dụng phương thức mua sắm hiện đại này. Hiện nay, nhu cầu tiêu dùng TPC đa dạng đối tượng. Người bán vừa ưu tiên khách hàng có sự đổi mới công nghệ và kỹ năng sử dụng phương tiện điện tử như thế hệ Y và Z, vừa tập trung người dùng thế hệ X bởi vì họ thường quan tâm đến chế độ dinh dưỡng, có thu nhập ổn định, và làm quen rất tốt với các công cụ trực tuyến (Nguyen & Le, 2021). Vì thế, nhu cầu đổi mới bản thân và phong cách mua sắm của họ rất tiềm năng. Người bán cần có sự hỗ trợ truyền thống và trực tuyến giúp khách hàng dễ dàng tiếp cận thông tin và giải quyết vấn đề phát sinh trước, trong và sau quá trình mua sắm TPC trực tuyến.

Mặt khác, giá trị sản phẩm góp phần then chốt tăng cường mua sắm TPC trực tuyến. Liên quan đến sự an toàn mua sắm, người bán cần phát triển chương trình marketing nhằm nâng cao nhận thức về an toàn TPC và các lợi ích của mua sắm TPC trực tuyến. Người bán sử dụng kênh trực tuyến (như báo điện tử, mạng xã hội, diễn đàn) và kênh truyền thống (tại cửa hàng, siêu thị, trung tâm thương mại) để tuyên truyền lợi ích sản phẩm, phát dùng thử để khách hàng có hiểu biết và kiến thức cần thiết về TPC. Bên cạnh đó, người bán lựa chọn chuyên gia trong chiến dịch truyền thông để trao đổi, tư vấn về chế độ sử dụng bởi vì họ là người có tầm ảnh hưởng, kiến thức, trải nghiệm và tác động lớn đến hành vi của người dùng (Cu, 2022a). Người bán phối hợp với các cơ quan y tế và dinh dưỡng tổ chức sự kiện, chương trình chăm sóc sức khỏe trên các kênh bán hàng trực tuyến. Điều này giúp khách hàng hiểu hơn về giá trị và lợi ích sức khỏe và tinh thần của TPC. Đồng thời, người bán cần thiết phải đảm bảo yếu tố chất lượng sản phẩm thông qua chính sách cam kết, xuất xứ và nguồn gốc sản xuất, có chứng nhận kiểm định vệ sinh an toàn thực phẩm. Người bán cần công khai thông tin và minh chứng (như hình ảnh, video liên quan nhà cung ứng nguyên liệu, nhà sản xuất, quy trình sản xuất) về

an toàn TPC trên các kênh trực tuyến. Hơn nữa, vấn đề môi trường cần được quan tâm bởi người bán. Họ cần có cam kết sản phẩm và thương hiệu xanh, bền vững gắn với bảo vệ môi trường. TPC có nguồn gốc thực vật không sử dụng nguồn gốc động vật, và đảm bảo việc sản xuất thực vật không gây hại cho môi trường thông qua sử dụng hóa chất độc hại. Hơn nữa, người bán cần định hướng người dùng và đưa các nội dung bảo vệ môi trường vào hoạt động truyền thông nhằm nâng cao nhận thức và hành động của họ đối với môi trường và sử dụng TPC trực tuyến.

6. Kết luận và hướng nghiên cứu tương lai

Nghiên cứu đã kiểm định mô hình về ý định sử dụng nền tảng mua sắm TPC trực tuyến dựa trên sự ảnh hưởng của nhóm giá trị nền tảng mua sắm trực tuyến và giá trị sản phẩm. Kết quả chỉ ra bảy giả thuyết trong mô hình được chấp nhận. Nghiên cứu khám phá sự ảnh hưởng ý nghĩa giữa giá trị nền tảng mua sắm trực tuyến và giá trị sản phẩm tương tự bao gồm sự đổi mới cá nhân và cảm nhận giá trị tinh thần; tính thuận tiện, tính hấp thu, và nhận thức vấn đề môi trường. Kết quả này đóng góp lý thuyết hành vi khách hàng đối với công nghệ và sản phẩm bền vững. Gắn liền với ý nghĩa lý thuyết, khám phá mang đến hiểu biết cần thiết cho người bán về cảm nhận và hành vi của khách hàng; vì thế, họ phát triển chính sách và truyền thông hiệu quả nhằm khuyến khích khách hàng lựa chọn nền tảng mua sắm TPC trực tuyến.

Nghiên cứu tồn tại một số hạn chế. Thứ nhất, dữ liệu cần được tập hợp trên phạm vi rộng lớn và đối tượng đa dạng hơn vì bài viết hiện tại chỉ tập trung tại địa bàn Hà Nội, trong khi thị trường TPC mở rộng các tỉnh khác tại Việt Nam. Thứ hai, nghiên cứu cần kiểm định mô hình nghiên cứu trên một nền tảng mua sắm TPC trực tuyến cụ thể như website, ứng dụng di động, sàn thương mại điện tử, hay mạng xã hội. Thứ ba, với $R^2=61,7\%$, mô hình nghiên cứu có thể mở rộng bằng bổ sung các động cơ khác trong lý thuyết khuếch tán đổi mới, sự quan tâm quyền động vật, tôn giáo, và ảnh hưởng xã hội. Do đó, mô hình nghiên cứu sẽ thể hiện tính khái quát cao hơn.

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**EXPLORING THE SUGAR VALUE CHAIN FOR SUSTAINABILITY
ASSESSMENT: CASE STUDY IN VIETNAM**

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Abstract: *One of the challenges for improving the sustainability of the value chain is that of understanding its function and mapping them. This paper explores the sugar value chain in Vietnam by applying the Value Chain Analysis for Development (VCA4D) tool. We explored the geographical distribution, value chain organization and social impacts associated with the sugar value chain as a means to facilitate its sustainability assessment. The challenges for sustainable development of the sugar value chain are described, then recommendations for improvement are suggested.*

Keywords: *Sugar value chain, sustainability, value chain analysis, Vietnam*

**KHÁM PHÁ CHUỖI GIÁ TRỊ SẢN PHẨM ĐƯỜNG
ĐỂ ĐÁNH GIÁ TÍNH BỀN VỮNG: NGHIÊN CỨU TRƯỜNG HỢP TẠI VIỆT NAM**

Tóm tắt: *Một trong số những thách thức để tăng cường tính bền vững của chuỗi giá trị là hiểu được các hoạt động chức năng trong chuỗi và sự kết nối giữa các hoạt động đó. Bài viết này khám phá chuỗi giá trị đường tại Việt Nam bằng việc áp dụng công cụ phân tích chuỗi giá trị cho phát triển bền vững (VCA4D). Chúng tôi khám phá sự phân bố theo khu vực địa lý, cách thức tổ chức của chuỗi giá trị và những ảnh hưởng xã hội của chuỗi giá trị sản phẩm đường như một phương tiện để hỗ trợ việc đánh giá tính bền vững của chuỗi. Những thách thức trong phát triển bền vững chuỗi giá trị mía đường cũng được đề cập tới và một số giải pháp được gợi mở.*

Từ khóa: *Chuỗi giá trị đường, tính bền vững, phân tích chuỗi giá trị, Việt Nam*

1. Introduction

In recent decades, increased worldwide competitiveness and decreased commodity prices have led to agriculture sectors pursuing value chain possibilities to boost profitability and sustainability (Martin, 2001; Boehlje, 1999). Martin (2001) highlights other drivers, including the industrialisation of agriculture as farming shifts from a rural lifestyle to an agribusiness sector with a value chain mentality. Sugar industries around the world are no exception. The long term sugar price trend has been downwards despite the costs of production generally increasing. Increased competition from new powerful sweeteners as sugar substitutes may put more pressure on sugar pricing (Higgins et al., 2007).

Furthermore, sugar production (per hectare) has stayed stable or decreased in many established sugarcane growing regions during the last three to five decades (Meyer and Van Antwerpen, 2001; Garside et al., 2001). These challenges have resulted in a greater emphasis on value chain solutions to boost profitability.

In Vietnam, sugar industry is important and plays a key role in the agriculture based industries. In the last 5 years, Vietnamese sugar industry has suffered serious losses due to the impact of the unequal business environment. Over the years, devaluation sugar from Thailand has found many ways to enter the Vietnamese market, causing the domestic sugar price to drop below production costs. The local sugar products are in stock or factories are forced to sell sugar below the production cost, leading to serious damage to the sugar industry in Vietnam. In addition, the climate change is also causing difficulties for the Vietnamese sugar industry. Prolonged drought, quick drying of sugarcane lead to reduced weight and quality of sugarcane in the last months of harvest and high transportation costs. Processing and taking advantage of by-products after processing sugar are not much. In otherwords, the Vietnamese sugar industry is in a precarious stage.

As a result, there is a quest for maintaining the sustainability of the Vietnamese sugar industry. In this regard, it is essential to explore the sugar value chain in Vietnam to analyze its sustainability and raise some suggestions to improve the value chain.

2. Literature review

2.1. Value chain

The value chain concept was developed and popularized in 1985 by Michael Porter, in “Competitive Advantage,” a seminal work on the implementation of competitive strategy to achieve superior business performance. Porter (1985) defined value as the amount buyers are willing to pay for what a firm provides, and he conceived the “value chain” as the combination of nine generic value added activities operating within a firm - activities that work together to provide value to customers. Porter linked up the value chains between firms to form what he called a Value System. However, in the present era of greater outsourcing and collaboration the linkage between multiple firms’ value creating processes has more commonly become called the “value chain.” As this name implies, the primary focus in value chains is on the benefits that accrue to customers, the interdependent processes that generate value, and the resulting demand and funds flows that are created. Effective value chains generate profits.

In agriculture sector, the value chain approach provides a systematic process to improve market linkage for farmers (Ferris et al., 2014). It provides a framework for identifying key constraints and considering appropriate solutions (Orozco-Romero et al., 2020). These constraints and solutions require a coordinated response by different stakeholders in the chain, which necessitates trust and a willingness to collaborate (USAID). Through value chain approach, one can understand farmer-trader relationship, power dynamics and the distribution of benefits in the chain. According to Rota and Sperandini (2010), value chain analysis is essential to an understanding of markets, their relationships,

the participation of different actors, and the critical constraints that limit the growth of agricultural production and consequently the competitiveness of smallholder farmers. These farmers currently receive only a small fraction of the ultimate value of their output.

2.2. Value chain mapping

The value chain map helps us to understand how different businesses interconnect to form one system. It is a potential starting point for the inclusion of smallholder farmers in the chain (Lundy et al., 2014). A visual map of the value chain has the capacity to reveal stakeholders involved in the chain, boundaries of the system, inter-relationships and functional roles; a flow of goods, services, payments, and information along the chain; and linkage points and gaps between stakeholders. According to Lundy et al. (2014), agricultural value chain mapping has three levels or dimensions (Figure 1). These are core processes (direct actors), partner (indirect actors) network and external influencers.

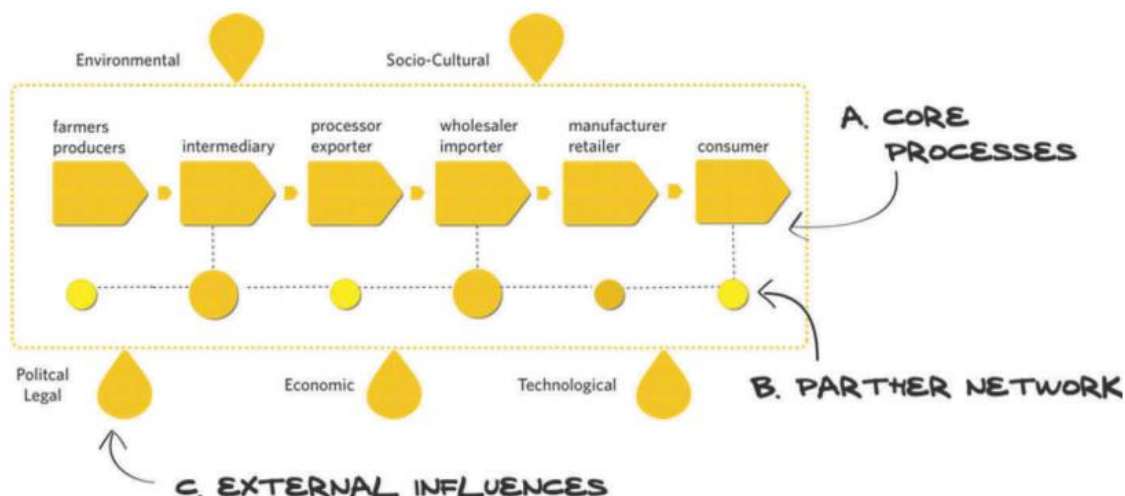


Figure 1: Dimensions of agricultural value chain

(Source: Lundy et al., 2014)

Sugar industries around the world are primarily “push chains”, where sugarcane is pushed through the chain to produce raw sugar with minimal product differentiation and sold at market value as a bulk commodity. A general sugar value chain consists of growing, harvesting, cane transport, mill processing, sugar transport and storage/ shipping/marketing sectors.

2.3. Sugar value chain and sustainability

There are not many studies on the sugarcane value chain in the world and in Vietnam. Higgins and Laredo (2006) explored the Australian sugar industry and proposed an analytical framework to model the components involved in the harvesting and transportation of sugar cane products in the value chain. Research by Higgins and Laredo (2006) showed that there are a number of key points for improvement such as rearranging the harvesting process or streamlining the transportation infrastructure that will help increase the return value for stakeholders.

Similarly, Kalinda and Chisanga (2014) studied the sugar value chain in Zambia and pointed out the opportunities and challenges for the development of the sugar industry. The specialty of the Zambian sugar industry is that it is a monopolistic industry with only one business, contributing 4% of the country's GDP and 6% of the country's total exports.

Perlata and Navarrete (2017) researched the problem of creating shared value in the sugar industry and offers a model that proposes 6 steps to choose a strategy to create shared value in the enterprise's value chain. According to these two authors, shared values are reinforced through supplier development. In another study, Manda et al. (2020) explores the factors influencing the participation of farmers in the sugarcane value chain and examines the preconditions required to secure the benefits and forms of participation. suitable for local groups in the chain.

In conclusion, researches on the value chain in the sugar industry in the world have focused mainly on value chain tools to assess the current situation of the value chain and find solutions to improve the performance of the sugar industry. A few studies have addressed the value chain evaluation criteria, but none have directly addressed the sustainability of the sugarcane value. Similarly, in Vietnam, studies on the sugar industry have been conducted, but in-depth studies on the sugarcane value chain and sustainability of the sugarcane value chain are not available.

3. Materials and methods

The methodological framework of Value Chain Analysis for Development (VCA4D) is structured around their need for policy makers to understand, monitor and demonstrate the impacts and results of their policy interventions on value chains in terms of sustainability and inclusiveness. A toolkit was developed by policy makers and implemented by scientists within the time-schedules of policy makers, and enables the tracking and measuring of how development actions contribute to sustainable development goals. The methodology aims at generating evidence, supported by a list of indicators quantitatively measured and/or based on expert assessments, which together provide an estimation of the contribution of the studied value chains to economic growth, their inclusiveness, as well as their social and environmental performances. The analytical process comprises four components, namely, functional, economic, social and environmental analyses.

The functional analysis is used as a common basis of understanding. In this work, we present elements of the functional analysis of the Vietnamese sugar value chain using the VCA4D methodology. The functional analysis provides a general mapping and description of the main stakeholders, activities, and operations in the value chain, an overview of the products and product flows, a description of the main governance mechanisms in the chain. The functional analysis was based on secondary data (statistics, reports, articles). Thus, we collected data of the Vietnamese sugar industry from the reports of Vietnamese Sugarcane and Sugar Association (VSSA) to draw the value chain map.

Some other published articles were also scanned to catch the related information about the current situation of the sugar industry.

In addition, social analysis is used to evaluate if the sugar value chain is socially sustainable. We collected information from interviews with key stakeholders in the sugar value chain. Fifty people were interviewed in our study, including 15 people from sugar factories, 5 people from the Vietnamese Sugarcane and Sugar Association (VSSA), and 30 farmers who are engaging in the value chain. We got help from the VSSA and the local governments in our study area to approach the farmers and people working in sugar factories. We met the potential respondents individually to interview. Each interview was expected to last for 45 minutes. Interviewees were asked to give their viewpoints around 6 social domains, each domain consists of one or two questions (see Table 1). Social impact of the value chain activities in six strategic domains were evaluated using the 4-point-scale including 1 = Not at all, 2 = Moderate/low, 3 = Substantial; 4 = High. The score of each domain is given by stakeholders during the interviews. The indicators of each domain is presented in Table 1 below.

Table 1: Indicators to measure social impacts of a value chain

Domain	Core Questions	Main themes
Working conditions	Are working conditions throughout the value chain socially acceptable and sustainable? Do value chain operations contribute to improving them?	Respect of international norms; Respect of contract; Risks of discrimination and forced labor; Job safety; Attractiveness; Child labor and education,...
Land and water rights	Are the land and water rights implemented throughout the value chain socially acceptable and sustainable?	Equity and security of access to landwater resources; Transparency of procedures; Consultation; Arbitration procedures; Compensation procedures; ...
Gender equality	Through the value chain, do actors foster and put into practice gender equality?	Inclusion/exclusion of women, vulnerable groups in certain activities
Food and nutrition security	Do value chain activities contribute to upgrading and securing the food and nutrition conditions?	Contribution of the value chain to the availability, accessibility and stability of food resources; Food diversification; Nutritional quality; Price instability, ...
Social capital	Is social capital enhanced by value chain operations and equitably distributed throughout	Strengths and representativeness of producers' organizations; Information sharing; Level of trust among actors; Participation in decisions and

	the value chain?	community activities; Taking traditional practices into account...
Living conditions	Do the value chain activities contribute to improving the living conditions of the households through acceptable facilities and services?	Access to facilities and services: health, education, training, housing, water and sanitation; Quality of these infrastructures, ...

(Source: Adapted from the VCA4D Tool)

4. Results and discussions

4.1. Geographical distribution and conditions for value chain activities

In Vietnam, there are six major regions where sugarcane is grown, of which three regions are in the North and the other three are in the South. The distribution and productivity of these growing areas in the nearest harvest of 2021 are presented in Table 2 below.

Table 2: Distribution of sugarcane growing areas and productivity in 2021

No.	Geographical area	Growing land area (ha)	Productivity (ton/ha)	Volume (ton)
	<i>Northern area</i>	<i>59,873</i>	<i>62.2</i>	<i>3,723,827</i>
1	Red River Delta	1,107	56.5	62,546
2	Northern Highland	23,965	63.5	1,521,984
3	North Central	34,800	61.5	2,139,297
	<i>Southern area</i>	<i>107,030</i>	<i>65.7</i>	<i>7,095,129</i>
4	South Central Coast	36,416	55.9	2,085,787
5	Highlands	44,925	66.7	2,997,646
6	Mekong Delta	13,643	85.7	1,169,508
	Total of all areas	166,902	64.5	10,818,956

(Source: General Statistics Office, 2021)

As shown in Table 2, the most productive area is the Mekong Delta with nearly 86 ton per ha, while the least productive one is the Red River Delta. Moreover, it is clear that the Southern growing areas are mainly contributing to the output of sugarcane in Vietnam. These figures show that the Southern areas possess the favorable conditions for growing sugarcane such as the types and quality of land, climate. For example, many provinces in Highlands have these conditions including Tay Ninh, Gia Lai, Dak Lak, South East region.

Furthermore, it is also essential to identify the sugarcane and sugar production volume to estimate the sustainability of this industry. Table 3 below reveals the downward trend of the sugar industry with less harvesting area and sugar volume.

Table 3: Sugarcane and sugar production volume in 2017-2021 period

Indicator	Growing crop				Average
	2017/2018	2018/2019	2019/2020	2020/2021	
Harvesting area (ha)	241,407	192,386	150,689	128,666	178,287
Sugarcane volume (ton)	15,430,648	12,201,667	7,662,235	6,739,417	10,508,492
Average productivity of harvesting area (ton/ha)	63.9	63.42	53.39	55.00	58.93
Average CCS (%)	9.70	9.70	10.15	10.20	9.94
Sugar volume (ton)	1,476,499	1,173,933	767,954	689,830	1,027,054
Sugar/Sugarcane ratio	10.45	10.39	9.98	9.77	10.15

(Source: Vietnam Sugarcane and Sugar Association, 2022)

It is clarified in Table 3 that the 2017 - 2021 period was very hard for sugar industry. The harvesting area decreases by nearly 50 percent. The sugarcane volume sharply fell from over 15 million tons to around 7 million tons. Only the CCS has been improved from 9.70 percent to 10.20 percent, indicating a raise in quality of sugarcane.

The fluctuation of the Vietnamese sugar industry is also attributed to many external factors including the threats from low price sugar imported from Thailand, the ASEAN Trade in Goods Agreement (ATIGA) requirements. Meanwhile, the area of sugarcane production is small and fragmented, so it is difficult for specialized cultivation, mechanization and irrigation application. The efficiency is not high, so the cost of sugar production has not been reduced. Limitations in the structure of sugarcane varieties such as ripe varieties spread the season; drought tolerant varieties; disease resistant varieties and the like. The relationship between companies, factories and sugarcane farmers is not harmonious, especially in investment, and CCS check.

4.2. Sugar value chain organization and governance

The sugar value chain mapping was done by identifying and charting the current value chain as discovered during the key informant interviews and focus group discussions. The value chain map (Figure 2) shows the flow of payment, information and product in the chain. We identified 8 stages and several actors in the sugar value chain as depicted in Figure 2 below. Value chain actors are individuals and organizations that conduct transactions in a sugar product as it moves through the chain. In this study, direct actors include input suppliers, producers, transporters, wholesalers, retailers and consumers. In addition, the value chain might not work properly without the supporters. Thus, we identified key supporters and influencers including three main actors, i.e. the governmental bodies, associations and financial institutions.

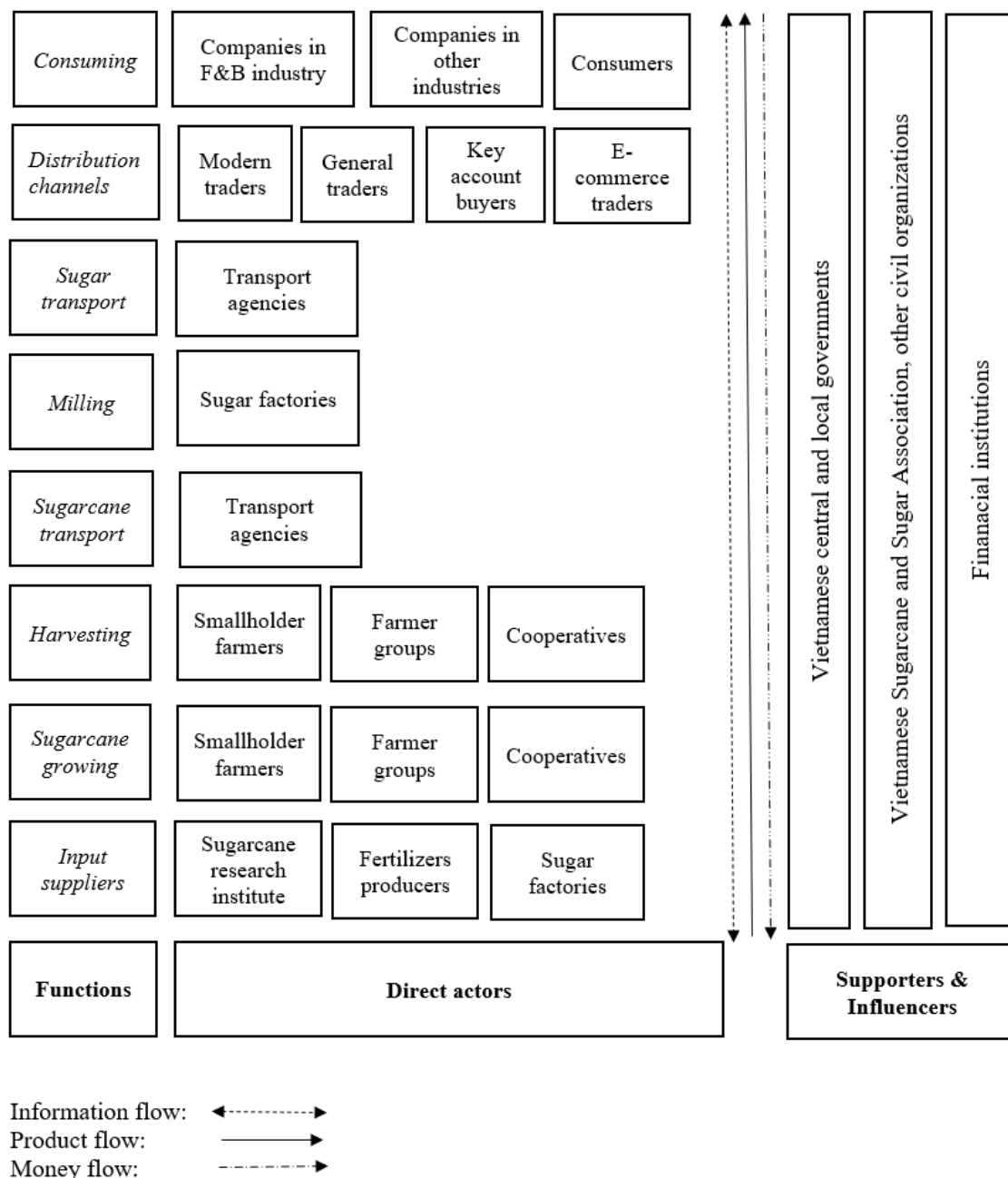


Figure 2: Simplified scheme of the Vietnamese sugar value chain

(Source: Own elaboration)

As denoted in Figure 2 and based on the results of interviews with key stakeholders in the industry, we found several key points regarding the participation of actors in the Vietnamese sugar value chain.

First, input suppliers in the Vietnamese sugar value chain include the research institute and sugar factories. In recent years, it is typical in the Vietnamese sugar value chain that sugar factories are supplying the sugarcane seed to farmers. Thus, the linkage between the sugarcane growers and sugar producers is strengthened.

Second, farmer groups are becoming more dominant in the growing and harvesting

stages of the sugar value chain. According to the Vietnamese Sugarcane and Sugar Association (VSSA), there has been a lot of effort in recent years to build the sugarcane areas by strengthening the linkage between sugar factories and farmers which are modernized with machines. Thus, smallholder farmers are joining groups to grow sugarcane so that they can utilize the machine to grow and harvest sugarcane.

Third, sugar factories play an important role in the sugar production process. During the 2017-2021 period, the output of sugar have reached 4,108,000 tons produced by sugar factories (VSSA, 2022). The quality of sugar is improved as sugar factories have been involving with the farmers from the seed supply to the growing phases. Sugar factories have supported farmeres to access new sugarcane seed types, which provide high quality and productivity. Furthermore, sugar factories also give loan to farmers to buy machines for land preparation and sugarcane harvesting (VSSA, 2022).

Fourth, the distribution channels of sugar products are diverse and active, among which the key account buyers are distributing the majority of sugar product volume in Vietnam. Key account buyers include companies that use sugar as an input in their production process or supermarkets or wholesalers who buy sugar from sugar factories and distribute through the retailing channels. According to VSSA (2022), the majority of sugar produced in Vietnam are bought by key account buyers.

Fifth, supporters and influencers are significantly important in promoting the sugar value chain. In the context of Vietnamese sugar industry, we found that many organizations are supporting the sugar value chain in one or another way. From the macro perspective, central governmental organizations such as the Ministry of Agriculture and Rural Development, Ministry of Finance, Ministry of Industry and Trade, General Department of Customs are pro-active in counselling and supporting key direct actors in the value chain. At provincial level, the People's Committee and Department of Agriculture and Rural Development are helpful to promote farmers to join the sugar value chain. They propagate and encourage farmers to join farmer groups to grow sugarcane. Technical support is also provided to help farmers. Furthermore, financial institutions are reluctant in giving loans to sugarcane and sugar production projects due to the fact that the efficiency and performance of the industry is not high. According to VSSA, no high-tech agriculture project in the sugar industry was submitted and approved by financial institutions.

4.3. Social analysis of the sugar value chain

The sugar value chain in Vietnam has been contributing to sustainable development from a social viewpoint. Figure 3 below shows the social profile of the sugar value chain. The average score of each domain was calculated using data from interviews with 50 stakeholders.

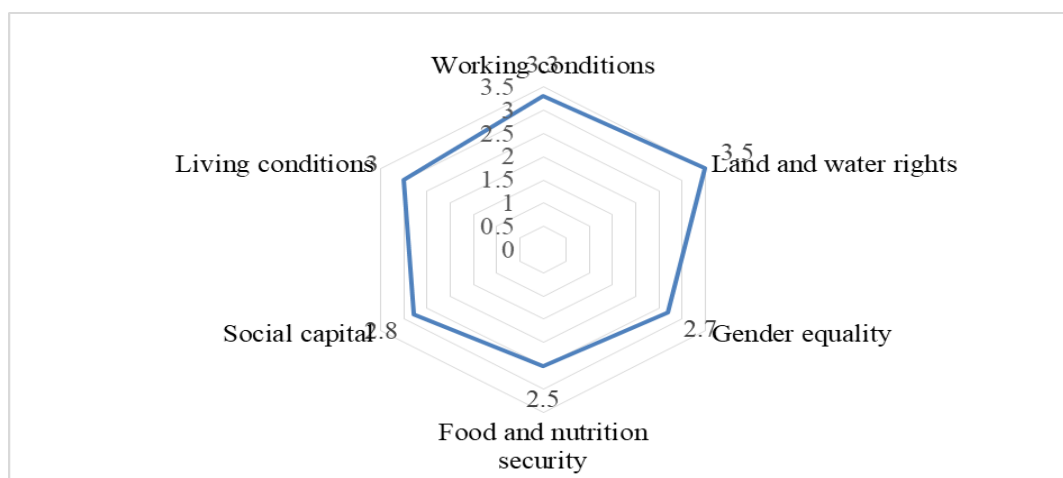


Figure 3: Social profile of Vietnamese sugar value chain

(Source: Own elaboration)

More details of the social impact of the sugar value chain is presented in Table 4.

Table 4: Social impact assessment of the Vietnamese sugar value chain

Domain	Value	Description
Working conditions (W)	3.3	W1. Employees in sugar factories are paid living wage. W2. The working environment is safe and fresh. W3. Sugar companies have transparent promotion policy. W4. There is no child labor in the value chain.
Land and water rights (LA)	3.5	LA1. Sugar companies are compliant with the government regulations on waste water treatment. LA2. The land areas for growing sugarcane are protected and improved.
Gender equality (G)	2.7	G1. Women are involved in the value chain by approximately 60%. G2. Gender discrimination is not found.
Food and nutrition security (F)	2.5	F1. Actors in the value chain are not contributing much to the accessibility and diversity of food at local areas where they are doing business. F2. The price of food have been changing a lot.
Social capital (S)	2.8	S1. The sugar value chain is formulated and structured by professional organizations. S2. The linkage among partners in the value chain is still loose.
Living conditions (LI)	3.0	LI1. Farmers enjoy the benefits when they join local team to grow sugarcane. Their output are consumed by the factory. Therefore, their living conditions are improved with higher earnings in the long-term than raising other crops. LI2. Vocational training specific to value chain for individual farmers have been provided by local governments and

(Source: Own elaboration)

As illustrated in Table 4, the Vietnamese sugar value chain contributes to sustainable development from a social viewpoint, particularly in two areas: (1) working conditions (3.3 points) and (2) land and water rights (3.5 points). However, this sustainability can be improved if stakeholders in the value chain pay more attention to some main constraints such as providing individual farmers with technical support to improve sugarcane productivity and quality, strengthening the relationship between farmers and sugar factories, improving the logistics conditions for the export of sugar.

5. Recommendations and conclusion

In the present study, we attempt to explore the Vietnamese sugar value chain and highlight some key points for further sustainability assessment. Our initial evaluation of the social impact and the structure of the value chain reveals the unsustainable development of the sugar industry in Vietnam. As a result, the sugar industry continues to receive the attention and guidance of the Vietnamese Communist Party, the government and ministries and branches at central and local levels. From the Vietnamese government's viewpoint, the sugar industry must actively improve its competitiveness to integrate into the global economy equally with an independent spirit. Thus, some ineffective sugarcane growing areas should be improved. Several least profitable sugar factories should be restructured. The linkage between smallholder farmers, farmer groups, sugar factories and other stakeholders should be strengthened. It is implied in this study that VSSA is an active member in the value chain and will play a critical role in connecting different stakeholders in the value chain. Thus, we suggest VSSA to leverage its advantages to strengthen the linkages of actors in the value chain. VAAS should propose to the government to adjust policies to support the sugar industry. In addition, we strongly recommend sugar companies should also take their responsibility in promoting the sustainability of the sugar value chain. Sugar companies participate in many phases of the value chain so they have wide sphere of influences on the farmers, the input suppliers, the distributors. Thus, they will be able to guide farmers and encourage them to grow sugarcane and commit to buy sugarcane from farmers at a stable and profitable price.

This study has some limitations. We mainly focus on interviews with some groups of stakeholders in the sugar industry so that the sample size not large. Further studies of sugar value chain sustainability should be conducted in-depth with larger sample size.

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PHÁT TRIỂN DOANH NGHIỆP THEO HƯỚNG THÚC ĐẨY KINH TẾ XANH Ở VIỆT NAM

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Tóm tắt: *Đẩy mạnh phát triển doanh nghiệp (DN) theo hướng thúc đẩy kinh tế xanh (KTX) phát triển, là yêu cầu cấp thiết và thực tiễn ở nước phát triển chưa cao, môi trường đã xuống cấp, muốn trở thành nước có thu nhập cao. Bởi nhiều DN thu lợi ích cao khi tham gia, đồng thời giữ vai trò quan trọng trong nhiều lĩnh vực của KTX, trong nâng cao thu nhập cho người lao động. Với sứ mệnh này, Việt Nam đã có nhiều thành tựu, nhưng còn nhiều hạn chế, yếu kém với nhiều nguyên nhân, song có nhu cầu to lớn, cấp bách. Để đẩy nhanh, Việt Nam cần nâng cao nhận thức, từng bước hoàn thiện hệ thống văn bản pháp luật, cụ thể hóa Chiến lược tăng trưởng xanh, công bố các phác thảo mô hình và cam kết Chính phủ có liên quan. Xây dựng và phê duyệt các quy hoạch phát triển KTX ở các cấp, các vùng theo các lộ trình, làm căn cứ kêu gọi đầu tư. Các cơ quan, hiệp hội DN cần giúp giới thiệu, tiếp xúc, ký kết hợp tác giữa hạt nhân của KTX với các DN, nhằm tạo ra cơ cấu thành tố hoạt động tối ưu. Xây dựng các chương trình hỗ trợ về vốn, tín dụng, đào tạo nhân lực; huy động hỗ trợ từ bên ngoài, nhất là từ quốc tế, đẩy mạnh chuyển đổi xanh cho các thành tố kinh tế khác...*

Từ khóa: *Chuyển đổi xanh, doanh nghiệp, kinh tế xanh.*

BUSINESS DEVELOPMENT TOWARD PROMOTING THE GREEN ECONOMY IN VIETNAM

Abstract: *Developing enterprises in the direction of promoting the green economy is an urgent and practical requirement in a country that is not yet developed, but the environment has already deteriorated, which wants to become a high-income country. Many businesses receive high benefits when participating, and at the same time play an important role in many areas of the green economy, while improving income for employees. With this mission, Vietnam has made many achievements, but still has many limitations and weaknesses due to many causes. However, Vietnam has great and urgent needs for a green economy. To accelerate, Vietnam needs to raise awareness, gradually perfect the legal document system, concretize the Green Growth Strategy, and publish the model outlines and relevant Government commitments. It is necessary to formulate and approve the development planning of the green economy at all levels and regions according to the roadmaps, serving as a basis for calling for investment. Business agencies and associations need to help introduce, make contact, and sign cooperation between the nucleus of the green economy and businesses, in order to create elements for an optimal*

operating structure. It is important to develop programs to support in capital, credit, and human resource training; mobilize support from outside, especially from the international, and promote green transformation for other economic sectors...

Keywords: *Green transformation, businesses, green economy.*

1. Đặt vấn đề

Yêu cầu tăng trưởng cao và bền vững của Việt Nam để trở thành nước có thu nhập cao vào năm 2045 đang gặp nhiều trở ngại, trong đó có hai trở ngại lớn. Một là, quá trình phát triển kinh tế - xã hội đã tạo áp lực lớn khiến tình trạng ô nhiễm môi trường diễn biến phức tạp, chất lượng môi trường nhiều nơi suy giảm mạnh, nhiều hệ sinh thái đã suy thoái đến mức báo động. Hai là, tình hình phát triển DN không sáng sủa, cản trở mạnh việc tạo thêm việc làm mới, nâng cao năng suất và thu nhập cho người lao động. Đến cuối năm 2021, Việt Nam mới có 857.500 DN hoạt động; bình quân chưa đến 09 DN trên 1.000 dân, trong khi trị số này chỉ riêng về DN nhỏ và vừa (SME) năm 2016 ở Mỹ đã là 99,9; New Zealand là 104,3 và ở Tây Ban Nha là 111,7 (Lê Quốc Anh & ccs, 2019). Năm 2022, có 148.500 DN đăng ký thành lập mới và 59.800 DN quay trở lại hoạt động, nhưng có 143.200 DN phải ngừng hoạt động, bằng 96,5% số DN đăng ký thành lập mới. Dẫn đến nguy cơ không đạt mục tiêu là có từ 1,3 đến 1,5 triệu DN hoạt động vào năm 2025 dù từng điều chỉnh giảm mạnh từ mục tiêu có 2,5 triệu DN trước đây. Mặt khác, năm 2021 Việt Nam mới có bình quân đầu người về thu nhập quốc dân (GNI) đạt 3.590 USD, bằng 28,2% mức thu nhập cần có (13.205 USD) để trở thành nước có thu nhập cao; mà để nâng cao thu nhập không gì tốt hơn là phát triển DN. Song việc này đang có nhiều trở ngại, DN gặp khó nhiều trong: tìm kiếm khách hàng (69%), tiếp cận vốn (47%), biến động thị trường (33%), tìm kiếm nhân sự thích hợp (28%), tìm kiếm đối tác kinh doanh (24%)... Dù có thể hướng DN vào phát triển hạ tầng, năng lượng, công nghiệp chế tạo, nông nghiệp chất lượng cao, đô thị thông minh, dịch vụ tài chính, chuyển đổi số, kinh tế tuần hoàn, ứng phó biến đổi khí hậu. Nhưng khi môi trường sống xuống cấp, suy thoái; vốn vay khan hiếm với giá vốn cao, số đơn hàng giảm mạnh, thiếu thị trường, thì hướng phát triển DN phù hợp cho Việt Nam lúc này là chú trọng chuyển sang phát triển KTX. Để góp phần làm sáng tỏ các vấn đề trên, bài viết này tập trung nghiên cứu: (i) Phát triển DN theo hướng thúc đẩy KTX ở nước phát triển chưa cao; (ii) Thực trạng phát triển DN theo hướng thúc đẩy KTX ở Việt Nam và (iii) Giải pháp để đẩy mạnh phát triển DN theo hướng thúc đẩy KTX ở Việt Nam trong giai đoạn hiện nay.

2. Cơ sở lý thuyết, phương pháp nghiên cứu và kinh nghiệm quốc tế

2.1. Cơ sở lý thuyết

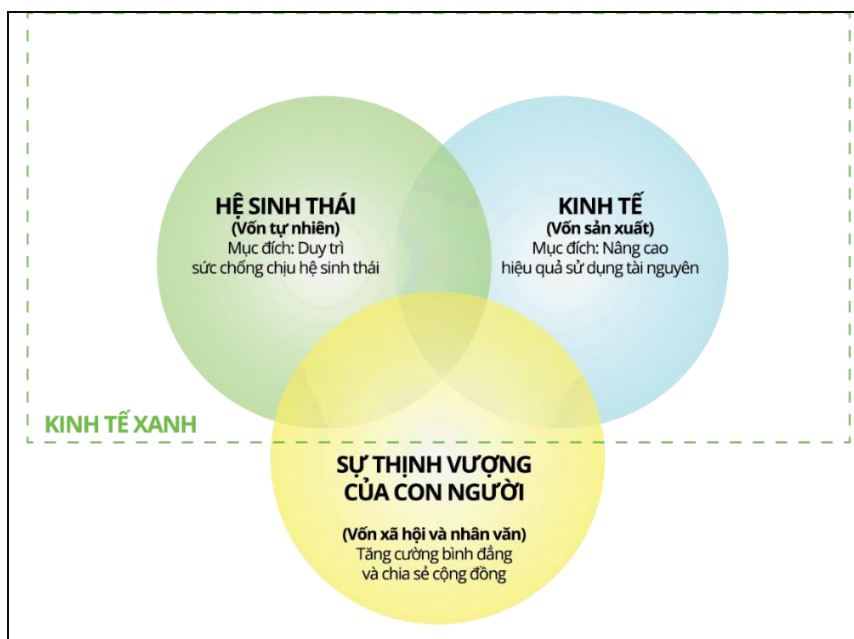
Ở trong nước và quốc tế, nghiên cứu về phát triển DN đã nhiều và đa dạng; còn về KTX, dù mới chính thức được công nhận từ năm 2011, nhưng tới nay cũng đã có nhiều nghiên cứu. Điển hình là nghiên cứu về: Xu hướng phát triển KTX trên thế giới; cơ hội và thách thức phát triển nền KTX; thực trạng và giải pháp phát triển KTX; giải pháp thực hiện tăng trưởng xanh... (Đoàn Thị Cẩm Thu, 2022). Song có rất ít nghiên cứu về tương tác

giữa phát triển DN với phát triển KTX, nhất là trong bối cảnh toàn cầu hóa phân mảnh, nhiều nơi bất ổn năng lượng, chiến sự ở Ukraine khó đoán định, Nga - Mỹ - Trung liên tiếp phát sinh căng thẳng... Làm cho “phát triển DN để thúc đẩy KTX ở Việt Nam” vẫn là một khoảng trống nghiên cứu, song đòi hỏi cần nghiên cứu sâu và sớm để góp phần tạo ra chuyển biến thực sự và quan trọng cho nền kinh tế Việt Nam.

Mặt khác, là chuyên đề phân tích kinh tế chưa từng có nghiên cứu chuyên sâu được công bố, để thực hiện, trước tiên cần xây dựng khung lý thuyết. Để khung này có cơ sở vững chắc, đảm bảo cho giải pháp đưa ra khoa học, DN được phát triển nhanh mạnh, vừa giúp KTX phát triển nhanh, phù hợp, cần chất lượng và hệ thống hóa kiến thức cần thiết từ kinh tế vĩ mô, kinh tế vi mô, kinh tế phát triển, quản trị học... Bên cạnh đó, cần tập hợp, hệ thống hóa kiến thức và kinh nghiệm về phát triển DN, phát triển KTX để dung hòa và kế thừa các tinh hoa của các nghiên cứu quan trọng từng có. Đồng thời, để giải pháp đưa ra sát thực, dẫn dắt được hoạt động thực tiễn, cần dựa vào hiện trạng, đặc thù, tiềm lực, định hướng phát triển cả về DN và KTX của Nhà nước. Để DN và KTX của đất nước sau phát triển có vị thế ngang tầm, hòa nhập vào quỹ đạo phát triển kinh tế của khu vực, thế giới, cần dựa vào các hiệp định thương mại tự do (FTA), cùng diễn biến và thông tin về các vấn đề liên quan. Tổng hợp lại tạo thành khung lý thuyết “Phát triển DN theo hướng thúc đẩy KTX ở nước phát triển chưa cao”, với các nội dung chính như sau:

2.1.1. Phát triển kinh tế xanh, đẩy mạnh chuyển đổi xanh bao trùm lên khắp nền kinh tế là yêu cầu cấp thiết và thực tiễn

Ý tưởng về KTX được Chương trình môi trường của Liên hợp quốc (UNEP) khởi xướng năm 2008, khi thế giới phải đối mặt với nhiều cuộc khủng hoảng cả về kinh tế, xã hội và môi trường. Đến năm 2011, KTX được UNEP chính thức xác định là nền kinh tế mang lại phúc lợi cho con người và công bằng xã hội, vừa giảm thiểu đáng kể các nguy cơ về môi trường và suy giảm sinh thái (Thiện Tâm, 2022). Tuy còn nhiều bàn luận, thêm bớt khác nhau, nhưng đại đa số mọi người thống nhất KTX dựa trên ba trụ cột: kinh tế, sự thịnh vượng của con người và hệ sinh thái. Có thể xem chuyển đổi xanh là khởi đầu về phát triển KTX, nhưng khi đạt tăng trưởng xanh cũng chỉ là KTX ở mức phát triển thấp, bởi đây vẫn có thể là trạng thái kinh doanh bền vững của các thành tố kinh tế khác, như kinh tế biển, kinh tế đêm, kinh tế tuần hoàn. Chỉ thực sự là KTX khi hoạt động kinh tế trong đó đã nâng cao được hiệu quả sử dụng tài nguyên; duy trì được sức chống chịu của hệ sinh thái, và thực hiện được việc tăng cường bình đẳng và chia sẻ cộng đồng.

Hình 1. Sơ đồ về kinh tế xanh

Nguồn: Cơ quan Môi trường châu Âu

KTX có quan hệ mật thiết với phát triển bền vững - ba trụ cột của nó chính là ba trọng tâm cốt lõi về kinh tế, xã hội và môi trường trong phát triển bền vững. KTX không thay thế mà là giai đoạn thấp của phát triển bền vững, là bước đệm giúp nhân loại “chuyển đổi xanh” nền kinh tế để tiến vào phát triển bền vững. Được tổ chức và phát triển theo hai hướng chính, một là theo ngành hay lĩnh vực, như công nghiệp xanh, năng lượng xanh, trong phương diện này, KTX không phải là nền kinh tế độc lập, mà chỉ là một thành tố trong cơ cấu kinh tế. Hai là theo vùng, như nông nghiệp xanh, bởi chỉ có thể chuyên môn hóa cao độ và bền vững về một vài loại nông sản khi vùng được xây dựng và phát triển trên cơ sở một hệ sinh thái nuôi trồng phù hợp và khoa học... Để triển khai KTX, cần phổ cập các công nghệ sạch, sử dụng hiệu quả tài nguyên thiên nhiên, nhất là năng lượng, khuyến khích phát triển và chuyển giao các công nghệ lành mạnh với môi trường. Ưu tiên đầu tư - nhất là đầu tư công - cho tạo việc làm mới và tăng trưởng doanh thu theo hướng sử dụng khôn ngoan tài nguyên, giảm phát thải carbon, ngăn ngừa mất đa dạng sinh học và suy thoái hệ sinh thái. Đây là mô hình tăng trưởng theo chiều sâu, ít hao tổn nguyên nhiên vật liệu và ít phát thải, phù hợp với thực tế tài nguyên thiên nhiên đang cạn kiệt nhanh chóng, môi trường sống xuống cấp rõ rệt, là xu thế phát triển của thế giới. Hơn nữa, các thành tố khác của nền kinh tế cũng cần được chuyển đổi xanh, để vừa hoạt động hiệu quả, mang thu nhập cao về cho người lao động, vừa đóng góp có trách nhiệm vào sứ mệnh phát triển bền vững nói chung của nhân loại...

2.1.2. Nước phát triển chưa cao, muốn nhanh chóng trở thành nước có thu nhập cao, cần đẩy mạnh phát triển doanh nghiệp theo hướng thúc đẩy kinh tế xanh phát triển

Nước phát triển chưa cao - tức đã phát triển ở mức độ đáng kể nhưng cần phát triển lâu và nhiều mới trở thành nước có thu nhập cao, khi muốn nhanh chóng trở thành nước có thu nhập cao, cần phải đẩy mạnh phát triển DN. Bởi lao động mà hoạt động trong các hình

thức kinh doanh: tư nhân, cá thể, tổ hợp, hợp tác xã, thì dù ở nước phát triển, cũng khó có thu nhập cao, chưa kể đến cho người ăn theo. Trong khi DN có ưu việt hơn hẳn về khả năng tập hợp người lao động, cho phép từng người phát huy sở trường, thực hiện các ý tưởng kinh doanh chất lượng. Hội tụ các nguồn vốn nhỏ lẻ, phân tán sử dụng cho mục đích tập trung, hiệu quả, lâu dài; đưa công nghệ tiên tiến tới số đông. Cho phép áp dụng nhanh các thành tựu khoa học công nghệ, tích hợp nhiều tiện ích mới vào sản phẩm, tạo ngoại ứng tích cực, làm tăng số lượng “người chơi” chất lượng cho quốc gia trong mỗi FTA. Từ đó, khuếch trương đáng kể giá trị, ngoại ứng và hiệu quả sử dụng các nguồn lực, công nghệ, làm tăng nội lực, đem lại năng suất lao động và thu nhập cao hơn cho người lao động (Lê Quốc Anh & ccs, 2018), làm cho việc “DN hóa” các hình thức kinh doanh khác thành tiền đề để tạo ra thu nhập cao. Mặt khác, đối với nước phát triển chưa cao, để mau chóng trở thành nước có thu nhập cao, thì việc đẩy mạnh phát triển KTX cũng rất quan trọng. Bởi để tăng nhanh và cao thu nhập phải mở rộng sản xuất, khi thực lực kinh tế chưa cao, thu hút vốn FDI khó có tăng trưởng đột phá, thì phải tăng cường huy động vốn tự nhiên. Dẫn đến việc khai thác quá mức cho phép các nguồn tài nguyên thiên nhiên còn có, thải chất thải vượt khả năng tự hóa giải của môi trường. Để ngăn ngừa và giảm bớt hệ lụy này, cần đẩy mạnh phát triển KTX, dung hòa nhu cầu mở rộng sản xuất để nâng cao thu nhập với duy trì, bảo vệ tài nguyên và môi trường. Mới khuếch đại đáng kể nguồn vốn tự nhiên hữu hạn và đang suy giảm, tạo được nhiều việc làm và tăng nhanh thu nhập cho số dân đông đảo còn nghèo, chỉ giàu về vốn tự nhiên. Giúp giảm tác động tiêu cực vào môi trường cả trong việc khai thác bớt đi và phát thải thêm vào môi trường, ngăn đà suy thoái, xuống cấp; cho phép chuyển nhiều nguồn lực từ phòng chống ô nhiễm, suy thoái môi trường sang đầu tư phát triển kinh tế. Làm cho việc đẩy mạnh phát triển DN để thúc đẩy KTX phát triển trở thành hướng đi quan trọng cho nước phát triển chưa cao khi muốn nhanh thành nước có thu nhập cao. Càng thêm quan trọng khi dư địa phát triển DN ở nhiều nước hạn hẹp, người tiêu dùng ngày càng đòi hỏi sản phẩm phải an toàn hơn, còn vốn FDI của toàn cầu đang thu hẹp...

2.1.3. Nhiều doanh nghiệp thu về nhiều lợi ích khi tham gia, đồng thời giữ vai trò quan trọng trong phát triển kinh tế xanh, nhất là ở nước phát triển chưa cao

Nhiều DN muốn tham gia vào phát triển KTX, vì qua đó thu về nhiều lợi ích không nhỏ. Bởi qua đó, giúp DN có sản phẩm xanh, cho phép tiết giảm chi phí nguyên nhiên vật liệu đầu vào, cũng như thuế phí về môi trường và xử lý chất phát thải, làm giảm giá thành, gia tăng uy tín trên thị trường và năng lực cạnh tranh. Càng muốn tham gia khi có khuyến khích từ chính phủ, vì vừa được hỗ trợ, nâng cao giá trị thương hiệu, tăng khả năng trường tồn vì đi theo xu thế thời đại. Vừa tăng chất nhân văn cho hoạt động khi thực thi trách nhiệm trước dân tộc, góp phần tăng hưng thịnh cho dân cư, củng cố các chuỗi tuần hoàn vật chất và năng lượng trong hệ sinh thái, bảo vệ môi trường - “ngôi nhà chung” của nhân loại... Mặt khác, nhiều loại hình DN với nhiều quy mô khác nhau rất cần, thậm chí không thể thiếu trong các ngành, lĩnh vực hoặc vùng KTX, nhất là ở nước phát triển chưa cao. Bởi ngành nòng cốt trong KTX, dù phát triển đến đâu, tính toán quy hoạch và trang bị cẩn thận đến mức nào cũng không thể bao quát được mọi khía cạnh của quá trình hoạt động. Để kinh doanh hiệu quả, không DN nào lại đầu tư các thiết bị hiếm dùng, tạo các hệ thống

dự trữ quá lớn, dự trữ các khâu để đối phó với sự cố khó xảy ra, hoặc đầu tư cả khâu mà DN bên ngoài đang thực hiện tốt hơn. DN chỉ cần đảm nhiệm khâu trung tâm, quan trọng nhất, còn lại khai thác hoạt động của các DN phụ trợ, tạo thành các tổ hợp công nghiệp xanh, tổ hợp nông nghiệp xanh, trên lập trường “các bên cùng thắng”. Hơn nữa, KTX đa phần là kinh tế phái sinh, hình thành bằng việc đầu tư thêm vào, tổ chức lại các vùng/ngành kinh tế khác, nhất là các vùng nghề hoặc sản xuất truyền thống, các vùng kinh doanh mới nổi. Để chuyển thành KTX, trong điều kiện phát triển chưa cao, cần sự phối hợp của nhiều DN đảm nhiệm các khâu mới - như cung ứng và bảo trì thiết bị mới, cung cấp và sơ chế nguyên liệu, thu gom và tiêu thụ sản phẩm, thu gom và xử lý chất thải... Ngoài ra, phát triển KTX không phải là theo một quy trình xơ cứng, bất biến theo thời gian, mà cần vận động phù hợp theo diễn biến của ba trụ cột, nhất là khi có thay đổi về nguồn cung và tổng cầu có liên quan tới sản phẩm chủ đạo. Chỉ thông qua sự năng động của DN phụ trợ mới dễ luôn đảm bảo cân đối động giữa: mức khai thác phù hợp với nguồn tài nguyên thiên nhiên còn có; nhu cầu việc làm và thu nhập của nhân dân; với lượng phát thải cuối cùng không vượt khả năng chống chịu của hệ sinh thái có liên quan...

2.1.4. Các lĩnh vực cần ưu tiên phát triển doanh nghiệp để góp phần thúc đẩy kinh tế xanh phát triển nhanh mạnh, hiệu quả và bền vững hơn ở nước phát triển chưa cao

Phát triển KTX tại nước mà các vùng đã được khai thác từ lâu, năng lượng còn dùng nhiều nhiên liệu hóa thạch, chưa quan tâm đúng mức đến cạn kiệt tài nguyên và ô nhiễm môi trường, phát triển chưa cao là không dễ. Để thúc đẩy, cần dựa vào đặc thù là khu vực DN ở đây còn non trẻ, đang được khuyến khích phát triển, tiến hành đưa DN đến tăng cường, bổ sung vào các khâu còn thiếu và yếu để nâng cấp và cải thiện cân đối giữa ba trụ cột. Vì thế, cần ưu tiên phát triển DN ở các lĩnh vực: (i) Hỗ trợ chuyển đổi xanh tiến tới phổ cập KTX cho các vùng/ngành đang chuyên môn hóa các sản phẩm có tính thương mại cao, nhất là hàng xuất khẩu nhưng bị đối tác gán thẻ vàng cảnh báo về mức độ an toàn. Phát triển các DN chuyên về giống, phụ liệu kinh doanh, thuốc bảo vệ thực vật, chế biến sản phẩm, quản lý quy trình sản xuất, thu gom... nhằm nâng tầm cho sản phẩm, tiến tới hình thành các thương hiệu mạnh cho từng vùng/ngành. (ii) Liên kết các chủ thể sản xuất nhỏ lẻ đang sản xuất các sản phẩm được thị trường ưa chuộng, để tăng quy mô sản lượng, làm đồng đều, nâng cao hoặc cải thiện chất lượng sản phẩm theo đòi hỏi của thị trường. Phát triển các DN chuyên về tư vấn, đào tạo nghề, lai tạo giống, bổ xung công nghệ mới, trạm trại, kho bãi chuyên dụng để hình thành các sản phẩm xanh có quy mô lớn làm sản phẩm chuyên môn hóa tiêu biểu. (iii) Khai thác các tiềm năng kinh tế liên quan tới các nguồn tài nguyên thiên nhiên chưa được khai thác đúng mức hoặc bị lãng quên, nhất là ở vùng chưa phát triển mà chưa có ngành KTX nổi bật. Phát triển các DN đem công nghệ mới về để thay đổi tập quán sản xuất lạc hậu, giải phóng tiềm năng kinh tế đang bị kiểm tỏa hoặc giúp tiêu thụ các sản phẩm được sản xuất ra nhưng khó khăn trong tiêu thụ. (iv) Mở rộng quy mô sản xuất và đa dạng hóa các trang thiết bị hỗ trợ cho nông, lâm, ngư nghiệp, thu hút lao động dư thừa, giúp họ có thu nhập, giảm tác động tới môi trường, tới an sinh xã hội vì thúc bách của cuộc sống. Khuyến khích thành lập DN theo khả năng, nhất là tại nông thôn, để tăng việc làm phi nông nghiệp, khai thác các khả năng còn có để đẩy nhanh việc xóa đói giảm nghèo. (v) Phát triển rộng khắp các DN dịch vụ môi trường cần

có, nâng cấp các DN dịch vụ môi trường đã có, xử lý các ô nhiễm môi trường tồn đọng để nâng cao khả năng chống chịu của môi trường. Phát triển các DN thu gom, xử lý chất thải, nước thải để góp phần chuyển đổi xanh cho các kinh tế khác; tạo việc làm và giảm tác động xấu tới môi trường ở vùng chưa có điều kiện hoặc chưa kịp phát triển KTX...

2.1.5. Các thay đổi cần thiết để đẩy mạnh phát triển doanh nghiệp nhằm thúc đẩy kinh tế xanh phát triển nhanh mạnh, hiệu quả và bền vững hơn ở nước phát triển chưa cao

Phát triển DN thông thường đã khó, phát triển DN phục vụ nhiệm vụ kinh tế hẹp càng khó hơn, và thành rất khó khi phát triển DN để thúc đẩy KTX tại nước phát triển chưa cao. Bởi KTX không phải muốn là có, không ít nơi đã không thành khi đụng chạm đến thói quen hoạt động cố hữu của nhiều người, hoặc không đạt được hiệu quả kinh tế. Để đẩy nhanh sứ mệnh này cần phải có nhiều thay đổi sâu sắc, đa dạng với các thay đổi quan trọng nhất là: (i) Cần có định hướng và lộ trình rõ ràng, khả thi về phát triển KTX, phù hợp với chiến lược phát triển kinh tế - xã hội, với thực trạng và xu thế biến đổi, cũng như với các cam kết quốc tế về tài nguyên và môi trường. Điều chỉnh các mức thuế phí để đủ mức bù đắp cho việc tái tạo, phục hồi, nhằm khuyến khích các chủ thể khai thác hợp lý tài nguyên, bảo vệ môi trường, sẵn sàng “xanh hóa” hoạt động kinh doanh. (ii) Để tăng tốc phát triển cho nền kinh tế hỗn hợp, cần làm tốt chức năng kiến tạo - phát triển trong quản trị quốc gia, thông qua các xu thế phát triển, dự báo kinh tế theo các lộ trình. Đưa ra các phác họa kinh tế, các quy hoạch phát triển cơ bản cho từng loại hình, làm chỗ dựa cho từng kinh tế thành phần - trong đó có KTX, nghiên cứu, lập kế hoạch, đầu tư và phát triển. (iii) Có chiến lược riêng về phát triển DN hỗ trợ phát triển KTX, bởi các DN này hầu hết phải phân bố ở trong một vùng, có loại hình, quy mô, khách hàng và cơ cấu sản phẩm bị chi phối theo nhiệm vụ được giao. Cần lựa chọn khách quan và khôn ngoan để khi đi vào hoạt động, chúng đáp ứng cao ba tiêu chí: được đầu tư “đúng” về loại hình, “đủ” về quy mô và “trúng” về cơ cấu, để tạo ra nguồn ngoại ứng tích cực lan tỏa cao đối với KTX. (iv) Ưu đãi thỏa đáng nhằm giảm bớt thiệt thòi do bị khống chế về nhiều mặt đối với các DN được phát triển nhằm thúc đẩy KTX, nhất là từ vùng khác, để khuyến khích họ đến và yên tâm ở lại lâu dài. Ưu đãi tín dụng với các khoản vay - kể cả vay để đầu tư xây dựng cơ bản, ưu tiên về thuê đất, tiếp cận điện nước, miễn giảm các loại thuế cao hơn so với các DN khác. (v) Để KTX hoạt động hiệu quả và bền vững, luôn duy trì được cân bằng “động” giữa ba trụ cột, cần có bộ phận tinh hoa để quản trị, trong đó cần dung hòa giữa quản lý nhà nước với các hiệp hội ngành nghề, DN. Ngoài ra, cần làm tốt công tác chuẩn bị nhân lực, những trụ cột cần được đào tạo, bồi dưỡng kiến thức, được truyền thụ kinh nghiệm, và đặc biệt phải thấm nhuần văn hóa kinh doanh “các bên cùng thắng”...

2.2. Phương pháp nghiên cứu

Dựa vào khung lý thuyết “Phát triển DN theo hướng thúc đẩy KTX ở nước phát triển chưa cao” vừa được xây dựng, xác định các lĩnh vực cần nghiên cứu, các đối tượng cần tiếp cận, các nguồn tài liệu cần tham khảo. Từ nguồn tài liệu thu thập được, tiến hành nghiên cứu định tính, với các phương pháp chính là phương pháp phân tích và tổng hợp lý thuyết, phương pháp chuyên gia, phương pháp phân tích tổng kết kinh nghiệm, phương pháp nghiên cứu lịch sử... Trên quan điểm duy vật biện chứng: dùng phép diễn dịch để suy đoán hệ quả tất yếu, dùng phép so sánh để đưa ra nhận định trung gian, sử dụng phép quy

nap đề đưa ra kết luận, tổng hợp lại đề đề đạt kiến nghị, giải pháp. Dữ liệu được thu thập từ Ngân hàng Thế giới (WB), Diễn đàn SME, Tổng cục Thống kê (GSO), Liên đoàn Thương mại và Công nghiệp Việt Nam (VCCI). Các số liệu không chú dẫn nguồn về thương mại là dẫn theo Báo cáo Xuất nhập khẩu Việt Nam 2021 của Bộ Công Thương; về DN là dẫn theo Sách trắng DN Việt Nam 2021 của Bộ Kế hoạch và Đầu tư.

2.3. Kinh nghiệm quốc tế về phát triển doanh nghiệp nhằm thúc đẩy kinh tế xanh

Hàn Quốc và Singapore là hai nước có diện tích không lớn, nằm trên bán đảo, nghèo tài nguyên, từng nhiều năm kinh tế đình đốn; nhưng đều sớm đưa ra Chiến lược tăng trưởng xanh - năm 2008, đến nay đều có KTX phát triển rộng khắp. Trong đó, Hàn Quốc từ thu nhập đầu người năm 1961 chỉ 94 USD, còn trong tình trạng chiến tranh, với chính sách tiết kiệm kham khổ, tập trung phát triển DN theo hướng thân thiện với môi trường, đến năm 2015, đã có quy mô GDP lớn thứ 11 thế giới, nhiều hơn cả Nga, Australia (Quoc Anh Le & Thi Tram Anh Le, 2019). Còn Singapore, từ bốn làng chài nhỏ bé, phải nhập khẩu từ đất, cát, nước ngọt, từng là nơi hoành hành của nhiều băng nhóm tội phạm. Dưới tài quản trị của Lý Quang Diệu, vị thủ tướng có tầm nhìn thâm sâu về nhiều mặt, đã thành nước công nghiệp mới hàng đầu, trung tâm tài chính quốc tế lớn, nổi danh là “Quốc gia sạch nhất thế giới”. Dấu ấn “sạch” trong phát triển trước đây, cùng chiến lược tăng trưởng xanh đã giúp hai nước này duy trì tốc độ tăng trưởng cao, kể cả khi phải chịu nhiều tác động lớn từ khủng hoảng tài chính toàn cầu 2008, từ đại dịch Covid-19...

Bảng 1. Tốc độ tăng trưởng bình quân toàn giai đoạn trước và sau khi triển khai chiến lược phát triển xanh (đơn vị tính GDP: tỷ USD)

	Năm đối ứng trước đó		Năm bắt đầu chiến lược		Năm 2021 [tăng: %]		Tăng trưởng bình quân năm toàn giai đoạn (%)	
	Năm	GDP	Năm	GDP	GDP	Tăng	Trước	Sau
Hàn Quốc	1995	566	2008	1.050	1.810	4,1	4,86	4,27
Việt Nam	2003	39,6	2012	195,6	366,1	2,6	8,77	7,21
Singapore	1995	87,8	2008	193,6	396,9	7,6	6,27	5,68

Nguồn: WB

Việt Nam có tăng trưởng cao hơn, giai đoạn trước 2012 nhờ mở rộng đầu tư công, sau 2012 nhờ “cởi trói” kinh tế, nhưng phát triển kinh tế chưa xanh và chưa bền vững; cần học hỏi nhiều từ họ, riêng về phát triển DN để thúc đẩy KTX, cần tập trung vào: (i) Ba kinh nghiệm của Hàn Quốc, một là mọi DN tham gia tổ hợp công nghiệp đều cần được xanh hóa, giảm tiêu thụ năng lượng, thúc đẩy quay vòng tài nguyên, hướng tới tạo ra các tổ hợp tăng trưởng xanh. Hai là, để hỗ trợ các nền tảng sản xuất hàng hoá xanh, cần có sự tham gia của các thành phần đổi mới (trung tâm nghiên cứu, các trường đại học), các nhà trung gian về công nghệ, và các nhà cung cấp hỗ trợ DN về tài chính và tư vấn. Ba là, cần chuyển sang xã hội hóa tái chế vật liệu, hiện thực hoá nâng cao giá trị tái sử dụng phế thải, tạo hạ tầng xử lý chất thải thống nhất, xúc tiến các ngành công nghiệp quay vòng tài

nguyên và phát triển công nghệ (GGGI, 2015, 257-258). (ii) Hai kinh nghiệm của Singapore, một là mạnh dạn chuyển đổi xanh, như cắt giảm dần sản lượng các nhà máy lọc dầu, từ bỏ vị thế là trung tâm dầu khí thế giới, chuyển dần thành trung tâm năng lượng sạch: cung cấp LNG cho khu vực. Hai là, phần đầu thành trung tâm buôn bán, trao đổi tín chỉ carbon; cung cấp: giải pháp tài chính xanh và tư vấn dịch vụ môi trường, giải pháp công nghệ ít phát thải để thành mắt xích trong chuỗi giá trị “KTX” toàn cầu (Thương vụ Việt, 2021)...

3. Kết quả nghiên cứu và thảo luận

3.1. Thực trạng phát triển doanh nghiệp theo hướng thúc đẩy kinh tế xanh ở Việt Nam

3.1.1. Có nhiều bước tiến và thành tựu về phát triển doanh nghiệp để thúc đẩy kinh tế xanh

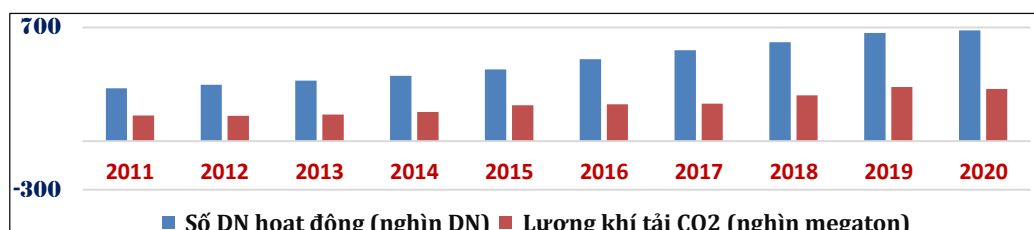
Tiêu biểu là: (i) Ngày 25 tháng 9 năm 2012 Thủ tướng phê duyệt Chiến lược Quốc gia về tăng trưởng xanh thời kỳ 2011 - 2020 và tầm nhìn đến năm 2050, mở ra kỷ nguyên: DN tư nhân chuyển dần thành động lực của nền kinh tế. Cơ bản kết liễu thời kỳ tôn các tập đoàn kinh tế nhà nước là “quả đấm thép”, sùng bái tăng trưởng, đại mở rộng đầu tư công tích lũy rủi ro; đặt cơ sở cho việc phát triển DN nhằm phát triển kinh tế, trong đó có KTX. (ii) Hơn 10 năm qua, nhận thức về KTX của Đảng, Nhà nước cũng như của cộng đồng xã hội có nhiều chuyển biến tích cực, có nhiều hành động thiết thực đóng góp vào phát triển KTX. Nhà nước đã đưa ra nhiều biện pháp giúp DN tiếp cận và áp dụng mô hình nông nghiệp xanh, phát triển công nghiệp xanh, phát triển năng lượng tái tạo và tiết kiệm năng lượng, giảm phát thải CO₂ đối với các ngành công nghiệp nặng... (ii) Phát triển DN để thúc đẩy KTX được nhiều DN hưởng ứng, nhiều tập đoàn kinh tế đi tiên phong, tiêu biểu là Công ty sữa TH với trang trại chăn nuôi bò sữa tập trung, ứng dụng công nghệ cao ở Nghĩa Đàn có quy mô lớn nhất châu Á. Tập đoàn Vinamilk với 13 trang trại bò sữa đạt tiêu chuẩn quốc tế, trong đó trang trại ở Nghệ An đạt chuẩn GlobanGAP; cùng thành công của Hoàng Anh - Gia Lai khi đầu tư vào nông nghiệp xanh - đã thành các tấm gương khuyến khích các DN làm theo. (iii) Nhờ phát triển DN hỗ trợ, đã có nhiều ngành, vùng KTX hình thành và phát triển mạnh; tiêu biểu là ngành năng lượng tái tạo với tổng công suất các nguồn điện năm 2020 đã xấp xỉ 10% tổng công suất của hệ thống điện, đạt khoảng 6.000 MW, trong đó khoảng 5.290 MW là điện mặt trời, 500 MW điện gió và 325 MW là điện sinh khối (Bích Lan, 2023). Các vùng nông nghiệp VietGAP và tương đương năm 2022, đã mở rộng lên khoảng 480.000 ha, với 8.304 cơ sở; ngoài ra, có gần 90.000 ha; 905 trang trại và 2.543 hộ chăn nuôi được chứng nhận VietGAHP (Minh An, 2023). (iv) Còn nhận được sự quan tâm, chia sẻ kinh nghiệm và đầu tư từ các chương trình của UNEP, Ngân hàng Thế giới, DN nước ngoài, nhất là DN châu Âu, tập trung vào phát triển công nghiệp xanh, năng lượng xanh. Tiêu biểu là tới nay ở Việt Nam: Tập đoàn Lego đã xây dựng nhà máy trung hòa carbon, Tập đoàn Pandora xây dựng nhà máy sử dụng 100% năng lượng tái tạo; từ cuối năm 2021, có một làn sóng các DN châu Âu sang tìm hiểu, chú trọng vào các lĩnh vực xanh. (v) Giúp kim ngạch giá trị xuất khẩu nông sản Việt Nam luôn trong thế tăng, giảm không đáng kể trong các năm 2020 - 2021 dù dịch Covid-19; năm 2022 đã đạt 53,22 tỷ USD với 11 nhóm mặt hàng có kim ngạch xuất khẩu đạt trên 1 tỷ USD, trong đó 8 nhóm đạt trên 2 tỷ USD gồm: cà phê, cao su, gạo, rau quả, hạt điều, tôm, cá tra và sản phẩm gỗ.

Trong 9 tháng đầu năm 2022, xuất khẩu rau quả sang các thị trường khó tính Mỹ, Nhật Bản, EU... đều tăng mạnh, có thị trường tăng tới 100% (Lê Hoàng, 2022); cùng việc có 4 mặt hàng đứng trong top 3 - gồm hồ tiêu, gạo, cà phê và thủy sản, đưa Việt Nam trở thành cường quốc về cung cấp nông sản...

3.1.2. Phát triển doanh nghiệp để thúc đẩy kinh tế xanh còn nhiều hạn chế, yếu kém

Điển hình là: (i) Số DN phát triển phục vụ nhu cầu thúc đẩy KTX chưa nhiều, hầu hết là DN công ích thiên về thu gom và xử lý chất thải, nước thải, hoạt động phục vụ đa lĩnh vực, phân bố chủ yếu ở các thành phố, khu kinh tế quan trọng. DN hỗ trợ phát triển KTX chuyên ngành còn đơn điệu về loại hình, nhỏ về quy mô, chưa bao quát các lĩnh vực, phát triển tự phát, khiến nhiều ngành/vùng KTX chỉ dừng ở mức độ tăng trưởng xanh và khó phát triển ổn định. (ii) Hướng phát triển không sáng sủa, còn nhiều bất cập về hành lang pháp lý, dù Chính phủ đã ba lần ban hành và phê duyệt các chiến lược quốc gia về tăng trưởng xanh và phát triển bền vững trong các năm 2012, 2016 và 2021. Hệ thống pháp luật chưa đồng bộ, chưa có văn bản pháp luật cụ thể quy định về năng lượng xanh và năng lượng tái tạo; chưa có luật mới về phát triển công nghiệp và bảo vệ môi trường... (iii) Nhiều DN hoạt động cần mức “xanh” cao, như sản xuất, thu gom, chế biến nông sản xuất khẩu chưa đảm bảo tiêu chuẩn an toàn sản phẩm, phổ biến là có dư lượng thuốc bảo vệ thực vật vượt quá mức quy định. Nhiều mặt hàng bị gắn thẻ vàng cảnh cáo, thậm chí nhiều lô hàng thanh long, gạo thơm, thủy sản, nhiều nhất là tôm bị Mỹ hoặc châu Âu trả về, ảnh hưởng lớn tới uy tín và thương hiệu của nhiều hàng hóa xuất khẩu của Việt Nam. (iv) Công tác phối hợp giữa các ban ngành, cũng như giữa DN với các chủ thể khác, kể cả giữa các DN với nhau, khi cùng thực hiện chiến lược phát triển KTX chưa tốt, nhiều DN KTX, như điện gió còn bị gây khó dễ. Khiến nhiều KTX hoạt động cầm chừng; không ít DN hoạt động nửa vời, như các DN năng lượng mặt trời đe dọa biến Tây Nguyên thành bãi thải các tấm pin năng lượng mặt trời, tiềm ẩn nguy cơ ô nhiễm silicon dioxide về sau. (v) Hậu quả sau hơn 10 năm triển khai hai chiến lược tăng trưởng xanh, Việt Nam vẫn nằm trong số các quốc gia gây ô nhiễm nặng nhất: bởi năm 2021, với quy mô GDP 366,1 tỷ USD, là nền kinh tế lớn 41 thế giới, nhưng lại thải ra 321.413 megaton khí thải CO₂, đứng thứ 16/184 nước. Hơn nữa, có mức tỷ lệ thuận cao giữa số DN hoạt động với mức phát thải CO₂; trong khi số DN hoạt động còn ít, thấp về bình quân DN trên 1.000, ít DN đảm bảo chất lượng để tham gia, mức ngoại ứng lan tỏa để thúc đẩy phát triển KTX còn khiêm tốn.

Hình 2. Số lượng DN và mức thải CO₂ tại Việt Nam giai đoạn 2011 - 2020



Nguồn: VCCI & Countryeconomy.com

3.1.3. Nguyên nhân hạn chế, yếu kém về phát triển doanh nghiệp để thúc đẩy kinh tế xanh

Có nhiều với các nguyên nhân chính là: (i) KTX là lĩnh vực mới, xuất hiện trong giai đoạn Việt Nam bị bất ổn kinh tế vĩ mô sâu sắc, bị lu mờ bởi sự phát triển của cách mạng công nghiệp 4.0, bị tác động mạnh từ dịch Covid-19. Việt Nam sớm nói đến tăng trưởng xanh, nhưng tới Đại hội 14 (2020) KTX mới được nhắc tới trong văn kiện Đảng, dẫn đến thiếu các chương trình, kế hoạch cụ thể, việc chưa có các chương trình hỗ trợ - kể cả tư vấn, tài trợ cản trở nhiều DN tham gia. (ii) Nhận thức và ứng xử với KTX của nhiều lãnh đạo, ban ngành, nhà đầu tư còn lệch lạc, không ít người thờ ơ, phó mặc dẫn đến sự chậm trễ trong hoàn thiện cơ chế chính sách, làm nhụt chí của nhiều nhà đầu tư. Sự thiếu nghiêm minh của thị trường gây thiệt thòi cho người đi theo KTX, thiếu nguồn nhân lực chất lượng cao đáp ứng được yêu cầu về trình độ khoa học công nghệ cao của chiến lược phát triển KTX. (iii) Thiếu các nhà đầu tư đủ tiềm lực, bởi các nhà đầu tư lớn, trường vốn thì có nhiều lĩnh vực sinh lời cao hơn - như xây dựng cao tốc, chung cư cao cấp, xây chùa chiền “kinh doanh” tâm linh. Các nhà đầu tư nhỏ thì chưa đủ tầm, mà giá vốn vay còn cao, không phù hợp cho việc huy động vào mục tiêu phát triển DN thúc đẩy KTX; các nhà FDI luôn gặp khó với hàng loạt rào cản nhiều khi phi lý. (iv) Đa phần DN Việt đang sử dụng dây chuyền sản xuất và công nghệ cũ và lỗi thời, không ít thuộc thế hệ công nghệ 2.0 tiêu tốn nhiều nhiên liệu, năng lượng, phát thải nhiều chất thải. Mức thuế phí môi trường còn thấp, chưa ép buộc DN phải nâng cấp công nghệ, trong lúc thiếu nhà môi giới, đầu tư và chuyển giao công nghệ sạch, nên nhiều DN có muốn cũng khó tham gia. (v) Thiếu sự hỗ trợ từ bên ngoài để DN hứng khởi và dễ tham gia vào tiến trình thúc đẩy phát triển KTX, rõ nhất là chưa có chương trình tín dụng ưu đãi, nguồn ngân sách nhà nước dành cho mục tiêu xanh hóa nền kinh tế hạn hẹp. Hầu như chưa có trường nào có giảng hoặc đào tạo nhân lực cho KTX, thậm chí nhiều cửa hàng chuyên doanh về sản phẩm xanh nhanh chóng bị dẹp bỏ vì sự thờ ơ của không ít dân chúng...

3.1.4. Phát triển doanh nghiệp để thúc đẩy phát triển kinh tế xanh có nhu cầu lớn, cấp bách, có nhiều thuận lợi, không ít khó khăn, nhưng là con đường phải chọn

Phát triển DN để thúc đẩy phát triển KTX ở Việt Nam hiện nay: (i) Có nhu cầu lớn, bởi đây là dư địa rộng, nhiều triển vọng để đạt số lượng DN hoạt động ở mức tối thiểu vào năm 2025; là nơi để các DN đang khó khăn về đơn hàng nhất là ở khu vực dệt may, da giày chuyển vào, nếu không muốn bị đào thải. Là trợ lực lớn để tăng nhanh số DN hoạt động nhằm khuếch đại giá trị gia tăng, để tăng thu nhập bình quân, nếu không hy vọng trở thành nước có thu nhập cao vào năm 2045 sẽ bị đe dọa nghiêm trọng (Quoc Anh Le & Thi Tram Anh Le, 2018). (ii) Là cấp bách, để tạo ra các “địa chỉ” DN mới góp phần giải bài toán thu nhập và việc làm đang khẩn thiết với hàng vạn, thậm chí hàng chục vạn công nhân chỉ quen với thao tác giản đơn đang cần việc. Giảm hậu quả của cao trào tận vét tài nguyên thiên nhiên để đáp ứng nhu cầu có tăng trưởng cao, ngăn ngừa các hệ sinh thái sẽ cạn kiệt khó phục hồi, đe dọa tạo thành thảm họa cho quốc gia. (iii) Có nhiều thuận lợi, khi Nhà nước đang rất quan tâm đến chuyển đổi xanh, nhận thức rõ nước nhà đang bị tác động tiêu cực mạnh từ biến đổi khí hậu và nỗ lực thực hiện chiến lược chuyển đổi xanh quốc gia. Việc phát triển KTX đang nhận được sự đồng tình và sẵn sàng góp sức của giới khoa học, kỹ trị, đầu tư; nhiều doanh nhân tâm huyết với hướng phát triển này, và được toàn dân

quan tâm, hưởng ứng. (iv) Gặp không ít khó khăn, bởi bên khó khăn về phát triển DN nói chung, còn khó khăn riêng, như các DN dịch vụ môi trường còn đơn điệu về loại hình, nhỏ về quy mô, chưa bao quát toàn lĩnh vực, phát triển tự phát. Công tác liên kết, phối hợp khi thực hiện chiến lược phát triển KTX ở các ngành, vùng và địa phương chưa tốt, nhiều DN vẫn chạy theo lợi nhuận mặc đất nước nằm trong số các quốc gia gây ô nhiễm nặng nhất. (v) Là con đường phải chọn, bởi đây là xu thế thời đại, nếu chậm trễ sẽ mất phần trong “chiếc bánh” béo bở có thị trường đang phát triển mạnh mẽ (Cao Văn Trường, 2022). Còn là trách nhiệm trong việc giải quyết những vấn đề chung của thế giới, tạo tiền đề để giúp Việt Nam hiện thực hóa cam kết đạt mức phát thải ròng bằng “0” vào năm 2050 và giảm 30% phát thải khí methane trong giai đoạn 2030 - 2040...

3.2. Giải pháp để đẩy mạnh phát triển doanh nghiệp theo hướng thúc đẩy kinh tế xanh ở Việt Nam trong giai đoạn hiện nay

Việt Nam đã có nhiều bước tiến và thành tựu trong phát triển DN nhằm thúc đẩy KTX phát triển, song so với cơ sở lý thuyết còn nhiều hạn chế, yếu kém, và còn nhiều phần chưa chạm tới. Các tồn tại này sẽ được khắc phục dần, nhưng nhiều vấn đề lại sẽ xuất hiện bởi bối cảnh mới, nhất là khi nhu cầu cầu phát triển ngày càng cao, gấp gáp và thách thức hơn. Để thúc đẩy sự phát triển DN nhằm thúc đẩy KTX phát triển ở Việt Nam trong giai đoạn hiện nay, bên việc tiếp tục triển khai các giải pháp đang phát huy tác dụng, cần nỗ lực cao hơn từ nhà nước, giới đầu tư, chủ DN, cùng sự chung sức nhiều hơn của các bộ ngành, địa phương, hiệp hội, DN, cộng đồng, xã hội và quốc tế. Phát huy các thành quả, khắc phục dần các hạn chế, yếu kém, thúc đẩy sự phối hợp của các thành tố có liên quan, đáp ứng đòi hỏi của thực tiễn, hướng tới các mục tiêu... Tổng hợp lại thành các nhóm giải pháp chính cần triển khai thực hiện như sau:

Một là, nâng cao nhận thức, từng bước hoàn thiện hệ thống văn bản pháp luật về KTX, cụ thể hóa Chiến lược tăng trưởng xanh quốc gia, công bố các phác thảo mô hình và cam kết Chính phủ có liên quan, để các nhà đầu tư, chủ DN có quan tâm nghiên cứu, xem xét

Tuy là xu thế phát triển của thế giới, nhưng KTX vẫn là vấn đề mới, với nội hàm chưa mấy rõ ràng, thậm chí còn mơ hồ, xa lạ với nhiều người, kể cả nhiều nhà quản trị, nhà đầu tư. Để phát triển được khu vực DN đủ sức làm bệ đỡ cho một thành tố kinh tế đang ngày càng phát triển rộng khắp, cho một nền kinh tế có GDP đã trên 360 tỷ USD, ở nước có 100 triệu dân thì không thể chấp nhận thực tế đó. Vì thế, điều quan trọng trước tiên là phải giúp đông đảo người dân hiểu biết về KTX, để những người quan tâm và cả những người chưa quan tâm có tâm thế đúng về nó, để tốt là hăng hái tham gia, ít ra là ủng hộ sứ mệnh đó. Song, để có một số lượng đông đảo nhà đầu tư, chủ DN sẵn sàng đầu tư vào KTX thì quan tâm là chưa đủ, mà phải cung cấp cho họ cái nhìn toàn cảnh, đầy đủ, để thấy rõ việc đầu tư vào đó là đúng, có hiệu quả. Đảm bảo cho DN mà họ đầu tư có tương lai và thu về những lợi ích không kém - nhất là trên góc độ toàn cục và lâu dài, so với khi đầu tư vào lĩnh vực khác, địa phương khác. Để nâng cao niềm tin đầu tư cho họ, nhà nước cần từng bước hoàn thiện hệ thống văn bản pháp luật về KTX, cụ thể hóa Chiến lược tăng trưởng xanh quốc gia, công bố các phác thảo mô hình và cam kết Chính phủ có liên quan. Để các nhà đầu tư, chủ DN có quan tâm nghiên cứu, xem xét, để từ các hướng kinh doanh

mà họ có thể đầu tư, so sánh xem có nên đầu tư, có quyết định đúng khi có cơ hội tham gia vào KTX...

Hai là, phối hợp xây dựng quy hoạch tổng thể về phát triển KTX ở cấp quốc gia theo các lộ trình, tư vấn và phê duyệt các quy hoạch ngành, vùng KTX để làm căn cứ kêu gọi đầu tư, tránh cạnh tranh ngược hoặc không sát thực, khó khả thi gây thiệt hại và tổn thất xã hội

Phát triển KTX là quan trọng và cấp thiết, nhưng không dễ, bởi là kinh tế hàng hóa, nếu thiếu tầm nhìn thì sản phẩm sản xuất ra không tiêu thụ được, hoặc nhanh bị chết yếu khi các nơi khác cùng làm. Mặt khác, cần có DN đủ tầm làm “xương sống”, cần công nghệ tiên tiến, phù hợp; cần nhiều DN hỗ trợ chuyên sâu, có chất lượng, và những đầu tư lớn mà trong điều kiện Việt Nam hiện không dễ đáp ứng được. Hơn nữa, KTX không phải là tất cả, không thể lấn át, mà cần phát triển hài hòa cùng với các thành tố kinh tế khác, kể cả các thành tố cổ điển như nông nghiệp truyền thống, hoặc thành tố “hot” như kinh tế tuần hoàn. Để giúp KTX tìm ra chỗ đứng thích hợp, cả theo khả năng, vai trò, sứ mệnh, triển vọng và khả năng đầu tư; cần sự phối hợp giữa Ban Kinh tế Trung ương, các bộ ngành, hiệp hội DN và các địa phương. Dựa trên các Chiến lược phát triển tổng thể và thành phần, xây dựng quy hoạch tổng thể về phát triển KTX ở cấp quốc gia theo các lộ trình, chỉ ra các ngành/lĩnh vực, cùng các vùng cần phát triển KTX. Chỉ rõ đâu là ngành, vùng cần chuyển đổi gấp; đâu là ngành, vùng trọng tâm, cũng như về mức độ phát triển - như chỉ cần chuyển đổi xanh, cần nhanh chóng đạt tăng trưởng xanh, hoặc là phải KTX bền vững. Tiến hành tư vấn và phê duyệt các quy hoạch ngành, vùng KTX làm căn cứ kêu gọi đầu tư, tránh cạnh tranh ngược hoặc không sát thực, khó khả thi gây thiệt hại và tổn thất xã hội. Đây là cơ sở để các nhà đầu tư, chủ DN nghiên cứu, ra quyết định, nếu đầu tư thì yên tâm về định hướng DN, tìm đúng loại hình, xác định đúng quy mô, công nghệ, vùng hoạt động và các mối quan hệ kinh tế...

Ba là, các cơ quan chức năng, hiệp hội ngành nghề, DN giúp giới thiệu, tiếp xúc, ký kết hợp tác giữa hạt nhân của KTX với các DN hỗ trợ, nhằm tạo ra cơ cấu thành tố hoạt động tối ưu, để từng DN vừa hoạt động hiệu quả vừa đóng góp lớn vào thúc đẩy phát triển KTX

Trong điều kiện môi trường đầu tư trì trệ như hiện nay, sẽ có nhiều nhà đầu tư, chủ DN sẵn sàng tìm đến các địa chỉ đầu tư nhiều triển vọng, đang được ưu tiên, thậm chí là trái ngành nghề, thiếu kiến thức và năng lực hoạt động. Mặt khác, cũng không nhiều DN, kể cả được chọn làm trụ cột trong một ngành/lĩnh vực hoặc vùng, hiểu sâu sắc và toàn diện các vấn đề có liên quan đến phát triển KTX trong vùng lãnh thổ. Chỉ có các cơ quan chức năng, hiệp hội ngành nghề, DN, mới nắm rõ nhiều kế hoạch đầu tư, dự định sắp đến hoặc rời đi, cũng như tăng/giảm quy mô, chuyển đổi hướng kinh doanh của nhiều DN. Chỉ có họ biết rõ nhất mức khai thác tài nguyên tối đa còn có, khả năng chịu đựng của môi trường; cũng như đã có DN hỗ trợ nào, có công nghệ và năng lực hỗ trợ ra sao, đâu là các khâu còn yếu hoặc thiếu khi phát triển KTX tương ứng... Vì vậy, nòng cốt của ngành/lĩnh vực hoặc vùng khi phát triển KTX, cần dựa vào các cơ quan quản lý theo chức năng, các hiệp hội ngành nghề, DN, giúp tư vấn, giới thiệu các nhà đầu tư, DN phù hợp để làm vệ tinh hỗ trợ. Nhờ họ giúp trong tiếp xúc, đàm phán, tiến tới ký kết các hợp tác, phối hợp trong quá trình

hoạt động và phát triển, phần đầu lựa chọn được các DN hỗ trợ “đúng” và “trúng”. Để các DN được lựa chọn như là các miếng ghép cơ cấu, không tạo ra sức ép còn thấp hoặc quá cao trong khai thác nguồn tài nguyên thiên nhiên hiện còn; cũng như không làm tăng quá mức chất thải vào môi trường. Không vì cần mà chọn ầu, gượng ép; đồng thời cần có kế hoạch bổ sung các loại hình DN cần thiết, hướng tới đảm bảo cho mọi DN tham gia vừa hoạt động hiệu quả, phát triển ổn định, trường tồn, vừa đóng góp được nhiều nhất vào mục tiêu thúc đẩy phát triển KTX...

Bốn là, khuyến khích thành lập các DN KTX mới, xây dựng các chương trình hỗ trợ toàn diện, khai thác hỗ trợ từ bên ngoài, nhất là từ quốc tế, DN FDI, để đẩy mạnh phát triển DN nhằm thúc đẩy KTX, cũng như để chuyển đổi xanh cho các thành tố kinh tế khác

Muốn có khu vực DN KTX vững mạnh, bền nỗ lực kiến tạo - phát triển của nhà nước, cần phải có sự hưởng ứng tham gia của nhiều nhà đầu tư, chủ DN. Vì thế, cần có các ưu đãi chính sách để thu hút các nhà đầu tư tham gia thành lập mới DN trong lĩnh vực này, nhất là ở các nơi điều kiện phát triển DN chưa thuận lợi. Khuyến khích được các DN đang ngày càng khó trong tìm kiếm đơn hàng, như da giày, dệt may do tác động của cách mạng công nghiệp 4.0 chuyển hướng kinh doanh vào đây. Muốn vậy, cần tập trung xử lý các rào cản, bên vướng mắc về hành lang pháp lý, định hướng và kết nối DN như đã trình bày ở trên; cần khai thông các nút thắt khác, nổi bật là về vốn, tín dụng, nhân lực. Bởi việc đầu tư mới hay chuyển đổi hướng kinh doanh của DN không chỉ cần lượng vốn đầu tư không nhỏ ban đầu, mà còn không dễ có lợi nhuận cần thiết trong nhiều năm đầu. Làm cho việc đưa ra được tài sản đảm bảo và kinh doanh không lỗ trước giá vốn vay còn cao ngất ngưỡng như ở nước ta hiện nay là bài toán nan giải. Có nhân lực thích hợp, cùng việc lấy lại niềm tin thị trường để các DN sẵn sàng, tin tưởng và tận tâm phối hợp với nhau trong phát triển lâu dài, không “ăn mảnh”, cạnh tranh ngược cũng cần giải quyết rất ráo. Để giải quyết các nút thắt này, một mặt nhà nước cần khẩn trương triển khai các chương trình hỗ trợ, cả về tư vấn, đổi mới đào tạo, chuyển giao công nghệ, chuyển hướng kinh doanh. Riêng về vốn, nhà nước vừa cần triển khai chương trình hỗ trợ tín dụng, vừa cần xây dựng và phát triển ngân hàng đầu tư đúng nghĩa, trong đó dành phần thỏa đáng cho việc phát triển DN để phát triển KTX và chuyển đổi xanh. Đồng thời, huy động sự góp sức của giới khoa học, kỹ trị, đầu tư, DN, cũng như của cộng đồng và xã hội; khai thác sự hỗ trợ từ bên ngoài, nhất là từ các tổ chức quốc tế, DN FDI, để đẩy mạnh phát triển DN nhằm thúc đẩy KTX. Ngoài ra, cần phát động cao trào chuyển đổi xanh cho các thành tố kinh tế khác, qua đó góp phần giảm tác động tiêu cực tới môi trường, làm gia tăng sức chống chịu của các hệ sinh thái, hỗ trợ KTX phát triển...

4. Kết luận

Là nước đi sau, lại không có nguồn lực lớn để thực hiện hoặc hỗ trợ cho việc phát triển, nhưng so với nhiều nước trong khu vực, Việt Nam đã đi nhanh và đạt được nhiều thành tựu về KTX (Thiện Tâm, 2022). Nhờ đó, góp phần đẩy lùi xu thế tụt hậu về kinh tế; duy trì sự bền vững về môi trường trước nạn phá rừng, xói mòn đất, khai thác quá mức nguồn tài nguyên ven biển đang đe dọa các hệ sinh thái, sự đa dạng sinh học và cạn kiệt nguồn gen. Nay, sự phát triển KTX hy vọng còn có nhiều thành công hơn, nếu Việt Nam

thông qua phát triển DN, khuếch trương điều kiện thuận lợi để tiến nhanh, mạnh và xa về tăng trưởng xanh, phục hồi xanh, bắt kịp xu thế phát triển của thế giới. Tuy nhiên, công cuộc này đang gặp nhiều khó khăn, khi số DN hoạt động còn ít, các DN dịch vụ môi trường còn đơn điệu về loại hình, nhỏ về quy mô, chưa bao quát toàn diện các lĩnh vực, phát triển tự phát. Môi trường kinh doanh chưa thông thoáng; nhiều DN vẫn vì lợi nhuận vi phạm môi trường, công tác liên kết, phối hợp khi cùng thực hiện chiến lược phát triển KTX ở các ngành, vùng và địa phương chưa tốt. Việt Nam vẫn nằm trong số các quốc gia gây ô nhiễm nặng nhất, đồng thời cũng đang bị tác động tiêu cực mạnh nhất từ biến đổi khí hậu... Song, nếu Việt Nam nâng cao được nhận thức, hoàn thiện hệ thống văn bản pháp luật, cụ thể hóa Chiến lược tăng trưởng xanh quốc gia, xây dựng được các quy hoạch, lựa chọn đúng các ngành, vùng KTX. Làm tốt việc hợp tác giữa hạt nhân của KTX với các DN hỗ trợ, xây dựng các chương trình hỗ trợ, khai thác hỗ trợ từ bên ngoài, nhất là từ quốc tế; đẩy mạnh chuyển đổi xanh cho các thành tố kinh tế... Cùng với sự lãnh đạo của Đảng, sự điều hành của Chính phủ kiến tạo, sự góp sức của giới khoa học, kỹ trị, đầu tư, với trách nhiệm cao của giới doanh nhân, chủ DN, quyết tâm đổi mới, vươn lên của toàn Đảng, toàn dân. Có quyền tin rằng công cuộc phát triển DN để thúc đẩy KTX ở Việt Nam sẽ có nhiều bước tiến vững chắc, góp phần bảo vệ tài nguyên, cải thiện chất lượng hệ sinh thái, đưa con Lạc cháu Rồng đi tới phồn vinh...

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**IMPACT OF GREEN TRANSFORMATION LEADERSHIP ON GREEN HUMAN
MANAGEMENT - RESEARCH IN BUSINESSES SMALL
AND MEDIUM IN VIETNAM**

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Abstract: *In the development trend of modern economy and human resource management, transformational leadership style creates changes in individuals and social systems, can create a positive working environment and motivate employees, help green human resource management to be implemented effectively and sustainably. The green transformation leadership style involves open, effective interaction and the ability to communicate with employees to achieve the organization's environmental goals. The research focuses on understanding the influence of green transformation leadership style on green human resource management. The study provides empirical evidence from a sample of 438 employees working in small and medium-sized enterprises in Vietnam through assessing the appropriateness of the measurement model and testing the linear structural model PLS- SEM. Research results show that the components of the green transformation leadership style have a positive influence on green human resource management. Finally, some managerial implications of leadership improvement are discussed, such as the need for leaders to devise policies and procedures for recruiting, training, encouraging, motivating and developing employees, as well as evaluate the effectiveness and have policies and reward programs for employees participating in green activities and activities towards sustainable development of the enterprise.*

Keywords: *Small and medium enterprises, green transformation leadership style, green human resource management*

**ẢNH HƯỞNG CỦA PHONG CÁCH LÃNH ĐẠO CHUYỂN ĐỔI XANH ĐẾN
QUẢN TRỊ NHÂN LỰC XANH - NGHIÊN CỨU TẠI CÁC
DOANH NGHIỆP NHỎ VÀ VỪA Ở VIỆT NAM**

Tóm tắt: *Trong xu thế phát triển của nền kinh tế và quản trị nhân lực hiện đại, phong cách lãnh đạo chuyển đổi tạo nên sự thay đổi trong các cá nhân và hệ thống xã hội, có thể tạo ra một môi trường làm việc tích cực và động lực cho nhân viên, giúp quản trị nhân lực xanh được triển khai một cách hiệu quả và bền vững. Phong cách lãnh đạo chuyển đổi xanh liên quan đến việc tương tác cởi mở, hiệu quả và khả năng giao tiếp với người lao động để đạt được các mục tiêu về bảo vệ môi trường của tổ chức. Nghiên cứu tập trung tìm hiểu ảnh hưởng của phong cách lãnh đạo chuyển đổi xanh đến quản trị nhân lực xanh. Nghiên cứu cung cấp bằng chứng thực nghiệm từ mẫu 438 người lao động đang làm việc trong các doanh nghiệp nhỏ và vừa ở Việt Nam thông qua đánh giá sự phù hợp của mô hình đo lường và kiểm định mô hình cấu trúc tuyến tính PLS-SEM. Kết quả nghiên cứu chỉ*

ra những thành phần thuộc phong cách lãnh đạo chuyển đổi xanh đều ảnh hưởng cùng chiều đến quản trị nhân lực xanh. Cuối cùng là một số hàm ý quản trị về hoàn thiện phong cách lãnh đạo được thảo luận như lãnh đạo cần phải đưa ra các chính sách, quy trình tuyển dụng, đào tạo, khuyến khích, tạo động lực và phát triển nhân viên, cũng như đánh giá hiệu quả và có những chính sách cũng như chương trình thưởng cho nhân viên tham gia vào các hoạt động xanh và các hoạt động hướng tới phát triển bền vững của doanh nghiệp.

Từ khóa: *Doanh nghiệp nhỏ và vừa, phong cách lãnh đạo chuyển đổi xanh, quản trị nhân lực xanh*

1. Đặt vấn đề

Doanh nghiệp nhỏ và vừa (SMEs) có vai trò quan trọng trong phát triển nền kinh tế của nhiều quốc gia, góp phần tạo ra khí nhà kính trên toàn cầu (Fahad và cộng sự, 2022). Tất nhiên, họ đáp lại sự ủng hộ của khách hàng đối với các nỗ lực kinh doanh nhằm bảo vệ môi trường (Sun và cộng sự, 2022). Các nghiên cứu hiện tại đã khẳng định rằng việc các doanh nghiệp nhỏ và vừa định hướng phát triển sản phẩm xanh có thể cải thiện hiệu quả kinh doanh (Hirunyava và cộng sự, 2022). Phong cách lãnh đạo có thể định hình hình ảnh của một tổ chức, nhân viên có thể làm việc trong một môi trường xanh và phát triển bền vững. Nhân viên cần có kiến thức về các quy định và tiêu chuẩn về môi trường, đặc biệt là những quy định liên quan đến bảo vệ môi trường. Họ cũng cần hiểu và áp dụng các tiêu chuẩn xanh để giảm thiểu tác động tiêu cực đến môi trường. Nghiên cứu này nhằm làm rõ mối quan hệ giữa phong cách lãnh đạo chuyển đổi xanh và quản trị nhân lực xanh trong các doanh nghiệp nhỏ và vừa ở Việt Nam.

2. Khung phân tích về mối quan hệ giữa phong cách lãnh đạo chuyển đổi xanh đến quản trị nhân lực xanh

2.1 Quản trị nhân lực xanh

Quản trị nguồn nhân lực (Green human resource management - GHRM) là việc sử dụng hiệu quả nguồn nhân lực để hoàn thành các mục tiêu của tổ chức để hoàn thành các mục tiêu của tổ chức Opatha (2009). Theo Iddagoda và cộng sự (2020), "xanh" đề cập đến môi trường, vì vậy "GHRM" là sự kết hợp của thực hành HRM thành các mục tiêu bền vững về môi trường của tổ chức (Iddagoda và cộng sự 2020). Theo Renwick và cộng sự (2013), GHRM là sự kết hợp của các doanh nghiệp quản lý môi trường vào lĩnh vực quản trị nhân lực. Theo Opatha (2013), thuật ngữ GHRM đề cập đến tất cả các hoạt động liên quan đến việc thiết lập, áp dụng và liên tục duy trì một hệ thống nhằm mục đích làm cho nhân viên của một tổ chức trở nên thân thiện với môi trường.

Theo Ramachandran (2011), GHRM là sự tích hợp của quản lý môi trường vào quản trị nhân lực. Prasad (2013) xác định: GHRM là sự đóng góp của các chính sách nhân sự để bảo vệ tài nguyên thiên nhiên. Cùng quan điểm đó, Mandip (2012) cho rằng: GHRM là việc sử dụng các chính sách quản lý nguồn nhân lực để thúc đẩy việc sử dụng bền vững các nguồn lực trong các tổ chức kinh doanh từ đó thúc đẩy bền vững sự nghiệp về môi trường. Mampra (2013) nêu cụ thể hơn: GHRM là

việc sử dụng các chính sách quản trị nhân lực để khuyến khích sử dụng bền vững các nguồn lực trong các doanh nghiệp kinh doanh và thúc đẩy sự nghiệp bảo vệ môi trường, thúc đẩy hơn nữa tinh thần và sự hài lòng của nhân viên.

2.2. Phong cách lãnh đạo và phong cách lãnh đạo chuyển đổi

Lãnh đạo được định nghĩa là “sự thể hiện của một cách bình thường hành vi phù hợp thông qua các hành động cá nhân và giữa các cá nhân các mối quan hệ và thúc đẩy hành vi như vậy giữa những người theo dõi thông qua giao tiếp hai chiều, củng cố và ra quyết định (Brown và cộng sự, 2005; Opatha, 2015). Đối với nhiều nhân viên, lãnh đạo có được xác định là yếu tố tâm lý xã hội quan trọng nhất tại nơi làm việc (Jacobs, 2019). Theo Gardner (1990), hai yếu tố quan trọng nhất trong định nghĩa về lãnh đạo là "mục tiêu thiết lập và động lực." Các nhà lãnh đạo cần thấm nhuần niềm tin và sự tin tưởng vào tổ chức (Seijts & Crim, 2006; Xu & Thomas, 2010).

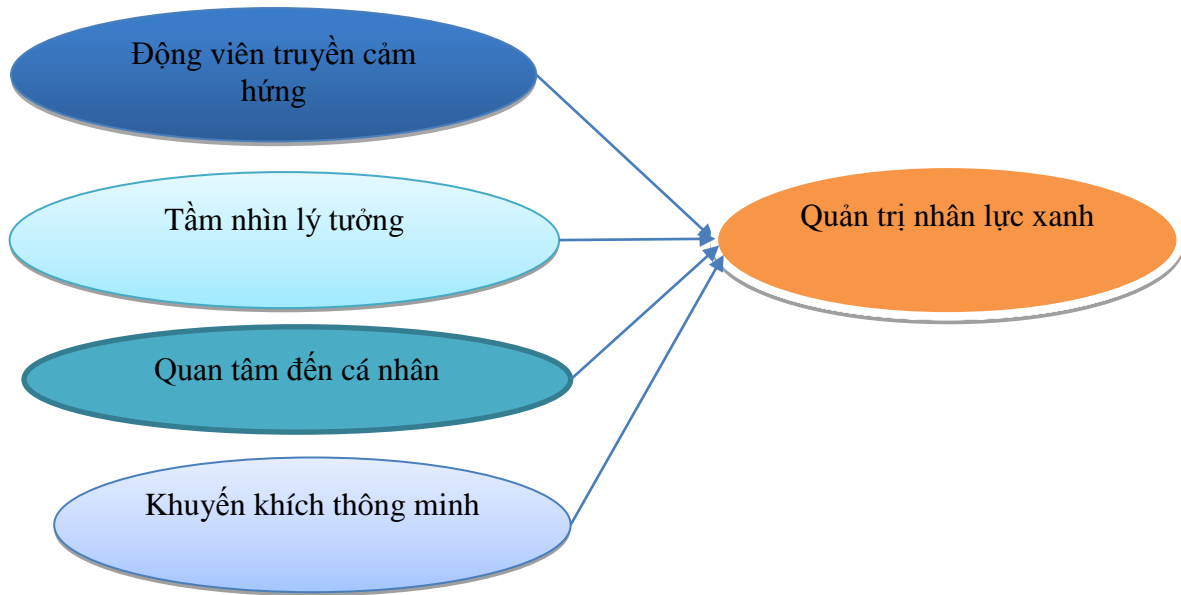
Khái niệm Phong cách lãnh đạo chuyển đổi: Bass (1985) định nghĩa phong cách lãnh đạo chuyển đổi là cách thức gây ảnh hưởng thông qua những phẩm chất và hành vi lôi cuốn, khơi dậy động lực, truyền cảm hứng, khuyến khích thông minh và quan tâm đến từng cá nhân khi đối xử với nhân viên. Những hành vi này làm thay đổi nhân viên, giúp họ phát huy tối đa tiềm năng và đạt được mức hiệu quả cao nhất trong công việc qua đó đạt được mục tiêu của tổ chức.

2.3. Phong cách lãnh đạo chuyển đổi xanh và Quản trị nhân lực xanh

Chen và Chang (2013) định nghĩa green transformational leadership (GTL) là “hành vi của các nhà lãnh đạo thúc đẩy cấp dưới đạt được các mục tiêu về môi trường và truyền cảm hứng cho cấp dưới thực hiện vượt quá mức hiệu suất môi trường mong đợi”. Sau đó, các học giả thường gọi GTL là lãnh đạo chuyển đổi môi trường, phong cách lãnh đạo chuyển đổi xanh và lãnh đạo chuyển đổi đặc thù về môi trường. GTL làm tăng mối quan tâm của các nhà lãnh đạo về các vấn đề môi trường (Mansoor và cộng sự 2021; Khan và Khan 2022 ; Singh và cộng sự 2020 ; Li và cộng sự 2020 ; Özgül và Zehir 2021).

Phong cách lãnh đạo chuyển đổi xanh ảnh hưởng đến quản trị nhân lực xanh thông qua các kế hoạch, tầm nhìn, mục tiêu, niềm tin và ý tưởng xanh của họ (Chen và Chang 2013). GTL ảnh hưởng trực tiếp đến (GHRM) và EGB (Employees’ green behavior); (Al-Swidi et al. 2021). Khái niệm EGB xuất hiện từ phản ánh của các học giả về các vấn đề môi trường vào những năm 1960 (Omarova và Jo 2022). Các học giả thường lý giải EGB là hành vi thân thiện với môi trường của nhân viên thể hiện trong công việc và tại nơi làm việc. Theo Truss (2013), các nhà lãnh đạo có khả năng thúc đẩy nhân viên cũng như nâng cao hiệu quả làm việc của họ. Các nghiên cứu cũng chỉ ra kỹ năng và năng lực lãnh đạo cần thiết để thúc đẩy quá trình chuyển đổi xanh trong tổ chức và quản trị nhân lực xanh đồng thời nói lên vai trò của nhân viên trong việc thúc đẩy sự chuyển đổi xanh trong tổ chức, và cách thức tạo động lực cho nhân viên đóng góp cho mục tiêu này. Do đó, các nhà nghiên cứu kết luận rằng các nhà lãnh đạo có thể ảnh hưởng đến quản trị nhân lực xanh trong một tổ chức. Khoảng trống nghiên cứu của đề tài đưa ra về phong cách lãnh đạo chuyển đổi xanh và quản trị nhân lực xanh, đề cập đến ảnh hưởng của phong cách lãnh đạo

chuyển đổi xanh và nghiên cứu để đưa ra các giải pháp tối ưu cho các tổ chức trong quản trị nhân lực xanh.



Hình 1: Mô hình ảnh hưởng của phong cách lãnh đạo xanh đến quản trị nhân lực xanh

Nguồn: Nhóm tác giả đề xuất

Giả thuyết H1: Sự động viên truyền cảm hứng của lãnh đạo có ảnh hưởng tích cực đến quản trị nhân lực xanh

Giả thuyết H2: Tầm nhìn lý tưởng có ảnh hưởng tích cực đến quản trị nhân lực xanh

Giả thuyết H3: Quan tâm đến cá nhân có ảnh hưởng tích cực đến quản trị nhân lực xanh

Giả thuyết H4: Khuyến khích thông minh có ảnh hưởng tích cực đến quản trị nhân lực xanh

3. Phương pháp nghiên cứu

Phương pháp tổng quan tài liệu lý thuyết và phân tích tổng hợp: Nhằm xác định lý thuyết nền tảng về PCLĐ và thực hành QTNL xanh, đó là cơ sở để tham khảo, kế thừa và phát triển thang đo lường.

Phương pháp phỏng vấn chuyên gia: Trên cơ sở kế thừa các lý thuyết nền tảng về PCLĐ và thực hành QTNL xanh, các tác giả xây dựng thang đo nháp lần thứ nhất. Tiếp đó, các tác giả tiến hành phỏng vấn chuyên sâu một số chuyên gia là lãnh đạo doanh nghiệp, công ty, nhằm hiệu chỉnh, làm rõ ngữ nghĩa, câu từ của các yếu tố trong mô hình để hoàn thiện thang đo lường chính thức.

Phương pháp khảo sát: Nhằm kiểm định các giả thuyết nghiên cứu ban đầu và ước lượng mô hình cấu trúc phương trình SEM, ngoài ra kỹ thuật bootstrapping được dùng để

kiểm chứng của PCLĐ toàn diện đối với thực hành QTNL xanh. Phương pháp bình phương nhỏ nhất từng phần (PLS) được sử dụng với các kỹ thuật: (i) Kỹ thuật đánh giá độ phù hợp mô hình đo lường: Đo lường độ tin cậy của cấu trúc, đo lường tính giá trị của cấu trúc; (ii) Kỹ thuật đánh giá độ phù hợp của mô hình cấu trúc: Ước lượng hệ số đường dẫn cấu trúc, ước lượng chỉ số R², đo lường độ phù hợp tổng thể của mô hình cấu trúc;

Cách thức chọn mẫu: Nghiên cứu sử dụng cách thức chọn mẫu phi ngẫu nhiên thuận tiện, đây là phương pháp thuộc trường phái chọn mẫu phi xác suất mà phần tử mẫu được chọn một cách thuận tiện. Nó cho phép nhà nghiên cứu đạt được một số lượng lớn các phần tử mẫu trong một thời gian ngắn. Số lượng mẫu: Theo Hair và cộng sự (2014), khi sử dụng mô hình SEM, nhà nghiên cứu cần phải đảm bảo kích thước mẫu tối thiểu. Bên cạnh đó, do không biết chính xác quy mô tổng thể của các nhân viên hiện đang làm việc tại các doanh nghiệp vừa và nhỏ nên các tác giả sử dụng công thức của Yamane (1967):

$$n = z^2.p(1-p) / e^2$$

Trong đó: n là kích thước mẫu tối thiểu; z: Giá trị tra bảng phân phối Z dựa trên độ tin cậy (Z = 1,96 tương ứng độ tin cậy 95%); p: Tỷ lệ ước lượng cỡ mẫu thành công; e: Sai số cho phép, mức phổ biến nhất là 0,05 (tương ứng khoảng tin cậy 95%).

Như vậy, kích thước mẫu tối thiểu để áp dụng mô hình SEM trong nghiên cứu này là 385. Để đảm bảo an toàn, nghiên cứu tiến hành gửi đi 500 bảng hỏi, có 450 bảng hỏi được phản hồi (đạt 90%), sau khi làm sạch dữ liệu thì thu được 438 bảng hỏi hoàn chỉnh (12 bảng hỏi bị loại do có nhiều câu trả lời bị khuyết, bỏ trống). Dữ liệu được xử lý và phân tích qua ứng dụng Smart PLS professional version 4.0.

4. Kết quả nghiên cứu mô hình

4.1 Kết quả đánh giá độ phù hợp của mô hình đo lường

Bảng 1: Ma trận hệ số tải nhân tố của các biến quan sát trong mô hình

	DV	GHRM	LT	QT	TT
DV1	0.800				
DV2	0.858				
DV3	0.884				
DV4	0.877				
DV5	0.854				
DV6	0.850				
GHRM1		0.886			
GHRM2		0.892			
GHRM3		0.909			

GHRM4		0.877			
LT1			0.857		
LT2			0.834		
LT3			0.840		
LT4			0.845		
QT1				0.834	
QT2				0.844	
QT3				0.842	
QT4				0.855	
QT5				0.837	
QT6				0.856	
TT1					0.890
TT2					0.892
TT3					0.864
TT4					0.790

Kết quả phân tích với nhân tố với sự hỗ trợ của phần mềm SmartPLS cho thấy các hệ số tải nhân tố của các chỉ số đều lớn hơn 0.7 (bảng 1). Điều đó cho thấy các biến quan sát của từng thành phần đo lường của thang đo đều đạt được yêu cầu.

4.1.1. Đánh giá độ tin cậy của thang đo

Để đánh giá tính tin cậy và thích hợp của các khái niệm nghiên cứu (thang đo) trong mô hình nghiên cứu của luận án, tác giả đánh giá qua mô hình đo lường. Cụ thể:

Trong mô hình nghiên cứu thang đo với 5 cấu trúc tiềm ẩn được kế thừa từ thang đo mà tác giả thực hiện tổng quan nghiên cứu tài liệu trước đây. Kết quả sử dụng phân tích bằng PLS-SEM với mô hình đo lường cho thấy các thang đo đạt tính tin cậy và thích hợp (đạt độ giá trị) cần thiết. Cụ thể:

Kết quả phân tích cho thấy hệ số Cronbach Alpha của cả 5 cấu trúc tiềm ẩn nằm trong khoảng 0.865 - 0.926 (đều cao hơn rất nhiều so với 0,7), hệ số hệ số tin cậy tổng hợp (composite reliability) nằm trong khoảng 0.908 - 0.942 (Đều cao hơn 0,8), và hệ số phương sai trích xuất trung bình của tất cả các cấu trúc tiềm ẩn trong mô hình mở rộng đều lớn hơn 0.7 (bảng 2). Điều đó cho thấy các biến quan sát sử dụng để đo lường cho các khái niệm tiềm ẩn của mô hình nghiên cứu đều đạt tính tin cậy cần thiết và đều có độ tin cậy nhất quán bên trong tốt.

Bảng 2. Kết quả đánh giá sự tin cậy của các thành phần thang đo đa hướng của mô hình nghiên cứu

	Hệ số Cronbach's alpha	Độ tin cậy tổng hợp (rho_c)	Phương sai được trích xuất (AVE)
DV	0.926	0.942	0.730
GHRM	0.913	0.939	0.794
LT	0.865	0.908	0.712
QT	0.920	0.937	0.714
TT	0.882	0.919	0.740

Nguồn: Tính toán của nhóm tác giả với sự hỗ trợ của phần mềm SmartPLS

4.1.2 Đánh giá tính giá trị hội tụ của thang đo

Theo Fornell and Larcker (1981) cho rằng giá trị của phương sai trích trung bình AVE nên được sử dụng để đánh giá tính hợp lệ hội tụ của các biến tiềm ẩn. Giá trị hội tụ sẽ được xác nhận khi AVE cho mỗi cấu trúc cao hơn 0,5

Kết quả phân tích với nhân tố với sự hỗ trợ của phần mềm SmartPLS cho thấy các hệ số tải nhân tố của các biến quan sát trong các cấu trúc tiềm ẩn đều lớn hơn 0.7 (cột phương sai trích trung bình AVE), lần lượt có giá trị là 0,730; 0,794; 0,712; 0,714 và 0,740 thấp nhất cũng là phương sai trung bình trích của sự ảnh hưởng bởi lý tưởng là $0,712 > 0,7$. Chính vì vậy mỗi cấu trúc tiềm ẩn trong mô hình đều thể hiện giá trị hội tụ tốt.

4.1.3 Đánh giá tính phân biệt của thang đo

Giá trị phân biệt cho thấy tính duy nhất hoặc tính khác biệt của một cấu trúc khi so sánh với các cấu trúc khác trong mô hình. Theo Ringle, Wende et al. (2015) thì đề xuất rằng cả 2 tiêu chí của Fornell and Larcker (1981) và phương pháp Heterotrait Monotrait Ratio nên được sử dụng để xác định tính giá trị phân biệt của các biến tiềm ẩn. Theo khuyến nghị từ Fornell and Larcker (1981) tính giá trị phân biệt của các biến tiềm ẩn được tìm thấy khi căn bậc 2 của AVE cho mỗi biến tiềm ẩn cao hơn các giá trị tương quan khác trong số các cấu trúc khác.

Bảng 3: Tiêu chí đánh giá tính phân biệt của Fornell-Larcker

	Criterion				
	DV	GHRM	LT	QT	TT
DV	0.855				
GHRM	0.773	0.891			
LT	0.637	0.720	0.844		
QT	0.793	0.827	0.667	0.845	
TT	0.680	0.739	0.654	0.731	0.860

Nguồn: Tính toán của nhóm tác giả với sự hỗ trợ của phần mềm SmartPLS

Có thể dễ dàng nhìn thấy kết quả từ bảng trên thì giá trị phân biệt cho cả 5 cấu trúc tiềm ẩn đều đã đạt được tính phân biệt bởi vì căn bậc 2 của các AVE (đường chéo chính với giá trị in đậm) cao hơn so với tương quan ngoài đường chéo. Cụ thể là:

Đối với cấu trúc Động viên truyền cảm hứng (DV) có căn bậc 2 của phương sai trích rút trung bình AVE là = 0,855 cao hơn so với các giá trị tương quan trong cột của nó (0,773; 0,637; 0,793 và 0,680)

Đối với cấu trúc thực hành quản trị nhân lực xanh (GHRM) có căn bậc 2 của phương sai trích rút trung bình AVE là = 0,891 cao hơn so với các giá trị tương quan trong cột của nó (0,720; 0,827 và 0,739) và hàng của nó (0,773);

Tương tự như vậy đối với các cấu trúc còn lại là ảnh hưởng bởi lý tưởng (LT), Khuyến khích thông minh (TT) và sự quan tâm đến cá nhân (QT) đều đạt được giá trị căn bậc 2 của AVE cao hơn so với tương quan ngoài đường chéo của nó.

Bảng 4: Hệ số Heterotrait-Monotrait Ratio (HTMT)

	DV	GHRM	LT	QT	TT
DV					
GHRM	0.840				
LT	0.712	0.810			
QT	0.856	0.894	0.743		
TT	0.751	0.822	0.751	0.800	

Theo Garson (2016), giá trị phân biệt giữa 2 biến liên quan được chứng minh khi hệ số HTMT < 1. Bên cạnh đó, theo Henseler và cộng sự (2015), HTMT phải thấp hơn 0,9. Bảng 3 cho thấy hệ số HTMT của mỗi cấu trúc đều có giá trị thấp hơn 0,9. Do vậy tiêu chí về giá trị phân biệt đã được thiết lập cho HTMT.

Như vậy, từ các kết quả trên, tác giả đi đến kết luận rằng các thang đo được sử dụng trong mô hình nghiên cứu đã đạt được độ tin cậy và tính giá trị rất tốt. Do đó, cả 5 thang đo này đều được sử dụng để phân tích trong mô hình cấu trúc.

4.2 Kết quả kiểm định mô hình cấu trúc phương trình SEM

Sự phù hợp của mô hình cấu trúc chỉ được kiểm tra sau khi độ phù hợp mô hình đo lường được chấp nhận. Mô hình cấu trúc bao gồm các cấu trúc và mũi tên kết nối cấu trúc này với cấu trúc khác. Các hệ số tải của các cấu trúc kết nối đường dẫn trực tiếp là các hệ số hồi quy được tiêu chuẩn hóa (Giao and Vuong 2020). Thông thường thì kiểm định mô hình cấu trúc thông qua các tiêu chí như xem xét vấn đề đa cộng tuyến, hệ số đường dẫn cấu trúc, hệ số R², hệ số R² điều chỉnh và độ phù hợp tổng thể của mô hình cấu trúc. Phần mềm Smart PLS có thể tạo giá trị P-value để kiểm tra ý nghĩa của cả mô hình bên trong và bên ngoài bằng cách sử dụng quy trình gọi là Bootstrapping. Trong quy trình này một số lượng lớn các mẫu con được lấy từ mẫu ban đầu thay thế để đưa ra các lỗi tiêu chuẩn bootstrap, từ đó đưa ra các giá trị P-value để kiểm tra mức độ quan trọng của đường dẫn

cấu trúc. Kết quả bootstrap gần đúng với tính chuẩn của dữ liệu (Giao and Vuong 2020).

4.2.1 Kiểm tra vấn đề đa cộng tuyến qua hệ số VIF

Các hệ số phóng đại phương sai (VIF - Variance Inflation Factor) cho mô hình cấu trúc được phần mềm Smart PLS in trong bảng giá trị VIF bên trong và VIF bên ngoài được hiển thị bên dưới. Ứng dụng Smart PLS đưa ra thống kê VIF như bảng dưới đây:

Bảng 5: Giá trị VIF bên ngoài

	VIF
DV1	2.733
DV2	3.343
DV3	3.351
DV4	3.507
DV5	3.052
DV6	2.800
GHRM1	2.743
GHRM2	2.950
GHRM3	3.346
GHRM4	2.711
LT1	2.587
LT2	2.395
LT3	2.366
LT4	2.410
QT1	3.332
QT2	2.891
QT3	3.194
QT4	3.143
QT5	2.699
QT6	2.663
TT1	2.780
TT2	2.791
TT3	2.307
TT4	1.767

Theo Lowry and Gaskin (2014) các vấn đề về đa cộng tuyến tồn tại giữa biến ngoại sinh tương ứng và biến nội sinh. Nếu giá trị hệ số VIF lớn hơn 5 hoặc nghịch đảo của nó nhỏ hơn 0,2 thì có các vấn đề về đa cộng tuyến với các biến tiềm ẩn. Nhìn vào bảng 5 và

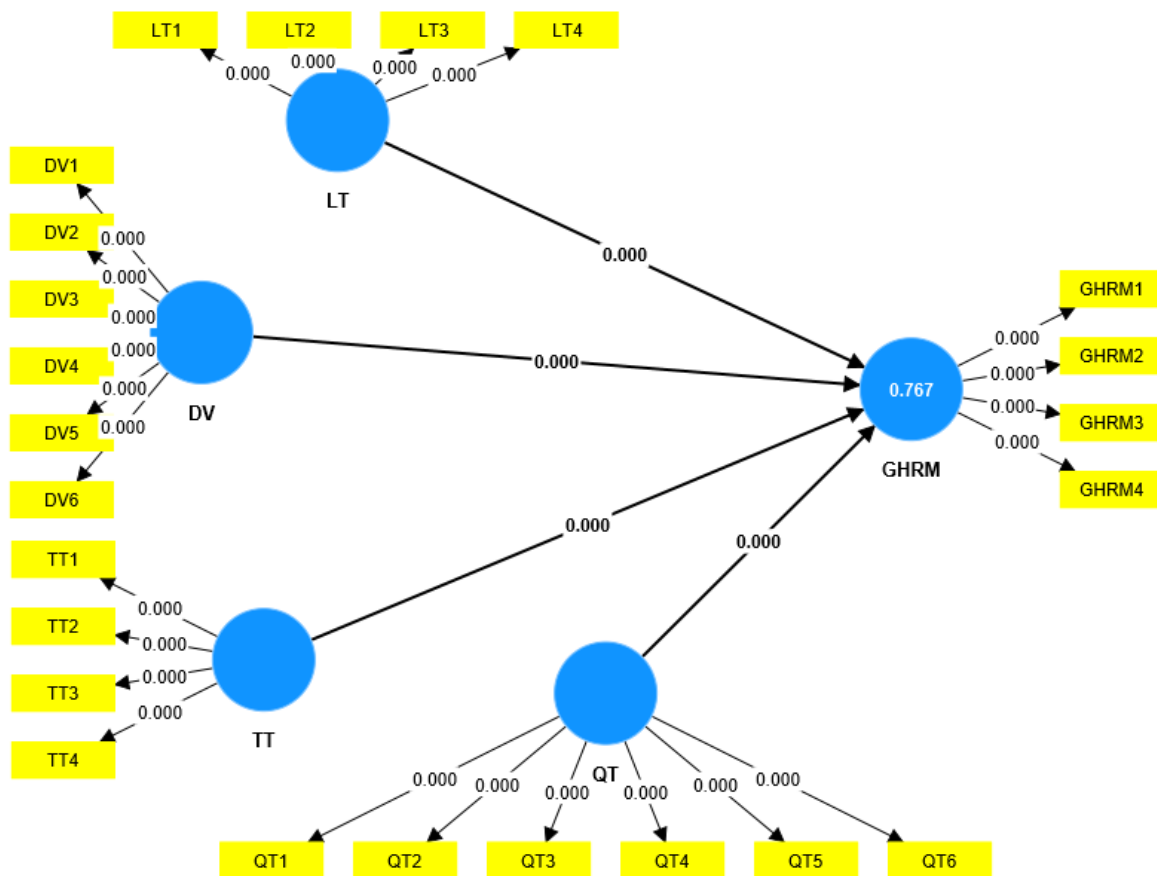
bảng 6 thì tất cả các hệ số VIF đều nằm dưới ngưỡng 5 → Điều này chứng minh được rằng các biến tiềm ẩn không xảy ra hiện tượng đa cộng tuyến.

Bảng 6: Giá trị VIF bên trong

	DV	GHRM	LT	QT	TT
DV		2.951			
GHRM					
LT		2.082			
QT		3.460			
TT		2.484			

4.2.2 Hệ số đường dẫn cấu trúc

Việc đánh giá hệ số đường dẫn mô hình cấu trúc của mô hình được thực hiện bằng phương pháp bootstrapping. Theo Hair Jr, Hult và các cộng sự (2016) bootstrapping là một kỹ thuật lấy mẫu lặp lại để ước tính lỗi tiêu chuẩn mà không cần chuyển tiếp các giả định phân phối. Kết quả của bootstrap gần đúng với tính chuẩn của dữ liệu. Nó được sử dụng để tính toán tầm quan trọng của thống kê T liên quan đến các hệ số đường dẫn (Wong 2013).



Hình 2: Đồ thị mô hình phương trình cấu trúc

Bảng 7: Kết quả ước lượng mô hình SEM

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
DV -> GHRM	0.209	0.208	0.044	4.703	0.000
LT -> GHRM	0.213	0.215	0.033	6.392	0.000
QT -> GHRM	0.397	0.396	0.049	8.069	0.000
TT -> GHRM	0.168	0.167	0.039	4.293	0.000

Kết quả từ bảng thống kê ở trên cho thấy các giá trị quan trọng đối với các hệ số đường dẫn được xác định từ quá trình bootstrapping. Cả 4 giả thuyết nghiên cứu và mối liên hệ trong mô hình phương trình cấu trúc:

Đối với giả thuyết H1: Kết quả từ bảng trên đã chỉ ra sự động viên truyền cảm hứng càng cao thì sự thực thi QTNL xanh càng cao với trọng số hồi quy là 0.208 và P-value rất bé (0,000), do vậy giả thuyết H1 đã được chấp nhận

Đối với giả thuyết H2: Kết quả từ bảng trên đã chỉ ra rằng tầm nhìn lý tưởng càng cao thì việc thực hành QTNL xanh càng cao (+) với trọng số hồi quy là 0,213 và P-value rất bé (0,000), do vậy giả thuyết H2 đã được chấp nhận

Đối với giả thuyết H3: Kết quả từ bảng trên đã chỉ ra sự quan tâm đến cá nhân càng cao thì sự thực thi QTNL xanh càng cao với trọng số hồi quy là 0.397 và P-value rất bé (0,000), do vậy giả thuyết H3 đã được chấp nhận.

Cuối cùng là Đối với giả thuyết H4: Kết quả từ bảng trên đã chỉ ra sự khuyến khích thông minh mà càng cao thì sự thực thi QTNL xanh càng cao với trọng số hồi quy là 0.168 và P-value rất bé (0,000), do vậy giả thuyết H4 đã được chấp nhận.

Ngoài ra, Bảng hệ số đường dẫn cấu trúc cũng tiết lộ rằng Trong số các yếu tố ảnh hưởng mạnh nhất đến việc thực hành quản trị nhân lực xanh đó là sự động viên truyền cảm hứng (DV) với hệ số đường dẫn cấu trúc cao nhất (0,397), xếp thứ hai là Tầm nhìn lý tưởng (LT) với hệ số là 0,213, sau thấp hơn một chút đó là sự động viên truyền cảm hứng với trọng số 0,209 và cuối cùng là sự kích thích trí tuệ với trọng số chỉ đạt 0,168.

Tóm lại, kết quả nghiên cứu ở trên cho thấy mô hình PLS-SEM được xác nhận là mô hình phù hợp tốt với dữ liệu được khảo sát.

4.2.3 Mức độ phù hợp của mô hình

Nghiên cứu này sử dụng chỉ số R-square để nhằm đánh giá tính phù hợp của mô hình cấu trúc. Như kết quả từ bảng dưới đây cho thấy hệ số phù hợp của mô hình thực hành QTNL xanh khá cao với giá trị R-square và R-square điều chỉnh lần lượt là 0,767 và 0,764 (đều cao hơn 50%). Do đó có thể khẳng định rằng các cấu trúc có ảnh hưởng lớn hơn trên mô hình nghiên cứu.

Bảng 8: Đánh Mức độ phù hợp của mô hình nghiên cứu

	R-square	R-square adjusted
GHRM	0.767	0.764

4. Kết luận và hàm ý chính sách

4.1 Kết luận

Phong cách lãnh đạo chuyển đổi xanh đã ảnh hưởng đến quản trị nhân lực xanh theo hướng tích cực. Với mục tiêu giảm thiểu tác động tiêu cực lên môi trường và tăng cường sự đóng góp tích cực vào cộng đồng, các tổ chức đã bắt đầu tập trung vào việc tuyển dụng và phát triển nhân viên có khả năng làm việc và chịu trách nhiệm với môi trường.

Phong cách lãnh đạo chuyển đổi xanh đã ảnh hưởng thuận chiều đến quản trị nhân lực xanh, có vai trò quan trọng trong việc định hướng và tạo ra môi trường làm việc tích cực cho nhân viên, tạo ra sự nhận thức và động lực cho nhân viên trong việc tham gia vào các hoạt động bảo vệ môi trường và xây dựng một nền tảng kinh doanh bền vững. Nhân viên sẽ được khuyến khích tham gia vào các hoạt động xanh và có thể cảm thấy yêu thích và tự hào về việc làm việc cho một tổ chức có tầm nhìn bền vững. Với phong cách lãnh đạo chuyển đổi xanh, lãnh đạo cần có một tầm nhìn chiến lược về bảo vệ môi trường và phát triển bền vững, đồng thời cũng cần đưa ra những quyết định phù hợp với mục tiêu đó.

Lãnh đạo sẽ chủ động tạo ra các chương trình đào tạo và giáo dục để giúp nhân viên của họ hiểu rõ hơn về tầm quan trọng của bảo vệ môi trường và cách thực hiện các hoạt động xanh. Điều này sẽ tạo ra một nền tảng vững chắc để đảm bảo rằng các hoạt động bảo vệ môi trường được thực hiện hiệu quả.

Lãnh đạo cần động viên, truyền cảm hứng cho nhân viên tham gia vào quá trình chuyển đổi xanh, đồng thời tạo điều kiện để nhân viên tiếp cận và sử dụng các công nghệ, sản phẩm và dịch vụ xanh. Những nhân viên tham gia vào các hoạt động xanh có thể cảm thấy hài lòng với công việc của mình và gắn bó với tổ chức trong thời gian dài.

4.2. Hàm ý chính sách

Để quản trị nhân lực xanh đạt hiệu quả, lãnh đạo cần phải đưa ra các chính sách và quy trình tuyển dụng, đào tạo và phát triển nhân viên, cũng như đánh giá hiệu quả và thưởng cho nhân viên tham gia vào các hoạt động xanh. Lãnh đạo cũng cần đảm bảo rằng các hoạt động xanh được tích hợp vào các quy trình và nghiệp vụ hàng ngày của tổ chức. Tập trung vào việc tuyển dụng, phát triển và giữ chân nhân viên có tư duy và hành động xanh, giúp tạo ra giá trị kinh tế bền vững và giảm thiểu tác động tiêu cực lên môi trường.

Lãnh đạo có thể xây dựng các chính sách về đào tạo và phát triển nhân lực xanh về các vấn đề liên quan đến môi trường và bền vững. Điều này có thể giúp nhân viên hiểu rõ hơn về các vấn đề môi trường và có khả năng đưa ra các giải pháp sáng tạo cho tổ chức. Xây dựng các chính sách nhân sự xanh, chẳng hạn như tuyển dụng nhân viên có tư duy xanh, đào tạo nhân viên về những hành động thân thiện với môi trường, cung cấp điều kiện làm việc xanh và khuyến khích các hoạt động xã hội có ích, đã được triển khai để đáp ứng yêu cầu của phong cách lãnh đạo chuyển đổi xanh. Sự khuyến khích thông minh trong các

hoạt động đổi mới sáng việc tạo ra các sản phẩm và dịch vụ bền vững. Xây dựng chính sách cho nhân viên đóng góp ý tưởng và cùng nhau tìm kiếm các giải pháp mới và hiệu quả cho việc xây dựng một nền tảng kinh doanh xanh./.

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FACTORS AFFECTING ENVIRONMENTAL ACCOUNTING IMPLEMENTATION OF LISTED COMPANY IN VIETNAM

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Abstract: *The paper investigates the factors including stakeholder pressure, awareness of senior executives, accountant qualification and business characteristics affecting the implementation of environmental accounting for listed companies on the Vietnamese stock market. Through qualitative and quantitative research, the author conduct survey with 135 interviewees of listed companies from November 2022 to January 2023. SPSS software was used to perform exploratory factor analysis (EFA) and linear regression to determine the influence of independent factors on environmental accounting implementation. The results show that all factors have positive impacts on environmental accounting implementation. From the research results, the paper makes recommendations to strengthen the application of environmental accounting in listed companies in Vietnam.*

Keywords: *Accountants, Environment Accounting, Listed Companies, Vietnam stock market*

CÁC NHÂN TỐ ẢNH HƯỞNG TỚI THỰC HIỆN KẾ TOÁN MÔI TRƯỜNG TRONG CÁC CÔNG TY NIÊM YẾT TẠI VIỆT NAM

Tóm tắt: *Bài viết phát hiện các nhân tố bao gồm áp dụng của các bên liên quan, nhận thức của nhà quản lý cấp cao, chuyên môn kế toán viên và đặc điểm kinh doanh ảnh hưởng tới việc thực hiện kế toán môi trường trong các công ty niêm yết trên thị trường chứng khoán Việt Nam. Thông qua nghiên cứu định tính và định lượng, tác giả tiến hành khảo sát 135 người trong các công ty niêm yết từ khoảng thời gian tháng 11 năm 2022 đến tháng 1 năm 2023. Phần mềm SPSS được sử dụng để thực hiện phân tích nhân tố khám phá và hồi quy tuyến tính để xác định sự ảnh hưởng của biến độc lập tới việc thực hiện kế toán môi trường. Kết quả nghiên cứu chỉ ra rằng tất cả các nhân tố đều ảnh hưởng cùng chiều tới việc thực hiện kế toán môi trường. Từ kết quả nghiên cứu, bài viết đưa các khuyến nghị để tăng cường việc áp dụng kế toán môi trường trong các công ty niêm yết tại Việt Nam.*

Từ khóa: *Kế toán, Kế toán môi trường, công ty niêm yết, thị trường chứng khoán Việt Nam*

1. Introduction

Profit maximization is an important goal of companies today, especially for listed companies, this main objective is always a top priority for shareholders to make decisions. However, for the sustainable development of listed companies, the companies not only focus on the interests of the shareholders but also need to take care for stakeholders such as

employees, government agencies, consumers and the environment. The companies' sustainable development strategy needs to refer to the environmental aspects which have a system to monitor and reflect this issues related these activities. Environmental accounting is a part of the accounting information system to monitor and evaluate environmental revenue and costs such as the use of energy, water and materials, as well as the generation of waste and emissions, is directly related to many of the organizations have on their environments (Beck et al., 2019). The change in the perception of corporate social responsibility, traditional accounting not only record financial information but also need to change the record to reflect environmental factors on financial statements and is an effective tool for managers in managing environmental issues of companies. In that context, the environmental accounting is inevitable to meet the requirements of environmental information in the operation of enterprises in both theory and practice.

In Vietnam, the system of legal documents prescribed in environmental accounting is not mandatory and has not specific regulations. However, with increasingly severe climate change and increasing corporate social responsibility to the community, environmental accounting becomes an urgent issue and needs to be studied and implemented in listed companies in Vietnam.

International and Vietnamese researches on the factors affecting the application of environmental accounting in enterprises are still limited (Karimi et al., 2017; Sayyadi Tooranloo & Askari Shahamabad, 2020; Nguyen, 2020; Le et al. 2020; Nguyen, 2021). The researches focuses on a number of specific industries such as mining enterprises, Fishery Processing Enterprises and food and beverage industry, but has not studied the factors affecting the implementation of environmental accounting in listed companies on the Vietnamese stock market. Therefore, the research topic: “Factors affecting environmental accounting implementation in listed company in Vietnam” is an urgent and necessary topic for research.

2. Theoretical Framework, Literature review and Methods

2.1. Theoretical Framework and Literature review

Stasiškienė (2020) presents the definition of environmental accounting as follows:

“Environmental accounting (EA) is a subset of accounting proper, which incorporates both economic and environmental information. It can be conducted at the corporate level or at the level of a national economy. At a corporate level, environmental accounting can be defined as a set of organizational activities that deal with the measurement and analysis of the environmental performance of corporations and the reporting of such results to concerned groups, both within and outside the corporation”.

Environmental accounting analyzes economic and environmental information to help an entity's managers make prudent decisions about the use of resources and environmental costs. Environmental accounting can support financial accounting and management accounting to provide true and fair information about the operation of the entity. From the perspective of management accounting, environmental accounting is the process of collecting and processing data about the environment to support internally

within the enterprise. Environmental accounting is the analysis and use of financial and non-financial information to optimize economic and environmental activities of an enterprise with the goal of sustainable development. Environmental accounting is an effective tool for businesses to control costs and maximize profits. For environmental management accounting, environmental accounting is a management tool that helps managers decrease costs that cause environmental damage and choose the optimal business plan and efficient investment, improvement of financial performance to enhance more responsible for the society (Nguyen Ngoc Quang, 2021).

There are many international and Vietnamese researches related to environmental accounting as follows:

Karimi et al. (2017) conduct a research to factors influencing the use of environmental management accounting tools from the financial managers and assistants' perception in the oil refining and petrochemical companies. The results of research point out that resistance to change, lack of standards and methods for gathering and allocation of environmental costs and lack of standards, competitive environment and society culture are the factors that influence the use of environmental management accounting tools.

Sayyadi Tooranloo & Askari Shahamabad (2020) research factors affecting in the implementation of social and environmental accounting with the ISM approach. The finding of research shows that legal requirement dimension is one of the effective factors impacting in social and environment accounting implementation.

Nguyen (2020) conduct the study which investigates the impact of 5 factors on environmental accounting implementation in mining enterprises in Binh Dinh province, Vietnam. The study presents 4 factors including coercive pressure of government agencies, environmental awareness of senior executives, business characteristics, accountant qualifications of environmental accounting have significant effect on environmental accounting implementation in mining enterprises in Binh Dinh province in Vietnam

Le et al. (2020) evaluate factors affecting the Environmental Management Accounting Implementation of Fishery Processing Enterprises in Vietnam. The study reveals that 3 groups of factors including company's nature and perspective; government and stakeholders' pressure; methods, tools and regulations for environmental management accounting have influence on the Environmental Management Accounting Implementation.

Nguyen (2021) analyses the impact of factors on the environmental accounting of enterprises in the food and beverage industry in Vietnam. The author points out that 6 factors including stakeholders and leaders' perceptions enterprise size, leadership awareness, financial resources, employee qualifications, and regulations have positive impact on the environment accounting of enterprises in the food and beverage industry.

Therefore, previous studies on the factors affecting the implementation of environmental audit should be limited. The studies only focus on the study of the factors affecting the performance of environmental management accounting (Karimi et al, 2017). In Vietnam, the researches focus on studying the factors affecting environmental

accounting implementation for some enterprises with industry-specific characteristics such as the mining industry, the fishery industry or the beverage industry (Nguyen, 2020; Le et al., 2020; Nguyen, 2021).

Meanwhile, listed companies account for a large proportion of Vietnamese enterprises and need to strengthen corporation social responsibility, especially towards the environmental accounting to create sustainable development for businesses in the future. Therefore, this research topic is an urgent and necessary topic for research in Vietnam.

2.2. Hypothesis development & Research methodology:

2.2.1. Hypothesis development

Based on the development of theory, two fundamental theories including agency theory and stakeholder theory have been used to develop hypothesis. Alchian and Demsetz (1972) introduced Agency Theory which considers the relationship between agents and principals. Principals are the owners of the companies such as shareholders and investors while agents are the managers who run the business of the company and report business information to the owners. In which, accountability for social responsibility is an issue that needs to be reported to shareholders. Besides, information asymmetry is a problem of listed companies when the owner and agents are separate. While the agent are interested in his own benefit, he doesn't care about the interests of the principals. Therefore, in order to reduce information asymmetry, it is necessary to have an agency cost such as monitoring cost related to reflecting truthful financial information including environmental accounting information. Therefore, based on this theory, the author chooses the awareness of senior executives; accountant qualification and business characteristics as factors affecting environmental accounting implementation. For the study of Stakeholder theory, a stakeholder of an organization can be broadly defined as a party that is affected by, or has an effect upon, the organization in question. Hill and Jones (1992) defined stakeholders as individuals who have influence over the company. Stakeholders are investors, customers, employees, shareholders and the government. Based on stakeholder theory, it is the basis for selection of stakeholder pressure affecting environmental accounting implementation. Therefore, the author finds that there are 4 main factors affecting the implementation of environmental accounting including stakeholder pressure; awareness of senior executives; accountant qualification and business characteristics. The paper establishes hypothesis development for dependent and independent variables as follows:

Stakeholder Pressures

Stakeholders consist of regulatory agencies, customers, shareholders, suppliers, employees, Financial institutions. The main responsibility of Board of Directors is to identify the key stakeholders of an organization (Anderson et al., 2017). Listed companies compared with other types of companies are affected by many stakeholders, especially regulations of state agencies and shareholders. With the sustainable development of enterprises, listed companies are not only under pressure from stakeholders, especially with regard to the state's regulations and legal documents on reporting on environmental information. Le et al (2020) and Nguyen (2021) reveal that Government and Stakeholders'

Pressure have positive impact on the environmental accounting implementation. Therefore, the first hypothesis is developed as follows:

Hypothesis 1: Stakeholder Pressures have positive influence on the Environmental Accounting Implementation in listed companies in Vietnam

Awareness of Senior Executives

Awareness of Senior Executives is a manager's understanding and knowledge about regulation of the environment for companies. Board of directors establish entity's environmental strategy and policy and the senior manager follow this strategy and policies through developing and producing green products (Nguyen, 2020). The green accounting related to environmental accounting is applied in accounting information system of companies. Senior executives with good environmental awareness has an influence on policy choices and actions to control the environmental cost. Managers are aware of the role of environmental accounting in improving sales, reducing sales erosion, reducing costs (through reduced waste), reducing costs of environmental remediation and improving reputation such as creation of societal benefits (Beck, 2019). Thus, Awareness of Senior Executives has a positive influence on environmental accounting implementation (Nguyen, 2020; Nguyen, 2021). The second hypothesis is established as following:

Hypothesis 2: Awareness of Senior Executives has positive influence on the Environmental Accounting Implementation in listed companies in Vietnam

Accountant Qualification

An accountant qualification in environmental accounting requires not only an understanding of general accounting knowledge but also an understanding of environmental accounting standards. Accountants need to be equipped with the knowledge to collect, synthesize and present environmental information in the accounting information system. Lack of professional qualifications and environmental skills affects the application of environmental accounting information systems in enterprises (Setthasakko, 2010). Nguyen (2020) and Nguyen (2021) point out the positive relationship between the accountant qualification with environmental accounting implementation.

Hypothesis 3: Accountant Qualification has positive influence on the Environmental Accounting Implementation in listed companies in Vietnam

Business Characteristics

Business characteristics are related to specific business types and business processes of enterprises. These different characteristics affect the application of accounting standards. Especially, the enterprises do business related to the exploitation of natural resources and related to environmental issues such as mining, gas, chemicals, etc.. These enterprises are not only affected by the legal system for environmental protection and also have the responsibility to report the level of impact on the environment (Cormier & Gordon, 2001). Therefore, businesses need to strengthen the explanation of information to the environment more than other business activities. Therefore, environmental accounting supports the enterprises that can fully disclosure and presentation on reports about the

environmental issues. As a results, Nguyen (2020) reveals Business Characteristics have positive impact on Environmental Accounting Implementation.

Hypothesis 4: Business Characteristics have positive influence on the Environmental Accounting Implementation in listed companies in Vietnam

From establishing hypothesis development, the regression model is developed as follows:

$$EAI = \beta_0 + \beta_1 AL + \beta_2 NT + \beta_3 KT + \beta_4 KD + \epsilon$$

β_0 : Constant

$\beta_1, \beta_2, \beta_3, \beta_4$: Regression coefficient

EAI: Environmental Accounting Implementation

AL: Stakeholder Pressures

NT: Awareness of Senior Executives

KT: Accountant Qualification

KD: Business Characteristics

Research methodology

Qualitative and quantitative methodology are used in the research. For the qualitative research method, the author conducted interviews with 10 experts in the field of accounting including chief accountants, accountants and Chief financial officers (CFOs) of listed companies on the Vietnamese stock market. Based on the previous studies and combined with the results of interviews with experts, the author selects the items for the dependent and independent variables which is suitable for the Vietnamese context. For the quantitative research method, the author builds a questionnaire and uses the Likert scale according to 5 levels: 1. Totally Disagree, 2. Disagree, 3. Neutral, 4. Agree; 5. Totally Agree. The content of questionnaire consists of two main parts: part 1 includes demographic information of interviewee, part 2 presents factors affecting environmental accounting implementation.

Table 1: Dependent and Independent Factors

Factors	Code	Items	Sources
Dependent factors			
Environmental Accounting	EAI 1	Recording environmental non-financial information (volume of consumption resources; environmental policies, objectives, strategies; environmental violation, environmental management system)	Nguyen (2020)
	EAI 2	Recording environmental financial information (environmental assets, environmental liabilities, environmental	Nguyen (2020)

Implementation (EAI)		costs, environmental income)	
	EAI3	Allocating environmental cost by advanced method	Chang (2007), Nguyen (2020)
	EAI 4	Using detailed account tracking environmental information	Nguyen (2020)
	EAI 5	Using detailed ledger tracking environmental information	Chang (2007), Nguyen (2020)
	EAI 6	Analyzing environmental performance	Nguyen (2020)
	EAI 7	Making external environmental reports	Chang (2007), Nguyen (2020)
	EAI 8	Making internal environmental reports	
Independent factors			
Stakeholder Pressures (AL)	AL 1	Coercive pressure of Parliament and Government laws	Nguyen (2020)
	AL 2	Coercive pressure of legal documents of ministries	Nguyen (2020)
	AL 3	Coercive pressure of legal documents of local authorities	Nguyen (2020)
	AL 4	Local community 's environmental awareness	Hoffman (2001), Nguyen (2020)
	AL 5	Customer 's environmental requirements	Hoffman (2001), Nguyen (2020)
	AL 6	Shareholders 's environmental information requirements	Hoffman (2001), Nguyen (2020)
	AL 7	Green credit regulations of credit institutions	Hoffman (2001), Nguyen (2020)
	AL 8	Pressure of the same industry or competitors	Hoffman (2001), Nguyen (2020)
Awareness of Senior Executives (NT)	NT 1	Awareness of senior executives about proactive environmental strategy	Chang (2007), Nguyen (2020)
	NT 2	Awareness of senior executives about environmental uncertainty	Chang (2007), Nguyen (2020)
	NT 3	Awareness of senior executives about environmental accounting benefits and costs	Chang (2007), Nguyen (2020)
Accountant	KT1	Environmental accountant competence	Nguyen (2020)

Qualification (KT)	KT 2	Staff training on environmental accounting	Nguyen (2020)
	KT 3	Work experience in operation fields	Nguyen (2020)
Business Characteristics (KD)	KD 1	Connection between accounting department and environment department in the listed companies	Nguyen (2020)
	KD 2	Listed company size has a great impact on practice of environmental accounting	Christ and Burritt (2013), Nguyen (2020)
	KD 3	Profitability has a great impact on practice of environmental accounting	Nguyen (2020)
	KD 4	Industry has a great impact on practice of environmental accounting	Christ and Burritt (2013), Nguyen (2020)

(Source by Author)

The interviewees are accountants, chief accountants who are working for listed companies on the Vietnamese stock market. The survey is designed in the form of Gmail and sent to the interviewees. The survey implementation period is from November 2022 to January 2023. The number of listed companies on the Vietnamese stock market in 2022 is 913. Therefore, the study was conducted to send 320 questionnaires to accountants, chief accountants and CFOs who are working for listed companies. However, the number of responses was 196. After eliminating invalid responses such as not answering all the questions or the entire vote choosing only one option, the number of valid responses is 135. The paper conduct exploratory factor analysis and linear regression through SPSS 24 software to test the independent factors impacting environmental accounting implementation. Hair et al. (2014) suggested that the number of questionnaires to perform exploratory factor analysis and linear regression should have a ratio of items to a variable of 5:1. Therefore, with a total of 24 items, the number of samples to be collected is 120. With the number of valid responses is 135, it is eligible to perform exploratory factor analysis and linear regression on the relationship between independent variables including stakeholder pressure, awareness of senior executives, accountant qualification, business characteristics and the implementation of environmental accounting for listed companies on the Vietnamese stock market.

3. Results and Discussion

3.1. Demographic information of interviewees

The demographic information about the interviewees is shown including 4 aspects: gender, working position, working experience, qualifications. For gender, the number of interviewees was male who account for 56% (including 75 people) and 44% (including 60 people). For the working position, the majority of interviewees are accountants, accounting for 67%, followed by chief accountants at 25.6% and accounting for the lowest proportion of CFOs at 7.4%. For the working experience, the most respondents from over 5 to 10 years of experience were 52%, over 10 years of experience (accounting for 33%) and less

than 5 years of experience (including 20 people - 15). The final characteristic of the respondents is that professional qualifications account for the majority of Bachelor degrees (74%), followed by master and college degrees at 22.3% and 3.7% respectively.

Table 2. Demographic information of interviewees

	Interviewees	Percentage
Gender	135	100%
Male	75	56%
Female	60	44%
Working position	135	100%
Accountants	90	67%
Chief accountants	35	26%
CFOs	10	7%
Working experience	135	100%
Below 5 years	20	15%
From 5 years to 10 years	70	52%
Over 10 years	45	33%
Qualification	135	135
College degree	5	3.7%
Bachelor degree	100	74%
Master degree	30	22.3%
Other	0	0%

(Source by Author)

3.2. Reliability Analysis of Cronbach's Alpha

The results of evaluating the reliability of the items using Cronbach's Alpha of the independent and dependent variables are presented in the following table:

Code	Independent and Dependent Variables	Remaining Items	Cronbach's Alpha	Removed Items
AL	Stakeholder Pressures	7	0.988	AL8
NT	Awareness of Senior Executives	3	0.838	
KT	Accountant Qualification	3	0.843	
KD	Business Characteristics	4	0.897	
EAI	Environmental Accounting Implementation	7	0.887	EAI6

Table 3. Reliability Analysis of Cronbach's Alpha

(Source by Author)

After removing items with Corrected Item - Total Correlation less than 0.3 and Cronbach's Alpha if Item Deleted is larger than Cronbach's Alpha of the variable, the remaining items are used to measure the factors affecting Environmental Accounting

Implementation. All Cronbach's Alpha coefficients of variables have greater than 0.7, proving that the items used ensure reliability to measure the factors. Two items including AL8 and EAI 6 that do not satisfy the above conditions should be removed from these variables.

3.3. Exploratory factors analysis

Exploratory factors analysis with independent variables

Before exploratory factor analysis, KMO and Bartlett tests were used to assess the suitability of the research sample. The results are presented in the following table:

Table 4. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.757
Bartlett's Test of Sphericity	Approx. Chi-Square	1665.140
	df	136
	Sig.	0.000

(Source by Author)

From the KMO and Bartlett's test results, the KMO coefficient calculated from the survey sample is 0.757, which is greater than 0.5. Thus, the sample size is suitable to conduct exploratory factor analysis. Bartlett's test with hypothesis H_0 : the correlation level between the items is zero in the population. It is statistically significant because the P-value (Sig.) determined from the survey sample is 0.000 smaller than the significance level of Bartlett's Test (0.05 or 5%). Therefore, it is possible to reject the hypothesis H_0 or it can be concluded that these items are correlated with each other in the population.

To identify the main factors, the author uses factor extraction method based on Eigenvalue. The Eigenvalue criterion used is 1, that is, only factors with Eigenvalue greater than 1 are kept in the analytical model. The results of the factor analysis are given in the following table:

Table 5. Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings				Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %		Total	% of Variance	Cumulative %		Total	% of Variance
1	6.664	39.198	39.198	6.664	39.198	39.198	6.602	38.834	38.834	
2	4.298	25.282	64.480	4.298	25.282	64.480	3.067	18.042	56.876	
3	2.087	12.274	76.754	2.087	12.274	76.754	2.306	13.563	70.439	
4	1.232	7.246	83.999	1.232	7.246	83.999	2.305	13.560	83.999	
5	0.444	2.614	86.614							
6	0.428	2.517	89.130							
7	0.386	2.274	91.404							
8	0.341	2.008	93.411							
9	0.313	1.838	95.250							

10	0.265	1.558	96.808						
11	0.224	1.320	98.127						
12	0.147	0.866	98.994						
13	0.083	0.490	99.484						
14	0.039	0.230	99.714						
15	0.027	0.161	99.875						
16	0.021	0.125	100.000						
17	0	0	100.000						
Extraction Method: Principal Component Analysis.									

(Source by Author)

The analysis results show that with 17 items evaluating the factors affecting environmental accounting implementation, 04 main factors can be extracted. According to the calculation results from the survey sample, these four independent factors explain 83.999% of the data variation of the 17 items.

The relationship between the main factors extracted with each items is shown through the factor loading coefficient located in the Rotated Component Matrix. The factor loading coefficient of each items for each extracted factor needs to be greater than or equal to 0.5 to ensure the correlation between the items and the main factor extracted. Any items with factor loading coefficient less than 0.5 will in turn be removed from the analysis to ensure the explanatory significance of the factors (Hair et al. 1998). The results of the rotation matrix show that, 17 items are classified into 4 factors, all items have factor loading greater than 0.5. Therefore, it can be seen that these items ensure convergence and is suitable for measuring factors. The results of EFA analysis to determine items for each factor are shown in the following table:

Table 6. Rotated Component Matrix

	Component			
	1	2	3	4
AL6	0.983			
AL1	0.983			
AL3	0.974			
AL4	0.971			
AL7	0.971			
AL2	0.969			
AL5	0.929			
KD1		0.871		
KD3		0.867		
KD4		0.830		
KD2		0.824		
NT1			0.866	
NT2			0.859	
NT3			0.853	
KT2				0.845

KT1				0.837
KT3				0.805

(Source by Author)

Exploratory factors analysis with dependent variables

The KMO test results for the dependent variable of 0.835, greater than 0.5, show that the sample size is suitable for conducting exploratory factor analysis. Bartlett's test has Sig. = 0.000 < 0.05 reflects items that are correlated with each other. From analysis of the factor rotation matrix, it can be seen that the dependent variable is extracted into 01 factor (EAI).

3.4. Correlation Analysis between variables

The analysis of results show that the independent variables in the research model are strongly correlated with the dependent variable (EAI) (the Sig.) value in the test of the dependent and independent variable pairs is less than 0.05)

Table 7. Correlations

		AL	NT	KT	KD	EAI
AL	Pearson Correlation	1	0.129	-0.008	0.006	.283**
	Sig. (2-tailed)		0.135	0.929	0.949	0.001
	N	135	135	135	135	135
NT	Pearson Correlation	0.129	1	.275**	0.147	.450**
	Sig. (2-tailed)	0.135		0.001	0.089	0.000
	N	135	135	135	135	135
KT	Pearson Correlation	-0.008	.275**	1	.499**	.538**
	Sig. (2-tailed)	0.929	0.001		0.000	0.000
	N	135	135	135	135	135
KD	Pearson Correlation	0.006	0.147	.499**	1	.476**
	Sig. (2-tailed)	0.949	0.089	0.000		0.000
	N	135	135	135	135	135
EAI	Pearson Correlation	.283**	.450**	.538**	.476**	1
	Sig. (2-tailed)	0.001	0.000	0.000	0.000	
	N	135	135	135	135	135

** . Correlation is significant at the 0.01 level (2-tailed).

(Source by Author)

3.5. Analysis of regression model

The results of regression analysis of independent factors affecting EAI are as follows:

Table 8. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients Beta	T	Sig.	Collinearity Statistics	
		B	Std. Error				Tolerance	VIF
1	(Constant)	-1.291	0.399		-3.238	0.002		
	AL	0.209	0.053	0.247	3.953	0.000	0.981	1.019
	NT	0.329	0.074	0.288	4.446	0.000	0.907	1.102
	KT	0.422	0.095	0.327	4.454	0.000	0.708	1.411
	KD	0.347	0.092	0.269	3.774	0.000	0.751	1.331
a. Dependent Variable: EAI								
R square		0.504						
F statistic		32.947		Sig.		0.000		

(Source by Author)

The coefficient of determination R square = 0.504, proving that the model can explain 50.4% of the change of EAI variable under the influence of independent variables. The F-statistic in testing the fit of the regression model is 32,947 with Sig. = 0.000 < 0.05 shows that the regression model is suitable to describe the influence of independent factors on dependent factor (EAI).

Standardized coefficients (Beta) present to assess the level of impact of each independent factors (AL, NT, KT, KD) on dependent factors (EAI) The standardized coefficients (Beta) have positive values. It is showed that the independent factors in the regression model have a positive impact on dependent factor (EAI). Sig. of the independent factors are all less than 0.05, reflecting the impact of the independent factors on environmental accounting implementation are statistically significant. It is proved that 4 research hypotheses are accepted. The results of the regression analysis show that Accountant Qualification has the strongest impact and have positively impact on the environmental accounting implementation in listed companies with a Beta coefficient of 0.327. Through the Beta coefficient can be explained as follows, the Accountant Qualification increases by 1 unit, the EAI increases by 0.327 units. Next, the Awareness of Senior Executives factor has the second strongest impact on the dependent variable with a Beta coefficient of 0.288, which means that Awareness of Senior Executives factor increases by 1 unit, the dependent variable EAI increases by 0.288 units and has influence in the same direction. The Business characteristics factor has the third strongest impact while the Stakeholder Pressures factors is the lowest impact on environmental accounting implementation with B coefficients of 0.269 and 0.247, respectively. Checking the

assumption about multicollinearity presents correlation between independent variables if Variance inflation factor: $VIF > 10$. However, the VIF of the independent factors are all less than 10, showing that there is no multicollinearity between the factors. From research results, the linear regression model on the independent factors affecting the implementation of environmental accounting is as follows:

$$EAI = 0.247AL + 0.288NT + 0.327KT + 0.269KD$$

4. Conclusion and Implications

Through the results of exploratory factor analysis and linear regression, the independent factors have the positive influence and different degrees of influence on the dependent variable (EAI).

The Accountant Qualification is first factor that has the strongest influence on the implementation of environmental accounting. This result is consistent with the research results of Nguyen (2020) & Nguyen (2021). Research results show that professional knowledge and experience in environmental accounting have an important impact on the environmental accounting implementation. Therefore, listed companies need to have specific policies in training and updating expertise for accountants who are not only knowledgeable about the financial accounting standards but also need to have a roadmap for accounting development for environment accounting to ensure that the process of implementing environmental accounting in the enterprise.

The second factor that affects in the positive direction with the application of environmental accounting is Awareness of Senior Executives. Research results are agreement with Nguyen (2020) & Nguyen (2021). Awareness of Senior Executives is demonstrated about proactive environmental strategy, cost and benefit of environmental accounting implementation. Senior leaders of listed companies need to have an early awareness of environmental issues affecting the reputation and quality of business of the listed companies. It is necessary to determine the cost to develop environmental accounting in comparison with the benefits of applying environmental accounting for the future and long term development of listed companies. These companies itself needs to have a clear roadmap to develop environmental accounting in the accounting information system.

The third factor affecting the implementation of environmental accounting is Business characteristics. The research results coincide with the research results of Nguyen (2020). Important items affecting business characteristics are industry and profitability which has a great impact on practice of environmental. Therefore, the industry-specific factor is one of the issues that need to be studied about the impact on the level of application of environmental accounting. Besides, companies consider the profit target to implementation of the environmental accounting. Therefore, the companies should analyze the components of environmental costs and revenue gains from the application of environmental policies in order to determine the structure of environmental returns affecting the company's total profits of listed company.

The fourth factor is Stakeholder Pressures which is the lowest impact factor for environmental accounting performance, consistent with the research results of Sayyadi

Tooranloo & Askari Shahamabad (2020), Nguyen (2020), Le et al. (2020), Nguyen (2021). The factors affecting Stakeholder Pressures mainly come from shareholders and customers, which are reasonable for listed companies on the stock market. However, the legal environmental accounting are not items that greatly affect the application of environmental accounting. Therefore, the regulator agencies need to be aware of the role of environmental accounting in the sustainable development of listed companies. In order to encourage application of accounting environment in the process of international integration of listed companies, environmental accounting is being considered and presented in the accounting information systems.

However, the study also has several limitations. The number of selected samples is still limited compared to the respondents who are working in listed companies on the Vietnam stock market. Futhermore, the research has not conducted for interviewees in non-listed companies. Regarding independent factors, the study focuses on four main factors affecting the implementation of environmental accounting. Therefore, in future research, the research will expand the sample size and increase the impact factors for the dependent factor, which is environmental accounting implementation. In addition, the study can further research the difference of factors affecting the implementation of environmental accounting for non-listed companies and service industries such as tourism, education, ...

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AN INVESTIGATION OF VOLUNTARY DISCLOSURES OF HUMAN RESOURCES BY VIETNAMESE LISTED FIRMS

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Abstract: *The paper investigates the improvements of voluntary of human resource disclosure practices by Vietnamese listed firms between 2016 and 2018, using content analysis of corporate annual reports of 100 top listed companies on Ho Chi Minh Stock Exchange (HOSE). The results indicate that there is a generally upward trend for the disclosure of all human resource categories as well as the overall human resources over the investigated period. Among five disclosed categories, the most highly reported category is Board of directors (BOD) related items whereas the least reported category is health and safety related items for over the 3 years period. On the other hand, training-related item category was the third place for 2016 and the second place for 2017 and 2018 while working environment related item category was the second place for 2016 and the third place for 2017 and 2018. The category of employee-related items remains constant at the fourth place during the investigated time. However, the human resource disclosure practices by Vietnamese listed firms are quite low, only 36.33%. Therefore, there is ample room for improvements. It is believed that our research would have some contributions to both the existing literature and practice with respects to human resource disclosures in Vietnam.*

Keywords: *Voluntary disclosure, Human resources, Listed firms, Vietnam*

NGHIÊN CỨU CÔNG BỐ THÔNG TIN TỰ NGUYỆN VỀ NGUỒN NHÂN LỰC TẠI CÁC DOANH NGHIỆP NIÊM YẾT VIỆT NAM

Tóm tắt: *Bài viết xem xét sự thay đổi trong công bố thông tin tự nguyện về nguồn nhân lực bởi các doanh nghiệp niêm yết trên thị trường chứng khoán Việt Nam trong khoảng thời gian 2016 - 2018, thông qua phương pháp phân tích nội dung báo cáo thường niên của 100 DN lớn nhất trên Sở giao dịch chứng khoán Hồ Chí Minh (HOSE). Kết quả nghiên cứu cho thấy xu hướng gia tăng công bố thông tin tự nguyện về nguồn nhân lực ở cả năm khía cạnh cũng như chỉ số công bố thông tin chung về nguồn nhân lực trong khoảng thời gian nghiên cứu. Trong năm khía cạnh, chỉ số công bố thông tin cao nhất là công bố về Ban giám đốc trong khi thấp nhất thuộc về nhóm sức khỏe và an toàn lao động. Ở góc khía cạnh khác, công bố về huấn luyện, đào tạo ở vị trí thứ 3 trong năm 2016, nhưng đã vươn lên thứ 2 trong hai năm 2017, 2018 trong khi thông tin về môi trường làm việc ở vị trí thứ 2 trong 2016, nhưng lại rơi xuống thứ 3 trong 2017, 2018. Thông tin về người lao động, khá ổn định mặc dù có thay đổi nhưng vẫn giữ vị trí thứ tư trong khoảng thời gian nghiên cứu. Tuy nhiên, chỉ số công bố thông tin về nguồn nhân lực của các doanh nghiệp niêm yết Việt Nam còn khá thấp, mới đạt 36,33%. Vì vậy, vẫn còn khá nhiều dư địa để cải thiện.*

Nghiên cứu này kỳ vọng sẽ có những đóng góp nhất định cả ở góc độ lý luận và thực hành công bố thông tin nguồn nhân lực tại Việt Nam.

Từ khóa: Công bố thông tin tự nguyện, Nguồn nhân lực, Doanh nghiệp niêm yết, Việt Nam

1. Introduction

The shift of our society from the industrial age to the digital age has changed the means for value creation. In the present knowledge-based economy characterized by the development of activities that require a growing proportion of knowledge and skills, human resources (HR) become a vital source of value creation and a determinant factor to ensure sustainable growth and development of any organization. Without human resources, other resources cannot be effectively and efficiently operated. An organization with abundant physical resources may sometimes miserably fail unless it has the right people to manage its affairs (Akintoye et al., 2016). As a result, human resources (HR) have been increasingly recognized as the key value driver for corporate growth, productivity gains and profitability (Tayles et al., 2007; Li et al., 2008; Singh & Kansal, 2011). However, because most human resources (e.g. management and employee competences, working relationship environment, health and safety related information) are intangible in nature, they are very difficult to be recognized in balance sheets under the current accounting framework. Therefore, companies tend to report these resources voluntarily in their annual reports (or on websites) to reduce the information asymmetry and improve the transparency between them and various stakeholders and also show their social responsibility compliance (Petty & Guthrie, 2000; Schneider & Samkin, 2008; Vergauwen, et al., 2007; Dominguez, 2011). Hence, there is a need to evaluate the HR disclosure practices by companies because evaluating the HR disclosure practices adds a further dimension to the assessment of reporting and recognizes the improvements in voluntary disclosure practices (Hooks & van Staden, 2011; An et al., 2014).

This study focuses on the Vietnamese business setting, because most of the present research is based on an Anglo-Saxon context, and more specifically on developed countries such as Australia, New Zealand, the UK, and the USA. So far, our knowledge concern, no rigorous research studies have been done on voluntary disclosures of human resources in annual report of listed companies in Vietnam. Therefore, this study aims at examining the trend of HR disclosure practices among Vietnamese listed firms over three years consecutive from 2016 to 2018. This period of time is chosen because after the promulgation of the Circular 155/2015/TT-BTC validating for the annual report from 2016, the reported information of listed company improved significantly as indicated by various studies in Vietnam (Pham et al., 2021; Pham et al., 2022). Unlike previous studies that focused only one single year, in this paper, we investigate the status of voluntary human resource disclosure practices by Vietnamese listed firms from a longitudinal perspective covering over a three-year period. Following most previous studies in the area, content analysis of corporate annual reports was adopted as the primary research method.

The results indicate that there is a generally upward trend for the disclosure of all human resource categories as well as the overall human resources over the investigated period. Among five disclosed categories, the most highly reported category is Board of directors (BOD) related items whereas the least reported category is health and safety related items for over the 3 years period. On the other hand, training-related item category was the third place for 2016 and the second place for 2017 and 2018 while working environment related item category was the second place for 2016 and the third place for 2017 and 2018. The category of employee-related items remains constant at the fourth place during the investigated time.

Our research has the following contributions to the existing literature and practices with respect to human resource disclosures. To begin, it contributes to limited research using a longitudinal approach since most previous studies survey the level of human resource reporting, only covering a single year period (Wagiciengo & Belal, 2012, Pham et al., 2021, Pham et al., 2022). Furthermore, this research contributes to relatively limited research in the developing country context since prior research often focuses on developed countries with a relatively small number of studies concerned with developing countries (An et al., 2014; Pham et al., 2021; Pham et al., 2022). Thirdly, this research makes contributions to minimal literature in the Vietnamese context.

The remainder of this paper is organized as follows. Section 2 reviews the literature including theoretical framework and previous studies on human resource disclosure practices. Section 3 presents the study methodology. Section 4 presents the analysis of the results, and Section 5 presents the conclusions, discusses the limitations of this study and suggestions for future research.

2. Literature review

2.1. Theoretical Framework

According to a shareholders' approach, the voluntary HR disclosure theoretical framework is based on agency theory and signaling theory. The common hypothesis of these theories is the presence of asymmetric information problem which reduces the firm financial value (Botosan, 1997). In this regard, voluntary HR disclosure is justified by its financial value since it reduces agency costs, allows to managers to signal their business performance and to differentiate from competitors. Otherwise, voluntary HR disclosure allows companies to have cheaper funding and improves forecasting investors (Diamond & Verrechia, 1991).

According to a stakeholders' approach, the company performance includes not only its financial results, but also its global behavior (Carroll, 1979). Shareholders are not exclusively concerned by the firm's activities, but other stakeholders could be harmed in case of company's malfunction. In this sense, voluntary HR disclosure can be a means of gaining legitimacy. It allows the company to demonstrate to different social actors, its involvement in a behavioral social responsibility (Patten, 1991; Roberts, 1992).

2.2. *Human resource disclosure*

Human resource accounting is the process of establishing and estimating data about human resources and communicating this information to interested users. Human resource accounting disclosure is an important process by which companies communicate information about employees who possess knowledge and skills that give future economic benefits to the organization (Ullah & Karim, 2015; American Accounting Association, 1974; Sarkar et al., 2016).

In Vietnam, the disclosure on human resource began to surface since 2016, but prior to 2016, this disclosure has surfaced many companies but very few are disclosed in a report. This was probably because Vietnam does not have any means of support such as: accounting guidelines and reporting regulations for preparation of this kind of report. So that human resource disclosure is not considered important to report in detail because no one requires reporting on human resource. But the situation has been changed. Company has recognized that it no longer faced with the responsibility that rests on a single bottom line: the financial results only (Petty & Guthrie, 2000; Schneider & Samkin, 2008; Dominguez, 2011). But corporate responsibility should be based on the triple bottom lines (Elkington, 1994). Here, others than the financial bottom line are also social and environmental because financial conditions are not enough to guarantee the value of the company to grow in a sustainable manner. Sustainability will only be guaranteed when the company shows interests and commitments to the social and environmental dimensions. As a consequence, there is raising the need for a different type of information such as disclosure of human resource information which brings considerable value to a firm (Abeysekera & Guthrie, 2005; Guthrie et al., 2004). The main objective of human resource disclosure is to satisfy the information needs of users in a manner that enables both decision making and accountability and finally inform the stakeholders about the quality and value of the firm (Firer & Williams, 2003; Petty & Guthrie, 2000).

As to what constitutes HR disclosures, there are also varied views ranging from two to five elements, for instance, two elements: human capital and intellectual assets (Sullivan, 1999), three elements: internal structure, external structure, and human competence (Sveiby, 1997), four elements: structure and human capital, thinking and non-thinking assets (Rooset et al., 1997), and five elements: human capital, technological capital, organizational capital, business capital, and social capital (CIC, 2003 in An et al., 2014) or another version of five categories proposed by Aggarwal and Verma (2020): training, employee, health and safety, working environment, and BOD information.

For the purpose of this research, the five-element categories adopted from Aggarwal and Verma (2020) with modifications (Pham et al., 2022) was applied as a basis for the construction of a HR coding framework, which was employed as an instrument to examine the extent and quality of HR disclosure by Vietnamese firms on a longitudinal basis. The details of disclosure checklist will be presented on the research method section of this paper.

2.3. Prior literature

The following section describes relevant literature used a longitudinal approach to examine the trend of human resource disclosure practices by organizations in both developed and developing countries.

Williams (2001) is an earlier study in the area in that it provides a longitudinal examination of HR disclosure practices by 31 FTSE 100 listed companies from 1996 to 2000. The study reveals that there was a significant improvement for the quantity of HR disclosures by UK firms during the investigated period albeit the disclosure practice was varied considerably between firms.

Abeysekera and Guthrie (2005) surveyed the trend of HR reporting by the top 30 Sri Lanka listed companies on the Colombo Stock Exchange between the period 1998/1999 and 1999/2000, using content analysis of corporate annual reports. The findings indicate that there was an increase for the frequency of HR reporting by the surveyed companies, and the most reported HR category was external capital. This research is a pioneering study that provides evidence regarding voluntary HR disclosure in a developing country context.

Vandemaele et al. (2005) investigated the disclosure practice of HR in three European countries (Netherlands, Sweden and UK) over a period of three years (1998, 2000, and 2002), using content analysis of 180 annual reports. The results show that the Swedish companies, on average, performed the best in comparison with the Dutch and UK firms, and there was a general upturn trend for the average amount of HR disclosures over the surveyed period except for Sweden in which a downturn trend occurred between 2000 and 2002. Similar to Vandemaele et al. (2005), Abeysekera (2008) is also a comparative and longitudinal study that compared the disclosure practice of HR between Sri Lanka and Singapore from 2000 to 2002. In line with prior research, content analysis of corporate annual reports was the primary research method. The findings indicate that there were mixed results for the trend of HR disclosure in both countries, and human capital was the most reported HR category in Singapore while external capital in Sri Lanka.

Wagiciengo and Belal (2012) is another study in a developing country context in that the researchers studied the extent and nature of HR disclosure by top 20 South African companies over a period of 5 years (2002-2006), using the content analysis method. The findings indicate that there was an upward trend for the disclosure of HR information by South African companies with certain firms disclosing significantly more than others. Inconsistent with the previous studies, human capital (rather than external capital) was the most reported HR category.

Recently, An et al. (2014) carried out a longitudinal research examining the trend of voluntary HR disclosures in China between 2006 and 2009, using content analysis of corporate annual reports of 100 top listed A-shared Chinese firms. The authors also documented the upward trend for the disclosure HR items, categories and the overall HR over the investigated period.

Based upon the above literature review, there have been four studies (Abeysekera

& Guthrie, 2005; Abeysekera, 2008; Wagciengo & Belal, 2012; An et al., 2014) concerned with HR reporting from a longitudinal perspective in the developing country context. Due to the absence of a longitudinal study into HR reporting in the Vietnamese context, our research attempts to address this gap through investigating the trend of HR reporting practices by Vietnamese firms over a period of three years (2016 to 2018). Given that all the previous studies suggest a general upward trend for HR reporting in different countries over time, it is expected that this trend should be applicable to the Vietnamese environment as well.

3. Research method

3.1 Sample selection and data source

This empirical study is based on primary and secondary data sources. We consider all companies listed on the Vietnam Stock Exchange from 2016 to 2018. All companies that belong to the banking and financial sector, as well as companies whose annual reports and data are not available, are excluded from the study. For sample size, one-hundred top listed companies on HOSE were selected as studied sample. The following reasons are accountable for the sample selection. Firstly, the sample companies are the largest companies in Vietnam, and they are most likely to disclose more HR information than those small and medium enterprises (SMEs) owing to the resource advantage and high visibility to the public. Secondly, most sample companies are leaders and the best performers in their specific industries, which can represent the Vietnam Stock Exchange. Finally, since all the companies are publicly listed companies, their annual reports (the data source) are easily obtained.

3.2. Content analysis

Consistent with prior research, content analysis of corporate annual reports was the primary research method for this research. Krippendorff (2004) defines content analysis as a research technique to make replicable and valid inferences from texts within certain contexts. According to Guthrie et al., (2004), content analysis, as a method for data collection, often codifies both qualitative and quantitative information into pre-defined categories on the basis of selected criteria so as to derive patterns in the presentation and disclosure of information. The method has gained popularity in disclosure studies over the past several decades, in particular in the areas of CSR and HR (Unerman, 2000; Beck et al., 2010; Singh & Kansal, 2011; Pham & Do, 2015; Pham et al., 2021). Drawing on the previous studies, the method was applied to examine the improvement of HR disclosure by Vietnamese firms. In the following section, an HR disclosure checklist is developed as an instrument for content analysis.

3.3. HRA disclosure checklist and index

A human resource disclosure index was constructed which consists of 32 items of information. By referring to the human resource disclosures a list of voluntary disclosures was prepared based on the review of relevant literature and the information that firms supply in their annual reports to shareholders. In order to decide what data to collect, an

exploratory analysis was carried out with the aim to obtain a checklist that capture the human resource disclosure items mainly used in earlier studies (Gray, 1995; Hackston & Milne, 1996; Faisalet al., 2020; Nguyen et, 2020; Nguyen et al., 2020). From the analysis, a checklist was developed including the items which we consider that Vietnamese companies can disclose human resource information in their annual reports. A detailed description of the disclosed items and categories is provided in Appendix 1.

A dichotomous approach to scoring the items was adopted, in which an item scores one if disclosed and zero if otherwise. This procedure is conventionally termed the unweighted approach, and it was adopted for the study as other researchers have used it successfully (Cooke, 1992; Hossain & Hammami, 2009; Vu, 2012; Pham & Do, 2015). The score of each company was totaled to find the net score of the company. An index (HRID) was then computed by using the following formula:

$$HR_ID_{ij} = \frac{\sum_1^n d_{ij}}{n} \times 100,$$

where the HRID is the human resource disclosure index of a company, $d = 1$ if the item is disclosed, and 0 otherwise; and $n =$ number of items that are disclosed by a company ($n = 32$ items); $i =$ company, and $j =$ year (2016, 2017, 2018).

For each category, sub-category index will be computed by the following formular:

$$TN_ID_{ij} = \frac{\sum_1^5 TN_{ij}}{5}$$

$$EM_ID_{ij} = \frac{\sum_1^9 EM_{ij}}{9}$$

$$HEALTH_ID_{ij} = \frac{\sum_1^6 HEALTH_{ij}}{6}$$

$$WORK_ID_{ij} = \frac{\sum_1^9 WORK_{ij}}{9}$$

$$MGT_ID_{ij} = \frac{\sum_1^3 MGT_{ij}}{3}$$

Where, TNID, EMID, HEALTHID, WORKID, and MGTID are sub-category indexes: training disclosure index, employee disclosure index, health and safety disclosure index, working environment disclosure index and BOD disclosure index consecutively; TN, EM, HEALTH, WORK, and MGT are specific disclosure items with 1 if disclosed and 0 otherwise; i and j denote company and year.

4. Results

In this research, we conducted longitudinal analysis of HR disclosure in terms of categories and the overall HR over the three years period. Firstly, the trend for the disclosure of IC items is analyzed.

Table 1: Trend of HR disclosures

Categories	N	2016	2017	2018	Mean
Training (TNID)	100	0.3340	0.3515	0.3592	0.3482
Employee (EMID)	100	0.3010	0.3064	0.3236	0.3103
Health & safety (HEALTHID)	100	0.2557	0.2670	0.2443	0.2557
Working environment (WORKID)	100	0.3441	0.3225	0.3344	0.337
BOD (MGTID)	100	0.8350	0.8641	0.8544	0.8511
Overall HRID	100	0.3598	0.3629	0.3671	0.3633

Table 1 shows the disclosure performance of HR categories and the overall HR disclosure over the three-year period. As with HR categories, there was an upturn trend for the disclosure of each HR category and the overall HRID. Specifically, training disclosure category increases from 33.4% in 2016 to 35.15% in 2017 and up to nearly 36% in 2018. In the same vein, employee disclosure category increases over the three-year period, from 30.1% to 32.36%. The overall human resource disclosure index shows the improvement from nearly 36% in 2016 to 36.7% in 2018. In contrast, health and safety disclosure category records an increase between 2016 and 2017 but decrease in 2018, from 26.70% to 24.43%. Working environment disclosure category records a decrease from 34.41% in 2016 to 32.25% in 2018 but recovers in 2018 with 33.44%.

Among five disclosure categories, the most disclosure is BOD related information at 83.5% in 2016 to 86.41% in 2017 and a slight decrease in 2018 with 85.44% while the least disclosure is health and safety category just around 25.6%. Other disclosure categories on the second, third, and fourth place are training (34.82%), working environment (33.7%), and employee (31.03%).

We also conduct One-way ANOVA for the overall HR disclosure. The results indicate that the increase across the three years is insignificant ($F = 0.094$, $sig. = 0.191$). Similar findings are found for five components of HR disclosure with $sig. > 0.05$.

Overall, the human resource disclosure practices by Vietnamese listed firms are quite low, only 36.33%. Therefore, there is ample room for improvements.

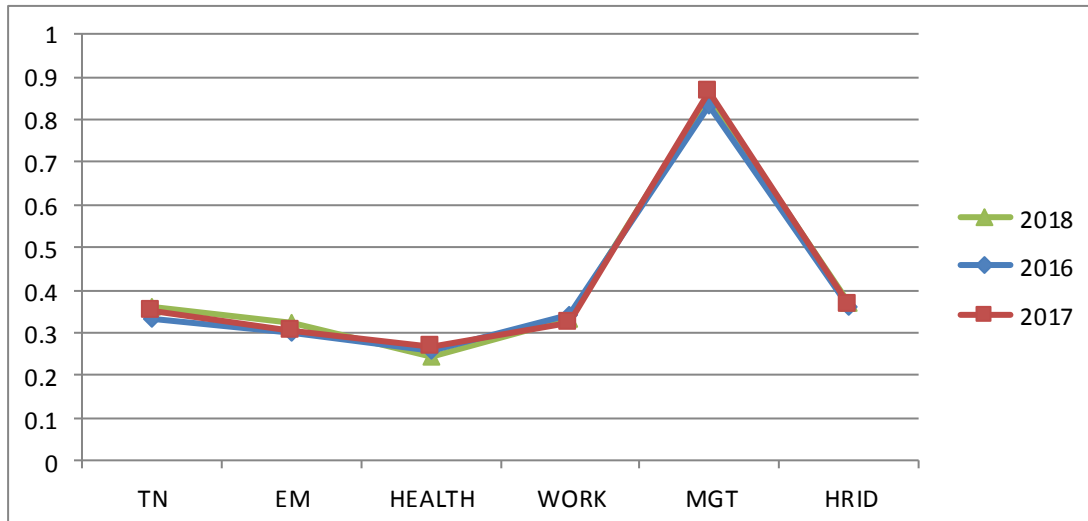


Figure 1: Visualization of HR disclosure: sub-category and the overall one

As can be seen from the figure above, the improvements of HR disclosures over 3 years are not significant. The lines are not separated from each other, indicating that there is a slow movement in the voluntary disclosure of human resources by listed firms in Vietnam.

5. Summary and concluding remarks

In this research, we conduct a longitudinal comparison with respect to HR disclosures by a sample of listed firms in Vietnam over a three-year period (2016-2018). The findings show that there was a generally upward trend for the disclosure of HR categories and the overall HR. However, the improvement was not remarkable. Among 5 disclosed categories, the BOD component was the most highly reported while health and safety one was poorest reported category for over investigated period. These findings are inconsistent with previous studies in that external capital was often the most frequently reported item whereas internal capital was the least reported item (Abeysekera & Guthrie, 2005; Guthrie et al., 2006). However, the overall level of HR reporting was only at 36.33 far below the average of 50. The findings clearly suggest that in Vietnam, HR reporting is an emerging issue and there is ample room for improvements in order to provide more information to interested users. As more and more companies in Vietnam are on the way to improve their CSR reporting practices, in terms of socio-economic disclosures. It is expected that the level of voluntary disclosure of HR will be improved significantly.

The results of this study are constrained by some limitations. Therefore, generalizations of the findings should be made with caution. Since sample size are limited by top 100 listed firms for certain period of 3 years just after the implementation of new requirements for socio-economic disclosures in Vietnam. Therefore, a repetition study with larger sample covering a longer period in the future would enable to have comparable data and findings.

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Appendix 1: Human resource accounting disclosure checklist (32 items)

Number	Disclosure items
Training related items (five items)	
01	Training and education statement
02	Number of training courses
03	Training hours/day per employee
04	Training hours/day per employee, breakdown by gender
05	Money invested in training
Employee related items (nine items)	
06	Policy of recruitment and selection
07	Senior managers, breakdown by gender
08	Number of employees in the company/branch/subsidiary
09	Number of employees, breakdown by gender
10	Number of employees by qualifications
11	Employees' age distribution
12	Average age of employees
13	Talent recruitment and retention
14	Employee survey
Health and safety related items (six items)	

15	Occupation health and safety
16	Providing low-cost health care to employees
17	Sick/absence level
18	Sick/absence level breakdown by gender
19	Information on accident statistics (injuries and accidents)
20	Injuries/accidents per million working hours
Work-related items (nine items)	
21	Equal opportunity statement
22	Labor and management relations
23	Collective agreements/activities
24	Providing recreational activities/facilities
25	Providing staff accommodation/staff home ownership schemes, food, fuel, other benefits
26	Information about support for day-care, maternity and paternity leave, holidays and vacations
27	Disclosing policy for company's remuneration package/schemes
28	Information of employees share purchase schemes
29	Reporting on company's relationship with trade unions/workers
Board of Directors (BOD) related items (three items)	
30	Age of BOD members
31	Board breakdown by gender
32	Education level of the board

(Source: Adapted and modified from Aggarwal and Verma, 2020)

CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN QUYẾT ĐỊNH SỬ DỤNG BAO BÌ XANH CỦA NGƯỜI TIÊU DÙNG TRÊN ĐỊA BÀN THÀNH PHỐ HÀ NỘI

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Tóm tắt: *Sử dụng bao bì xanh đang trở thành xu hướng tiêu dùng trên thế giới và ở Việt Nam. Tuy nhiên, do chi phí cao, độ bền thấp... nên việc sử dụng bao bì xanh còn hạn chế. Nghiên cứu này nhằm xác định các yếu tố ảnh hưởng đến quyết định sử dụng bao bì xanh của người tiêu dùng. Phiếu điều tra được phát cho các đối tượng đa dạng về ngành nghề, độ tuổi, giới tính trên địa bàn thành phố Hà Nội để tìm hiểu về các yếu tố ảnh hưởng đến quyết định sử dụng bao bì xanh của người tiêu dùng. Kết quả phân tích định lượng cho thấy Nhóm yếu tố tham khảo, Nhóm yếu tố hoàn cảnh có ảnh hưởng tích cực đến quyết định sử dụng bao bì xanh và nhóm yếu tố tâm lý NTD là một nhân tố kìm hãm quyết định sử dụng bao bì xanh.*

Từ khóa: *Bao bì xanh, môi trường, yếu tố ảnh hưởng, quyết định sử dụng (QSDS), người tiêu dùng (NTD)*

FACTORS AFFECTING DECISION OF USING GREEN PACKAGE OF CONSUMERS

Abstract: *Using green packages has become a consuming tendency in the world and in Vietnam. However, its high cost, low durable materials restricts using green package. The research aims at pointing out factors affecting decision of using green package. Questionnaires are for people that diversified by age, occupation, gender for factors affecting decision of using green package. Research quantitative analysis result shows that reference factors, circumstance factors have positively effects on decision of using green package and consumer's psychology is a factor hindering purchasing decision of green package.*

Keywords: *Green package, environment, affecting factors, using decision, consumers*

1. Giới thiệu

Sự phát triển của thương mại đã kéo theo sự gia tăng nhanh chóng việc sử dụng bao bì plastic trong quá trình mua sắm của người tiêu dùng. Do hầu hết túi nylon ưu điểm là rẻ, nhẹ, tiện lợi, có độ bền cao và không phân hủy sinh học (Andrany 1994; Hopewell et al. 2009) nên trong một thời gian dài túi plastic được thị trường ưa chuộng dùng trong việc đóng gói và đựng sản phẩm, điều đó đã làm cho túi plastic có mặt ở khắp mọi nơi, từ cửa hàng bán lẻ đến siêu thị và cả các trung tâm mua sắm lớn. Trong khi đó, một nửa số chất dẻo được sản xuất trên được sử dụng làm đồ tiêu dùng dùng một lần được làm từ các

nguồn hóa dầu (Thompson et al. 2009) đã dẫn đến các vấn đề sinh thái nghiêm trọng do tính không phân hủy hoàn toàn của chúng. Trên thực tế, chỉ một phần rất nhỏ số túi nylon đã qua sử dụng này được thu gom và tái chế, phần lớn chúng bị vứt bỏ vô tội vạ. Việc vứt bỏ bừa bãi túi nylon đã gây ra những tác động tiêu cực đến môi trường như thoái hóa đất và ô nhiễm.

Hiện nay, thái độ mua sản phẩm thân thiện với môi trường mà cụ thể là việc mua và sử dụng các sản phẩm có bao bì thân thiện với môi trường như bao bì xanh được coi là yếu tố cải thiện môi trường hiệu quả ở nhiều xã hội phương Tây như EU, Mỹ. Harrison Newhol & Shaw trong nghiên cứu của mình năm 2005 thì cho rằng thái độ mua hàng thân thiện với môi trường không những là việc ưu tiên tiêu dùng ít đi mà còn là tiêu dùng hiệu quả hơn, thể hiện trách nhiệm đối với việc bảo vệ môi trường thông qua việc lựa chọn các sản phẩm thân thiện môi trường, có cách tiêu dùng và xử lý rác thải hợp lý. Andrew Gilg, Stewart Barr, Nicholas Ford (2005) chỉ ra hành vi thân thiện với môi trường là sự thể hiện trách nhiệm đối với môi trường và xã hội. Mặc dù không thể đạt được sự thay thế hoàn toàn của túi plastic bằng màng bao bì thân thiện với môi trường, nhưng ít nhất đối với các ứng dụng cụ thể như bao bì thực phẩm, việc sử dụng bao bì xanh sẽ là tương lai (Valetina Siracusa et al, 2008).

Theo số liệu của Bộ Tài nguyên và Môi trường, mỗi năm Việt Nam sử dụng hơn 30 tỷ túi nylon, trong đó Hà Nội và thành phố Hồ Chí Minh mỗi ngày có đến 5-7 tấn rác thải túi nylon (Bộ Tài nguyên và Môi trường, 2020). Điều đó gây ra những gánh nặng về môi trường và ảnh hưởng trực tiếp đến môi trường sinh thái. Để giảm tình trạng sử dụng túi nylon như hiện nay, cần đẩy mạnh công tác tuyên truyền, nâng cao ý thức của người tiêu dùng trong việc hạn chế sử dụng túi nylon, tìm kiếm và khuyến khích sử dụng các sản phẩm thay thế thân thiện với môi trường như bao bì xanh. Trong những năm gần đây, cùng với ý thức về bảo vệ môi trường ngày càng tăng, việc sử dụng bao bì thân thiện với môi trường là bao bì xanh khi mua sắm được biết đến ngày càng rộng rãi. Xuất phát từ sự cấp thiết của xu hướng dùng bao bì xanh, sự cần thiết, khuyến khích phát triển các quyết định sử dụng sản phẩm này của người tiêu dùng Việt Nam, nhóm tác giả đã tìm hiểu về những yếu tố tác động tới ý định sử dụng bao bì xanh của người tiêu dùng tại Hà Nội

2. Tổng quan nghiên cứu

Khi nghiên cứu về ý định và hành vi dựa trên mô hình TRA của Fishbein và Ajzen (1975) đã cho thấy nhân tố quan trọng quyết định hành vi của cá nhân là Ý định hành vi. Các nghiên cứu thực tế cũng chỉ ra rằng hành vi mua hàng bị tác động bởi ý định. Khi tìm hiểu các mối quan hệ giữa cảm giác tự ý thức, xu hướng tìm kiếm thông tin, ra quyết định và sự hài lòng sau khi mua hàng thì có thể thấy tự ý thức ảnh hưởng đến việc tìm kiếm thông tin và điều này ảnh hưởng đến việc ra quyết định và sau đó ảnh hưởng đến sự hài lòng sau khi mua hàng (Jiyong Lee & Jinsook Hwang, 2019). Đồng thời, các yếu tố về hành vi của người tiêu dùng như văn hóa, xã hội, cá nhân và tâm lý cũng có ảnh hưởng đến quyết định sử dụng hàng (Tanja Lautiainen, 2015; Muhammad Tony Nawawi, 2016)

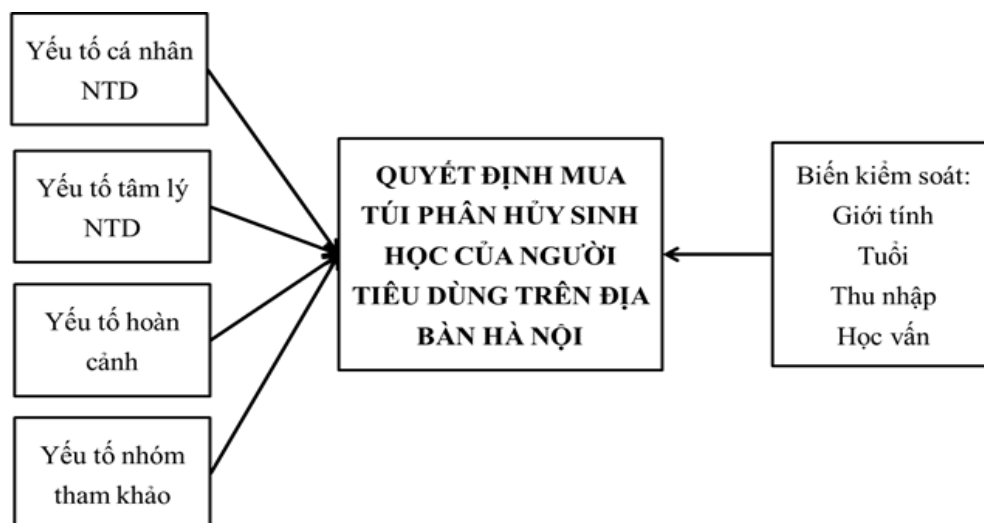
Khi phân tích ý định và hành vi sử dụng sản phẩm thân thiện với môi trường, có thể thấy yếu tố văn hóa xã hội và tâm lý có tác động rất lớn tới hành vi mua sắm, nó đo lường

mức độ chấp nhận sử dụng các sản phẩm xanh của người tiêu dùng (Olinjo Samuel Imbambi, 2017). Rất nhiều người đều nhận định rằng ý thức về bao bì thân thiện với môi trường của họ bị ảnh hưởng bởi các yếu tố quảng cáo, gia đình và đồng nghiệp (Norsyamira et al, 2015).

Các nghiên cứu trước đó về túi plastic và mức độ sẵn sàng chấp nhận của người tiêu dùng để chuyển sang các lựa chọn thay thế thân thiện với môi trường cho thấy trình độ học vấn và ý thức xã hội ảnh hưởng đến ý định sử dụng các sản phẩm thay thế thân thiện với môi trường (Patricia K. Madigele, et al, 2017), trong đó cũng chỉ ra rằng người tiêu dùng có ý thức về môi trường, cảm thấy chịu áp lực xã hội sẽ có xu hướng giảm sử dụng túi plastic và chuyển sang sản phẩm thân thiện với môi trường (Erkan Arı và Veysel Yılmaz, 2016), đồng thời nhiều nghiên cứu chỉ ra rằng ngoài yếu tố xã hội, sức khỏe là yếu tố đóng vai trò quan trọng trong việc ảnh hưởng đến ý định và hành vi mua sắm của người tiêu dùng trong lựa chọn các sản phẩm có lợi cho sức khỏe.

Theo Ajzen (1991) có nhiều khái niệm liên quan đến hành vi mua hàng thân thiện với môi trường, trong đó có việc mua bao bì xanh. Hành vi mua bao bì xanh được định nghĩa là hành vi nhằm đáp ứng nhu cầu và mong muốn của cá nhân hoặc tập thể thông qua việc tiêu dùng các sản phẩm thân thiện với môi trường. Một nghiên cứu rất quan trọng với hành vi mua của khách hàng khác là học thuyết Sheth (1991). Dựa trên các học thuyết về sở thích và hành vi của khách hàng cá nhân, học thuyết Sheth được xây dựng gồm hai thành phần: một là cân nhắc lựa chọn về cửa hàng bán lẻ và học thuyết thứ hai là về quyết định, hành vi mua thực tế ở cửa hàng đó. Theo Sheth, việc lựa chọn cửa hàng mua sắm của khách hàng chịu ảnh hưởng của 4 yếu tố là đặc điểm hàng hóa, thị trường, cá nhân và doanh nghiệp sản xuất. Các yếu tố này tác động đến động cơ, lựa chọn và những suy tính khi mua hàng từ đó ảnh hưởng đến xu hướng lựa chọn cửa hàng mua sắm. Các cân nhắc, suy tính khi mua hàng là những quy luật ra quyết định hoặc quyết định vắn tắt mà khách hàng cá nhân sử dụng khi xây dựng các xu hướng mua sắm đối với một số cửa hàng bán lẻ nhất định, chính những quy luật chọn lựa này kéo theo sự thích ứng giữa động cơ mua sắm và định hướng mua sắm. Tuy nhiên, lựa chọn quy luật nào lại phụ thuộc vào những hiểu biết và kinh nghiệm trong quá khứ có liên quan tới mua sắm lớp mặt hàng và dịch vụ mà khách hàng đang xem xét.

Trên cơ sở tổng hợp các nghiên cứu trước đây kết hợp với các bước nghiên cứu định tính, định lượng và tham khảo ý kiến của các chuyên gia, nhóm tác giả đề xuất mô hình nghiên cứu các yếu tố ảnh tác động tới ý định sử dụng bao bì xanh của người tiêu dùng tại Hà Nội bao gồm các yếu tố sau: (1) Yếu tố cá nhân người tiêu dùng; (2) yếu tố tâm lý người tiêu dùng; (3) yếu tố nhóm tham khảo; (4) yếu tố toàn cảnh



Hình 1. Mô hình nghiên cứu đầy đủ các yếu tố ảnh hưởng đến QĐSD bao bì xanh của NTD trên địa bàn Hà Nội

Nguồn: Đề xuất từ mô hình của Philip Kotler (2009)

Giả thuyết H1: Yếu tố tâm lý NTD có tác động tích cực đến QĐSD bao bì xanh của NTD trên địa bàn Hà Nội.

Giả thuyết H2: Yếu tố cá nhân NTD có tác động tích cực đến QĐSD bao bì xanh của NTD trên địa bàn Hà Nội.

Giả thuyết H3: Yếu tố nhóm tham khảo có tác động tích cực đến QĐSD bao bì xanh của NTD trên địa bàn Hà Nội.

Giả thuyết H4: Yếu tố cá nhân hoàn cảnh có tác động tích cực đến QĐSD bao bì xanh của NTD trên địa bàn Hà Nội.

3. Phương pháp nghiên cứu

Tác giả đã sử dụng phương pháp khảo sát và thang điểm Likert 5 điểm để thực hiện nghiên cứu. Xếp hạng từ 1 đến 5 được sắp xếp theo thứ tự tăng dần sự đồng ý của người được hỏi. Đối tượng nghiên cứu được xác định là các chuyên gia tham gia quản lý và vận hành các dự án sử dụng vốn ODA tại Việt Nam.

Trong nghiên cứu này, tác giả lấy mẫu theo nguyên tắc của Tabachnick & Fidell (2007). Theo đó, công thức tính mẫu cho hồi quy bội $n > 50 + 8p$ (n là kích thước mẫu tối thiểu cần thiết và p là số lượng biến độc lập). Theo đó mẫu nghiên cứu cần có là $n = 50 + 8p = 50 + 8 \times 21 = 218$. Kết quả điều tra 220 phiếu tốt. Kết quả thu được sẽ được làm sạch và xử lý với sự trợ giúp của phần mềm SPSS 20

Kiểm định giả thuyết và xem xét các mối quan hệ giữa các yếu tố đến QĐSD bao bì xanh của NTD Hà Nội là vấn đề nghiên cứu của đề tài. Mô hình nghiên cứu được xây dựng chủ yếu thông qua các lý thuyết trước đó. Các giả thuyết nghiên cứu của đề tài được dựa chủ yếu trên cơ sở 5 biến độc lập và 1 biến phụ thuộc. Cụ thể:

Biến độc lập: theo kết quả tổng hợp lý thuyết, nhóm tác giả đã sử dụng 4 biến độc lập là: nhóm tham khảo, hoàn cảnh, cá nhân NTD và tâm lý NTD. Trong đó, từng biến độc lập này được phản ánh thông qua các biến quan sát cấu thành được mô tả cụ thể như sau:

Bảng 1. Biến các yếu tố ảnh hưởng đến QSD bao bì xanh của NTD trên địa bàn Hà Nội

MÃ HÓA	CÂU HỎI
TK	Nhóm yếu tố tham khảo
TK1	Tôi quyết định sử dụng bao bì xanh theo lời khuyên của đồng nghiệp
TK2	Tôi quyết định sử dụng bao bì xanh sau khi nhận được lời khuyên từ gia đình, người thân, bạn bè
TK3	Tôi quyết định sử dụng bao bì xanh do sản phẩm được các chuyên gia khuyên dùng
TK4	Tôi quyết định sử dụng bao bì xanh sau khi tham khảo ý kiến từ những người dùng trước
TK5	Tôi quyết định sử dụng bao bì xanh theo tư vấn của nhân viên bán hàng
TK6	Tôi quyết định sử dụng bao bì xanh sau sự khuyến khích tiêu dùng xanh của nhà nước
HC	Nhóm yếu tố hoàn cảnh
HC1	Tôi sẽ không mua bao bì xanh nếu tại thời điểm mua hàng, phương thức thanh toán cho sản phẩm này quá phức tạp
HC2	Tôi sẽ không mua bao bì xanh nếu trong cửa hàng không có nhãn hiệu yêu thích của tôi
HC3	Tôi quyết định sử dụng bao bì xanh ngay khi thấy chúng tại cửa hàng/địa điểm nơi tôi mua sắm
HC4	Tôi chỉ quyết định sử dụng bao bì xanh tại các điểm bán ở vị trí thuận tiện với tôi
HC5	Tôi chỉ quyết định sử dụng bao bì xanh của các nhãn hiệu có uy tín (có tem, chứng chỉ được cấp bởi các tổ chức uy tín)
CN	Nhóm yếu tố cá nhân
CN1	Tôi có thói quen lựa chọn các sản phẩm tốt cho môi trường
CN2	Tôi thích được trải nghiệm các lợi ích mà bao bì xanh đem lại
CN3	Nếu được quyết định lại, tôi vẫn chọn bao bì xanh
CN4	Tôi quyết định sản phẩm, nhãn hiệu sản phẩm trước khi đến cửa hàng
CN5	Tôi quyết định sử dụng bao bì xanh vì tôi có ý định dùng thử bao bì xanh
CN6	Tôi quyết định sử dụng bao bì xanh do đặc tính của ngành nghề
TL	Nhóm yếu tố tâm lý
TL1	Tôi háo hức muốn mua sau khi xem các chương trình quảng cáo sản phẩm này
TL2	Tôi chỉ mua bao bì xanh theo xu thế tiêu dùng hiện đại
TL3	Tôi quyết định sử dụng bao bì xanh do đang có chương trình khuyến mãi cho sản phẩm này
TL4	Tôi chỉ mua bao bì xanh khi cần thiết
MÃ HÓA	CÂU HỎI
QĐ1	Tôi sẽ quyết định sử dụng bao bì xanh trong tương lai
QĐ2	Bao bì xanh là lựa chọn đầu tiên của tôi thay thế túi plastic
QĐ3	Tôi sẽ khuyến khích người thân, bạn bè mua bao bì xanh

Câu trả lời theo thang Linkert với 5 mức độ từ không đồng ý (1) tới rất đồng ý (5) (Wuensch, 2005)

Biến phụ thuộc: Như đã đề cập trong phần phạm vi và mô hình nghiên cứu, việc nghiên cứu liệu rằng có tồn tại mối quan hệ tích cực nào không giữa các biến độc lập kể trên với QĐSD của NTD là mục đích chính của đề tài.

4. Kết quả

4.1. Cronbach 'alpha

Kết quả phân tích hệ số Cronbach'alpha cho thấy, các biến quan sát CN4, CN6 có giá trị hệ số tương quan tổng <0,3 nên đã loại hai biến này. Sau khi loại bỏ hai biến quan sát CN4 và CN6, tác giả đã phân tích để đánh giá lại độ tin cậy của thang đo, cho thấy 22 biến quan sát còn lại có đủ độ tin cậy và gắn kết để tạo thành 5 biến độc lập vì đều có hệ số tương quan của tổng biến > 0,3 và Hệ số Cronbach'alpha > 0,6

Bảng 2. Kết quả tổng hợp kiểm định cuối cùng của từng nhóm biến

STT	Nhóm yếu tố	Code	Hệ số Cronback's Alpha
1	Tham khảo	TK	0.822
2	Hoàn cảnh	HC	0.722
3	Cá nhân	CN	0.776
4	Tâm lý	TL	0.625
5	Quyết định sử dụng	QĐ	0.739

(Nguồn: Tổng hợp từ kết quả tính toán bằng phần mềm SPSS 20)

4.2. KMO và Kiểm tra của Bartlett

Sau khi thực hiện các kiểm định ở bước phân tích nhân tố và đánh giá độ tin cậy, dữ liệu thu được từ các nhân tố trong mô hình đã đảm bảo độ tin cậy và hoàn toàn có cơ sở để sử dụng trong các quy định phân tích hồi quy nhằm đánh giá các nhân tố ảnh hưởng đến quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội. Trong nghiên cứu này, biến phụ thuộc được xác định bằng điểm trung bình của các câu hỏi đánh giá cho 5 nhóm chỉ tiêu thể hiện quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội. Tác giả kiểm tra mô hình.

Bảng 3. Kết quả kiểm tra KMO và Bartlett

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.648	
Bartlett's Test of Sphericity	Approx. Chi-Square	127.344
	Df	153
	Sig.	.000

(Nguồn: Trích từ kết quả tính toán bằng phần mềm SPSS 20)

Từ bảng kết quả trên, ta có thể thấy biến QĐ có mối quan hệ tương quan có ý nghĩa thống kê 1% với biến TK và tương quan có ý nghĩa thống kê 5% với biến HC. Như vậy, có mối liên hệ tuyến tính giữa các biến độc lập TK và HC với biến QĐ. Tuy nhiên, Hệ số tương quan Pearson của 2 biến CN, TL với biến phụ thuộc QĐ có ý nghĩa thống kê lớn hơn 0.05, chứng tỏ, không có mối quan hệ tương quan giữa 2 biến độc lập này với biến QĐ.

Điều này có thể xảy ra do dung lượng mẫu nghiên cứu chưa đủ. Vì vậy, để tránh loại mất biến quan trọng trong mô hình, cả 4 biến này vẫn được giữ lại trong quá trình xây dựng phương trình hồi quy cho biến phụ thuộc QĐ.

4.3. Phân tích hồi quy

Hệ số tin cậy $R^2 = 0,89$ có nghĩa là 89% sự thay đổi quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội sẽ được giải thích trong mô hình được thông qua. Thông qua chỉ tiêu này cho chúng ta biết sự phù hợp của phương trình hồi quy và dữ liệu nghiên cứu. Hệ số R^2 hiệu chỉnh = 0,068 cho thấy các nhân tố đưa vào mô hình giải thích được 6,8% sự thay đổi của biến phụ thuộc nên mức độ phù hợp của dữ liệu với mô hình là không tốt.

Hệ số Durbin-Watson $1 < (D = 1,713) < 3$ cho thấy rằng không có sự tương quan giữa các biến độc lập.

Trong phân tích ANOVA, các hệ số $F = 4,159$ và $Sig = 0,000 (< 0,05)$ cho thấy kết quả phân tích hồi quy là hoàn toàn đáng tin cậy.

Bảng 4. Kết quả phân tích hồi quy đa biến

Variables		VIF
TK	0.182**	1.399
HC	0.175**	1.287
CN	0.022	1.209
TL	-0.173**	1.321
R-squared	0.89	
Adjusted R squared	0.068	
F - statistic	4.159	
Durbin-Waston	1.713	
Observations	175	

Các kiểm định trên cho thấy các biến độc lập đã thể hiện mức độ ảnh hưởng đến biến phụ thuộc là quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội. Hồi quy được hiển thị bên dưới:

$$QĐ = 3.355 + 0.182*TK + 0.175*HC - 0.173*TL$$

Kết quả nghiên cứu cho thấy, các thang đo được xây dựng trong mô hình có độ tin cậy cần thiết khi tiến hành đánh giá sơ bộ thông qua hệ số Cronbach Alpha và phương pháp phân tích nhân tố khám phá EFA. Điều này cho thấy các yếu tố đang ảnh hưởng đến quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội. Nghiên cứu cũng ghi nhận sự khác biệt về tác động của các nhóm yếu tố đến quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội, kết quả cho thấy, Nhóm yếu tố tham khảo, Nhóm yếu tố hoàn cảnh có ảnh hưởng **tích cực** đến quyết định sử dụng trong đó ảnh hưởng mạnh nhất là nhóm yếu tố tham khảo ($\beta = 0,182$) sau đó là nhóm yếu tố hoàn cảnh ($\beta = 0,175$) và thấp nhất là Nhóm yếu tố tâm lý ($\beta = -0,173$). Mặc dù Nhóm yếu tố cá nhân không tác động đáng kể đến quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội, nhưng giải thích kết quả này không có nghĩa là yếu tố này không có tác động.

Trong nghiên cứu này, tác động của biến tâm lý NTD tới quyết định sử dụng bao bì xanh là nhỏ nhất, lại mang dấu âm (-), điều này cho thấy, yếu tố tâm lý NTD là một nhân tố kìm hãm quyết định sử dụng bao bì xanh.

4. Đề xuất giải pháp nhằm thúc đẩy sử dụng bao bì xanh

Việc sử dụng túi plastic trong cuộc sống sinh hoạt đã trở thành thói quen đi vào nếp sống của người tiêu dùng Việt Nam bởi giá thành rẻ và tính tiện dụng. Tuy nhiên, túi plastic lại là một trong những tác nhân lớn nhất gây ảnh hưởng đến môi trường và sức khỏe con người. Song, nếu loại bỏ hoàn toàn túi plastic sẽ gây ra nhiều bất tiện cho người tiêu dùng trong quá trình vận chuyển và bảo quản hàng hóa. Hơn nữa, việc giảm thiểu số lượng sử dụng túi plastic cũng khó mang lại hiệu quả tức thì. Chính vì vậy, nhu cầu sử dụng các sản phẩm xanh có khả năng thay thế hoàn toàn các loại túi plastic truyền thống là giải pháp tối ưu và hiệu quả nhất.

Để hạn chế những tồn tại nêu trên và góp phần nâng cao hiệu quả trong quyết định sử dụng bao bì xanh của người tiêu dùng trên địa bàn Hà Nội, thời gian tới cần thực hiện đồng bộ các giải pháp sau:

4.1. Đối với Nhà nước

Một là, cần có lộ trình cụ thể và các giải pháp đồng bộ để hạn chế dần các sản phẩm nhựa dùng một lần và tăng cường sử dụng sản phẩm thân thiện với môi trường. Hiện nay, Nhà nước chưa có chính sách thuế phù hợp khiến giá thành các sản phẩm xanh khá cao nên đã không tạo được động lực khuyến khích người tiêu dùng sử dụng. Vì vậy, Nhà nước cần ban hành một số chính sách ưu đãi về thuế, phí cũng như hỗ trợ, khuyến khích đối với các doanh nghiệp sản xuất nhựa phân hủy sinh học để giảm giá thành sản phẩm, đồng thời mở rộng đối tượng chịu thuế và tăng mức thuế đối với túi plastic, bao bì và sản phẩm nhựa gốc (virgin plastics); kiểm tra ngăn chặn các hành vi trốn thuế bảo vệ môi trường, đặc biệt là đối với túi plastic.

Hai là, cùng với việc thúc đẩy sản xuất, trong xu hướng sản xuất gắn liền với sử dụng, tái sử dụng sản phẩm của nền kinh tế tuần hoàn hiện nay, cần tăng cường tuyên truyền, nâng cao ý thức cộng đồng về nguy cơ ô nhiễm nhựa để tiến tới từ bỏ thói quen sử dụng túi plastic và các sản phẩm nhựa khó phân hủy và chuyển sang sử dụng các sản phẩm xanh.

Ba là, hiện nước ta chưa ban hành các tiêu chuẩn cụ thể đối với các sản phẩm xanh cũng như chưa có phòng thí nghiệm đạt tiêu chuẩn đánh giá sản phẩm xanh, dẫn đến bất cập trong việc kiểm định, đánh giá các sản phẩm dán nhãn xanh hay tự hủy sinh học. Do đó, Nhà nước cần đưa ra các quy định về tiêu chuẩn cụ thể đối với sản phẩm xanh, có các bộ phận chuyên biệt đảm nhận việc đánh giá các sản phẩm gắn nhãn sản phẩm xanh.

4.2. Đối với doanh nghiệp

Thứ nhất, nên có các biện pháp quảng cáo, tuyên truyền khác để người tiêu dùng Việt biết đến nhiều hơn; ngoài hình thức tổ chức các hoạt động vì môi trường ở một vài thành phố nhất định thì nên mở rộng quy mô tổ chức.

Thứ hai, mở rộng hệ thống phân phối theo hình thức kênh phân phối trực tiếp bên cạnh việc quá chú trọng vào các kênh thương mại điện tử. Bởi phần lớn NTD lớn tuổi vẫn chưa quen thuộc với cách thức tiêu dùng mới này.

Thứ ba, tập trung vào R&D để nghiên cứu và phát triển ra các dòng sản phẩm thực sự thân thiện với môi trường, đáp ứng đúng nghĩa về khái niệm “xanh”.

Thứ tư, trưng bày sản phẩm tại vị trí dễ thấy và thuận tiện trong cửa hàng, tại các sự kiện, địa điểm mua bán lớn.

Thứ năm, DN cần đặc biệt lưu ý, các biện pháp xúc tiến như khuyến mãi không làm tăng QĐSD của NTD đối với sản phẩm này. Bởi hầu hết NTD khi lựa chọn mua bao bì xanh một cách chủ động không quan tâm nhiều đến giá, thứ họ đặt lên hàng đầu là sức khỏe hoặc/và tác động tích cực của sản phẩm với môi trường.

4.3. Đối với người tiêu dùng

Thứ nhất, tìm kiếm, tuyên truyền tin tức, thông tin chính thống từ các cơ quan phát thanh Chính phủ để cập nhật các chính sách, quy định mới về môi trường một cách nhanh chóng và chính xác nhất; hưởng ứng các phong trào tiêu dùng xanh do Nhà nước phát động.

Thứ hai, không những bản thân, gia đình sử dụng mà còn phải tuyên truyền đến mọi người lợi ích của bao bì xanh để cùng chung tay xây dựng một cộng đồng, xanh, an toàn

Thứ ba, NTD cần tìm hiểu thật kỹ về sản phẩm để có thể đưa ra những lựa chọn, quyết định mua thông thái, đảm bảo sức khỏe cho bản thân, gia đình và bảo vệ môi trường. Bởi hiện nay, các sản phẩm gắn mác túi “xanh” hay “tự hủy sinh học” tràn lan ngoài thị trường, nhưng nhiều sản phẩm trong số đó lại không an toàn, không có tác động tích cực đến môi trường như tên gọi của nó.

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**THE INFLUENCE OF CORPORATE SOCIAL RESPONSIBILITY ON
EMPLOYEE COMMITMENT AT LOGISTICS ENTERPRISES
IN HO CHI MINH CITY**

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Abstract: *The objective of this study is to examine the impact of corporate social responsibility (CSR) including responsibilities for the economy, society, customers, and labor on employee commitment through the mediating role of employee trust in Logistics enterprises in Ho Chi Minh City. Data are collected by administering questionnaires sent directly and via email to employees working at logistics enterprises in Ho Chi Minh City. The official sample is 320 respondents. The results have shown that the implementation of CSR (including economic, social, and employee responsibility) has a positive effect on the commitment by enhancing their trust in the business.*

Keywords: *Corporate social responsibility, Employee commitment, Employee trust, Logistics*

**ẢNH HƯỞNG CỦA TRÁCH NHIỆM XÃ HỘI DOANH NGHIỆP
ĐẾN SỰ GẮN KẾT CỦA NHÂN VIÊN TẠI CÁC DOANH NGHIỆP LOGISTICS
Ở THÀNH PHỐ HỒ CHÍ MINH**

Tóm tắt: *Nghiên cứu này nhằm để xem xét tác động của việc thực hiện trách nhiệm xã hội của doanh nghiệp (bao gồm trách nhiệm kinh tế, xã hội, khách hàng và người lao động) đối với sự gắn kết của nhân viên thông qua vai trò trung gian là niềm tin của nhân viên tại các doanh nghiệp Logistics ở Thành phố Hồ Chí Minh. Dữ liệu khảo sát được thu thập bằng phiếu khảo sát trực tiếp và trực tuyến từ các nhân viên đang làm việc tại các doanh nghiệp Logistics tại Thành phố Hồ Chí Minh là 320 phiếu. Kết quả từ mô hình Path đã chỉ ra rằng việc thực hiện CSR (bao gồm: trách nhiệm kinh tế, xã hội và người lao động) có ảnh hưởng tích cực đến sự gắn kết của nhân viên thông qua việc nâng cao niềm tin của họ đối với doanh nghiệp.*

Từ khóa: *Trách nhiệm xã hội doanh nghiệp, sự gắn kết nhân viên, niềm tin nhân viên, Logistics*

1. Introduction

The golden age of rapid corporate growth from globalization and cost reduction is coming to an end (The Economist, 2015), and conflicts arising from economic polarisation and income inequality have become severe social problems. Bill Gates emphasized that corporate social responsibility (CSR) is a way to address these inequalities (Kinsley, 2008).

At the same time, the Fourth Industrial Revolution precipitated fundamental changes in the nature of production, inducing a paradigm shift for society as a whole. Companies need to stay abreast of these changes and put new practices in place, accordingly (Kim, Kim, Lee, & Son, 2017). In this rapidly changing environment, innovation is essential for companies to realize sustainable management. And that change is also essential for the current logistics industry. Because recently, the market structure in the industry has diversified rapidly around the world, and then management innovation is now more important than ever. Overall improvement in management efficiency can be a source of opportunity for innovation and thereby provide a competitive advantage for firms in the industry.

The issue of corporate social responsibility has become a controversial topic among researchers. In Vietnam, awareness of the role of CSR in recent days is relatively interesting and studied by businesses, but a number of in-depth studies on CSR have not been done. For instance, Nguyen Ngoc Thang (2010) proposed human resource policies from CSR activities to enhance and create benefits for the organization and society. Next, Vo Khac Thuong (2013) discussed workers' rights, humanitarian issues, and the role of state management. Pham Long Chau (2014) made research on stakeholders, shareholders, consumers, etc. These studies have not really delved into the research on the influence of CSR on employee commitment, which is a very necessary and interesting research aspect in the field of logistics due to the current shortage of human resources. In addition, in Vietnam, most of the authors studied different industries such as hotels, banks, garment, and animal feed industries in the North of Vietnam (Chau Thi Le Duyen and Nguyen Minh Canh, 2013; Tran Thi Minh Hoa and Nguyen Thi Hong Ngoc, 2014; Hoang Hai Yen, 2016; Hoang Thi Thanh Huong, 2015; Nguyen Hong Ha, 2016). In general, domestic studies on the influence of CSR on employee commitment in the field of Logistics are very limited.

Therefore, the authors conducted a study on the topic "The influence of corporate social responsibility on employee commitment at logistics enterprises in Ho Chi Minh City". This paper strives to address the following questions:

- (1) How does CSR affect employee commitment in Ho Chi Minh City logistics firms?
- (2) Does employee trust have a mediating role in the relationship between CSR and employee commitment?
- (3) What are the solutions to assist businesses in effectively implementing CSR in order to build employee commitment through their trust?

The results of the study have theoretical and practical contributions to logistics enterprises in Ho Chi Minh City in particular and in Vietnam in general and are the driving force for these enterprises to further promote their efficiency from the implementing CSR, helping to strengthen employee engagement in the logistics industry, improving the business efficiency. Besides, the study has also contributed to theoretical perspectives in this field.

The article's main contents are presented as follows. Section 2 discusses the

theoretical background and proposed research model. Section 3 examines the research findings. The final section provides the conclusion and recommendations for logistics businesses.

2. Theoretical background

2.1. Corporate social responsibility (CSR)

The concept of CSR dates back to the 1930s and was first defined in 1953 by Bowen. This is generalized “Social responsibilities of businessmen are obligations in accordance with the goals and values of society which businessmen must fulfill when pursuing policy and making decisions for their business activities”. One definition of CSR that is chosen by many researchers is the definition of Carroll (1979): Social responsibility is all economic, legal, ethical, and philanthropic issues of an organization that society expected at a given time. This definition is widely used in research on social responsibility, depending on the organization the manager can choose the problem from the above four levels.

According to Moon and Matten (2004), CSR includes aspects related to business ethics, charitable activities, organizational citizen behavior, sustainable development, and responsibility for the environment. Besides, Duygu Turker (2009) said that CSR of enterprises is the positive activities of enterprises to stakeholders. These activities can be activities about improving product quality, caring for workers, improving quality of life, obeying the law, or helping the government solve social problems.

In addition, CSR can also be defined as the assurance that a business contributes to sustainable development by working with employees and local communities to improve the quality of life for the development of society (Westin & Parmler, 2020). On the other hand, according to Golob and Podnar (2021), socially responsible organizations make profits by complying with rules and regulations, paying attention to ethical standards, and making positive contributions to society.

2.2. Employee trust

In organizational behavior, trust is described as a complex concept considered central to the interpersonal relationships that are characteristic of the organization (Tschannen-Moran et al., 1998). As a result, organizational trust has received the attention of many researchers and has been defined in many different forms.

Research Gilbert and Tang (1998) have defined organizational trust as the trust and encouragement of employers, organizational trust refers to employees' loyalty to the organization's goals and leaders, and the belief that the organization's performance will benefit employees. Besides, Shockley-Zalabak, Ellis, & Winograd (2000) argue that organizational trust is defined as the positive expectations of individuals about the purpose and behavior of members in companies based on organizational roles, relationships, experiences, and interdependence. In addition, researchers have found that organizational trust is an important factor in fostering cooperation within organizations, helping to improve behavior, and performance, as well as maintaining a long-term relationship with

employees (Laka-Mathebula, 2005).

According to Nguyen Manh Quan (2013), trust is often associated with human relationships and has a one-way meaning. However, when considering the scope of an organization, trust is perceived with a broader meaning, including three main ideas: (i) Trust in the organization is a consequence of human relationships in the organization at the same level (colleagues) and between different levels (group, top-bottom, unit, organization, external stakeholders); (ii) Trust in the organization is formed on the basis of typical organizational culture values (corporate culture) such as behavioral norms, core values, and beliefs; (iii) Trust is a consequence of interpersonal relationships, such as providing accurate information, being transparent in decisions, and expressing appropriate sincerity and openness.

Thus, although the definition of trust has been constantly revised and renewed by many researchers, there are still common points that are when employees feel that organizations are serving the interests of all parties, their perception that their work is worthwhile and thereby increases their self-confidence and maintaining a trusting relationship with employees is fundamental to the organization (Yadav, Dash, Chakraborty & Kumar, 2018).

2.3. Commitment

According to Mowday et al. (1979), organizational commitment is the relative strength of close attachment and full attention of an individual to a particular organization. Accordingly, commitment includes identification, effort, and loyalty. This concept refers to a positive relationship with the organization that makes them always willing to invest their efforts to contribute to the success and growth of the organization.

Another definition of commitment can be found in the academic paper of Kahn (1990). The author defines personal commitment as the simultaneous expression of a person's "preferred self" in the actions of performing tasks, promoting connection with work with others, the presence of personal appearance, and activism.

In addition, O'Reilly and Chatman (1986) stated that organizational commitment is the psychological state of an organization member, reflecting the degree to which the individual absorbs or accepts organizational characteristics, or Kalleberg et al. (1996) argue that organizational commitment is the willingness to devote all efforts to the organization, close attachment to the organization and seek to maintain relationships with the organization.

2.4. Overview of the logistics industry

The Commercial Law of Vietnam (2005) does not introduce the concept of logistics, instead the concept of "Logistics services". According to Article 233 of the Commercial Law of Vietnam: "Logistics service is a commercial activity whereby a trader organizes to perform one or more stages including receiving goods, transporting, storing, and carrying out procedures, customs, other paperwork, customer consultation, packaging, marking, delivery or other services related to goods as agreed with the customer for remuneration. In addition, the Council of Supply Chain Management Experts - CSCMP

(2013) said that logistics is a part of the supply chain, conducting planning, implementing, and controlling the work of warehousing, and related services and information from the point of origin to the point of consumption efficiently to meet customer requirements. In addition, according to Tran Nguyen Hop Chau et al (2021), logistics are defined as the process of planning, implementing, and controlling the transportation, storage of raw materials, semi-finished products, and finished products, and handling, relevant information from the place of origin to the place of final consumption. The goal of logistics is to meet customer requirements in a timely and cost-optimized manner. Thus, it can be understood that logistics is a combination of consecutive activities, which is throughout the process. In nature, logistics is a process, which means that logistics is not a single activity but a series of continuous activities, closely related and closely interacting with each other, carried out in a timely manner, scientific and systematic way through the following steps: researching, planning, organizing, managing, implementing, controlling, and improving. Therefore, logistics goes through the whole process, from the management of input materials to the consumption of the final product.

According to Hanoimoi (2022), Vietnam currently has about 30,000 enterprises operating in the logistics industry, of which about 5,000 are professional companies and up to 54% of businesses are concentrated in Ho Chi Minh City. However, logistics enterprises in the city still mainly provide simple logistics services (2PL level), acting as satellites for enterprises providing integrated logistics (3PL, 4PL level) of the other overseas countries. Regarding the logistics industry infrastructure of the city, the focus is on all types of logistics such as seaports, river ports, airports, and cargo terminals. There are currently 5 operating inland ports (ICDs) with 1,112m of the wharf, capable of receiving ships of 5,000 tons in Ho Chi Minh City. However, there are still limitations, such as the road system, especially incomplete Ring Roads 2, 3, and 4, leading to frequent traffic jams on the roads connecting to the port. Regarding the warehouse system, the city has a total area of 63ha of warehouses with 1,505 warehouses, of which 520 are for manufacturing enterprises.

According to the Department of Industry and Trade of Ho Chi Minh City, in recent years, the revenue of the logistics service industry of enterprises has grown by an average of 14% per year. In 2021, Ho Chi Minh City's logistics industry accounted for 8.9% of the city's gross domestic product (GRDP), equivalent to about VND 117,000 billion. Since then, the logistics industry plays a huge role in the economy of the city in particular and the country in general. In spite of the significant growth rate, it has not been achieved as expected because the city's logistics industry still has many limitations and weaknesses.

Thus, we can see that the development of the logistics system is a very important thing, it will ensure solving the problems of transportation, infrastructure, warehousing system, and central station; controlling the flow of goods, and prices, thereby contributing to improving the competitiveness of goods and services of the economy. Logistics is considered an infrastructure service industry of the economy, not only bringing great benefits to the country but also playing an important role in renewing the growth model and the need to restructure the economy, which is suitable for the new stage of

development. On a macro scale, logistics is an element that constitutes the price of a product, which plays a role in helping businesses optimize the efficiency of production, distribution, and supply of goods to customers.

However, in order to achieve that, human resources are the core factor that determines the success or failure of the process of organization - management, and operation of a logistics enterprise. It plays a very important role in the development of the field of logistics. It is one of the decisive factors for success and is the process of a radical and comprehensive transformation of logistics activities, promoting economic growth, accelerating the progress of industrialization and modernization, and serving the goal of sustainable development. More attention should be paid to high-quality human resources because they can meet the requirements of the market (required by domestic and foreign logistics enterprises), which is professional expertise in logistics, economics, informatics, foreign languages, etc. Quan Minh Nhut and Dang Thi Doan Trang (2015) confirmed that in an enterprise, the staff has good professional qualifications and long-term commitment to the unit can help businesses create many new products and services with good quality and competitive prices. Thus, it is worth paying attention to the fact that businesses need to focus on implementing CSR for stakeholders to increase employee trust, thereby leading to employee commitment (especially excellent individuals) to the business.

2.5. Proposed research model

Some researchers believe that CSR plays an important role in shaping employees' trust in the organization, thereby influencing employees' attitudes and behaviors (Rupp et al., 2006). Because CSR regulations and activities will help employees feel good about themselves, they create a personal brand in the company, and enhance their image, thereby increasing trust with employees (Dutton et al., 1994; Lee, Y, 2012). In addition, many studies have shown that if businesses implement CSR well, they will gain considerable benefits that include reducing costs, increasing revenue and brand value, reducing employee turnover, increasing productivity, and opportunities to access new markets (Le Thanh Tiep, 2018). A company considered socially responsible is often evaluated as honest and perceived CSR-related efforts. Because CSR can represent a good image of the organization, employees have a strong ability to identify and feel proud to work in an organization with such positive social values, which helps increase employee engagement with the organization (Bui Nhat Vuong, 2021)

Byung-Jik Kim et al. (2022) studied and investigated the influence of CSR on reducing negative employee behavior by enhancing the trust and engagement of employees within the organization. This study was surveyed online and collected data from 342 employees at Korean companies. The results showed that implementing CSR had a positive effect on increasing trust in the organization ($\beta = 0.32$) and thereby increasing employee and organizational commitment ($\beta = 0.47$) and reducing counterproductive work behavior ($\beta = - 0.17$). It also shows that work overload also affects the relationship between CSR and employees' trust ($\beta = - 0.14$). Moreover, Jiyoung et al. (2020) studied to show the relationship between CSR awareness and organizational commitment through two mediating factors, job satisfaction and trust in the organization. This study

questionnaired 166 logistics companies in Busan, Korea. The results show that there are 2 main factors affecting employees' trust in the organization, which are the implementation of economic and employee CSR with the coefficients $\beta = 0.257$ and $\beta = 0.228$, respectively. Then, employees' trust will have a positive impact on their commitment to the business ($\beta = 0.848$).

H.Y. Loo-Zambrano et al. (2020) studied to examine the relationship between corporate social responsibility (including three economic, social, and environmental factors) and employee commitment through the two mediating factors that are intrinsic motivation and trust with the organization. This study was conducted through questionnaires and data collection from 318 workers and managers in small and medium enterprises in Ecuador. The results show that there is a positive impact between social responsibility factors (economic, social, environmental) for mediating factors which are intrinsic motivation with coefficient $\beta = 0.610$ and trust in the organization. with coefficient $\beta = 0.659$. Since then, the mediating factors positively affect commitment with coefficients of $\beta = 0.575$ and $\beta = 0.399$, respectively.

Tran Thi Ninh (2021) studied to show the relationship between CSR awareness and organizational commitment through two mediating factors, job satisfaction and trust in the organization. The author also mentions two regulatory factors: organizational reputation and job autonomy. The study was conducted by direct interviews, and a convenient sampling of 520 employees and managers working at VIB, BIDV, SACOMBANK, VIETCOMBANK, and ACB in Ho Chi Minh City, with a working period of 1 year or above. The results show that the implementation of social responsibility (economic, employees, customers) has a positive impact on two intermediate factors, employee trust, and job satisfaction with the coefficients $\beta = 0.72$ and $\beta = 0.66$, respectively. And from there, two intermediate factors affect the employee's commitment to the enterprise (with coefficients $\beta = 0.34$ and $\beta = 0.38$), respectively.

Besides, the relationship between trust in the organization and employee engagement has also been studied a lot in different reports, showing that satisfaction and trust in the organization are two important prerequisites in commitment (Morgan and Hunt, 1994; Meyer, 1993; Lee et al., 2012). The findings of many researchers indicate that organizational trust has a positive relationship with organizational commitment. In addition, Mone and London (2010) “found that having a manager that employees can trust is a key driver of commitment”. According to Rashid Ahmad et al. (2019), research and discovery aimed to raise awareness about the meaning of CSR for organizational commitment and civic behavior in organizations. The study was surveyed by questionnaire, collected from 736 lecturers in different Pakistani universities. The results show that implementing corporate social responsibility (CSR) increases the trust of students at the university ($\beta = 0.48$), thereby affecting the emotional commitment to the university ($\beta = 0.44$).

Thus, based on related research papers, the author develops the following hypotheses:

H1: Economic responsibility has a positive effect on employee trust.

H2: Social responsibility has a positive effect on employee trust.

H3: Customer responsibility has a positive effect on employee trust.

H4: Employee responsibility has a positive effect on employee trust.

H5: Employee trust has a positive effect on commitment.

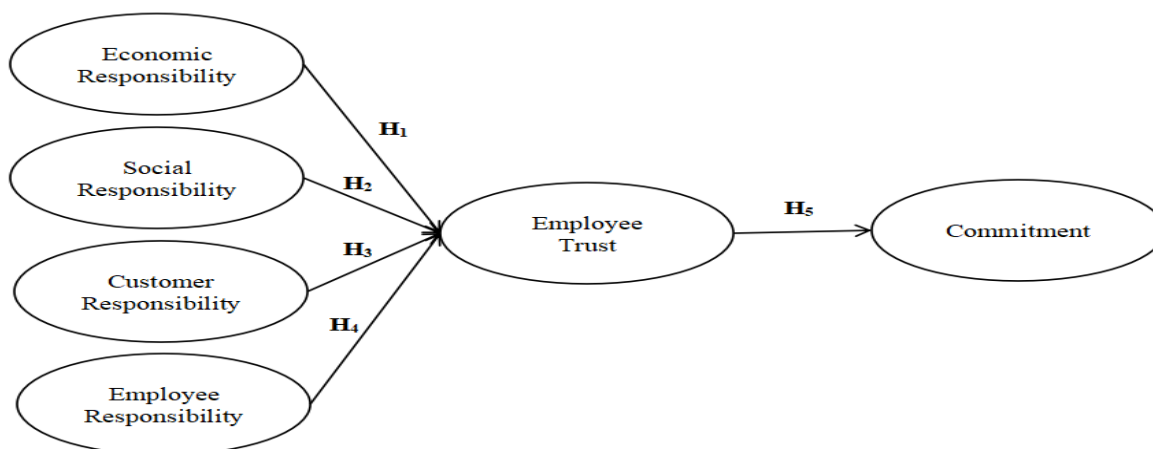


Figure 1: Research model of the influence of CSR on employee commitment

The four independent variables chosen by the authors are based on the CSR components mentioned by Carroll (1991) and Turker (2009) and are defined as:

Economic Responsibility: Before other goals, the company is the basic economic base of society. Therefore, the company's goal is to produce goods and services that consumers need and want, and generate an acceptable level of profit through the business process. Being profitable is the only way a company can survive in the long run and benefit society.

Social Responsibility: With this responsibility, the company deals with improving the quality and protection of the natural environment, creating a better life, minimizing negative impacts on the natural environment, and setting sustainable growth goals.

Employee Responsibility: It includes flexible and fair workplace policies, career development opportunities, and an interest in meeting the needs and desires of employees.

Customer Responsibility: The company must pay attention to fulfill legal requirements, protect consumer interests, provide sufficient and accurate information about its products to customers, and improve customer satisfaction.

3. Results and discussion

3.1. Research description

In order to ensure the reliability of the scales, the authors focus on selecting the concepts that have been recognized in previous studies. The scales are mainly built based on the results drawn from many papers such as economic responsibility (Lee et al., 2012 and Jiyoung Ko et al., 2020), social responsibility (H.Y. Loo - 2010). Zambrano et al., 2020 and Turker, 2009), customer responsibility (Turker, 2009 and Siriwan Kaewchird et al., 2021), employee responsibility (Turker, 2009), employee trust (Chathoth et al., 2011;

H.Y. Loor - Zambrano et al., 2020 and Reyhav and Sharkie, 2010), and employee commitment (Meyer and Allen, 1991, Mowday et al., 1979).

Before conducting the official survey, the authors conducted preliminary qualitative research, the variables in the scale will be adjusted, supplemented, and replaced through the expert interviewing method (n = 10). After modifying the scales, the authors conducted quantitative research through direct and online surveys from employees at logistics enterprises in Ho Chi Minh City. Next, the authors reviewed the reliability of the scales by testing Cronbach's Alpha coefficient as well as exploratory factor analysis (EFA) by considering the following attributes: convergent value, discriminant value, total variance extracted and data fit with SPSS 20.0. Besides, PATH analysis is used to test the relationship between the mediating variable (employee trust) and the dependent variable (commitment).

Table 1: Variables and item description

Economic Responsibility		
TNKT1	The company is always trying to improve employee performance.	Lee et al. (2012)
TNKT2	The company always establishes a long-term strategy for business growth.	
TNKT3	The company always tries to save operating costs.	
TNKT4	The company strives to improve productivity and competitiveness.	Jiyoung Ko et al. (2020)
TNKT5	The company generates profits to contribute to the development of the national economy.	
TNKT6	The company always tries to create job opportunities for many employees.	
Social Responsibility		
TNXH1	The company supports cultural and educational activities in the area of operation.	H.Y. Loor - Zambrano et al. (2020)
TNXH2	The company helps improve the quality of life of the community in the area of operation.	
TNXH3	The company always considers making decisions in accordance with the interests of the community.	
TNXH4	The company engages in activities aimed at protecting and improving the quality of the natural environment.	Turker (2009)
TNXH5	The company implements special programs to minimize negative impacts on the natural environment.	
Customer Responsibility		
TNKH1	The company always provides complete and accurate information about products and services.	Turker (2009)
TNKH2	The company always protects the interests of customers in accordance with the law.	
TNKH3	Customer satisfaction is most important to the company.	
TNKH4	The company always treats its customers ethically.	Siriwan Kaewchird et al. (2021)
TNKH5	The company always maintains good product/service quality.	
Employee Responsibility		

TNNLD1	The company cares about the needs and desires of its employees.	Turker (2009)
TNNLD2	The Company makes management decisions regarding employees fairly.	
TNNLD3	The company supports employees who need to improve their knowledge and skills.	
TNNLD4	The company has flexible policies to bring work-life balance to employees.	
TNNLD5	The company has policies to encourage employees to develop skills and careers.	
Employee Trust		
NTNV1	I believe that I can promote my ability and develop myself at the company.	Chathoth và cộng sự (2011)
NTNV2	I believe that I am respected and treated fairly at the company.	
NTNV3	I believe that company leaders are always interested in personal opinions.	
NTNV4	I believe that the benefits, compensation and benefits for employees are always fully guaranteed.	H.Y. Loor - Zambrano và cộng sự (2020)
NTNV5	I believe in the decisions the management makes.	
NTNV6	The company is ready to help me when I have difficulties.	Reychav và Sharkie (2010)
Commitment		
SGK1	I feel that the company's problems are also my problems.	Meyer và Allen (1991)
SGK2	The company means a lot to me.	
SGK3	I am proud to work in the company.	Mowday và cộng sự (1979)
SGK4	I feel excited because I have chosen the company as the place to work.	
SGK5	I feel like I belong to the company.	

According to the study of Hair et al (1998) for reference about the expected sample size, the minimum sample size is 5 times the total number of observed variables. Thus, the topic will select a sample at a ratio of 1:5, with a questionnaire with 32 observed variables, the minimum sample size is 160. However, to ensure accuracy and to prevent the occurrence of unqualified responses, the authors used a sample size of 350. The result is 320 valid responses, accounting for 91.4%. The authors have chosen a convenient sampling technique to conduct this survey.

Out of the total of 320 responses, employees in the position of Sales staff accounted for 12.5%, employees in the position of Customer care staff accounted for 8.8%, followed by employees in the position of Human Resources. Document officer and Forwarder share the same percentage of 8.1%, employees in the position of Warehouse operator account for the smallest percentage of 5% and the rest in other positions such as port staff, field staff, analysts, office managers, etc. accounted for 57.5% of the total number of respondents. In addition, Table 1 also shows that employees aged 28-43 accounted for the highest proportion with 50.6%, followed by employees under 28 years old accounting for 43.8%

and employees over 43 years old with 5.6%. Besides, the survey results also show that employees with experience from 1 year to less than 5 years accounted for the highest percentage with 60.6%, followed by the group with 5 to less than 10 years accounting for 26.6%. Employees with less than 1 year of experience account for 9.4% and employees over 10 years of experience account for 3.4%. Finally, regarding average annual income, the results show that employees with an average income of 100 to 200 million VND accounted for the highest proportion with 62.8%, followed by employees with income under 100 million VND accounted for 28.8%. Next is employees with annual income from 200 to 500 million VND, accounting for 7.2%, and employees with average annual income above 500 million VND, accounting for 1.2%.

3.2. Research results

Cronbach's Alpha coefficient is a statistical test of how closely the observed variables in the scale correlate with each other. Therefore, the authors will consider this coefficient for each scale to ensure that the scale coefficient is ≥ 0.6 and the variable correlation coefficient - total is ≥ 0.3 . The results show that there are 3 variables that are excluded after evaluating the reliability of the scale: TNNLD4, NTN6, and SGK5.

The scale of four CSR factors (including 20 variables) after being examined Cronbach's Alpha coefficient was continued to be analyzed in the EFA by the Varimax rotation method and the Principle Components extraction method. After analyzing EFA, there was 1 observed variable that did not reach the discriminant value of TNXH2 ($0.023 < 0.3$). This could be explained that in Vietnam, the majority of logistics enterprises are only small and medium-sized, so most companies often focus on their own economic benefits and the implementation of social responsibility might be neglected, especially to support cultural and educational activities. The results of the second EFA analysis with the remaining 19 variables, the KMO coefficient is 0.828 and the Bartlett coefficient has a value of Sig = 0.000 (< 0.05), so the observed variables are related to each other. The total variance extracted is 64.489%, that is, 19 extracted variables explain 64.489% of the variation of observed variables and the factor loading is greater than 0.5, so it meets the requirements.

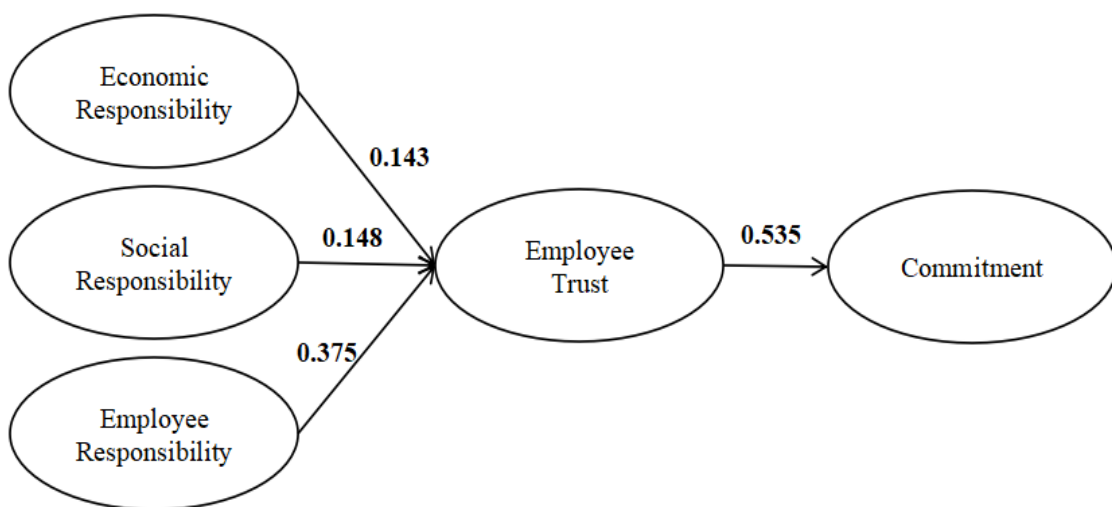
EFA analysis results of intermediate variables (5 observed variables): Bartlett's test has statistical significance (Sig = 0.000 < 0.05), which means that the variables are correlated in the population. KMO coefficient of 0.816 belongs to the range [0.5 - 1.0], so the sample is suitable. In addition, the total variance extracted was 53.656% $> 50\%$ indicating that this factor explained 53.656% of the variation of the data. Factor loading coefficients of all observed variables > 0.5 meet the requirements of the convergence value test, so no observed variables are excluded.

EFA analysis results of the dependent variable (4 observed variables): Bartlett's test has statistical significance (Sig = 0.000 < 0.05), which means that the variables are correlated in the population. KMO coefficient of 0.652 belongs to the range [0.5 - 1.0], so factor analysis is suitable for the data. In addition, the total variance extracted is 57.679% $> 50\%$, showing that this factor explains 57.679% of the variation of the data. Factor loading coefficients of all observed variables > 0.5 meet the requirements of the convergence value

test, so no observed variables are excluded.

In addition, by conducting linear regression analysis, the independent variable TNKH was eliminated (Sig > 0.05). This can be understood that employees of logistics enterprises are also under a lot of stress as they handle a lot of tasks and are always chased by time and work. Therefore, when dealing with customers, especially in different time frames, they may neglect to fulfill their customer responsibilities and spend their time completing the assigned work to fulfill other tasks whereby customer liability may not affect their trust in the business. After removing the TNKH variable, the sample linear regression model has the value of the significance level of the three factors less than 0.05, so the independent variables are all statistically significant. Besides, the value of the R² coefficient of 0.306 means that the model fits the data by 30.6%. Therefore, each relationship between economic responsibility, social responsibility, employee responsibility, and employee trust is statistically significant. Thus, hypotheses H₁, H₂, and H₄ are supported by the data set.

Figure 2: Official research model



Source: Authors' calculation

Finally, the PATH model is analyzed. The test results show that the significance level of the factor NTN_V is less than 0.05, which means employee trust has an impact on commitment. Thus, hypothesis H₅ is supported by the research data. In addition, the value of the coefficient R² is 0.319, and the PATH model explained 31.9% of the change in employee trust and commitment. To evaluate the fit of the PATH model, we use the R²_M fit factor:

$$R^2_M = 1 - [(1 - R^2_1) * (1 - R^2_2)] = 1 - [(1 - 0.306) * (1 - 0.319)] = 0.5273 = 52.73\%$$

The coefficient R²_M of 52.73% means that the PATH model of the study is suitable. In other words, 52.73% of the variation of commitment explains the employee trust and three corporate responsibilities towards economic, social, and employee.

4. Conclusions and recommendations

The research results have also shown that CSR plays an important role in shaping employees' trust in the organization, thereby influencing their attitudes and behaviors (Rupp et al., 2006). CSR activities will help employees feel good about themselves because they create a personal brand in the company, and enhance their image; thereby increasing trust with companies (Dutton et al. 1994; Lee, Y 2012). Besides, Jones (2010) also said that pride in working for a socially responsible organization increases employees' confidence and improves their self-esteem. According to Carroll (1979), the realization of economic responsibility is the most basic priority that every business needs to achieve. Accordingly, it can be said that the policies that the company needs to do are to make a profit and maintain its effectiveness, thereby creating jobs and fulfilling its responsibilities. When employees are paid commensurate with their work, they will have faith and attachment to the business, thereby improving the quality of products and services for the business itself. Therefore, in the future, logistics enterprises should continue to maintain economic policies to ensure stable operations and bring in revenue. In addition, logistics businesses need to diversify market segments, especially those with high profit potential (cross-border e-commerce, 4PL services with consulting capabilities), because the diversity of logistics services has an indirect correlation to the performance of logistics enterprises. Foreign logistics enterprises, mainly integrated service providers, always show higher performance scores than local companies, which mainly provide only separate traditional types of services.

Social responsibility is the practice by which a business enacts policies that promote an ethical balance between the two missions of striving for the benefit of the company and the benefit of society as a whole. To be specific, it is the CSR programs that logistics enterprises implement for socially related organizations such as commitment to the quality of the natural environment, creating a better life for future generations, reducing environmental pollution, social security, etc. Therefore, in order to fulfill these commitments, logistics business managers in Ho Chi Minh City need to develop policies to protect the natural environment, minimize negative impacts on the environment, investment policies for future development, and policies to support non-governmental organizations, contributing to the welfare and prosperity of society.

According to Stawiski et al. (2010), it was analyzed and proved that raising employees' awareness through the process of training and improving employees' skills and initiatives in business development strategies will help employees' activities be more efficient. The study also confirms that the investment in CSR initiatives of employees will positively affect the willingness to participate in production and business activities, increase productivity, and increase revenue for enterprises. Therefore, we can see that the implementation of employee responsibilities by enterprises is more important than other responsibilities (the strongest impact among the three factors). Thus, in order for a logistics employee to stick with and have more faith in their company, the company should consider the following things: (1) Regularly organize periodic training for the enterprise's personnel on changes in legal policies related to logistics, new applications of technology in logistics activities (such as blockchain, big data, enterprise resource planning systems, etc.),

specialized knowledge in-depth professional subjects, working skills and other necessary skills; (2) Enterprises need to develop their own logistics training materials to best suit the job characteristics of each function and task. With each working position in the enterprise, it can help new and inexperienced employees to standardize business processes and work styles suitable to the business and thereby form corporate culture.

Besides, the study was carried out in Ho Chi Minh City in the logistics industry, which may lead to differences in other industries or other cities, and then the research results might be not the same. Due to time and financial constraints, the authors chose the non-probability sampling technique and convenience sampling method with the qualified sample collected is 320. Therefore, this might not be comprehensive about the effect of CSR on employee commitment through employee trust. Besides, the model's coefficient of $R^2_M = 52.73\%$ is not high, showing that there are many factors affecting employee commitment in the enterprise.

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TÁC ĐỘNG CỦA QUẢN LÝ NGUỒN NHÂN LỰC BỀN VỮNG ĐẾN HIỆU QUẢ CÔNG VIỆC CỦA NHÂN VIÊN

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Tóm tắt: Nghiên cứu phân tích tác động của quản lý nguồn nhân lực bền vững (bao gồm quản lý nguồn nhân lực có trách nhiệm xã hội và quản lý nguồn nhân lực xanh) với hiệu quả công việc của nhân viên. Sử dụng phương pháp định lượng, với sự hỗ trợ của phần mềm Smart PLS phiên bản 4.0.8.5. Ứng dụng google biểu mẫu, nhóm tác giả đã điều tra và thu về 254 phiếu khảo sát hợp lệ từ người lao động làm việc trong các doanh nghiệp trên địa bàn thành phố Hồ Chí Minh. Kết quả cho thấy, các thành phần của quản lý nguồn nhân lực bền vững, bao gồm quản lý nguồn nhân lực có trách nhiệm xã hội và quản lý nguồn nhân lực xanh có tác động tích cực đến hiệu quả công việc của nhân viên. Một số kiến nghị được nhóm tác giả đề xuất nhằm giúp doanh nghiệp nâng cao hiệu quả công việc nhân viên thông qua quản lý nguồn nhân lực bền vững.

Từ khóa: Quản lý nguồn nhân lực bền vững, hiệu quả công việc của nhân viên, quản lý nguồn nhân lực xanh, quản lý nguồn nhân lực có trách nhiệm xã hội.

IMPACT OF SUSTAINABLE HUMAN RESOURCES MANAGEMENT ON EMPLOYEE'S JOB PERFORMANCE

Abstract: The study analyzes the impact of sustainable human resource management (including socially responsible human resource management and green human resource management) on employee performance. Using quantitative method, with the support of Smart PLS software version 4.0.8.5. Using google forms, the author team investigated and collected 254 valid questionnaires from employees working in businesses in Ho Chi Minh City. The results show that the components of sustainable human resource management, including socially responsible human resource management and green human resource management, have a positive impact on employee performance. Some recommendations are proposed by the authors to help businesses improve employee performance through sustainable human resource management..

Keywords: Sustainable human resource management, employee's job performance, green human resource management, socially responsible human resource management.

1. Đặt vấn đề

Bất chấp những nỗ lực đã được thực hiện trong những năm gần đây để bảo vệ và cải thiện môi trường, thì ô nhiễm môi trường vẫn là một vấn đề lớn và gây ra rủi ro cho con

người. Với các nước đang phát triển, nơi các nguồn ô nhiễm truyền thống như: khí thải công nghiệp, quản lý chất thải không đầy đủ, nguồn cung cấp nước bị ô nhiễm ... ảnh hưởng nghiêm trọng tới cuộc sống người dân (Briggs, 2003).

Trước thực trạng đó, các mối quan tâm và áp lực về vấn đề môi trường toàn cầu đã làm cho các doanh nghiệp (đối tượng sử dụng yếu tố đầu vào chủ yếu từ môi trường tự nhiên) phải có ý thức hơn trong việc nỗ lực quản lý môi trường của họ. Các doanh nghiệp hiện đang chịu áp lực thường xuyên để trở nên xanh bằng cách áp dụng các chính sách và thực hành thân thiện với môi trường (Chaudhary, 2019).

Một trong những giải pháp để vượt qua áp lực trên là doanh nghiệp cần thực hiện quản lý nguồn nhân lực bền vững thay vì quản lý nguồn nhân lực truyền thống. Quản lý nguồn nhân lực bền vững là một khái niệm mới nổi, vẫn đang trong giai đoạn tiên phong và phản ánh những nỗ lực liên kết sự bền vững với quản lý nguồn nhân lực (Manzoor và cộng sự, 2019), vì vậy hiện nay có nhiều cách định nghĩa khác nhau. Một trong những định nghĩa được thừa nhận rộng rãi cho rằng “quản lý nguồn nhân lực bền vững là việc áp dụng các chiến lược và thực hành quản lý nguồn nhân lực cho phép đạt các mục tiêu tài chính, xã hội và môi trường, với các tác động bên trong và bên ngoài tổ chức và trong thời gian dài hạn, đồng thời kiểm soát các tác động phụ tiêu cực không mong muốn” (Ehnert và cộng sự, 2016, trang 90).

Quản lý nguồn nhân lực bền vững đóng vai trò trung gian đạt được mục tiêu kinh tế, môi trường và xã hội thay vì chỉ đối với hiệu quả kinh tế và tài chính của tổ chức (Jeronimo và cộng sự, 2020). Thông qua quản lý nguồn nhân lực bền vững giúp cho doanh nghiệp sử dụng hiệu quả nguồn nhân lực (Ehnert, 2009) nâng cao sự hài lòng của khách hàng (Wikhamn, 2019), ảnh hưởng tích cực đến hiệu quả hoạt động của công ty (bao gồm cả hiệu quả tài chính) (Renwick và cộng sự, 2013), giúp cho người lao động cảm thấy công việc mình đang làm có ý nghĩa hơn (Albrecht và cộng sự, 2015), từ đó dẫn đến sự tham gia vào công việc của nhân viên và do đó cải thiện hiệu quả làm việc (Jeronimo và cộng sự, 2020).

Thành phố Hồ Chí Minh được ví như đầu tàu kinh tế của cả nước (tính tới thời điểm tháng 5 năm 2022, so với toàn Việt Nam thì thành phố chiếm 0,6% diện tích, 8,34% dân số nhưng đóng góp 20,5% tổng sản phẩm GDP, 27,9% giá trị sản xuất công nghiệp, 37,9% dự án nước ngoài. Tổng số doanh nghiệp đang hoạt động chiếm 31%) (Đăng Đức Thành, 2022), ngược lại, cũng sẽ có nguy cơ cao gây ra những tác động tiêu cực đến môi trường nếu các hoạt động quản trị doanh nghiệp không được giám sát, quan tâm đúng mức. Để các doanh nghiệp chủ động ứng phó với các vấn đề môi trường, cần có những bằng chứng nghiên cứu khoa học thông qua việc ứng dụng quản lý nguồn nhân lực bền vững trong quản trị doanh nghiệp giúp doanh nghiệp không những đạt được mục tiêu về kinh tế, mà còn đạt được các mục tiêu môi trường và xã hội. Tuy nhiên, số lượng nghiên cứu về quản lý nguồn nhân lực bền vững tại thành phố Hồ Chí Minh là rất ít. Vì vậy, nhóm tác giả tiến hành nghiên cứu với mục tiêu củng cố bằng chứng về lợi ích của quản lý nguồn nhân lực bền vững nhằm thúc đẩy thực hiện liên kết tính bền vững với hoạt động quản lý nguồn nhân lực tại các doanh nghiệp.

2. Cơ sở lý thuyết và phương pháp nghiên cứu

2.1 Lý thuyết nền

Lý thuyết trao đổi xã hội Blau (1964) cho rằng trao đổi xã hội bao gồm một loạt các tương tác, và những tương tác này được coi là phụ thuộc lẫn nhau và phụ thuộc vào hành động của người khác. Đồng thời, nó nhấn mạnh rằng những tương tác phụ thuộc lẫn nhau này có khả năng tạo ra các mối quan hệ chất lượng cao, mặc dù chúng ta thấy điều này chỉ xảy ra trong một số trường hợp nhất định. Cam kết có đi có lại là nền tảng của trao đổi xã hội, các bên trong mối quan hệ cùng phụ thuộc sẽ cho và nhận theo cách tối đa hóa lợi ích của họ (Phipps và cộng sự, 2013) và nếu nhân viên nhận được những gì họ cho là đối xử có lợi từ chính họ, họ sẽ đáp lại bằng cách thể hiện những kết quả tích cực hơn mang lại lợi ích cho tổ chức (Y. W. Kim và Ko, 2014). Trong nghiên cứu này, nhóm tác giả lập luận rằng quản lý nguồn nhân lực bền vững sẽ đem lại nhiều lợi ích tích cực cho nhân viên (nhân viên được đối xử công bằng, được nhìn nhận là có giá trị với doanh nghiệp, trả thù lao cho hành động vì môi trường, ...), từ đó nhân viên sẽ tương tác tích cực nhằm báo đáp lại với doanh nghiệp. Sự báo đáp đó được thể hiện bằng cách nỗ lực nâng cao hiệu quả công việc.

2.2 Quản lý nguồn nhân lực bền vững

Quản lý nguồn nhân lực bền vững được coi là lĩnh vực nghiên cứu còn mới đối với nhiều nhà nghiên cứu trong lĩnh vực quản lý nguồn nhân lực (Mazur và Walczyna, 2020), vì vậy đến nay vẫn còn nhiều cách tiếp cận khác nhau (Wikhamn, 2019). Theo Müller-Christ và Remer (1999) quản lý nguồn nhân lực bền vững là những gì các tổ chức phải làm trong môi trường của họ để có thể tiếp cận những nhân viên có năng lực cao trong tương lai, còn Zaugg và cộng sự (2001) thì cho rằng quản lý nguồn nhân lực bền vững là hoạt động tuyển dụng, phát triển, giữ chân và cho nhân viên nghỉ việc có hiệu quả dài hạn về mặt xã hội và kinh tế. Một trong những quan điểm được nhiều học giả chấp nhận cho rằng “quản lý nguồn nhân lực bền vững là việc áp dụng các chiến lược và thực hành quản lý nguồn nhân lực cho phép đạt các mục tiêu tài chính, xã hội và môi trường, với các tác động bên trong và bên ngoài tổ chức và trong thời gian dài hạn, đồng thời kiểm soát các tác động phụ tiêu cực không mong muốn” (Ehnert và cộng sự, 2016, trang 90). Như vậy, từ khái niệm trên ta thấy nội hàm của quản lý nguồn nhân lực bền vững là các hoạt động quản lý nguồn nhân lực hướng tới ba khía cạnh chính gồm tài chính, xã hội và môi trường. Trong đó, bản chất các hoạt động quản lý nguồn nhân lực đã hướng đến sử dụng hiệu quả nhân lực tức đạt mục tiêu tài chính, tích hợp trách nhiệm xã hội của doanh nghiệp trong các hoạt động quản lý nguồn nhân lực giúp đạt mục tiêu xã hội, và xanh hóa các nghiệp vụ quản lý nguồn nhân lực giúp doanh nghiệp đạt mục tiêu môi trường. Quản lý nguồn nhân lực bền vững là một bước tiến mở rộng đối với quản lý nguồn nhân lực với quan điểm cho rằng các kết quả xã hội, con người tích cực cũng quan trọng không kém kết quả tài chính (Ehnert, 2009). Quản lý nguồn nhân lực bền vững nhấn mạnh các thực hành quản lý nguồn nhân lực đạt kết quả vượt khỏi hiệu quả tài chính (Ehnert và cộng sự, 2016).

Quản lý nguồn nhân lực bền vững đem lại nhiều giá trị hữu ích cho doanh nghiệp như, là nền tảng để thiết lập cơ sở cho tổ chức hoạt động hiệu quả (Baptiste, 2008), giúp

cho doanh nghiệp sử dụng hiệu quả nguồn nhân lực (Ehnert, 2009) nâng cao sự hài lòng của khách hàng (Wikhamn, 2019), giúp cho người lao động cảm thấy công việc mình đang làm có ý nghĩa hơn (Albrecht và cộng sự, 2015), từ đó dẫn đến sự tham gia vào công việc của nhân viên và do đó cải thiện hiệu quả làm việc (Jeronimo và cộng sự, 2020).

Quản lý nguồn nhân lực bền vững đã mở rộng rất nhiều so với quan điểm truyền thống trước đây như trách nhiệm xã hội của doanh nghiệp và hiệu suất xã hội của doanh nghiệp (Jeronimo và cộng sự, 2020) từ đó hình thành quản lý nguồn nhân lực có trách nhiệm xã hội, và lý thuyết của quản lý nguồn nhân lực bền vững cũng bao gồm quản lý nguồn nhân lực xanh (Renwick và cộng sự, 2013).

2.2.1 Quản lý nguồn nhân lực có trách nhiệm xã hội và hiệu quả công việc

Năm 1950 đánh dấu cột mốc xuất hiện khái niệm trách nhiệm xã hội của doanh nghiệp, kể từ đó đến nay nhận thức về trách nhiệm xã hội trong doanh nghiệp được phát triển liên tục (Carroll, 1998). Trách nhiệm xã hội trong doanh nghiệp đem lại nhiều lợi ích cho chủ thể thực hiện nó, như: giúp doanh nghiệp thực hiện tiếp thị chiến lược đến hành vi hoặc phản ứng của người tiêu dùng (Sen và cộng sự, 2006); cải thiện hình ảnh và khả năng cạnh tranh, ảnh hưởng tích cực đến việc thu hút và giữ chân khách hàng, động lực của nhân viên và hiệu quả kinh doanh (Ebo Hinson và Kodua, 2012). Bởi vậy, nhiều doanh nghiệp đã tìm cách ứng dụng trách nhiệm xã hội trong hoạt động quản trị doanh nghiệp, và một trong những cách ứng dụng đó là tích hợp trách nhiệm xã hội trong hoạt động quản lý nguồn nhân lực, khái niệm quản lý nguồn nhân lực có trách nhiệm xã hội đã hình thành từ đó. Đến thời điểm hiện tại đã có nhiều định nghĩa về quản lý nguồn nhân lực có trách nhiệm với xã hội, tuy nhiên, tất cả đều hội tụ về sự kết hợp giữa trách nhiệm xã hội của doanh nghiệp và quản lý nguồn nhân lực bền vững (Jie và John, 2016). Theo Shen và Jiuhua Zhu (2011) quản lý nguồn nhân lực có trách nhiệm xã hội được hình thành với ba cấu phần chính gồm quản lý nguồn nhân lực tuân thủ pháp luật (hàm ý đề cập đến việc chính sách quản lý nguồn nhân lực tuân thủ quy định pháp luật của nước sở tại, như tuân thủ về giờ làm việc, tiền lương tối thiểu, sự đảm bảo công bằng,...), quản lý nguồn nhân lực định hướng nhân viên (hàm ý các chính sách quản lý nguồn nhân lực giúp thỏa mãn cả nhu cầu của người lao động và gia đình họ. Một số hoạt động điển hình như đào tạo và phát triển nhân viên, phát triển sự nghiệp người lao động, ...), và quản lý nguồn nhân lực hỗ trợ trách nhiệm xã hội của doanh nghiệp nói chung (hướng đến việc xây dựng và thực thi chính sách quản lý nguồn nhân lực giúp doanh nghiệp tham gia vào các sáng kiến trách nhiệm xã hội của doanh nghiệp chung). Quản lý nguồn nhân lực có trách nhiệm với xã hội giúp đạt được sự nhất quán của tổ chức với khuôn khổ trách nhiệm xã hội của doanh nghiệp vì sự phát triển bền vững của các tổ chức (Vu, 2022).

Một số học giả đã tập trung nghiên cứu tác động của quản lý nguồn nhân lực có trách nhiệm xã hội với hiệu quả công việc nhân viên và cho kết quả như sau: quản lý nguồn nhân lực có trách nhiệm xã hội có ảnh hưởng gián tiếp đến hiệu quả công việc của nhân viên (Shen và Benson, 2016); tác động tích cực đến hành vi công dân của tổ chức, sự gắn kết trong công việc, lòng trung thành nhân viên và hiệu quả công việc (de la Rosa-Navarro và cộng sự, 2020).

Có nhiều nghiên cứu được thực hiện về hiệu quả công việc của nhân viên, tuy

nhiên đến thời điểm hiện nay thuật ngữ hiệu quả công việc của nhân viên có nhiều quan điểm khác nhau. Sự khác nhau đó có thể được hiểu do công việc được coi là năng động và có thể hoán đổi cho nhau (Schmidt, 1993). Hiện nay có ba luồng quan điểm chính được sử dụng nhiều gồm, thứ nhất hiệu quả công việc nhân viên được coi là toàn bộ sản lượng cá nhân (đại diện là nghiên cứu của Şehitoğlu và Zehir), thứ hai hiệu quả công việc nhân viên là hành vi (trong vai trò chính thức) hoặc hoàn thành trách nhiệm dự kiến trong việc thực hiện các nhiệm vụ được giao theo bản mô tả công việc (đại diện là Chan, Mak, Darsana), luồng quan điểm thứ ba cho rằng hiệu quả công việc nhân viên là hành vi hoặc hiệu quả trong vai trò (chính thức theo bản mô tả công việc) và hiệu quả ngoài vai trò (phi chính thức) nhưng có ý nghĩa quan trọng với hiệu quả của tổ chức (đại diện cho quan điểm này là các nghiên cứu của Borman và Motowidlo).

Lý thuyết trao đổi xã hội (Blau, 1964) cho rằng thông qua thực hành quản lý nguồn nhân lực có trách nhiệm xã hội và việc thực hiện đúng cách của họ, nhân viên cảm thấy có nghĩa vụ đối với tổ chức, vì quản lý nguồn nhân lực có trách nhiệm xã hội thể hiện và mang lại lợi ích cho nhân viên liên quan đến cuộc sống và mục tiêu cá nhân của họ (Gerstner và Day, 1997).

Theo những lập luận trên, nhóm nghiên cứu đề xuất giả thuyết như sau:

H1: Quản lý nguồn nhân lực có trách nhiệm xã hội có tác động tích cực đến hiệu quả công việc của nhân viên.

2.2.2 *Quản lý nguồn nhân lực xanh và hiệu quả công việc*

Quản lý nguồn nhân lực xanh được định nghĩa là việc tích hợp các khía cạnh quản lý môi trường liên quan đến quản lý nguồn nhân lực và tập trung vào vai trò của quản lý nguồn nhân lực trong việc ngăn ngừa ô nhiễm thông qua các quy trình hoạt động của doanh nghiệp (Renwick và cộng sự, 2013). Việc áp dụng các thực hành xanh trong hoạt động kinh doanh mang lại lợi ích cho xã hội nói chung và nó cho thấy khía cạnh trách nhiệm xã hội của các doanh nghiệp (Amjad và cộng sự, 2021).

Quản lý nguồn nhân lực bền vững dưới góc độ quản lý nguồn nhân lực xanh chủ yếu quan tâm đến việc ảnh hưởng và khuyến khích các hoạt động và hành động xanh trong số các nhân viên và cũng đóng góp cho các công ty thông tin về môi trường thông qua xanh hóa các chức năng nhân sự hiện có (tuyển dụng xanh, xanh Đào tạo, phần thưởng xanh, v.v.) (Renwick và cộng sự, 2013). Tuyển dụng xanh thường thể hiện thông qua việc tổ chức đưa các tiêu chí môi trường trong tuyển dụng nhân viên, sử dụng quy trình tuyển dụng xanh (phỏng vấn online, hạn chế sử dụng giấy, ...). Đào tạo xanh hàm ý doanh nghiệp cung cấp các khóa đào tạo về môi trường cho nhân viên, hạn chế tài liệu giấy trong đào tạo, ...). Phần thưởng xanh đề cập việc doanh nghiệp lồng ghép các tiêu chí bảo vệ môi trường trong đánh giá hiệu quả công việc, có phần thưởng khuyến khích các hành vi xanh của nhân viên, ...

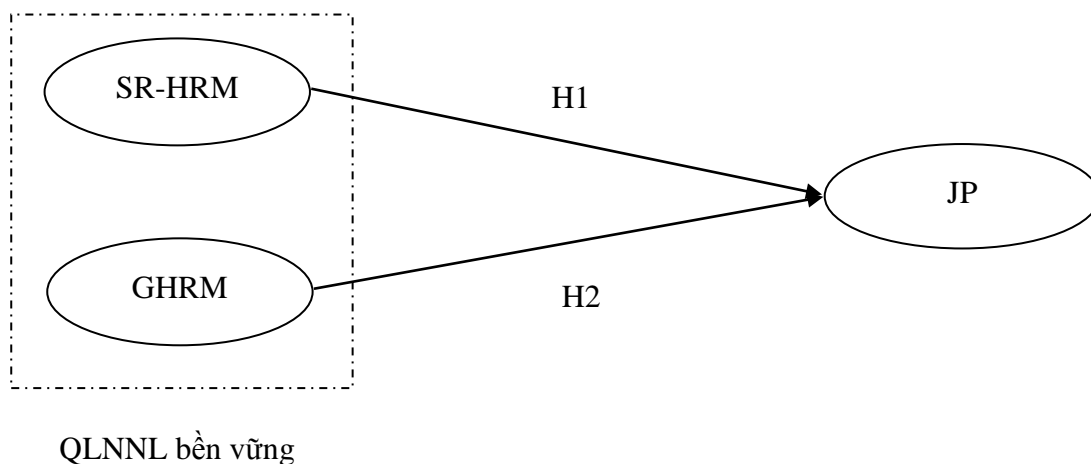
Xét ở góc độ cá nhân, một số học giả đã nghiên cứu và cho kết quả quản lý nguồn nhân lực xanh tác động tích cực đến: hành vi thân thiện với môi trường của nhân viên, cam kết với tổ chức (Kim và cộng sự, 2019), và hiệu quả công việc của nhân viên (Ragas và cộng sự, 2017).

Dựa trên những lập luận đó, nhóm nghiên cứu đề xuất giả thuyết:

H2: Quản lý nguồn nhân lực xanh tác động tích cực đến hiệu quả công việc của nhân viên.

Căn cứ lý thuyết nền và các nghiên cứu trước, mô hình nghiên cứu được nhóm tác giả đề xuất như hình 1.

Hình 1. Mô hình nghiên cứu nhóm tác giả đề xuất.



2.3 Phương pháp nghiên cứu

Nghiên cứu được thực hiện theo phương pháp định lượng. Dữ liệu được thu thập thông qua bảng hỏi (sử dụng google biểu mẫu) và được gửi qua zalo, phương pháp lấy mẫu thuận tiện kết hợp bóng tuyết. Đối tượng khảo sát là người lao động làm việc tại các doanh nghiệp nhỏ và vừa trên địa bàn thành phố Hồ Chí Minh. Dữ liệu được thu thập từ tháng 1 đến tháng 2 năm 2023. Thang đo Likert năm điểm từ 1 rất không đồng ý đến 5 rất đồng ý được sử dụng để đo lường tất cả các biến, ngoại trừ các đặc điểm nhân khẩu học của người trả lời. Tổng số phiếu trả lời là thu về được là 261 phiếu, trong đó có 07 phiếu không hợp lệ (chỉ lựa chọn 01 phương án trả lời cho tất cả câu hỏi). Theo Hair (2009) thì cỡ mẫu khảo sát tối thiểu có thể lấy theo công thức số biến quan sát nhân 5 lần. Trong nghiên cứu, nhóm tác giả sử dụng tổng cộng 24 biến, do vậy số mẫu khảo sát cần lấy tối thiểu là 120 quan sát. Dữ liệu sau khi mã hóa được phân tích thông qua phần mềm Smart PLS phiên bản 4.0.8.5.

Biến quản lý nguồn nhân lực có trách nhiệm xã hội (SR-HRM): Được đo lường theo thang đo của Shen và Jiuhua Zhu (2011) theo cấu trúc biến bậc 2 (second order), SR-HRM là biến cấu tạo (construct formative) gồm ba thành phần: Các thực hành quản lý nguồn nhân lực tuân thủ pháp luật (LC) với sáu mục hỏi, quản lý nguồn nhân lực định hướng nhân viên (EO) với bốn mục hỏi, và quản lý nguồn nhân lực tạo thuận lợi cho trách nhiệm xã hội với doanh nghiệp với ba mục hỏi.

Biến quản lý nguồn nhân lực xanh: kế thừa thang đo sáu chỉ báo của Kim và cộng sự (2019) có chỉnh sửa phù hợp bối cảnh. Một số mục hỏi điển hình như “Công ty của tôi có các chương trình đào tạo đầy đủ để thúc đẩy quản lý môi trường như một giá trị cốt lõi của doanh nghiệp”, “Khi trả lương, thưởng, phúc lợi, công ty của tôi có tiêu chí liên quan hành vi thân thiện với môi trường của nhân viên”.

Biến hiệu quả công việc của nhân viên: Kế thừa thang đo năm khía cạnh của Manzoor và cộng sự (2019), mục hỏi điển hình như “Tôi luôn hoàn thành các nhiệm vụ được giao trong bản mô tả công việc của mình”. Có một chỉ mục được đặt ngược “Tôi thường không thực hiện các nhiệm vụ quan trọng.”, sau khi dữ liệu được thu thập sẽ sử dụng để loại bỏ phiếu không đạt chất lượng, những phiếu đạt chất lượng sẽ được giữ lại và đảo ngược dữ liệu.

3. Kết quả và thảo luận

3.1 Thống kê mô tả

Bảng 1 cho biết đặc điểm các đáp viên theo giới tính, học vấn, số năm kinh nghiệm làm việc tại doanh nghiệp, độ tuổi và lĩnh vực hoạt động. Theo đó, nam giới chiếm tỷ lệ lớn (57,5%), trình độ đại học là chủ yếu (62,2%), kinh nghiệm làm việc nhỏ từ 1 đến 3 năm chiếm tỷ trọng lớn 41,3%, phần lớn người lao động trả lời trong độ tuổi 31 đến 35 tuổi, đáp viên chủ yếu làm việc trong các doanh nghiệp thuộc lĩnh vực thương mại, dịch vụ.

Bảng 1. Thống kê mô tả cỡ mẫu (n = 254)

Loại	n	%	Loại	n	%
<i>Giới tính</i>			<i>Độ tuổi</i>		
Nữ	108	42,5	Nhỏ hơn 25 tuổi	2	0,8
Nam	146	57,5	Từ 25 đến 30 tuổi	79	31,1
<i>Học vấn</i>			Từ 31 đến 35 tuổi	100	39,4
Cao đẳng	43	16,9	Từ 36 đến 40 tuổi	73	28,7
Đại học	158	62,2	<i>Lĩnh vực</i>		
Thạc sĩ	53	20,9	Nông nghiệp, lâm nghiệp, thủy sản	57	22,4
<i>Số năm kinh nghiệm</i>			Công nghiệp và xây dựng	59	23,2
Từ 01 đến nhỏ hơn 03 năm	105	41,3	Thương mại và dịch vụ	138	54,3
Từ 03 đến nhỏ hơn 05 năm	79	31,1	Nông nghiệp, lâm nghiệp, thủy sản	57	22,4
Từ 05 đến nhỏ hơn 10 năm	70	27,6			

Nguồn: Tính toán của nhóm tác giả

3.2 Đánh giá mô hình đo lường

Sử dụng phương pháp tiếp cận hai giai đoạn để xử lý biến cấp 2 (second order) quản lý nguồn nhân lực có trách nhiệm xã hội (SR-HRM) về biến bậc 1 rồi phân tích. Theo Hair (2009) độ tin cậy tổng hợp CR (composite reliability) và tổng phương sai trích AVE (average variance extracted) của các biến số trong biến quan sát được sử dụng để đánh giá độ tin cậy của biến quan sát. Độ tin cậy (reliability) của các biến quan sát phải có hệ số outer loading lớn hơn hoặc bằng 0,5 thì đạt yêu cầu về độ tin cậy và hệ số composite reliability phải lớn hơn hoặc bằng 0,7 thì đạt độ tin cậy tổng hợp (Hulland, 1999). Kết quả được thể hiện qua bảng 2.

Bảng 2. Bảng tổng hợp độ tin cậy thang đo

	Cronbach's alpha	Composite reliability (rho_a)	Average variance extracted (AVE)
GHRM	0,866	0,866	0,882
JP	0,83	0,838	0,747
SR-HRM	0,939	0,939	0,891

Nguồn: Tính toán của nhóm tác giả

Để đánh giá giá trị hội tụ của thang đo, theo Fornell và Larcker (1981) hệ số AVE (average variance extracted) phải lớn hoặc bằng 0,5 sẽ khẳng định được độ hội tụ. Hệ số tải của mỗi biến quan sát lên nhân tố lớn hơn hoặc bằng 0,7 và có ý nghĩa là bằng chứng về độ tin cậy của thang đo. Bảng 2 thể hiện giá trị AVE thỏa mãn. Các trọng số chuẩn hóa (outer loading) của thang đo đều lớn hơn 0,5 và có ý nghĩa thống kê (Henseler và cộng sự, 2009). Sau 3 lần phân tích dữ liệu nhằm loại bỏ các chỉ báo không đáp ứng yêu cầu. Những dữ liệu đảm bảo mức độ tin cậy được giữ lại như bảng 3.

Bảng 3. Trọng số chuẩn hóa (outer loading)

	GHRM	JP	SR-HRM
GHRM2	0,939		
GHRM5	0,939		
JP1		0,874	
JP4		0,899	
JP5.re		0,818	
LC			0,944
EO			0,94
GF			0,949

Nguồn: Tính toán của nhóm tác giả

Để đo lường giá trị phân biệt thì căn bậc hai AVE của mỗi nhân tố đo lường đều lớn hơn hệ số liên hệ (latent variable correlations) giữa nhân tố đó với các nhân tố khác cho thấy độ phân biệt và tính tin cậy của các nhân tố (Fornell và Larcker, 1981). Tiếp đến, kiểm tra tải trọng yếu tố của mỗi chỉ báo cho kết quả hai lần cho tính hợp lệ hội tụ và phân biệt, các yếu tố tải trọng của mỗi chỉ số lớn hơn bất kỳ cấu trúc nào của nó (Coelho và cộng sự, 2003).

Bảng 4. Bảng hệ số tải chéo các nhân tố

	GHRM	JP	SR-HRM
GHRM	0,939		
JP	0,792	0,864	
SR-HRM	0,873	0,856	0,944

Nguồn: Tính toán của nhóm tác giả

Căn bậc hai AVE của mỗi nhân tố đo lường đều lớn hơn hệ số liên hệ giữa nhân tố đó với các nhân tố khác cho thấy độ phân biệt và tính tin cậy của các nhân tố (Hair Jr và cộng sự, 2021).

Bảng 5. Bảng yếu tố tải trọng

	SR-HRM	GHRM	JP
EO	0,94	0,808	0,792
GF	0,949	0,829	0,809
LC	0,944	0,836	0,824
GHRM2	0,827	0,939	0,744
GHRM5	0,813	0,939	0,744
JP1	0,767	0,723	0,874
JP4	0,779	0,73	0,899
JP5.re	0,667	0,592	0,818

Nguồn: Tính toán của nhóm tác giả

3.3 Đánh giá mô hình cấu trúc

Kiểm tra sự đa cộng tuyến: Khi các chỉ số VIF nhỏ hơn 5 thì không có hiện tượng đa cộng tuyến (Hair Jr và cộng sự, 2017). Từ bảng 6 ta thấy mô hình không có sự đa cộng tuyến.

Bảng 6. Hệ số phóng đại phương sai VIF

	EO	GF	LC	GHRM2	GHRM5	JP1	JP4	JP5.re
VIF	4,029	4,55	4,146	2,402	2,402	2,015	2,27	1,693

Nguồn: Tính toán của nhóm tác giả

Theo Hu và Bentler (1999) một mô hình phù hợp cần có chỉ số SRMR (standardized root mean square residual) nhỏ hơn 0,08 hoặc 0,1. Dữ liệu bảng 7 cho thấy chỉ số SRMR đảm bảo theo tiêu chuẩn yêu cầu.

Bảng 7. Kết quả sự phù hợp mô hình

	Saturated model	Estimated model
SRMR	0.05	0.05
d_ULS	0.088	0.088
d_G	0.144	0.144
Chi-square	221.596	221.596
NFI	0.884	0.884

Nguồn: Tính toán của nhóm tác giả

Để kiểm tra các giả thuyết mô hình cấu trúc PLS được sử dụng. Trong nghiên cứu này, có hai giả thuyết đã được đề xuất. Mức ý nghĩa 5% được đề xuất để làm căn cứ chấp nhận hoặc bác bỏ các giả thuyết. Bảng 8 cho thấy tác động trực tiếp, chúng ta thấy rằng tất cả các giả thuyết H1, H2 đều được chấp nhận.

Bảng 8. Kiểm định hệ số tác động trực tiếp

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
SR-HRM -> JP	0.692	0.694	0.074	9.411	0
GHRM -> JP	0.188	0.188	0.073	2.581	0.01

Nguồn: Tính toán của nhóm tác giả

Giá trị R² biến thiên trong khoảng từ 0-1, giá trị càng cao càng chứng tỏ được sự chính xác trong việc dự báo của mô hình. Theo bảng 9, mô hình giải thích được 73,9% sự biến thiên của hiệu quả làm việc thông qua quản lý nguồn nhân lực có trách nhiệm xã hội và quản lý nguồn nhân lực xanh.

Bảng 9. Giá trị R²

	R-square	R-square adjusted
JP	0.741	0.739

Nguồn: Tính toán của nhóm tác giả

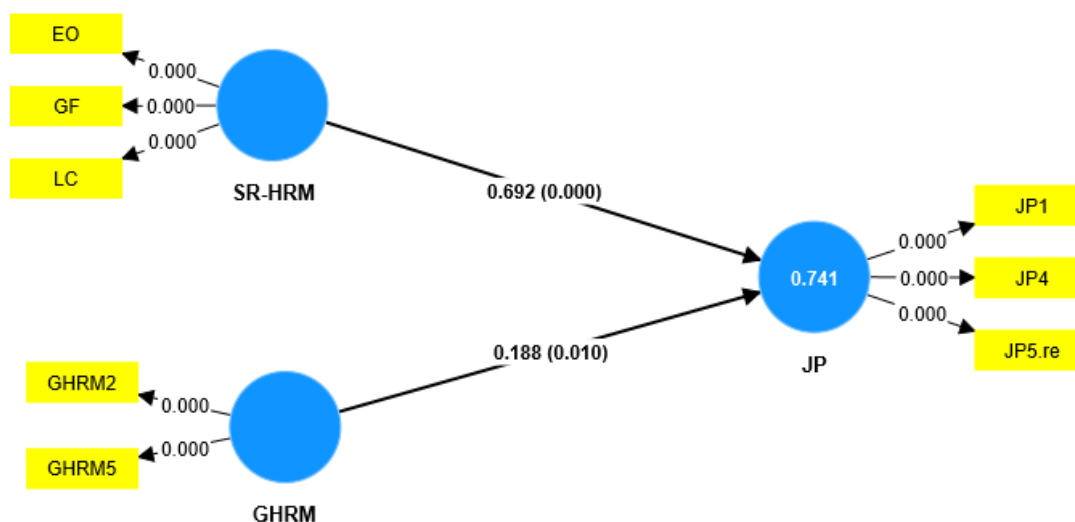
Theo Cohen (1988) thì các giá trị f² là 0,02; 0,15; và 0,35 tương ứng với tác động nhỏ, trung bình và lớn.

Bảng 10. Giá trị f²

	JP
GHRM	0.032
SR-HRM	0.439

Nguồn: Tính toán của nhóm tác giả

Tóm lại, kết quả đường dẫn được thể hiện trong sơ đồ như hình 2 sau.

Hình 2. Kết quả mô hình nghiên cứu

3.4 Thảo luận

Nghiên cứu này có mục tiêu hướng đến phân tích sự tác động của quản lý nguồn nhân lực bền vững đến hiệu quả công việc của nhân viên. Do thực tế không có thang đo lường thống nhất nào về quản lý nguồn nhân lực bền vững (Manzoor và cộng sự, 2019), do vậy, quản lý nguồn nhân lực bền vững trong nghiên cứu là sự kết hợp của các hoạt động liên quan đến trách nhiệm xã hội (SR-HRM) và môi trường (GHRM). Các phát hiện chỉ ra rằng quản lý nguồn nhân lực có trách nhiệm xã hội có tác động tích cực đến hiệu quả công việc nhân viên, kết quả này tương đồng với kết quả của Vu (2022), Shen và Jiuhua Zhu (2011b); đồng thời cũng tương đồng với kết quả của Chuah và cộng sự (2021) và Sithy Safeena (2020) khi quản lý nguồn nhân lực xanh tác động tích cực đến hiệu quả công việc.

Bên cạnh đó, nghiên cứu còn phát hiện ra mặc dù cả hai thực hành quản lý nguồn nhân lực có trách nhiệm xã hội và hướng đến môi trường đều tác động tích cực đến hiệu quả làm việc của nhân viên, nhưng quản lý nguồn nhân lực có trách nhiệm xã hội có tác động mạnh mẽ hơn đến hiệu quả làm việc của nhân viên. Điều này phù hợp với thực tế vì quản lý nguồn nhân lực có trách nhiệm xã hội có sự liên quan mật thiết, gắn gũi hơn với người lao động (giờ làm việc tối thiểu, sự bình đẳng trong đối xử, hoạt động đào tạo và phát triển nghề nghiệp, ...).

Ý nghĩa của kết quả nghiên cứu có được như một sự ủng hộ lời kêu gọi của Ehnert và cộng sự (2016) về việc nghiên cứu thêm về sự ảnh hưởng của quản lý nguồn nhân lực bền vững. Đồng thời, nghiên cứu còn đóng vai trò bổ sung cho sự thiếu hụt nghiên cứu về quản lý nguồn nhân lực bền vững ở Việt Nam nói chung và thành phố Hồ Chí Minh nói riêng. Kết quả của nghiên cứu là căn cứ khoa học để giúp các doanh nghiệp trên địa bàn thành phố Hồ Chí Minh có cơ sở để nâng cao hiệu quả làm việc nhân viên, thông qua việc tích hợp trách nhiệm xã hội và môi trường trong hoạt động quản lý nguồn nhân lực.

4. Kết luận và khuyến nghị

Nghiên cứu này đã điều tra tác động của quản lý nguồn nhân lực bền vững tới hiệu quả công việc của nhân viên, kết quả nghiên cứu của nhóm tác giả xác nhận rằng các thành phần của quản lý nguồn nhân lực bền vững bao gồm, quản lý nguồn nhân lực có trách nhiệm xã hội và quản lý nguồn nhân lực xanh đều có tác động tích cực đến hiệu quả công việc của nhân viên. Những phát hiện này có ý nghĩa củng cố thêm bằng chứng về lợi ích tích cực của quản lý nguồn nhân lực bền vững cho doanh nghiệp; là căn cứ giúp doanh nghiệp nâng cao hiệu quả công việc nhân viên; cung cấp thêm cơ sở cho các nghiên cứu trong tương lai về vấn đề này một cách có hệ thống.

Qua đây, nhóm tác giả đề xuất một số khuyến nghị doanh nghiệp có thể tham khảo để nâng cao hiệu quả làm việc nhân viên thông qua các thành phần của quản lý nguồn nhân lực bền vững như sau:

Một là, đảm bảo cơ hội bình đẳng trong quản lý nguồn nhân lực. Xét theo góc độ thể chế, điều này có thể thực hiện được thông qua việc xây dựng và ban hành quy chế cho mỗi hoạt động chức năng của quản lý nguồn nhân lực. Quy chế khi được xây dựng cần lấy ý kiến của toàn thể người lao động, trong quá trình thực hiện có sự giám sát chặt chẽ, tạo diễn đàn để người lao động có thể trình bày ý kiến, nguyện vọng.

Hai là, nên áp dụng thời gian làm việc linh hoạt và các chương trình làm việc để đạt được sự cân bằng giữa công việc và cuộc sống nhân viên. Bố trí giờ làm việc linh hoạt, ngày làm việc linh hoạt, làm việc từ xa và trực tiếp kết hợp, ... là những gợi ý phù hợp để doanh nghiệp giúp người lao động đạt được sự cân bằng giữa công việc và cuộc sống.

Ba là, lồng ghép các tiêu chí liên quan bảo vệ môi trường khi đánh giá hiệu quả công việc của nhân viên. Những mục tiêu xanh cần được các cấp quản lý thảo luận và giao rõ ràng cho nhân viên từ đầu kỳ. Khi đánh giá có thể sử dụng một số tiêu chí cụ thể như: tiết kiệm năng lượng, tiết kiệm nguyên vật liệu đầu vào trong quá trình sử dụng, tái chế trong thực hiện công việc, ... Khi kết thúc đánh giá, cán bộ quản lý cần thực hiện phỏng vấn đánh giá nhằm giúp nhân viên biết được những hành vi nào về bảo vệ môi trường cá nhân đạt được so với yêu cầu của doanh nghiệp, cách thức đạt được những tiêu chí đó để nhân rộng trong phạm vi doanh nghiệp.

Hạn chế và hướng nghiên cứu tiếp theo: thứ nhất, thang đo quản lý nguồn nhân lực xanh là thang đo tổng hợp bao gồm 6 chỉ mục, các nghiên cứu trong tương lai có thể đo lường biến tiềm ẩn này theo mô hình biến cấp 2 (second order) tương tự như đo lường quản lý nguồn nhân lực có trách nhiệm xã hội; thứ hai, biến trung gian hoặc biến điều tiết khác (tùy thuộc khung lý thuyết) có thể đưa vào để kiểm định tác động của quản lý nguồn nhân lực bền vững đến hiệu quả công việc của nhân viên; thứ ba, nghiên cứu được thực hiện theo dạng nghiên cứu cắt ngang, do vậy khó phản ánh được mối quan hệ nhân quả, những nghiên cứu trong tương lai nên được tiến hành thu thập dữ liệu ở các thời điểm khác nhau để kiểm chứng mối quan hệ được chính xác.

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COMMUNICATING ENVIRONMENTAL - RELATED BRAND MESSAGE OF ELECTRIC CARS IN VIETNAM

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Abstract: *In Vietnam, electric car brands are using media to reach consumers and promote their new products. One of their strategies is to highlight the environmental benefits of electric cars, such as reducing harm to the environment. The research's purpose is to find out what environmental - related brand message of electric cars has been conducted in Vietnam to influence its customers. A study using online observation techniques found that automobile manufacturers are using messages mentioned about environment flexibly but must be cautious when sharing information about their new products' environmental impact.*

Keywords: *Brand communication, Brand message, Environment, Electric cars, Vietnam*

THÔNG ĐIỆP TRUYỀN THÔNG THƯƠNG HIỆU GẮN VỚI MÔI TRƯỜNG CỦA DOANH NGHIỆP KINH DOANH XE Ô TÔ ĐIỆN TẠI THỊ TRƯỜNG VIỆT NAM

Tóm tắt: *Tại Việt Nam, chưa có nhiều sản phẩm xe ô tô điện được chào bán trên thị trường, tuy nhiên, trên nhiều phương tiện truyền thông, các thương hiệu xe ô tô điện đã liên tục tiếp cận người tiêu dùng nhằm thuyết phục họ lựa chọn các dòng sản phẩm mới. Để làm việc đó, một trong những nội dung thông điệp truyền thông được sử dụng là gắn với yếu tố môi trường, cụ thể là giảm các tác hại đối với môi trường. Mục tiêu của nghiên cứu là tìm hiểu những thông điệp gắn với môi trường đã được các thương hiệu xe ô tô điện sử dụng tại Việt Nam thông qua phương pháp nghiên cứu định tính sử dụng kỹ thuật quan sát trực tuyến. Kết quả nghiên cứu cho thấy nội dung thông điệp thương hiệu của xe ô tô điện được gắn với môi trường được các doanh nghiệp kinh doanh sử dụng linh hoạt và doanh nghiệp cũng cần thận trọng trong việc công bố thông tin đối với các dòng sản phẩm mới gắn với việc giảm tác hại đối với môi trường.*

Từ khóa: *Truyền thông thương hiệu, Thông điệp thương hiệu, Môi trường, Xe ô tô điện, Việt Nam*

1. Introduction

There has been a large amount of literature on electric vehicles and their adoption. For example, a study published in the Journal of Cleaner Production reviewed the adoption

of electric vehicles and prospects for sustainability (Kumar and Alok, 2020). Another study published in *Transport Reviews* reviewed consumer preferences for electric vehicles (Liao et al., 2017). These studies cover various aspects of electric vehicle adoption, including charging infrastructure, policies and incentives, business models, and consumer preferences.

Consumer attitudes towards electric cars are changing. According to a CSP Daily News article (Samantha, 2019), range anxiety is waning. Of consumers who are unlikely to buy an electric vehicle (EV) or are unsure about it, 58% are worried about a lack of charging locations, while 57% are concerned about running out of charge while driving (Larson et al., 2014). Fuel costs also matter to consumers when considering an electric vehicle. In addition, consumers are unwilling to pay large premiums for EVs, even when given information on future fuel savings. However, a consumer group with experience or exposure to EVs is somewhat different. Nearly 25% of these people are willing to pay a premium of up to \$10,000 (Larson et al., 2014). Another factor that influences consumer attitudes towards electric cars is environmental friendliness. A study published in the *Academy of Strategic Management Journal* found that the majority of respondents have a positive attitude towards electric vehicles and that the main factor that encourages customers to buy an electric vehicle is environmental friendliness (Ghasri et al., 2019).

Debnath et al (2021) analyzed data from 36,000 posts on the social networking platform Facebook to explore the relationship between electric vehicle communication and political, economic and social content. , technology, law of generation and environment. 600 thousand documents (text) were extracted from articles, and analyzed through machine learning application along with network analysis. The results show that political, economic, and legal articles are densely packed around electric vehicle technology policy, the institutional discourse on federal fleet electrification, and the political framework for electric vehicles. taxes and credits. Environmental and social aspects have higher discourse on social justice, cleaner air, better health and well-being. The market shift towards electric vehicles as a service industry has been observed in posts related to technology and economics. These findings can help policymakers and planners design contextual energy policy to influence electric vehicle adoption in the United States and other countries.

In Vietnam, currently, there aren't any official statistics on the market share of electric cars in Vietnam. A 2019 survey by Statista of 1039 Vietnamese people found that only 3.37% owned a pure electric car, while 16.94% owned a petrol hybrid car and 86.43% owned a gasoline-powered car (Statista, 2022). This is consistent with the Vietnam Register's report that the number of electric cars in Vietnam was 140 in 2019, 900 in 2020 and over 1000 in 2021. Most gasoline-electric hybrid cars and gasoline-electric vehicles are imported and pure electric vehicles make up a very small percentage (H.L, 2022).

In 2022, communication activities about electric cars in Vietnam appeared on different information channels, from online newspapers to social networks. Especially, when the Vietnamese Government introduced support policies for environmentally friendly vehicles such as exemption from registration fees; reduction of special consumption tax for battery-powered electric cars, etc., automobile manufacturers are more

ready to exploit environmental message content for this new product. Therefore, this article aims to investigate the ways in which automobile manufacturers conduct their brand communication on their social media to impact on consumer awareness in Vietnam, thereby contributing to the understanding of their brand strategies on social networks.

2. Methods

2.1. Sampling method

The research's purpose is to find out what environmental - related brand message of electric cars has been conducted in Vietnam to influence its customers. Therefore, sampling process were following steps:

Step 1: *Collecting news articles of electric cars by searching “xe ô tô điện” on Google Search.*

This step involved finding news articles about electric cars. A large number of news articles introduced electric cars, including toy cars for kids and full-sized cars. They also mentioned reviews and policies for Vietnamese-owned electric cars. 230 news articles about electric cars were found, many of which were from large companies promoting their products or from technology news sources.

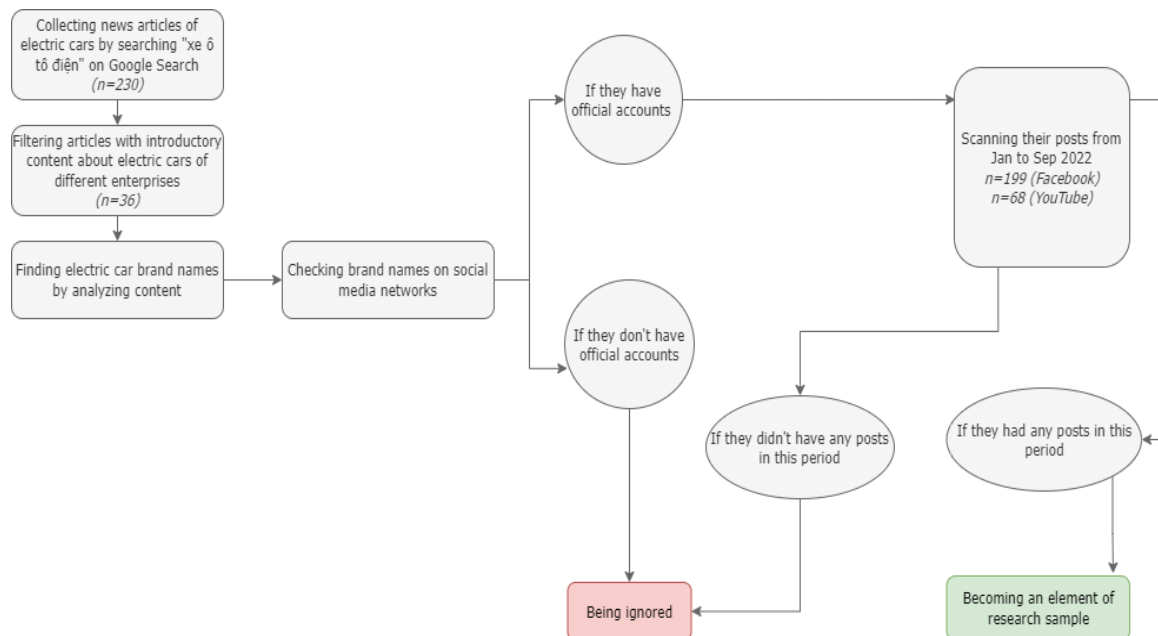


Figure 1. Sampling process

Source: Huong et ., (2023)

Step 2: *Filtering articles with introduction content about electric cars of different enterprises.*

After collecting articles about electric cars, the researchers filtered out 36 articles introducing electric cars from 27 different manufacturers. These articles were detailed and mostly from the companies themselves, providing information about their products. They were found on websites such as anycar.vn and thegioixechaydien.com.vn, as well as on official websites of large and popular brands like Toyota and Vinfast.

Table 1. Electric cars brands appeared on news articles from 2021 - 2022

Electric car brands	Frequency		
Vinfast	25	<i>Electric car brands</i>	<i>Frequency</i>
Kia	10	Cammsys	1
Toyota	9	Hongqi	1
Nissan	6	Jaguar Land Rover	1
Mercedes-Benz	5	Hyundai	1
SAIC-GM-Wuling	5	Leapmotor	1
Huyndai	4	Volvo	1
Audi	4	Suzuki	1
Porsche	4	Mitsubishi	1
Tesla	4	Changan	1
Lexus	4	GM	1
Great Wall Motors	2	Ford	1
Citroën	2	Honda	1
Volkswagen	2	MG Motors	1

Source: Huong et al., (2023)

Step 3: *Finding electric car brand names by analyzing content.*

Our experts used content analysis on thirty-six articles to identify electric car brands. They found brands such as Kia, Mercedes-Benz, MG, Vinfast, Wuling Hongguang, Tesla, Ford, BMW, Audi, Zacia, Nissan Leaf, Porsche, Jaguar I-Pace, Toyota, Hyundai, and Lexus. Some brands like Vinfast, Tesla, Toyota, Nissan Leaf, Ford, and Lexus were mentioned multiple times in different articles.

Step 4: Checking brand names on social media networks.

This step is to find electric car brand names to communicate on social media networks (Facebook, YouTube).

In case of having official accounts in social media, our experts put it into our database and are ready to collect data from their posts. Otherwise, these brands were removed. At last, four electric car brands were identified to become an element of the research sample. They were: Huyndai, Lexus, Vinfast, Toyota. These brands all have official accounts in the Vietnam market and one of them has a large manufacturing base in Vietnam such as Vinfast - this is a brand of Vietnamese cars. Vinfast has the greatest number of likes and followers on Facebook while Toyota is the first on YouTube in terms of number of subscribers. In contrast, Lexus has the least number of frequent audience on their channel with only 201 people despite that they own a significant amount of fans on Facebook. Hyundai seems the most balanced because they're in the middle compared to the latter.

Table 2. Sample's information on Facebook and YouTube

		Facebook			YouTube
	Brands	Verified tick	No of likes	No of followers	No of subscribers
Vinfast	Vinfast	Yes	550 384	649 455	54 000
Toyota	Toyota	Yes	233 823	253 583	91 200
	Lexus	Yes	339 057	352 941	201
Hyundai	Hyundai	Yes	154 385	170 223	56 800

Source: Dao et al., (2023)

Step 5: *Scanning their posts on social media from Jan to Sep 2022.*

This step involved researching the communication activities of electric car brands on social network platforms. The researchers looked for posts mentioned about their electric car products from January to September 2022. If brands don't have any post to communicate their product in this period, they would be left. Two brands (Honda, Ford) didn't have posts through the period, so they were not in our final list. Otherwise, our experts started collecting all posts involved in electric cars and it became elements of a research sample.

2.2 Data analysis

This research applied content analysis to shed light on research problems. Accordingly, each post was analyzed following a main research question "Which keywords were used to communicate their environmental-related brand messages?"

To explore the keywords used in brand messages of electric cars brands in Vietnam, we scraped all the messages from their Facebook and YouTube account, written in Vietnamese, from January to September 2022. The data collection was conducted with the Google Sheet to ensure the ability to monitor and check real-time data among researchers.

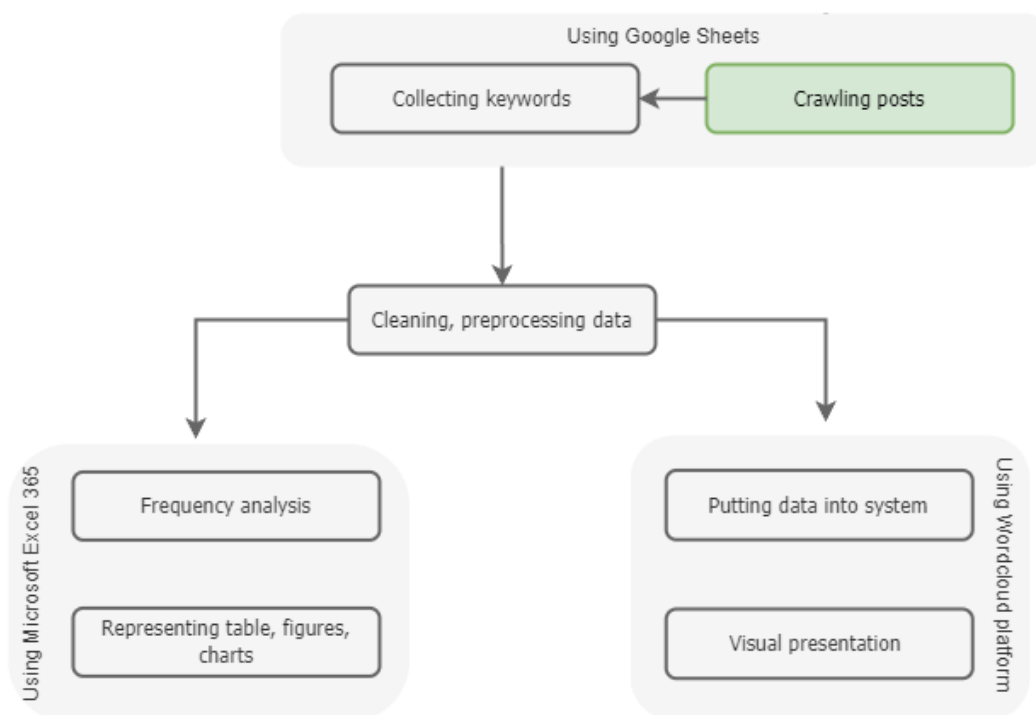


Figure 2. Data analysis process

Official researchers were conducted within the next 2 months to crawl 199 posts from official Facebook fanpage and 68 posts from official YouTube channels of four electric car brands (Hyundai, Lexus, Vinfast, Toyota). To determine keyword's appearance, first, the data (text on captions) was copied into the Microsoft Office Excel 365 before being cleaned and pre-processed. Due to the characteristics of the Vietnamese language, our experts discussed in groups and agreed to use the hyphen "-" to link compound words into one phrase. After that, we rechecked keywords from posts' captions and put it in another spreadsheet to check the keyword content. Simultaneously, our experts discussed phases meaning in Vietnamese language and decided whether they were relevant or not. Then, we put the keywords in Vietnamese into the platform "Wordcloud" to check the frequency of the keywords' occurrence as well as choose the form of information presentation.

3. Results

3.1. A negligible number of environmental - related posts published

Compared to the total number of posts on electric car makers' official Facebook and YouTube accounts, the proportion of posts related to environmental issues is relatively low, at 23.12% on Facebook and 13.24% on YouTube. Moreover, the variation in the use of social media and environmental posts reflects the differences in brand strategies and positioning among electric car makers in Vietnam.

Research results show that from January to September 2023, Vinfast made greatest efforts on Facebook with 136 posts on their fanpage while other electric car brands had a much lower number (Toyota with 38 posts, Lexus with 13 posts, and Hyundai with 12 posts). This result is in contrast to environmental-related posts. Toyota was the electric car

brand with the highest percentage with 55.26%, next is Lexus with 38.46%, Hyundai with 33.33% and finally Vinfast with only 11.76%.

Regarding advertising video on YouTube channels, Vinfast reached the 1st position with 51 videos but they only had 6 out of 51 (equal to 11.76%) mentioned about environment content in their text introduction. Toyota published 7 videos, however, they embedded elements of the environment in 3 video's information (equal to 42.86%). The rest of electric car brands such as Lexus and Hyundai didn't have any videos with environmental text information.

Table 3. Environmental - related posts of electric cars brands on Facebook and YouTube

	Facebook	Environment - related posts (count)	Environment - related posts (%)	Youtube	Environment - related posts (count)	Environment - related posts (%)
Vinfast	136	16	11.76%	51	6	11.76%
Lexus	13	5	38.46%	7	0	0.00%
Toyota	38	21	55.26%	7	3	42.86%
Hyundai	12	4	33.33%	3	0	0.00%
Total	199	46	23.12%	68	9	13.24%

Source: Dao et al., (2023)

3.2. Various "green" brand messages on communication activities on media

3.2.1. Hyundai



Keywords:

(by Vietnamese)

Thiên nhiên xanh; Thân thiện môi trường; Năng lượng tái tạo; Năng lượng xanh

(by English)

Green nature; Environmentally friendly (Eco-friendly); Recycled energy; Green energy

Figure 2. Keywords used by Hyundai.

Research results show that Hyundai published many posts of the electric car branded "Hyundai IONIQ 5", and it mainly navigates on their brand product name. Some keywords related to the environment were well-focused, such as Green nature; Environmentally friendly (Eco-friendly); Recycled energy; Green energy, showing that Hyundai brand has cared about the experience and perception of customers towards future development goals.



Keywords:
 (By Vietnamese)
 Xanh hoá tương lai, âm thanh trái đất, giảm khí thải, loại bỏ CO2, bảo vệ môi trường, thân thiện môi trường, dịch chuyển xanh, sức mạnh bền vững
 (By English)
 Greening the future, sounding the earth, reducing emissions, eliminating CO2, protecting the environment, being environmentally friendly, moving green, sustainable power

3.2.2. Lexus

Figure 3. Keywords used by Lexus.

Research results show that the larger the word that appears, the more it shows that it is used. Brand name “Lexus” appeared in the center position with the highest frequency of use. Lexus attached their car line characteristics such as electrification, hybrid technology, etc. with keywords such as fairy, future, and inspiration. Lexus confirmed that their electric cars are the car of the future, leading in technology and protecting the environment. This shows that Lexus’ brand positioning strategy is effective and has a strong impact on people interested in using electric vehicles.

3.2.3. Vinfast



Keywords:
 (by Vietnamese)
 Xe xanh, Sống xanh, Tương lai xanh, Màu xanh tương lai, Phủ xanh tương lai, Kỷ nguyên xanh.
 (by English)
 Green car, Green living, Green future, Future green, Greening future, Green era

Figure 4. Keywords used by Vinfast.

The brand name “Vinfast” appeared in the center position with the highest frequency of use. With the strategic goal of becoming a global high-tech automobile brand that pioneers and leads in the trend of “green” living, their posts on Facebook and YouTube clearly convey their message and keywords to the market and customers. This enhances and positions the brand effectively in line with their target customers and

potential customers. Some environmental keywords used include Green car, Green living (associated with Vinhomes), Green Future, Greening future, and Green era.

3.2.4. Toyota



Keywords:

(by Vietnamese)

Tiết kiệm nhiên liệu, môi trường, CO₂, động cơ xanh, giảm phát thải ra môi trường, giải pháp bảo vệ môi trường, xăng - điện, phát triển bền vững, tác động tích cực đến môi trường, xanh hóa, năng lượng xanh, hành trình bền vững, dịch chuyển xanh, lượng khí thải, hành trình, lối sống xanh, thân thiện với môi trường, hành trình xanh, bước tiến xanh, tương lai bền vững, bảo toàn năng lượng, công nghệ xanh

(by English)

Save fuel, environment, CO₂, green engine, reduce emissions to the environment, environmental protection solutions, gasoline - electricity, sustainable development, positive impact on the environment, greening, green energy, sustainable journey, green shift, emissions, planet, the way to living green, environmentally friendly, green journey, green step, sustainable future, energy conservation. green technology

Figure 5. Keywords used by Toyota.

Toyota is the brand with the most environmental-related posts. The number of keywords used in Toyota's communication messages is also diverse and flexibly changed. These were: Save fuel, environment, CO₂, green engine, reduce emissions to the environment, environmental protection solutions, gasoline - electricity, sustainable development, positive impact on the environment, greening, green energy, sustainable journey, green shift, emissions, planet, the way to living green, environmentally friendly, green journey, green step, sustainable future, energy conservation. green technology.

4. Conclusion

This research provides valuable insights into brand communication for electric cars in Vietnam. It reveals how automobile manufacturers communicate their brand messages on social media platforms and their brand strategy to influence public awareness about electric cars. The research also shows that the automobile manufacturers in the sample have made efforts to demonstrate their roles and responsibilities towards customers and the community by spreading environmental-related brand messages.

Based on the analysis, we have the following recommendations. Firstly, car manufacturers should be careful when using content related to the environment as the environmental impacts of electric cars are still unclear and can be controversial. Secondly, when implementing brand strategies associated with the environment, it is important to ensure that the information is accurate and sufficient to avoid communication risks.

The research has limitations. Firstly, the sampling process relied on Google to search for news articles, which may have excluded some articles that did not appear on this platform. Secondly, due to the lack of previous studies and ambiguity issues in the Vietnamese language, the content framework used for data coding in this study may not have been deep enough to reveal more information. These limitations can be addressed in future studies.

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THE EFFECT OF PERCEIVED AUTHENTICITY ON SLOW TOURISM INTENTION AT HERITAGE DESTINATIONS

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Abstract: *Slow tourism is closely linked with ecotourism and sustainable tourism development. However, there still needs to be more research on this topic, particularly from the perspective of examining the behavioral processes of tourists. This study employs a structural equation model to investigate the behavior of slow tourism and examine the impact of existential authenticity and object-based authenticity on slow behavior intention. Data was collected from 518 tourists who had visited Thua Thien Hue at least once. The findings reveal that both object-based authenticity and existential authenticity indirectly impact intention through personal factors. Furthermore, existential authenticity is a mediator between object-based authenticity and factors such as attitude, subjective norm, behavioral control, and emotion. Based on these results, we discuss the theoretical and managerial implications and solutions to enhance the return rate of tourists.*

Keywords: *Slow tourism; Authenticity; Existential authenticity; Object-based authenticity; Slow tourism intention*

TÁC ĐỘNG CỦA CẢM NHẬN TÍNH CHÂN THỰC ĐẾN Ý ĐỊNH DU LỊCH CHẬM CỦA DU KHÁCH TẠI ĐIỂM ĐẾN DI SẢN

Tóm tắt: *Du lịch chậm có liên quan chặt chẽ đến du lịch sinh thái gắn liền với định hướng phát triển bền vững trong du lịch. Tuy nhiên, tuy nhiên các nghiên cứu về chủ đề này từ góc độ xem xét quá trình hành vi của du khách còn hạn chế. Trong nghiên cứu này, tác giả sử dụng mô hình cấu trúc tuyến tính để nghiên cứu hành vi của khách du lịch chậm và xem xét tác động của tính chân thực hiện sinh, tính chân thực dựa trên đối tượng đến ý định du lịch chậm của du khách. Dữ liệu được thu thập từ 518 du khách đã từng đến du lịch tại Thừa Thiên Huế ít nhất một lần. Kết quả nghiên cứu cho thấy, cả hai tính chân thực dựa trên đối tượng và tính chân thực hiện sinh đều có tác động gián tiếp tới ý định thông qua các yếu tố cá nhân của du khách. Thêm vào đó, tính chân thực hiện sinh còn có vai trò trung gian trong mối quan hệ giữa tính chân thực dựa trên đối tượng với các nhân tố như thái độ, chuẩn chủ quan, kiểm soát hành vi và cảm xúc. Trên cơ sở kết quả thu được, các hàm ý về lý thuyết và quản lý được đưa ra thảo luận nhằm đề xuất các giải pháp nâng cao tỉ lệ quay trở lại của du khách.*

Từ khóa: *Du lịch chậm; Tính chân thực; Tính chân thực hiện sinh; Tính chân thực dựa trên đối tượng; Ý định du lịch chậm.*

I. Introduction to the research

In recent years, the tourism sector has witnessed the proliferation of new types of tourism, such as ecotourism, heritage tourism, cultural tourism, green tourism, and tourism combined with medical examination (Lee et al., 2020; Oh et al., 2016). Some countries like Japan officially recognize these new forms of tourism to encourage more travel and develop effective advertising strategies (Murayama & Parker, 2012). The underlying forces driving these new trends in tourism are environmental sustainability and personal/social well-being (Moore, 2012). As a result, tourism is gradually emerging as a type that prioritizes the environment and the interests of individuals and society. In its original concept, slow tourism emphasizes a leisurely pace and encourages tourists to immerse themselves in local culture and traditions. Slow tourism is gradually emerging as a form that prioritizes the environment and the interests of individuals and society. In its original concept, slow tourism emphasized its close connection with speed and mobility. However, contemporary slow tourism focuses on eco-friendly means of travel to and from destinations to reduce carbon emissions and conserve energy and is thus closely associated with sustainable tourism.

Nevertheless, researchers argue that slow travel involves more than physical movement between locations (J. Dickinson & Lumsdon, 2010). The term "mobility" refers to the practices of space-time and the connections between people and objects, including specific objects (Fullagar, 2012). As a result, the focus of slow tourism has shifted from solely environmental sustainability to encompassing the pursuit of happiness and satisfaction for tourists (Parkins & Craig, 2006).

Oh et al. (2016) have described slow travel as a mental, psychological, and behavioral process. The result suggests that managers and marketers should approach slow tourism by considering tourists' behavior rather than categorizing tourism by type. Similarly, J. Dickinson et al. (2011) have shown that slow tourism represents a specific mindset or psychology towards travel. According to the World Tourism Organization, slow tourism has become increasingly popular worldwide, particularly in countries such as the UK, France, the US, Australia, and the Netherlands, with various tours available for all age groups. In Vietnam, slow tourism influences destination choices by prioritizing environmentally-friendly destinations, extending the length of stay, and choosing homestays over hotels.

In addition, tourists seek authentic experiences that involve different cultures and histories, especially when visiting a heritage destination. Cultural heritage tourism, also known as heritage tourism, is a vital component of the tourism industry. In addition to visiting historical and cultural sites, heritage tourism allows visitors to connect with and learn about a region's history, culture, and traditions. Each area has its unique stories to tell visitors. Authenticity is critical for travelers wishing to immerse themselves in another culture's heritage during their travels. In heritage tourism, authenticity refers to representing historical times and places in original or reconstructed sites and intangible features that a person and a social culture interpret.

The concept of authenticity has two aspects: existential and object-based.

Authenticity has received considerable academic attention in recent years (Steiner & Reisinger, 2006), with researchers focusing on various forms of authenticity instead of solely on the authenticity of the subject (Park et al., 2019). Authenticity is also evident in slow tourism. Slow tourists are inherently interested in authenticity and are motivated to participate in genuine activities (Ram et al., 2016; Shen et al., 2014). By examining tourists' pursuit of authenticity and experiences, researchers can gain insight into the decision-making of slow tourists.

Upon reviewing the literature, it is clear that slow tourism is a significant aspect of tourism. However, limited research has been conducted on this topic, particularly from the perspective of slow tourist behavior (Lee et al., 2020). This study has developed and tested a model to examine individual factors influencing the intention to participate in slow tourism. Additionally, the study assessed the impact of perceived authenticity on tourist behavior. The findings contribute to the theoretical framework on slow tourism, slow tourist behavior, and authenticity. Furthermore, this study offers marketing implications to assist managers, and travel service companies in enhancing destination image and attracting more tourists.

II. Literature review and research methods

2.1. Literature review

Slow tourism and slow tourist

While previous definitions have identified some of the critical components of slow tourism, they have yet to fully describe or comprehensively capture this emerging form of tourism (Meng & Choi, 2016; Valls et al., 2019). J. Dickinson et al. (2011) defined slow tourism as an alternative to air and car travel, where travelers move to a destination more slowly, stay longer, and travel less. Similarly, Lumsdon and McGrath (2011) define slow tourism as a holistic approach, encompassing the travel experience, journey, destination, and return to the place of origin.

In general, previous definitions of slow travel have focused on providing a leisurely vacation experience instead of a fast-paced one (Husemann & Eckhardt, 2019; Oh et al., 2016). The "slowing down" of the holiday process allows visitors to interact and connect with locals and places at a deeper level (J. Dickinson & Lumsdon, 2010; J. Dickinson et al., 2011). Although modes of transportation such as airplanes, boats, or cars may be necessary to reach remote tourists (Conway & Timms, 2012; Serdane et al., 2020), slow travel emphasizes a deceleration of movement and extended stays in each location, allowing for a more meaningful travel experience.

Previous studies have identified that the mode of transport is not a critical factor associated with slow tourism (Conway & Timms, 2012; Serdane et al., 2020). Instead, slow tourism focuses on providing tourists with pleasant and meaningful experiences at a destination away from their daily routine. Travelers in slow tourism often feel relaxed, accessible, comfortable, and independent (Fullagar, 2012; Le Busque et al., 2022). Slow tourism is often associated with ecotourism and sustainable tourism development (Yurtseven & Kaya, 2011). Environmental awareness is one of the main drivers that

motivate tourists to engage in slow tourism (J. Dickinson et al., 2011). Several types of tourism, including ecotourism and responsible tourism, share common characteristics towards sustainable development (Le Busque et al., 2022; Meng & Choi, 2016; Serdane et al., 2020).

Slow tourism is defined as a vacation where travelers have the freedom to spend more time and engage in tourism activities while harmoniously interacting with nature, local communities, and the destination's culture (Manthiou et al., 2022). Unlike the slow media factor, slow tourism does not prioritize time accuracy and instead relies on the visitors' perceptions of how long they want to stay at the destination. The concept presented by Manthiou et al. (2022) aligns with the author's current research, which acknowledges that tourists have limited time and that developing countries such as Vietnam face infrastructure challenges that limit eco-friendly transportation options. Therefore, tourists often maximize their time at the destination rather than traveling to remote areas.

Authenticity and slow tourism

Authenticity can be defined as the quality of being genuine, substantive, believable, and true (Chhabra et al., 2003; Frisvoll, 2013; Kolar & Zabkar, 2010; Ram et al., 2016). In tourism, authenticity is often associated with tourist attractions, objects, and experiences (Rickly-Boyd, 2012). Authenticity is believed to significantly enhance tourists' perceived value and satisfaction (Chen & Chen, 2010). In the heritage field, Chhabra et al. (2003) argue that satisfaction does not base on the authenticity itself but on visitors' perception of authenticity. Therefore, authenticity is considered to be a crucial factor influencing tourists' overall evaluation and an essential element for a positive destination image (Frost, 2006; Naoi, 2004).

Wang (1999) was the first to investigate the concept of authenticity in the tourist experience, proposing existential and object-based authenticity approaches. According to Wang (1999), authenticity results from predictions based on tourists' beliefs, expectations, and preferences. The existential approach, which defines aspects of the consumer experience, is also used by Kolar & Zabkar (2010). In evaluating travel experiences, object-based authenticity plays a more crucial role than existential authenticity, as visitors perceive authenticity as building connections with places, spaces, objects, and subjects in tourism (Ram et al., 2016; Yi et al., 2018).

Therefore, authenticity in tourism is defined as the tourist's perception and enjoyment of the genuine nature of the destination, which is related to either the objects (destination) or the tourist's existential experience (Kolar & Zabkar, 2010). Due to its characteristics, slow tourism enables tourists to experience a higher degree of authenticity, which is impossible in mass tourism (J. Dickinson & Lumsdon, 2010). Consequently, perceived authenticity is an essential factor in the decision-making process of tourists in slow tourism. Perceived authenticity is examined from a visitor's or consumer-based perspective, allowing for a flexible conceptualization of authenticity and verification through survey results and quantitative analysis in research.

2.2. Research model

Consumer behavior is mainly directed toward purchasing goods for production, sale, or consumption (Bagozzi & Dholakia, 1999). Objectives play a central role in consumer decision-making (Bettman, 1979; Higgins, 2002). These goals are not limited to the result but include the experience and performance output or a series of related events (Novak et al., 2003). Vacation travel can combine leisure goals with experiential goals related to education, entertainment, communication, networking, and relationship building (Bagozzi & Dholakia, 1999). Once goals are set, consumers strive to achieve them in the most efficient way possible. This means that they will adjust their behavior and seek the most suitable means to accomplish their goals quickly.

Slow travel is generally an activity or a series of activities aimed at experiencing a destination at a "slower" pace. Compared to mass tourism, which often lacks clear goals, slow travel involves a deliberate approach to travel planning (Oh et al., 2016). Based on their travel goals, slow travelers develop an action plan that includes selecting the right destination and mode of transportation. The level of satisfaction with the travel experience and the extent to which achieved goals are crucial determinants of future travel intentions (Higgins, 2002; Oh et al., 2016).

The present study utilizes the goal-oriented behavior model (MGB) proposed by Perugini & Bagozzi (2001) as the foundation for understanding visitor behavior in sustainable tourism, particularly ecotourism. This type of tourism shares many similarities with slow tourism, including eco-friendly activities and green hotels (Han & Yoon, 2015; Meng & Choi, 2016; Song et al., 2012). Slow tourism also offers benefits such as being environmentally friendly, connecting with nature and the local community, and promoting sustainable development of tourist destinations. Hence, the MGB model is appropriate for investigating tourists' slow travel choice behavior.

In the field of tourism, authenticity has been found to influence travel behavior (Sims, 2009), slow tourism (J. Dickinson & Lumsdon, 2010; Lee et al., 2020; Meng & Choi, 2016), heritage tourism (Chhabra et al., 2003), and marketing activities in cultural heritage tourism (Kolar & Zabkar, 2010). Studies have also shown that authenticity is a precursor of behavioral intention (Lee et al., 2020; Meng & Choi, 2016). Moreover, Prados-Peña & del Barrio-García (2018) demonstrate that authenticity is positively related to attitude formation, while Shen et al. (2014) find that authenticity positively affects attitude and even behavioral control. The positive influence of authenticity on tourists' attitudes, subjective norms, behavioral control, and emotions has been demonstrated by Prados-Peña & del Barrio-García (2018), Shen et al. (2014), and Lee et al. (2020). Other related literature suggests that authenticity is also an antecedent or input of tourist behavior, as it is often viewed as an essential motivator, value, motive, or preference (Grayson & Martinec, 2004; Leigh et al., 2006; Yeoman, et al., 2007).

Based on this, the research model is presented in Figure 1 below:

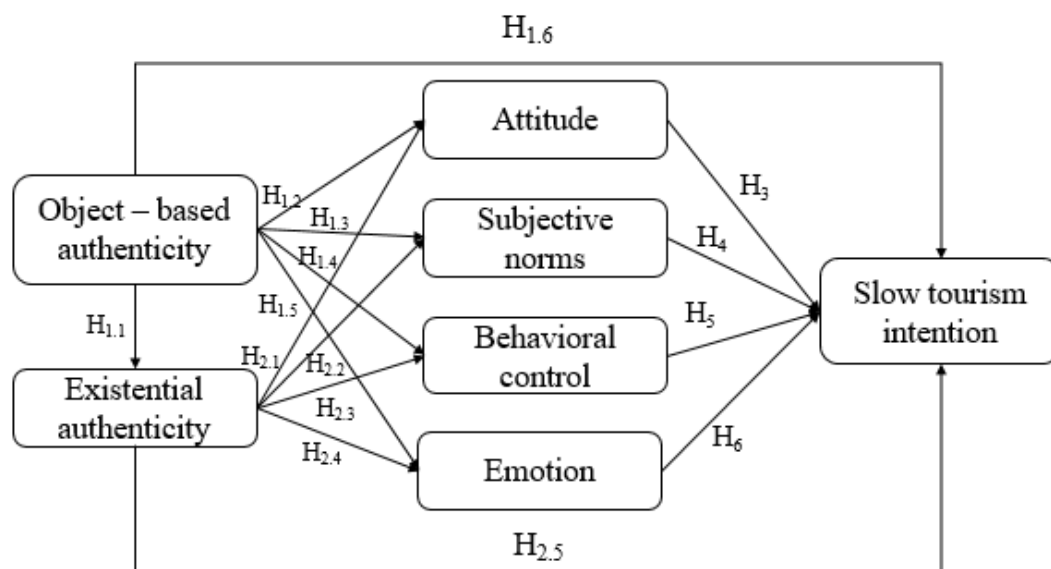


Figure 1. The proposed research model

Factors mentioned in the research model and hypothesis

Dependent variable: Slow tourism intention

According to Ajzen (1991), behavior intention directly influences a specific behavior. When individuals have the opportunity to act, their intentions lead to behavior. Therefore, if the intention is accurately measured, it serves as the most reliable predictor of behavior (Fishbein & Ajzen, 1977). In this research, the intention was defined as a tourist's anticipated decision to engage in slow tourism in the future.

- Independent variables: Object-bases authenticity and Existential authenticity

Object-based authenticity pertains to particular objects found at a destination, such as artifacts, crafts, buildings, monuments, and the like Kolar & Zabkar (2010). Objects-based authenticity can be presented in three ways: objective, constructive, and simulated (postmodern) (Wang, 1999). From an objective perspective, tourists perceive the object as genuine, not artificial or copied, such as an antique. Regarding constructive authenticity, the objects have been refurbished but are considered authentic by visitors, and they accept the object as genuine. A classic example of this approach is the restoration of buildings, museums, and other structures to their original state. Simulated authenticity (postmodern authenticity), on the other hand, refers to objects that are reproduced at a different location from the original one. The simulation aims to mimic reality as closely as possible, creating an experience that makes visitors feel like they are in contact with the real thing. The Disney theme parks built outside the US are excellent examples of this approach. In Vietnam, the artificial sea at Vinhome Ocean Park and the simulation games at the career city in Royal City are also examples of simulated authenticity.

While object-based authenticity is an external factor that is relatively easy to measure, authenticity is associated with the internal factors of tourists (Cook, 2010). Realistic realism pertains to individuals' perceptions of what makes them feel real (Wang, 1999). Visitors perceive authenticity by developing connections with places, spaces,

objects, and subjects in tourism (Ram et al., 2016; Yi et al., 2018). Authenticity is the outcome of interactions and contact with specific objects or destinations. Therefore, object-based authenticity has an impact on existential authenticity, which is consistent with the research findings of Kolar & Zabkar (2010), Meng & Choi (2016), and Park et al. (2019). Based on these observations, the following hypothesis is proposed:

H1.1: Object-based authenticity has a positive effect on existential authenticity

As analyzed above, authenticity is a precursor of slow travel behavior. The link between authenticity and factors such as attitude, subjective norm, control, and emotion has been supported by studies such as those conducted by Perugini & Bagozzi (2001), Song et al. (2012), Meng & Choi (2016), and Davis (2018). Based on these studies, the following hypotheses have been formulated:

H1.2: Object-based authenticity has a positive effect on the attitude of tourists.

H1.3: Object-based authenticity positively affects the subjective norm of tourists.

H1.4: Object-based authenticity has a positive effect on the behavior control of tourists.

H1.5: Object-based authenticity has a positive effect on the emotions of tourists.

H1.6: Object-based authenticity has a positive effect on the slow tourism intention.

H2.1: Existential authenticity has a positive effect on the attitude of tourists.

H2.2: Existential authenticity positively affects the subjective norm of tourists.

H2.3: Existential authenticity has a positive effect on the behavior control of tourists.

H2.4: Existential authenticity has a positive effect on the emotions of tourists.

H2.5: Existential authenticity has a positive effect on the slow tourism intention.

- *Mediator variables: Attitude, subjective norms, behavioral control, emotion*

Attitude towards a behavior refers to the extent to which an individual holds favorable or unfavorable evaluations of performing a particular behavior (Ajzen, 1991). A positive attitude is evident when the outcome of the behavior is deemed favorable.

Subjective norm is perceived as social pressure to engage in or refrain from performing a particular behavior (Ajzen, 1991). Normative beliefs and motives for compliance influence subjective norms. Normative beliefs pertain to an individual's acceptance of specific beliefs held by a particular person or group that determine whether it is appropriate to behave in a particular manner. Subjective norms are also deemed crucial in forming intentions (Ajzen, 1991).

Behavioral control pertains to an individual's perception of the ease or difficulty of performing a particular behavior in a given environment. This perception may reflect possible future experiences, difficulties, and obstacles (Ajzen, 1991). Behavioral control has two effects on behavior: first, it influences behavioral intention, and second, it can directly predict behavior (Ajzen, 1991). Previous studies have also affirmed that tourist behavioral control can predict visitor behavioral intention (Ajzen, 1991; Miller et al., 2015; Untaru et al., 2014).

Furthermore, Perugini & Bagozzi (2001) posit that emotional factors are crucial in comprehending the decision-making process of each individual. Studies on "slow" behavior also suggest that slow travelers' emotions impact their behavior (Han & Ryu, 2012; Han & Yoon, 2015).

Consequently, the following hypotheses are proposed for further examination:

H₃: Attitude has a positive effect on *slow* tourism intention.

H₄: Subjective norms have a positive effect on slow tourism intention.

H₅: Behavioral control has a positive effect on slow tourism intention.

H₆: Emotion has a positive effect on slow tourism intention.

2.3. Research methods

The study utilizes qualitative and quantitative methods, with the quantitative approach as the primary research method.

- Qualitative research: The author examines documents to provide a general perspective on the research topic and proposes an initial research model. The author formulates a scale and a preliminary questionnaire after consultations with experts. The process of conducting mock interviews and surveys assists in refining the final questionnaire for use in large-scale research.

- Quantitative research: To clarify the research problem, the author surveyed a group of tourists who had visited Hue - a renowned destination in central Vietnam. The survey was conducted between May and September 2022, and 518 valid responses were collected from tickets distributed online and through the tour company in Hue. The data were then subjected to analysis using SPSS 22.0 and AMOS 22.0 software, which included steps such as descriptive statistics, Cronbach's Alpha test, exploratory factor analysis (EFA), confirmatory factor analysis (CFA), and SEM linear structural model analysis. Currently, two widely used methods for processing SEM are CB-SEM and PLS-SEM. To achieve the research objective, the author employs CB-SEM to determine the model that best fits the research data and investigates the influence of factors such as realism and realism-based measures on the research data. The study's target audience is individuals planning to travel slowly in Hue.

Some critical indicators used in the research:

The Cronbach's alpha coefficient

When analyzing the Cronbach's alpha coefficient, certain conditions need to be met, such as having observed variables with a total correlation coefficient of less than 0.3, selecting a scale when the Cronbach's alpha coefficient is greater than or equal to 0.6 (Hair, 2011; Nguyen Dinh Thọ & Nguyen Mai Trang, 2009), or when the coefficient is more significant than 0.5. A Cronbach's alpha coefficient from 0.8 to 0.95 indicates an outstanding result, suggesting that the questionnaire is well-designed, clearly structured, and appropriate for the research sample.

Exploratory factor analysis (EFA)

After performing the Cronbach's Alpha analysis to remove irrelevant variables, the study conducted exploratory factor analysis (EFA) to evaluate the convergent and

discriminant values of the variables and to reduce a set of K observed variables to a set F ($F \leq K$), where related variables are grouped and separated from less related variables. The conditions for using EFA are as follows:

(1). Factor loading coefficient: A weight of the factor (Factor loading) > 0.5 is considered practically significant.

(2). Kaiser-Meyer-Olkin (KMO) coefficient: An index used to assess the appropriateness of factor analysis. A high KMO value is suitable for factor analysis. The conditions for KMO are $0.5 \leq KMO \leq 1$ (Hair, 2011).

(3). Bartlett's test: If the statistical significance (Sig. < 0.05) of Bartlett's test is significant, it considers the hypothesis that the observed variables do not correlate in the population. If the test is statistically significant (Sig. < 0.05), the observed variables are correlated with each other in the population.

(4). Percentage of variance: The percentage variation of observed variables should be more significant than 50%.

Confirmatory Factor Analysis (CFA)

After testing the scale's reliability through Cronbach's alpha and exploratory factor analysis, the satisfactorily observed variables are included in confirmatory factor analysis (CFA) to evaluate the scale's unidimensionality, reliability, and validity. CFA is a technique used to confirm the fit of the theoretical model with the research data. The model fit indicators include the Chi-squared index, CFI, TLI, GFI, and RMSEA. The specific evaluation criteria used in the study are as follows: Chi-squared/df < 3 ; CFI, GFI, and TLI indexes are all ≥ 0.9 (Hair, 2011); and RMSEA < 0.08 (Hair, 2011).

SEM and hypothesis testing

The Structural Equation Modeling (SEM) model is an advanced version of the General Linear Model (GLM) that enables the researcher to test a group of regression equations simultaneously. It encompasses various techniques, including multivariate regression, factor analysis, and correlation analysis, to evaluate the intricate relationships presented in the network diagram of the model. The conditions for assessing the model fit are comparable to those specified in the CFA analysis technique.

3. Research results

3.1. The study sample

A valid survey is a questionnaire that contains complete information and is filled out by a tourist who has traveled to Hue and either worked or made their own travel decisions. 590 votes were collected, of which 518 were considered valid. The sample comprised 202 men and 316 women, representing 39% and 61%, respectively. Over 96% of the surveyed tourists were 20 to 60 years old, while the remaining were over 60 years old. All respondents had traveled to Hue at least once, making them an appropriate sample for investigating their experience of authenticity and slow tourism intention in the future. The selection of tourists who have visited or are currently traveling in Hue aimed to identify potential tourist groups for slow tourism.

3.2. Cronbach's Alpha Coefficient

After the initial analysis, the scales that failed to meet the eligibility criteria were eliminated from the model. The ultimate outcomes, as presented in Table 1, reveal that each scale possesses the smallest total correlation coefficient, corresponding to the scale of all factors being more significant than 0.3 and Cronbach's Alpha being greater than 0.6. Therefore, they are deemed reliable and used in the subsequent analysis.

Table 1. Cronbach's Alpha results

Factor	Items	Minimum of Corrected Item-Total Correlation	Cronbach's Alpha
Object-based authenticity	OPA1, OPA2, OPA3, OPA4, OPA5, OPA6, OPA7	0.385	0.875
Existential authenticity	EPA1, EPA2, EPA3, EPA4, EPA5, EPA6, EPA7	0.731	0.924
Attitude	TD1, TD2, TD3, TD4, TD5, TD6, TD7	0.523	0.877
Subjective norms	CCQ1, CCQ2, CCQ3, CCQ4, CCQ5	0.574	0.83
Behavioral control	KSH1, KSH2, KSH3, KSH4	0.331	0.772
Emotion	CX1, CX2, CX3, CX4, CX5	0.659	0.894
Slow tourism intention	YD1, YD2, YD3, YD4, YD5	0.590	0.860

3.3. Exploratory factor analysis (EFA)

After the first factor analysis, the scales OPA7, OPA1, KSH4 have a load factor of less than 0.5, so they are respectively removed from the model and re-tested. This process is continued so that the load factor of the scale is guaranteed to be greater than 0.5. Accordingly, in subsequent analysis, the scales TD4 and TD5 were removed in turn. The final EFA analysis results showed that the KMO coefficient reached 0,880 by the set requirements ($0.5 < KMO < 1$). Bartlett test has P-value = $0.000 < 0.05$. Therefore, factor analysis is suitable for the data set. On the other hand, the total variance extracted = $61.333\% > 50\%$ shows that the data explains 61.333% of the variation of the factors.

Confirmatory Factor Analysis (CFA)

Table 2 - Results display the outcomes of the model fit. The CFA analysis indicated that while the GFI index is not satisfied but also has a value close to 0.9. Meanwhile, the other indicators met the preset requirements. The extracted variance meets the condition >0.7 , and the extracted mean-variance AVE >0.5 found that the scale ensures convergence. In addition, the most significant shared variance MSV is less than AVE, so the scale also ensures discriminant (table 2). After analyzing the CFA, the scale is included in the SEM structural model analysis to test the research hypotheses.

Table 2 - Model fit

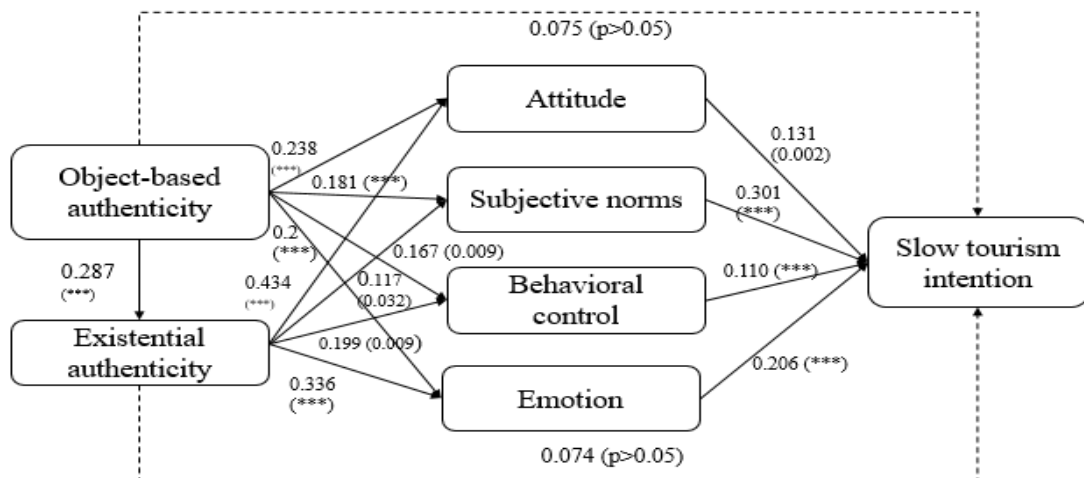
STT	Condition	CFA result		SEM result	
		Result	Conclusion	Result	Conclusion
1	TLI > 0.9	TLI = 0.905	Satisfy	TLI = 0.900	Satisfy
2	CFI > 0.9	CFI = 0.917	Satisfy	CFI = 0.911	Satisfy
3	GFI > 0.9	GFI = 0.879	Not satisfy	GFI = 0.870	Not satisfy
4	CMIN/df < 3	Cmin/pdf = 2.909	Satisfy	Cmin/pdf = 2.978	Satisfy
5	RMSEA < 0.08	RMSEA = 0.061	Satisfy	RMSEA = 0.062	Satisfy

Table 3. The convergence and discriminant of the scale

Factor	CR	AVE	MSV
Subjective norms	0.804	0.509	0.239
Object-based authenticity	0.897	0.636	0.309
Existential authenticity	0.893	0.629	0.201
Emotion	0.871	0.629	0.309
Attitude	0.864	0.565	0.213
Slow tourism intention	0.831	0.553	0.239
Behavioral control	0.830	0.622	0.089

3.4. SEM and Hypothesis testing

The results of the SEM analysis are briefly described in Figure 2 and Table 2. The results of the model fit test indicate that the parameters meet the set criteria, including CMIN/df coefficient = 2.978 < 3, TLI = 0.911, GFI = 0.870, CFI = 0.911, and RMSEA = 0.062 < 0.08. The GFI results are considered acceptable, although less than 0.9, but greater than 0.8. The results of hypothesis testing are presented in Figure 2, with significance levels considered at 5%.



(The value out of brackets is Standardized Regression weight; in brackets is P.value, $P = *** < 0.05$)

Figure 2. SEM and hypotheses testing

The solid lines in Figure 2 display the direct relationship and positive effect between the factors in the model, while the dashed line illustrates the indirect relationship. Thus, both existential and object-based authenticity indirectly impact intention through individual factors such as attitude, subjective norm, behavioral control, and emotion. Out of the 15 initial hypotheses proposed, 13 hypotheses have sufficient grounds to support, while the remaining two do not have enough grounds to reject.

4. Conclusion and implications

The research results indicate that object-based authenticity has a positive impact on realism. This finding is consistent with the studies conducted by Kolar & Zabkar (2010), Park et al. (2019), and Dai et al., (2021). Both object-based realism and realism indirectly affect slow travel intention through factors such as attitude, subjective norm, behavioral control, and emotion. Realism has the most significant influence on tourists' attitudes and emotions and the least influence on subjective standards. Additionally, existential authenticity mediates the relationship between object-based authenticity and attitude-based veracity, subjective norm, and behavioral and emotional control.

The results are appropriate because most of the 'objects' at the destination are static, such as landscapes, buildings, artifacts, crafts, historical heritages, and unique cultural expressions. These are the driving forces that attract tourists. At the destination, visitors are not only drawn to the scenery but also interact with people, guides, service providers, and word of mouth from people around them, such as friends, relatives, or individuals who have previous experiences of sharing, from which a desire and appreciation for the destination are formed.

Regarding the Hue destination, visitors rated realism and object-based authenticity on an average ranging from 3.72 to 3.94 on a 5-point scale, indicating that the service activities available in Hue are mainly related to historical inquiry and learning experiences. However, realism encompasses a broader range of learning experiences at the destination. This study complements the existing literature by supporting the idea that tourism spaces, when designed appropriately, can provide visitors with real experiences. This result is also consistent with the findings of Tan & Huang (2020) and the research on authenticity in heritage tourism by Bryce et al., (2015).

In this study, authenticity is considered from the perspective of visitors' experiences, so the relationship between authenticity and the personal characteristics of tourists, such as attitude, subjective norm, and emotions, is also explored. Adding value to the tourism sector involves understanding visitor behavior. The research results show that both types of authenticity positively affect attitude, subjective norms, and behavioral control. This result is consistent with the study of Girish & Lee (2020), who examined the relationship between authenticity and components in the theory of planned behavior (TPB) in Spain. In addition, authenticity also affects visitors' emotions, similar to the findings of Jang et al., (2012), Kim et al., (2020). This finding highlights the importance of the authenticity that tourists perceive at their destination Hue in their decision-making process. Besides, factors such as attitude, subjective standards, and behavioral and emotional

control also influence tourists' intention to travel slowly. Accordingly, travel companies and destination management boards can refer to this study to develop marketing strategies and scenarios to attract and encourage tourists to participate in slow tourism at the destination.

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IMPACT OF GREEN INNOVATION ON COMPETITIVE ADVANTAGE AND SUSTAINABLE DEVELOPMENT OF VIETNAM BUSINESSES FOR GREEN ECONOMY

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Abstract: *This study aims to analyze the impact green innovation on competitive advantage and sustainable development of Vietnam enterprises for green economy. Data from 562 questionnaires from 35 Vietnam enterprises were processed through SPSS 26 & AMOS 24 software, then descriptive statistics, EFA analysis, CFA analysis, SEM analysis and Bootstrap test were performed. The research results show that factors affecting the sustainable development of Vietnam enterprises are: product innovation, process innovation, competitive advantage and scale of enterprises. At the same time, the study also proposes some policy implications for managers of Vietnam enterprises to promote green innovation on products and processes with a view to increasing competitive advantage and sustainable development of enterprises contributing to green economy in Vietnam.*

Keywords: *Green innovation, competitive advantage, sustainable development, Vietnam enterprises.*

TÁC ĐỘNG CỦA ĐỔI MỚI XANH ĐẾN LỢI THẾ CẠNH TRANH VÀ PHÁT TRIỂN BỀN VỮNG CỦA CÁC DOANH NGHIỆP VIỆT NAM NHẪM PHÁT TRIỂN KINH TẾ XANH

Tóm tắt: *Nghiên cứu này nhằm mục tiêu phân tích yếu tố tác động của đổi mới xanh đến lợi thế cạnh tranh và phát triển bền vững của các doanh nghiệp Việt Nam nhằm phát triển kinh tế xanh. Số liệu từ 562 phiếu điều tra từ 35 doanh nghiệp Việt Nam được xử lý qua phần mềm SPSS 26 & AMOS 24 sau đó tiến hành thống kê mô tả, phân tích EFA, phân tích CFA, phân tích SEM và kiểm định Bootstrap. Kết quả nghiên cứu cho thấy các yếu tố của tác động đến phát triển bền vững của doanh nghiệp Việt Nam là: đổi mới về sản phẩm, đổi mới về quy trình, lợi thế cạnh tranh và quy mô của doanh nghiệp. Đồng thời nghiên cứu cũng đề xuất một số hàm ý chính sách cho các nhà quản lý tại các doanh nghiệp Việt Nam thúc đẩy đổi mới xanh về sản phẩm, đổi mới xanh về quy trình để gia tăng lợi thế cạnh tranh và phát triển bền vững nhằm thúc đẩy phát triển kinh tế xanh ở Việt Nam*

Từ khóa: *Đổi mới xanh, lợi thế cạnh tranh, phát triển bền vững, doanh nghiệp Việt Nam.*

1. Introduction

Businesses play a very important role in green growth. However, basically, most businesses have not seen immediate and long-term benefits of sustainable development and green growth. According to the Vietnam Business Council for Sustainable Development: “Out of more than 750,000 businesses in Vietnam, only 100,000 have been informed of and had approach to sustainable development, 2,000 have been members of the business community for sustainable development”. In addition, the 2021 National Report on the implementation of MPI's sustainable development goals for Vietnam enterprises also noted that some difficulties and challenges that these businesses have faced are limited conditions for green innovation as well as research and development of technologies and especially shortage of high-quality human resources for green innovation. This shows that there are a lot of concerns about green innovation on the digital environment. Along with that, DARA (2020) said: “Climate change would cost Vietnam about USD15 billion per year, equivalent to about 5% of GDP. If Vietnam did not have a timely response, the damage caused by climate change would be about 11% of GDP by 2030. Although green innovation has received considerable attention from enterprises, the number of enterprises showing their interest is still modest leading to the fact that green innovation has not been a driving force for the economy”. Thus, green innovation will help Vietnam enterprises to achieve a breakthrough in their competitive advantage and sustainable development for green economy. Green innovation has been discussed in many theoretical and practical studies in recent years. Many different opinions on the impact of green innovation on competitive advantage and sustainable development in Vietnam enterprises have appeared and have not yet come to an end. Therefore, this topic has been still considered practical and highly topical. And with a view to analyzing the overall impact of green innovation on competitive advantage and sustainable development in Vietnam enterprises, we decided to carry out the study on “Impact of green innovation on competitive advantage and sustainable development in Vietnam enterprises for green economy”.

2. Theoretical framework, research hypotheses and model

2.1. Theoretical framework and research hypotheses

Green innovation

According to Weng & Lin (2011), “green innovation is an effective way for enterprises to solve environmental problems. Based on stakeholder theory, enterprises operate in accordance with new standards to satisfy their key stakeholders”. Weng et al., (2015) said: “Company managers are interested at internal and external factors to promote the implementation of green innovation, for example, customer requirements or government environmental regulations are a key driver of green innovation and the way in which a company can comprehensively address stakeholders' concerns to achieve business objectives”. Liao and Liu (2021) defined green innovation was innovative measures taken by enterprises to achieve sustainable development and reduce their negative impact on the environment. Green innovation aims at general purpose, pollution reduction, energy productivity, waste reduction, replacement of limited resources with sustainable and recyclable ones based on eco-friendly

technologies, green and sustainable operation. Therefore, green innovation on enterprises focuses on products and services and operating processes.

In conclusion, “*green innovation of enterprises is technological creation and innovation with the use of environmentally friendly technologies to help enterprises use energy most effectively, contributing to environmental protection, labor productivity increase, operational efficiency and competitive advantages of enterprises*”.

Green innovation on products: The enforcement of strict environmental standards in the production and business activities of enterprise requires the replacement of new combination of resources and implementation of current resources in the new ways. The enterprises that strive to develop green products or environmentally friendly technologies will improve operational efficiency, environmental performance, reduce the consumption of input material and renovate production technology. This is a common environmental strategy that many enterprises apply to achieve economic and environmental performance (Triguero et al., 2013, Phạm Anh Nguyễn 2022).

Green innovation on processes: The implementation of green innovation relates to the application of new or modified processes, techniques and system to reduce environmental harm. Enterprises will continue to improve production and business efficiency, while maintaining sustainable development, minimising raw material costs, enhancing production capacity and being socially responsible (Lin & Ho, 2011).

Competitive advantage

According to Ar (2012), green product innovation had a significant positive effect on both operational efficiency and competitiveness of enterprises, leading to their increasing competitive advantage. In other words, environmental management only plays a role in moderating the relationship between green innovation and competitive advantage. In addition, enterprises can make their competitive advantage increase thanks to their financial efficiency. And financial efficiency of enterprises is defined as a parameter describing a company's financial activities and being then compared with standards of financial statements and showing enterprises' performance in the given period in financial terms that is the basis for other activities (Hernando et al., 2020). Financial efficiency is also regarded as enterprises' ability to manage and control resources and is enterprises' financial condition in a given period including the collection and use of capital measured by a number of indicators as capital adequacy ratio, liquidity, leverage, solvency and profitability (Fatihudin et al., 2018; Mukhzarudfa & Putra, 2020). Financial efficiency is usually measured by market share, sales and profits, meanwhile non-financial efficiency is measured by enterprises' reputation and competitive advantage (Weng et al., 2015).

Green innovation on products, services and operational processes in order to increase their competitive advantage is a quantitative measure of enterprises' performance that cannot be expressed in monetary units appropriate to evaluation and promotion of management performance of enterprises, non-financial performance is often measured by customer satisfaction, product quality, supplier reliability, reputation or competitive advantage of enterprises (Dury et al., 1993; Amad & Zabri, 2016).

From the above studies, this study proposes the following hypothesis:

Hypothesis 1 (H1): Green innovation on products and services has a positive impact on the competitive advantage of enterprises.

Hypothesis 2 (H2): Green innovation on processes has a positive impact on the competitive advantage of enterprises.

Sustainable development

The United Nations defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs (UNEP, 2011.). It is development that always maintains the balance and harmony of all three pillars on economy, society and ecology/resources and environment (Rogall G 2009). Theory and practice of sustainable development have been studied as follows: (i) firstly, in theory, it is necessary to take into account of all development factors including natural resources and environment which are often not or is barely noticed in development management decisions or even considered a gift of nature leading to distortions of calculation of the value of products and services as well as development efficiency and (ii) secondly, in practice, paying attention to economic development rather than social development and especially environmental and natural resources has adversely affected or even hindered the development process. Social issues such as conflict, poverty, wealth disparity, unemployment and environment pollution, environmental degradation, resource depletion... have been serious to the point where they have negatively affected the overall sustainable development (Do Phu Hai, 2017).

Thus, sustainable development is supposed to link development activities into a system so as to achieve long-term balance and harmony for future generations (World Bank, 2010). Development activities take place in all spheres of production and social life and are reciprocal in nature. Over the past centuries, the science and practice of development management has taken place mainly in the direction of specialization by industry and development field with very weak linkages (World Bank, 2010). Only in the last few decades, with clear warning signs of dramatic decline of the development foundation being environmental resources, have the science and practice of development management become interested in the linkage of industries and development fields. Rogall G (2009) and Pham Anh Nguyen (2021) argued that green innovation had a positive impact on sustainable development. At the same time, competitive advantage also had a positive impact on sustainable development of enterprises.

From the above studies, this study proposes the following hypothesis:

Hypothesis 3 (H3): Green innovation on products and services has a positive impact on sustainable development.

Hypothesis 4 (H4): Green innovation on terms of operational processes has a positive impact on sustainable development.

Hypothesis 5 (H5): Competitive advantage has a positive impact on sustainable development.

Chen et al (2016) defined green innovation as hardware or software innovation

related to green products, green processes including technical innovation on energy savings, pollution prevention, waste and waste recycling, green product design or environmental management issues of enterprises and enterprises' size has a positive impact on sustainable development. On that basis, this study proposes the following hypothesis:

Hypothesis 6 (H6): Firm size has a positive impact on sustainable development.

2.2. Research model

From the mentioned-above hypotheses, the research model on factors affecting the digital transformation capacity of human resources in Vietnam enterprises proposes 2 independent variables which are related to the environment and work; one intermediate variable related to human resources; one dependent variable which is digital transformation capacity of human resources and one control variable being the level of human resources in accordance with the qualitative research. Research scales is inherited and developed by Cooper et al., (1994), Wen and Chen (1997), Avlonitis et al. (2001), Lai et al. (2003), Chen et al. (2006), Chen (2008), Chen et al (2016); Chen et al (2018); Pham Anh Nguyen (2021) Fenny Marietza Melly Nadia (2021)... The 5-point Likert scale is used in this study with 1 point meaning total disagreement and 5 points showing total agreement.

Namely, the scale of green innovation capacity on products and services is inherited and developed from the studies of Lai et al. 2003, Wen and Chen, 1997, Chen 2008 and Chen et al. 2006, Pham Anh Nguyen 2022... The scale is coded from PR1 to PR4 with 4 observed variables being:

Table 1: Green innovation on products scale

Encryption	Scale content
PR1	Enterprises prioritise the use of materials that consume less resources and energy
PR2	Enterprises will consider the reuse of products
PR3	Enterprises apply energy conservation technologies
PR4	Enterprises apply renewable resource technologies

(Source: Authors' compilation)

The scale of green innovation capacity on processes is inherited and developed from the studies of Lai et al. 2003, Wen and Chen, 1997, Chen 2008 and Chen et al. 2006, Pham Anh Nguyen 2022... The scale is coded from PI1 to PI4 with 4 observed variables being:

Table 2: Green innovation on processes scale

Encryption	Scale content
PI1	Enterprises apply technologies in the process of preventing pollution
PI2	Enterprises change the work operation method in an organisation to save energy

PI3	Enterprises enhance business processes in the direction of centered on environmental protection
PI4	Green innovation on processes adds value to customers and has a positive impact on employees.

(Source: Authors' compilation)

The scale of competitive advantage is inherited and developed from the studies of Cooper et al., 1994, Avlonitis et al., 2001, Pham Anh Nguyen 2022... The scale is coded from CA1 to CA5 with 6 observed variables being:

Table 3: Competitive advantage scale

Encryption	Scale content
CA1	Green technology innovation helps to enhance the reputation of the business
CA2	Green technology innovation helps to create more innovative products
CA3	Enterprise has a competitive advantage over its direct competitors
CA4	Enterprise's image is better than its direct competitors
CA5	Enterprise's reputation is better than its direct competitors
CA6	Enterprise's credibility is better than its direct competitors

(Source: Authors' compilation)

The scale of sustainable development is based on the studies of Chen et al (2018), Fenny Marietza Melly Nadia (2021),... The 5-point Likert scale is used in this study with 1 point meaning total disagreement and 5 points showing total agreement. The scale is coded from SD1 to SD6 with 6 observed variables including:

Table 4: Sustainable development scale

Encryption	Scale content
SD1	Sustainable development-oriented green innovation policies are positive and stable
SD2	Sustainable development-oriented green innovation policies are open and facilitating for participants
SD3	Enterprises create a healthy competitive environment and remove difficulties to improve green innovation capacity towards sustainable development.
SD4	Enterprises focus on forecasting changes related to green innovation towards sustainable development
SD5	The level of job creation from innovation and sustainable development orientation is stable;
SD6	Loyalty at work of green innovation increases

(Source: Authors' compilation)

From 6 foregoing hypotheses, the research model has a total of 19 observed variables including 2 independent variables related to green innovation on products and services and green innovation on operational processes, one intermediate variable related to competitive advantages of enterprises; one dependent variable being sustainable development and one control variable being the enterprises' size in accordance with the qualitative research being enterprise size (Figure 1).

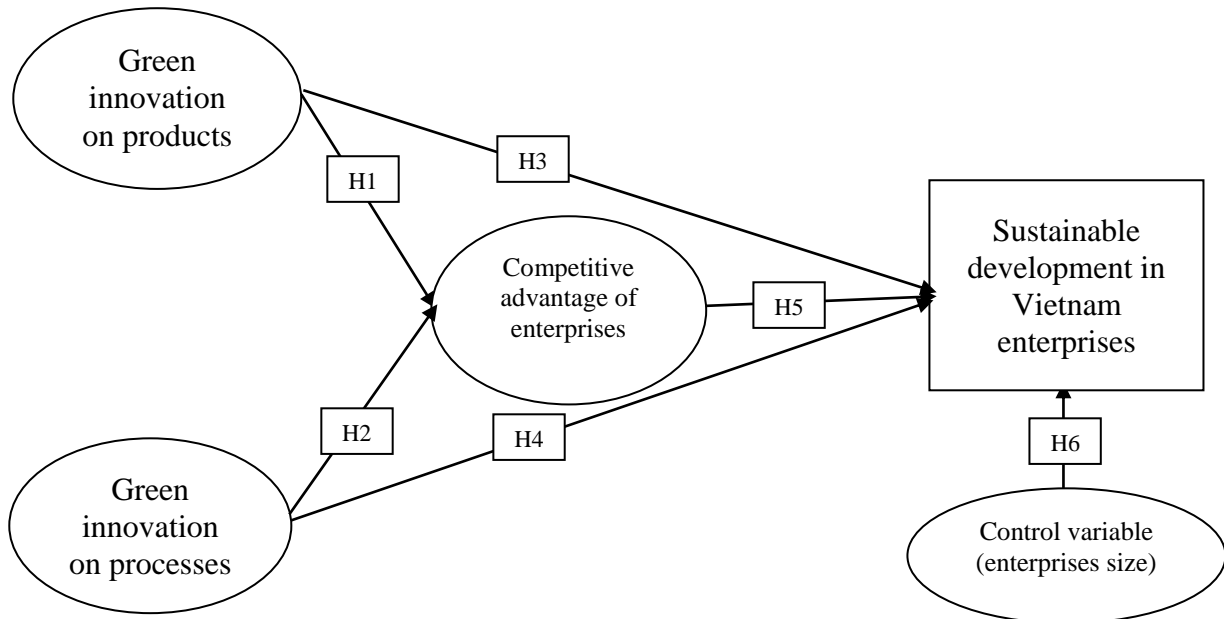


Figure 1. The proposed research model

3. Research method

The study was carried out through 2 qualitative and quantitative steps with 2 different groups of subjects. In qualitative research, subjects were experts and managers at 35 Vietnam enterprises. Meanwhile the quantitative research targeted at managers and employees directly related to the digital transformation capacity of the human resources of enterprises where they are working. On basis of the aforesaid theoretical framework, observed variables were built on a 5-point Likert scale (with 1 point meaning total disagreement and 5 points showing total agreement) reflecting 4 complete research concepts. Qualitative research was carried out through in-depth interviews with 10 experts at factors affecting digital transformation capacity of human resources in Vietnam enterprises. Qualitative research results helped to form a quantitative questionnaire consisting of 19 observed variables including 2 independent variables related to green innovation on products and services and green innovation on operational processes; one intermediate variable related to competitive advantage of enterprises; one dependent variable being sustainable development and one control variable being enterprises' size in accordance with the qualitative research, as follows:

Table 5. The research model's variables

No.	Factors	Authors
1	Green innovation	Lai et al., 2003; Wen and Chen, 1997, Chen (2008) and Chen et al. (2006), Pham Anh Nguyen (2022)
2	Competitive advantage	Cooper et al., (1994); Avlonitis et al., 2001, Pham Anh Nguyen (2021)
3	Sustainable development	Chen et al., (2018), Fenny Marietza Melly Nadia (2021)
4	Quy mô doanh nghiệp	Chen và cộng sự (2016); Phòng vấn chuyên gia

Source: Authors' compilation

According to Hair et al. (1998), the sample size should be greater than or equal to 100 and the smallest sample should be $n = 5 \cdot k$, where k is the number of variables equivalent to the number of research questions. On the other hand, according to Roger (2006), the minimum sample size applied in practical research was 150 - 200 variables. This study has 34 variables so the minimum sample size is $24 \cdot 5 = 100$. In order to ensure representativeness of the study, authors tried their best to collect as many questionnaires as possible. Quantitative research was carried out immediately after with a sample size of 650 questionnaires from managers and employees in 35 enterprises including 7 textile enterprises, 5 seafood enterprises, 5 electronic enterprises, 5 commercial banks, 5 information technology enterprises, 5 telecommunications enterprises. These enterprises are located in Hanoi, Bac Ninh, Nam Dinh, Thai Nguyen, Bac Giang, Hai Phong, Vinh Phuc, Nghe An, Hue, Da Nang, Nha Trang, Ho Chi Minh City, Dong Nai... From February 1, 2023 to March 1, 2023, questionnaires were sent to email address of employees and managers at enterprises or given direct to them. 581 questionnaires were collected and after removing 19 invalid questionnaires (due to incomplete information), authors got remaining 562 valid questionnaires for data entry and processing.

The survey data was then imported into an excel file then analyzed by SPSS 26 and AMOS version 24. Specifically, SPSS was used to analyze descriptive statistics, reliability of Cronbach's Alpha, while AMOS was used for factor EFA, CFA analysis, SEM linear structure analysis and Bootstrap test.

4. Research results

Among 562 participants from 35 Vietnamese enterprises, 56.94% were male, 43.07% were female. In terms of age, respondents were mainly aged from 30 to 40 years old, accounting for 54.98%, while the age group from 23 to 30 years old accounted for 37.01% and over 40 years old was the remaining part. The main participants were managers and workers who had working experience and were knowledgeable about the impact of green innovation on competitive advantage and sustainable development in Vietnamese. The educational level of survey respondents was mainly university graduates and above, accounting for 51.96%. Thus, most of the survey participants were qualified to have a deep understanding of the impact of green innovation on competitive advantage and sustainable development in Vietnamese enterprises to promote green economic

development. Regarding the working position, the survey results show that 21.99% of respondents were managers and 79.01% of respondents were employees. In particular, employees were the main subjects of green innovation and managers evaluated the impact of green innovation on competitive advantage and sustainable development in Vietnamese enterprises to promote sustainable development. Regarding the type of enterprises, the survey found that 24.91% were large-scale enterprises, 75.09% were small and medium-sized enterprises. This is consistent with the key feature of Vietnamese enterprises, which are mainly small and medium-sized.

4.2. Testing for the scale reliability

The purpose of the scale analysis is to see if the scale has discriminatory validity and reliability. The scales are evaluated through Cronbach's Alpha coefficient. Using the Cronbach's Alpha reliability coefficient method before analysing the EFA factor to remove inappropriate variables. The criteria used when assessing the reliability of the scale are as follows: The scale can be used when the reliability of Cronbach's Alpha is greater than 0.6 (The greater the Cronbach's Alpha coefficient, the higher the consistent of reliability) (Nguyen Dinh Tho & Nguyen Thi Mai Trang, 2009). Cronbach's Alpha values that are greater than 0.8 is good scale; from 0.7 to 0.8 is a usable scale; from 0.6 or higher can be used (Hoang Trong & Chu Nguyen Mong Ngoc, 2005). Removing observed variables with small Corrected Item Total Correlation (smaller than 0.3); Thus, the reliability of NL1, CV4, NV2 satisfy the requirement for EFA (see Table 6).

Table 6. Cronbach's Alpha coefficients

No.	Factor	Number of observed variables remaining	Cronbach's Alpha (final)	Corrected Item Total Correlation (Smallest value)	Số biến bị loại
1	PR	4	0,857	0,428; 0,691	0
2	PI	4	0,822	0,529; 0,633	0
3	CA	5	0,819	0,436; 0,618	0
4	SD	5	0,835	0,493; 0,655	1

Source: Summary of analysis results using SPSS26

4.3. Exploratory factor analysis (EFA)

The criteria used when running EFA are: KMO coefficient > 0.5, sig significance level < 0.05, principal axis factoring method with promax rotation is used and breakpoint when extracting factors with Eigenvalue > 1 is used.

Table 7: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.828
Bartlett's Test of Sphericity	Approx. Chi-Square	2795278
	df	136
	Sig.	.000

Source: Summary of analysis results using SPSS22

The result shows that $KMO = 0.855 > 0.5$, Sig of Bartlett's test = $0.000 < 0.05$ all satisfied the requirements. The data is consistent with EFA, with significance level $sig < 0.05$, thus it can be said that all observed variables are correlated. In addition, proposed factors can explain 62.83% of the variables with breakpoint used with Eigenvalues at 3.52.

Table 8: Pattern Matrix^a

	Factor			
	1	2	3	4
PI1	.799			
PI3	.791			
PI4	.767			
PI2	.704			
PR3		.810		
PR2		.772		
PR1		.770		
PR4		.673		
SD1			.760	
SD3			.755	
SD4			.729	
SD2			.717	
CA5				.870
CA4				.867
CA3				.633
CA2				.552

Source: Summary of analysis results using SPSS 26

Through the first 2 regression runs, 16 observed variables are accepted and 2 observed variables are removed, which include: Factors related to green innovation in process (PI1, PI3, PI4, PI2); green innovation in products (PR3, PR2, PR1, PR4); sustainable development (SD1, SD3, SD4, SD2); competitive advantage (CA5, CA4, CA3, CA2). Observed variables SD6, CA1 have regression weights < 0.5 , which do not satisfy the requirement, thus they are removed from the model.

4.4. The test results of CFA

The CFA is used to consider whether the scale model of concepts used in the research meet the standard and if the scales are good scales. After verifying the scale and analysing the exploratory factor (EFA), the research analyses the confirmatory factor with 4 factors and 16 observed variables. These factors generate groups of scales to measure concepts and are included in the CFA to consider the fit of the model with market data. Assessment criteria include: unidimensional, convergent validity, discriminant validity, nomological validity. While unidimensional, convergent validity, discriminant validity is assessed in the saturated model, nomological validity is assessed in the theoretical model.

The result of confirmatory factor analysis (CFA) of the model shows that: The Chi-square value = 337,164 with the value $p = .000$. Other indicators: Chi-square / df = 3,440,

GFI, CFI are all higher than 0.9 (Bentler & Bonett, 1980), RMSEA = 0.069 < 0.08 (Steiger, 1990). However, TLI value is < 0.9. Therefore, the research connects the e to improve the model: e1-e4, e6-e7, e6-e8, e9-e10, e10-e11, e9-e12, e13-e14, e14-e15, e13-e16. Final CFA results shows that: The Chi-square value = 155,871 with the value $p = .000$. Other indicators: Chi-square / df = 1,834, GFI, CFI, TLI are all higher than 0.9 (Bentler & Bonett, 1980), RMSEA = 0.041 < 0.08 (Steiger, 1990). Thus, it can be deduced that the model is considered to fit with the market data.

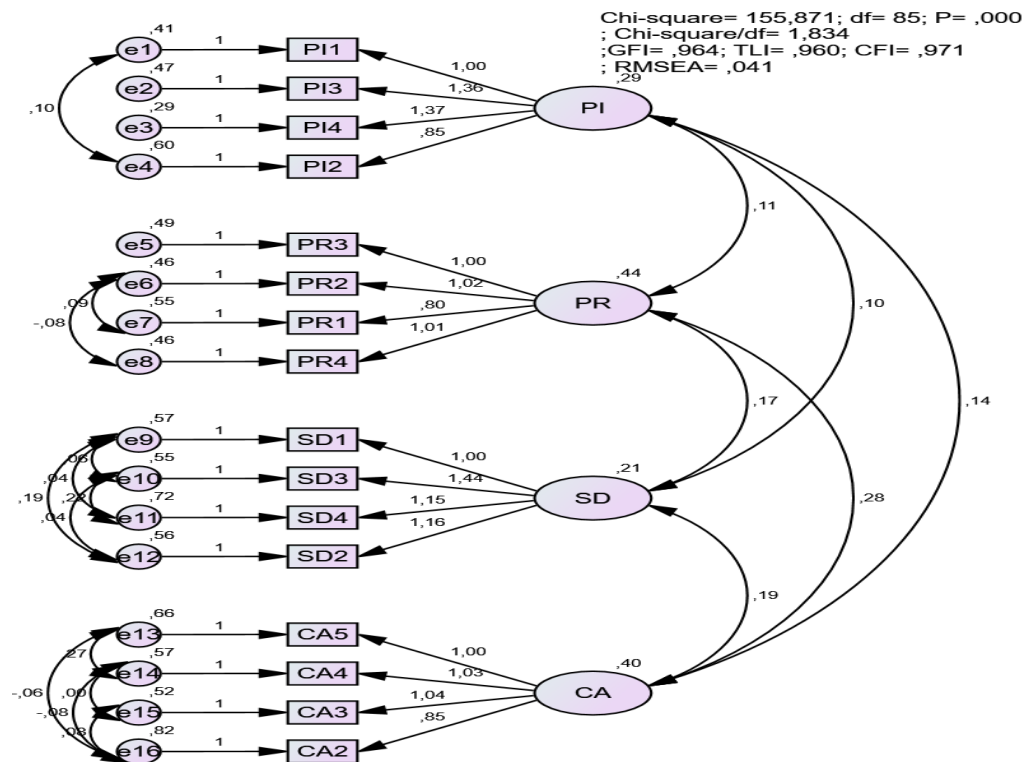


Figure 2: Results of confirmatory factor analysis (standardised)

Source: Summary of results from SPSS 26 and Amos 24 analysis

In the evaluation of composite reliability (PC) and average variance extracted (PVC) and Cronbach's Alpha. PC and PVC must be ≥ 0.5 , Cronbach's Alpha must be ≥ 0.6 and Corrected Item - Total Correlation must be greater than 0.3

Unidimensional: The analysis of confirmatory factor for this model has 85 degree of freedom. Figure 2 shows that Chi-square = 155,871 with p value = .000. Other indicators: Chi-square / df = 1,834, GFI, TLI, CFI are all higher than 0.9 (Bentler & Bonett, 1980), RMSEA = 0.041 < 0.08 (Steiger, 1990). This means that there are necessary and sufficient conditions for the set of observed variables to achieve unidimensional (Steenkamp & Van Trijp, 1991).

Convergent validity: The results of the correlation coefficients show that the standardized weights are greater than 0.5, indicating that the scale of concepts has achieved the convergence value (if there is any observed variable with weight < 0.5, it is necessary to eliminate in turn but this model does not have).

Discriminant validity: The correlation coefficients between research concepts in the model are all positive and less than and different to 1 (based on the above table) with a really small P-value and less than 0.05, so the correlation coefficients of each concept pair is different from 1 at the 95% confidence level. Thus, the research concepts in this model all have gained discriminatory value.

4.5. Research hypothesis test results

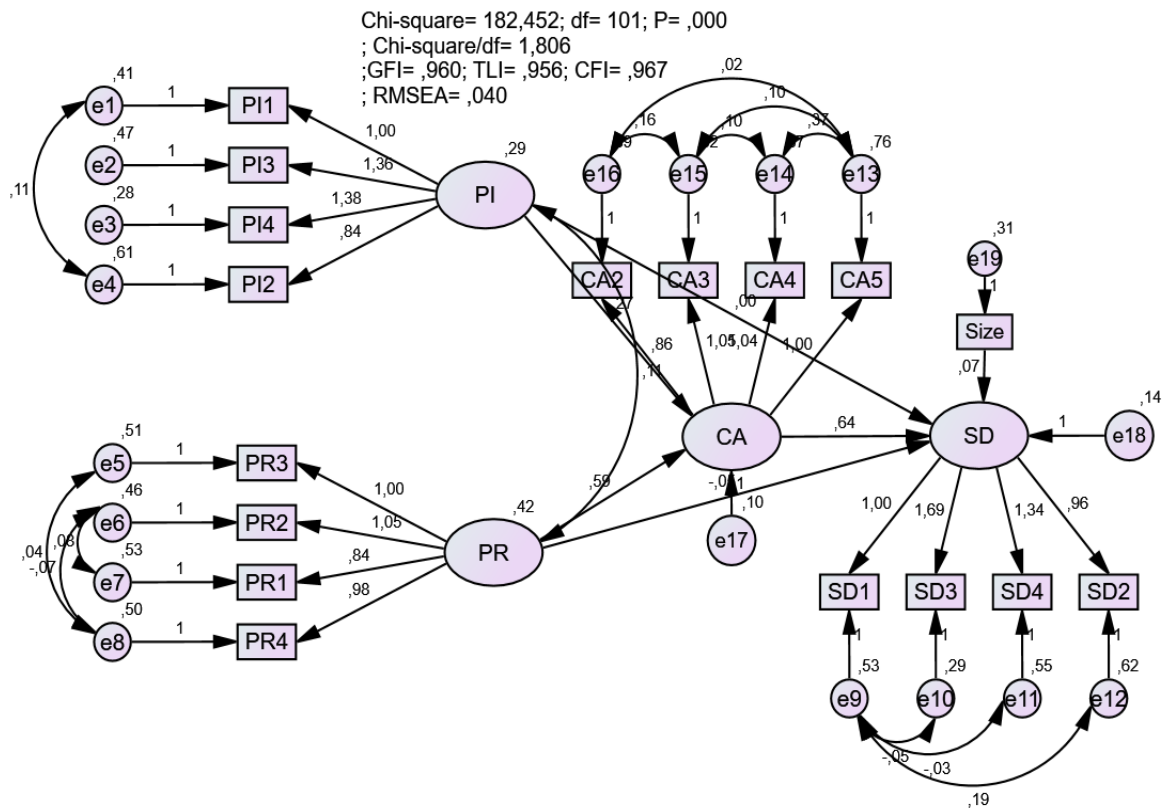


Figure 3: Analysis result of structural equation modelling (SEM) (standardized)

Source: Summary of analysis results from SPSS 26 and Amos 24

The results of SEM model analysis on regression weights for factors PR, PI, CA, SD, Size all have statistical significance at 5%. Thus, the results of SEM model analysis show that the factors affecting sustainable development in Vietnamese enterprises to promote green economic development include: green innovation in products, green innovation in process, competitive advantage and size. These factors are all statistically significant at the 95% confidence level. Regression weights of the above table are all positive, which show that all aforementioned factors positively influence the sustainable development of Vietnamese enterprise to promote the development of green economic (see Table 9). In addition, these factors explain 62% of the variation of the dependent variable on sustainable development in Vietnamese enterprises to promote green economic development.

Table 9: Regression Weights

	Estimate	S.E.	C.R.	P	Label
CA <--- PI	,268	,270	3,805	***	
CA <--- PR	,592	,480	7,369	***	
SD <--- CA	,445	,523	6,981	***	
SD <--- PI	,326	,238	2,025	***	
SD <--- PR	,253	,193	1,268	,008	
SD <--- Size	,171	,137	1,809	***	

Source: Summary of analysis results from SPSS 26 and Amos 24

4.6. Bootstrap test

In order to evaluate the reliability of the estimates, the sample is often divided into 2 subsamples. Half is used to estimate model parameters and half is used for re-evaluation. Another method is to repeat the research with a different sample. Both methods are often impractical since the structuring method often requires large samples, which is time consuming and expensive (Anderson and Gerbing, 1988). In that case, this is an alternative sampling method from the original (n=562). Bootstrap is an iterative sampling method with substitution where the original sample plays the role the crowd of 1000 samples and more.

Table 10: Bootstrap test

Parameter			SE	SE-SE	Mean	Bias	SE-Bias	C R
CA	<---	PI	,090	,004	,268	,000	,006	0,000
CA	<---	PR	,098	,005	,594	,003	,007	0,429
SD	<---	CA	,833	,042	,821	,008	,059	0,136
SD	<---	PI	,307	,015	,067	,005	,022	0,227
SD	<---	PR	,517	,026	,161	,009	,037	0,243
SD	<---	Size	,044	,002	,070	,000	,003	0,000
CA	<---	PI	,090	,004	,268	,000	,006	0,000

Source: Summary of analysis results from SPSS 26 and Amos 22

The Estimate column shows the normal estimate with the maximum likelihood of the remaining columns which is calculated from the Bootstrap method. The Mean column gives the average of the Bootstrap estimates. Bias (deviation) is equal to the Mean column minus the Estimate column. The CR column (Composite reliability) is calculated by Excel by dividing the Bias column by the SE - Bias column. Looking at the table above, we see that the absolute value of CR is very small compared to 2, so it can be said that the bias is comparatively small and is not statistically significant at 95% confidence. Hence, the estimates in the SEM model can be trusted.

5. Discuss research results and implications for some solutions

Based on the results of the SEM model, it can be seen that factors related to green innovation in products, green innovation in terms of processes, competitive advantages,

and business size significantly influence sustainable development in Vietnamese enterprises. Specifically, factors related to sustainable development have the strongest impact (0.445), followed by factors related to green innovation in terms of processes, factors related to green innovation in terms of products, and firm size with normalized regression weights are 0.326, 0.253, and 0.171 respectively. Research results show that 6/6 of the original hypotheses are accepted. This result is consistent with findings of previous research about factors related to the impact of green innovation on competitive advantage and sustainable development (Chen et al., 2016; Chen et al., 2018; Pham Anh Nguyen, 2021 Fenny Marietza Melly Nadia, 2021).

The green innovation of enterprises is closely related to the competitive advantage and sustainable development since the investment in green innovation and effective use of resources and energy as well as minimizing the environmental impact can create competitive advantage, create trust of society and consumers for enterprises. This is the inevitable development path towards green and sustainable growth. The majority of enterprises have had to adopt green innovation to improve their environmental and brand image in the hope of maintaining and improving their performance and competitive advantage in the market. It is recommended that green innovation in production process will increase productivity and opportunities for improved environmental performance, sustainable business development and a low carbon economy. As a result, it can be seen that research results this research reaffirm the conclusions of scholars that affirm that green innovation has a positive impact on environmental performance. In addition, this research also examined the link between green innovation and the efficiency of enterprises, which is moderated by the environmental performance of enterprises, which previous studies have not been able to confirm. Hence, Vietnamese enterprises must implement green innovation to enhance their brands and improve their environmental image with customers and partners, etc. In fact, Vietnamese businesses are increasingly prioritizing the importance of green innovation on competitive advantage and sustainable development to develop a green economy. The evidence is that promoting green innovation in Vietnamese has helped Vietnamese businesses "*transform*" from quantity to quality, improving competitive advantage and sustainable development. Through the results of quantitative research and collected data, some implications to promote the impact of green innovation on competitive advantage and sustainable development in Vietnamese enterprises to develop the green economy shortly as follows:

5.1. Emphasize green innovation to increase competitive advantage

According to the SEM model results, the competitive advantage factor has the strongest impact on sustainable development in Vietnamese enterprises to promote green economic development. Therefore, managers in Vietnamese enterprises need to raise awareness of green innovation to enhance competitive advantage. Vietnamese businesses need to apply modern technology to the production chain without using harmful chemicals. Also, they need to implement energy-saving and industrial emissions reduction programs that have helped the company create sustainable, consumer-friendly, and environment-friendly products. Green innovation in products and processes that meet the increasing

standards of customers, increasing corporate reputation, increasing competitive advantages, especially for high-end brands, helping to add more orders in the context of fierce competition like today. In addition, the enterprise also needs to focus on green innovation in the production of products from organic and recycled materials to meet the needs and tastes of consumers in the trend of the green and circular economy.

5.2. Invest more in process green innovation

The results of the SEM model show that the green innovation factor in the process has a second impact on sustainable development in Vietnamese enterprises to promote green economic development. At Vietnamese organizations, all are aware of the trend of green innovation in terms of processes, but there are still some difficulties and challenges in the green economic and green export transition. The biggest barrier is to change the growth model, the production method that is mainly based on the exploitation of natural resources to a model of green consumption, green living, and sustainable development. Investing in green innovation in production and business processes will be a challenge for the business community, requiring large investment capital and high technology. Along with that, green innovation in production and business processes requires green technology and materials used for production, which must be complied with sustainability and food safety regulations. Therefore, Vietnamese authorities need to support businesses and manufacturers to promote green innovation in the process to meet sustainable development criteria, in which green innovation for processes and green innovation in technology are the things to aim for.

5.3. Promote green innovation in products

Green innovation in green production is an important link to help Vietnamese businesses move towards a green and sustainable economy. Greening production also poses new requirements for businesses that need to be in line with the general development trend, while enhancing their position and increasing competitiveness in both domestic and foreign markets. Many Vietnamese enterprises have been paying more attention to natural materials, non-toxic chemicals, and fuels; invest in modern machinery, technology, and equipment according to international standards to improve processes, toward green production.

In the EVFTA, there is a chapter on green growth that helps create flows for green products and sustainable development. Vietnamese businesses will be beneficial in terms of the development of green technology. Exporting green products is a promising path and green technology is not out of reach of Vietnamese enterprises currently. To produce green and sustainable products, Vietnamese enterprises need to apply green technology and start from key export industries such as agriculture, forestry, and fishery.

6. Conclusion

The research results show that the factors related to green innovation in products, green innovation in processes, competitive advantages, and business size are significant factors affecting sustainable development in Vietnamese enterprises. Specifically, factors related to sustainable development have the strongest impact. Based on the research results, there are some implications proposed to promote green innovation to increase

competitive advantage and sustainable development in Vietnamese enterprises to promote green economic development. However, the study uses data from 562 questionnaires from Vietnamese enterprises, so the survey sample is not generalizability.

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**CÁC YẾU TỐ ẢNH HƯỞNG ĐẾN QUYẾT ĐỊNH MUA THỰC PHẨM HỮU CƠ
TRÊN SÀN THƯƠNG MẠI ĐIỆN TỬ CỦA NGƯỜI TIÊU DÙNG
TRÊN ĐỊA BÀN THÀNH PHỐ HÀ NỘI**

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Tóm tắt: Thế kỷ 21 chứng kiến sự phát triển ngày càng mạnh của TPHC. Ứng dụng công nghệ thực phẩm mới, sự gia tăng ý thức về sức khỏe, và những vấn đề về bảo vệ môi trường sống toàn cầu là nguyên nhân của sự lên ngôi của TPHC. Ở Việt Nam, thực phẩm hữu cơ ngày càng được người tiêu dùng quan tâm và được bày bán phổ biến ở các chợ, các cửa hàng và các siêu thị. Thương mại điện tử phát triển tạo nên một kênh phân phối sản phẩm giúp cho việc đưa sản phẩm hữu cơ đến tay người tiêu dùng một cách thuận tiện hơn. Nghiên cứu này muốn tìm ra các yếu tố ảnh hưởng đến quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng địa bàn thành phố Hà Nội. Sử dụng phương pháp hồi quy đa biến với mẫu nghiên cứu là 300 đối tượng thuộc mọi lứa tuổi, nghề nghiệp, giới tính, nghiên cứu kết luận có 2 nhân tố tác động đến quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Thành phố Hà Nội là “Cảm nhận tính hữu ích” và “Nhận thức về sức khỏe bản thân”. Từ đó, tác giả đưa ra một số khuyến nghị chính sách đối với chính phủ nhằm thúc đẩy tiêu dùng thực phẩm hữu cơ trên địa bàn thành phố Hà Nội.

Từ khóa: Thực phẩm hữu cơ (TPHC), sàn thương mại điện tử, ý định mua hàng.

**FACTORS AFFECTING OF CONSUMERS' PURCHASING DECISION OF
ORGANIC FOOD ON E-COMMERCE PLATFORM IN HANOI CITY**

Abstract: The 21st century witnessed the growing development of organic food. The application of new food technology, the increase in health consciousness, and the problems of global environmental protection are the causes of the rise of organic food. In Vietnam, organic food is increasingly interested by consumers and is popularly sold in markets, shops and supermarkets. E-commerce has developed to create a product distribution channel that makes it more convenient to bring organic products to consumers. This study wants to find out the factors affecting consumers' decision to buy organic food on the e-commerce platform in Hanoi. Using a multivariate regression method with a research sample of 300 subjects of all ages, occupations and genders, the study concluded that there are 2 factors affecting consumers' decision to buy organic food on the e-commerce platform in Hanoi City: "Feeling usefulness" and "Health awareness"

Keywords: Organic food, e-commerce platform, purchase intention.

1. Đặt vấn đề

Xu hướng tiêu dùng TPHC phát triển nhanh chóng trong những năm qua. Báo cáo xu hướng tiêu dùng thực phẩm hữu cơ của AC Nielsen cho thấy, tại Việt Nam có 86% người tiêu dùng ưu tiên lựa chọn sản phẩm organic (thực phẩm hữu cơ) cho bữa ăn hàng ngày vì tính an toàn, giàu dinh dưỡng và hương vị. Đáp ứng nhu cầu này, thực phẩm hữu cơ xuất hiện ngày càng nhiều từ kệ hàng siêu thị đến các cửa hàng thực phẩm sạch. Dù thực phẩm hữu cơ đang có giá cao hơn thực phẩm cùng loại từ 20%-30%, tuy nhiên người tiêu dùng Việt vẫn sẵn sàng chi trả để có được sản phẩm an toàn bảo vệ sức khỏe gia đình. Bên cạnh đó, vấn đề vệ sinh an toàn thực phẩm đang ở mức đáng báo động, các tác nhân gây ảnh hưởng đến sức khỏe người tiêu dùng và môi trường từ việc sử dụng thuốc trừ sâu, các sinh vật biến đổi gen và các chất phi tự nhiên khác trong sản xuất nông nghiệp nhằm gia tăng sản lượng đã và đang thúc đẩy người tiêu dùng và các nhà tiếp thị quan tâm nhiều hơn đến thực phẩm hữu cơ (Teng và Wang, 2015). Riêng ở nước ta, theo thống kê được đăng tải trên cổng thông tin điện tử sở y tế, năm 2021 toàn quốc ghi nhận 81 vụ ngộ độc thực phẩm làm 1.942 người mắc và 18 trường hợp tử vong vì thể nhu cầu tiêu dùng các thực phẩm hữu cơ, an toàn cho sức khỏe ngày càng được coi trọng.

Trong thời đại mà Internet và số hoá trên mọi lĩnh vực đang phát triển không ngừng, thương mại điện tử trở nên quen thuộc với người dân và phát triển hơn bao giờ hết với những tính năng tiện lợi, hữu ích thì mua sắm online là một hình thức vô cùng tiện lợi, giúp giảm bớt thời gian, chi phí, đa dạng hơn về phương thức cho người tiêu dùng. Thực phẩm hữu cơ cũng trở thành một trong những mặt hàng được bày bán trên các sàn thương mại điện tử. Câu hỏi đặt ra là yếu tố nào ảnh hưởng đến quyết định mua thực phẩm hữu cơ của người tiêu dùng và làm thế nào để thúc đẩy tiêu dùng thực phẩm hữu cơ trên các sàn thương mại điện tử? Nghiên cứu này được thực hiện để trả lời câu hỏi này.

2. Tổng quan nghiên cứu, cơ sở lý thuyết và phương pháp nghiên cứu

2.1 Tổng quan nghiên cứu

Hiện nay, có nhiều nghiên cứu về các yếu tố ảnh hưởng đến quyết định mua TPHC của người tiêu dùng. Kuo Ming Chu (2018); Shanjida Chowdhury và cộng sự (2021); Maija Cerjak và cộng sự (2010); Jiangbo Wang và cộng sự (2023) cho rằng nhận thức về sức khỏe đến ý định mua thực phẩm hữu cơ của người tiêu dùng là yếu tố chủ chốt ảnh hưởng đến quyết định mua TPHC. Chiew Shi Wee và cộng sự (2014) đã khám phá ra 4 nhân tố ảnh hưởng đến ý định mua thực phẩm hữu cơ của người tiêu dùng, gồm: Nhận thức về sức khỏe, nhận thức về an toàn, nhận thức sự thân thiện môi trường và động vật, chất lượng thực phẩm. Huỳnh Đình Lê Thu và cộng sự (2020) chỉ ra rằng thái độ và niềm tin có mối quan hệ cùng chiều với ý định mua thực phẩm hữu cơ và niềm tin đóng vai trò như tiền đề của thái độ và làm trung gian trong mối quan hệ giữa thông tin minh bạch và kiến thức về thực phẩm hữu cơ với ý định mua thực phẩm hữu cơ. Nguyễn Trung Tiến và cộng sự (2020) chỉ ra 5 yếu tố ảnh hưởng đến quyết định mua TPHC của người tiêu dùng tại Thành phố Cần Thơ, bao gồm: (1) Ý thức về sức khỏe, (2) Chuẩn mực xã hội, (3) Quan tâm an toàn thực phẩm, (4) Chất lượng sản phẩm và (5) Giá cả sản phẩm ảnh hưởng ý định mua thực phẩm hữu cơ của.

Hiện nay, sàn thương mại điện tử là một kênh phân phối TPHC mới, được người tiêu dùng đón nhận. Các trang web thông tin có chất lượng và chứng nhận sản phẩm có tác dụng kiểm duyệt lớn hơn đối với việc mua hàng (Anum Tariq và cộng sự, 2019). Ernest K. S. Lim (2017); Còn đối với Syahrizal và cộng sự (2021) hay Jiabao Lin và cộng sự (2020), nhân tố giá trị của sản phẩm hữu cơ ảnh hưởng đáng kể đến ý định mua thực phẩm hữu cơ trực tuyến của người tiêu dùng. Phạm Thị Kim Tài (2021) đưa ra kết luận 5 yếu tố tác động tích cực gồm (1) nhận thức sự hữu ích, (2) nhận thức tính dễ sử dụng, (3) niềm tin, (4) giá thành sản phẩm, (5) ảnh hưởng xã hội, (6) yếu tố rủi ro đến quyết định của người tiêu dùng. Tạ Văn Thành và Đặng Xuân Ôn (2021) đã khám phá ra 4 nhân tố (1) nhận thức tính hữu ích, (2) niềm tin, (3) cảm nhận rủi ro, và (4) tâm lý an toàn có ảnh hưởng đến ý định mua sắm trực tuyến của Thế hệ Z. Dương Thị Hải Phương (2012) đã chỉ ra 4 nhân tố ảnh hưởng đến ý định mua sắm trực tuyến của khách hàng trên địa bàn thành phố Huế là rủi ro cảm nhận, các thuộc tính sản phẩm và công ty, sự dễ sử dụng cảm nhận, và lợi ích cảm nhận. Các nghiên cứu của Trần Thị Yên Phương (2022); Nguyễn Hồng Quân và Lý Thị Thu Trang (2022) đều chỉ ra nhận thức sự hữu ích và cảm nhận rủi ro có ảnh hưởng mạnh mẽ đến quyết định mua sắm trực tuyến của người tiêu dùng. Uzun và Poturak (2014) đã đưa ra mô hình cuối cùng gồm 05 nhân tố là giá cả sản phẩm, chất lượng sản phẩm, niềm tin thương hiệu, thiết kế trang web và chất lượng dịch vụ, đồng thời cũng chỉ ra rằng chất lượng dịch vụ và niềm tin thương hiệu có tác động mạnh nhất đến ý định mua sắm trực tuyến của khách hàng. Nghiên cứu của tác giả Doulatabadi và Goh (2020) chỉ ra 03 nhân tố: 1) tính năng của website; 2) giá trị cảm nhận; 3) nhận thức thương hiệu có ảnh hưởng tích cực đến ý định mua sắm trực tuyến của khách hàng Gen Z tại Malaysia.

Tuy nhiên, chưa có nghiên cứu nào về quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử. Vì vậy, nghiên cứu này có ý nghĩa cả về mặt khoa học và thực tiễn.

2.2 Cơ sở lý luận và giả thuyết nghiên cứu

2.2.1 Thực phẩm hữu cơ

Thực phẩm hữu cơ là các thực phẩm không chứa hóa chất nhân tạo và thuốc trừ sâu trong quá trình sản xuất, chế biến và lưu trữ (Mohamed và cộng sự, 2002; Harshest Kumar và cộng sự, 2021). Thực phẩm hữu cơ không chỉ là nhóm thực phẩm quan trọng cho sức khỏe của người tiêu dùng (Huỳnh Tịnh Cát và cộng sự, 2022) mà còn cung cấp cho người tiêu dùng các lợi ích sinh thái và xã hội bổ sung cũng như thêm lợi ích cá nhân (giảm ô nhiễm đất, nước và không khí, bảo tồn năng lượng, bảo vệ môi trường, bảo tồn đa dạng sinh học,...) (Marija và cộng sự, 2010; Kuo Ming Chu, 2018).

2.2.2 Ý định mua thực phẩm hữu cơ

Trong nghiên cứu của tác giả sử dụng định nghĩa của Nik Abdul Rashid (2009), ý định mua thực phẩm hữu cơ là khả năng và ý chí của cá nhân trong việc dành sự ưa thích của mình cho thực phẩm hữu cơ hơn là thực phẩm thông thường trong việc cân nhắc mua sắm. Ramayah và cộng sự (2010) cho rằng ý định mua thực phẩm hữu cơ là một trong những biểu hiện cụ thể của hành vi mua. Han và cộng sự (2009) cho rằng ý định mua thực phẩm hữu cơ thường gắn với hành vi truyền miệng tốt về sản phẩm và sẽ có ý định trả nhiều tiền hơn cho sản phẩm hữu cơ.

2.2.3 Ý định mua trực tuyến

Delafrooz & cộng sự (2011) cho rằng “ý định mua sắm trực tuyến là khả năng hay mức độ chắc chắn nhất định của người tiêu dùng sẽ thực hiện việc mua sắm qua Internet”. Bên cạnh đó, các nghiên cứu về hành vi đã chỉ ra ý định mua sắm là con đường dẫn tới định lựa chọn sản phẩm/dịch vụ và chịu sự tác động của thái độ và chuẩn chủ quan của khách hàng (Shatenstein & Ghadirian, 1997; Tarkiainen & Sundqvist, 2005). Theo Chang (1998), con đường từ các chuẩn mực chủ quan đến ý định lựa chọn sản phẩm/dịch vụ đóng vai trò quan trọng và chịu sự ảnh hưởng của môi trường xã hội đối với sự hình thành thái độ của mỗi cá nhân.

2.2.4. Lý thuyết về các nhân tố ảnh hưởng đến ý định mua của khách hàng

- Nhận thức về sức khỏe bản thân

Người tiêu dùng có ý thức về sức khỏe cao đang có xu hướng tìm kiếm và tham gia vào các hoạt động, lối sống lành mạnh. Hơn nữa, theo (Ahmad, Omar & Rose, 2015), người tiêu dùng có ý thức về sức khỏe mua sản phẩm xanh vì nó sẽ mang lại tác động không chỉ cho sức khỏe của chính họ mà còn cho môi trường. Điều này cũng có thể áp dụng cho mô hình tiêu thụ thực phẩm hữu cơ, nơi người tiêu dùng rất đặc biệt và nhận thức về an toàn thực phẩm vì họ cần đảm bảo thực phẩm họ ăn không gây hại cho sức khỏe và giúp họ duy trì lối sống lành mạnh (Kulikovski, Agolli & Grougiou, 2011). Hơn nữa, có nhiều nhà nghiên cứu nhận thấy ý thức về sức khỏe là động lực mạnh mẽ để người tiêu dùng mua sản phẩm thực phẩm hữu cơ (T. B. Chen & Chai, 2010; Sa'ari & Koe, 2014; Huong, 2012).

- Quan ngại về an toàn thực phẩm

An toàn thực phẩm liên quan đến việc xử lý an toàn thực phẩm từ khi được trồng/nuôi, đóng gói, phân phối và chuẩn bị để ngăn ngừa các bệnh do thực phẩm gây ra (Cerjak, Mesić, Kopic, Kovačić & Markovina, 2010). An toàn thực phẩm và cách nó ảnh hưởng đến sức khỏe đã trở thành mối quan tâm ngày càng tăng ở hầu hết các nơi trên thế giới (Scarpa & Thiene, 2011). Ngày nay, người tiêu dùng đòi hỏi thông tin đáng tin cậy hơn về thực phẩm họ mua, đặc biệt là về tính hợp lệ của các loại thịt đảm bảo an toàn thực phẩm (Verbeke & Viaene, 1999). Tóm lại, an toàn thực phẩm có khả năng củng cố ý định mua hàng của người tiêu dùng đối với thực phẩm hữu cơ.

- Thái độ với thực phẩm hữu cơ

Trong nghiên cứu này, thái độ đối với TPHC đóng một vai trò quan trọng trong việc giải thích ý định tiêu dùng. Phần lớn các nghiên cứu thấy mối quan hệ thuận chiều giữa thái độ và quyết định tiêu dùng thực phẩm hữu cơ (Hoyer & MacInnis, 2007; Dickieson & ctv, 2009; Chong & ctv, 2013). Thái độ tốt đối với thực phẩm hữu cơ cũng thúc đẩy người tiêu dùng loại mặt hàng này một cách tích hơn.

- Cảm nhận rủi ro

Có nhiều loại rủi ro khác nhau có ảnh hưởng tới hành vi mua sắm trực tuyến như rủi ro về cơ sở vật chất, rủi ro hoàn trả, rủi ro giao hàng, rủi ro tài chính. Những rủi ro liên quan đến giá cả, thời gian, sản phẩm hay bảo mật thông tin cũng có ảnh hưởng tới quyết

định mua của khách hàng (Forsythe & Shi, 2003; Forsythe & cộng sự, 2006; Dange & Kumar, 2012). Khi mua hàng trực tuyến người tiêu dùng không thể trực tiếp chọn lựa và kiểm tra sản phẩm nên có thể dẫn tới việc cân nhắc, xem xét trước khi đưa ra quyết định. Điều này ảnh hưởng tiêu cực tới quyết định cuối cùng của người tiêu dùng về việc chọn lựa phương thức mua hàng truyền thống trực tiếp tới cửa hàng hay mua trực tuyến.

- *Cảm nhận tính hữu ích*

Cảm nhận tính hữu ích hữu ích là độ mà một người tin tưởng rằng việc sử dụng một hệ thống có thể nâng cao năng suất công việc của mình”. Sử dụng Internet được người tiêu dùng tin tưởng sẽ cải thiện hiệu suất hoặc năng suất của mình vì vậy sẽ nâng cao kết quả của trải nghiệm mua sắm của họ. Những lợi ích của việc mua sắm trực tuyến là nhanh gọn, thuận tiện, có thể mua hàng với giá rẻ (Khalifa & 20 Limayem, 2003; Shim, Shin & Nottingham, 2002).

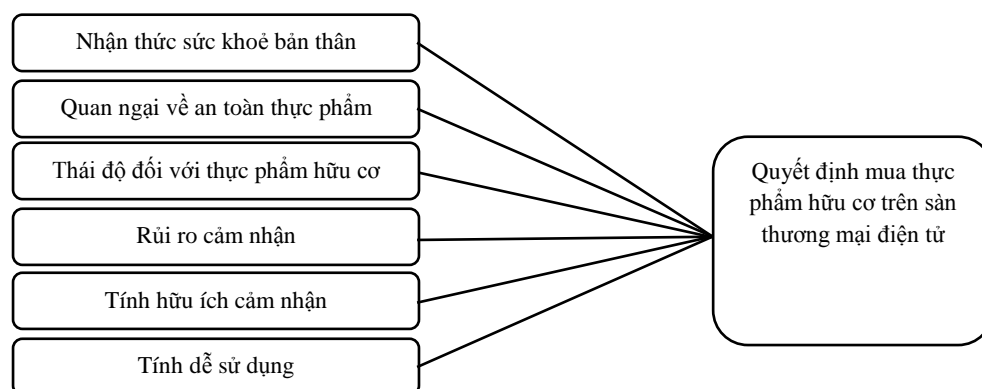
- *Cảm nhận tính dễ sử dụng*

Khi người tiêu dùng mua sắm trực tuyến nhận thức được tính dễ sử dụng có nghĩa là họ cảm thấy dễ dàng và thuận tiện, thậm chí có thể đạt được nhiều lợi ích ngoài sự mong đợi của họ. Họ nhận thấy hệ thống mua sắm trực tuyến có giao diện thân thiện, thiết kế hợp lý dễ sử dụng, không cần sự trợ giúp của người khác và điều này khiến người tiêu dùng hài lòng, thích sử dụng (Davis và cộng sự, 1989).

2.3 Mô hình nghiên cứu và phương pháp nghiên cứu

2.3.1 Mô hình nghiên cứu

Trong phạm vi nghiên cứu của nhóm, mô hình nghiên cứu đề xuất được học hỏi và rút ra từ các nghiên cứu trong quá khứ của các tác giả trong và ngoài nước. Dựa trên cơ sở lý thuyết và tổng quan nghiên cứu, mô hình nghiên cứu được đề xuất như:



Hình 1. Mô hình nghiên cứu

Nguồn: Tác giả đề xuất

- Giả thuyết 1 (H1): “Nhận thức về sức khỏe bản thân” có tác động đến quyết định mua thực phẩm hữu cơ của người tiêu dùng trên địa bàn Hà Nội.

- Giả thuyết 2 (H2): “Quan ngại về an toàn thực phẩm” có tác động đến quyết định

mua thực phẩm hữu cơ của người tiêu dùng trên địa bàn Hà Nội.

- Giả thuyết 3 (H3): “Thái độ với thực phẩm hữu cơ” có tác động đến quyết định mua thực phẩm hữu cơ của người tiêu dùng trên địa bàn Hà Nội.

- Giả thuyết 4 (H4): “Cảm nhận rủi ro” có tác động đến quyết định mua trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Hà Nội.

- Giả thuyết 5 (H5): “Cảm nhận tính hữu ích” có tác động đến quyết định mua trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Hà Nội.

- Giả thuyết 6 (H6): “Cảm nhận tính dễ sử dụng” có tác động đến quyết định mua trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Hà Nội.

Với mô hình này nhóm đã đưa ra bảng câu hỏi với các biến quan sát theo thang đo dạng Likert 5 mức độ tương ứng với mức từ “Thấp nhất” = 1 đến “Cao nhất” = 5 cụ thể được mô tả trong bảng 1 dưới đây:

Bảng 1. Diễn giải các biến quan sát trong mô hình nghiên cứu

Mã hóa thang đo

Mã hóa	Thang đo	Nguồn tham khảo
Thái độ của khách hàng đối với thực phẩm hữu cơ		
ATT1	Tôi cảm thấy thích mua thực phẩm hữu cơ trên sàn TMĐT	
ATT2	Tôi cảm thấy khôn ngoan khi mua thực phẩm hữu cơ trên sàn TMĐT	
ATT3	Tôi cảm thấy tích cực khi mua thực phẩm hữu cơ trên sàn TMĐT	
ATT4	Tôi cảm thấy có lợi ích khi mua thực phẩm hữu cơ trên sàn TMĐT	
Nhận thức về sức khỏe bản thân		
HCN1	Tôi rất ý thức về sức khỏe của bản thân	
HCN2	Tôi thường theo dõi sức khỏe bản thân	
HCN3	Tôi ý thức về sức khỏe bản thân từng ngày	
HCN4	Tôi theo dõi từng thay đổi đối với sức khỏe bản thân	
HCN5	Tôi ý thức là bản thân phải chịu trách nhiệm đối với tình trạng sức khỏe bản thân	

Quan ngại về an toàn thực phẩm

- ATTP1 Tôi quan ngại về chất lượng và an toàn thực phẩm ngày nay
- ATTP2 Ngày nay, nhiều thực phẩm chứa dư lượng hóa chất và phân bón
- ATTP3 Tôi rất quan ngại về lượng chất nhân tạo quá nhiều
- ATTP4 Hiện nay tôi mua nhiều thực phẩm tươi hơn vài năm trước
-

Cảm nhận rủi ro

- PR1 Ứng dụng thương mại điện tử hoạt động không tốt và bị lỗi khi thanh toán
- PR2 Sử dụng ứng dụng thương mại điện tử không an toàn khi thanh toán
- PR3 Hệ thống an ninh thông tin được xây dựng trên các ứng dụng thương mại điện tử không đủ mạnh bảo vệ được tài khoản của tôi
- PR4 Hacker có thể chiếm quyền sử dụng tài khoản của tôi nếu tôi sử dụng ứng dụng thương mại điện tử
-

Cảm nhận tính hữu ích

- PU1 Ứng dụng thương mại điện tử hữu dụng trong cuộc sống của tôi
- PU2 Sử dụng ứng dụng thương mại điện tử có thể cho phép thực hiện giao dịch nhanh hơn
- PU3 Sử dụng ứng dụng thương mại điện tử làm tăng năng suất
- PU4 Sử dụng ứng dụng thương mại điện tử nâng cao hiệu quả làm việc
- PU5 Sử dụng ứng dụng thương mại điện tử cho phép thực hiện việc mua hàng nhanh hơn
-

Cảm nhận tính dễ sử dụng

- PEU1 Sử dụng ứng dụng thương mại điện tử không cần phải suy nghĩ nhiều

PEU2	Tôi nghĩ là tôi có thể tự sử dụng các ứng dụng thương mại điện tử mà không cần chuyên gia giúp đỡ
PEU3	Học cách sử dụng các ứng dụng thương mại điện tử khá dễ dàng
PEU4	Nói chung, tôi tin rằng ứng dụng thương mại điện tử dễ sử dụng
PEU5	Sử dụng các ứng dụng thương mại điện tử không phức tạp, dễ thao tác, sử dụng

Ý định sử dụng

IU1	Hiện tại tôi sử dụng ứng dụng thương mại điện tử khi mua thực phẩm hữu cơ
IU2	Tôi có ý định dùng ứng dụng thương mại điện tử nếu tôi truy cập vào ứng dụng
IU3	Trong 2 tuần tới, tôi sẽ sử dụng ứng dụng thương mại điện tử để mua thực phẩm hữu cơ
IU4	Tôi có ý định sử dụng ứng dụng thương mại điện tử để mua thực phẩm hữu cơ trong 5 năm tới

Nguồn: Kết quả phân tích dữ liệu của nhóm nghiên cứu

2.3.2 Phương pháp nghiên cứu

Vì mục đích chính của nghiên cứu là kiểm tra các nhân tố tổ ảnh hưởng đến quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử, một bảng câu hỏi cấu trúc đã được phát triển để thu thập dữ liệu người dân trên 18 tuổi đang sinh sống và làm việc tại Thành phố Hà Nội. Nhóm đã sử dụng phương pháp phát phiếu điều tra thực hiện bằng cách gửi bảng khảo sát qua Google Form đến người tiêu dùng trên địa bàn Hà Nội có ý định mua thực phẩm hữu cơ và thu được 336 phiếu. Dữ liệu sau đó được sàng lọc và chỉ 300 phản hồi được coi là đầy đủ và hợp lệ để phân tích dữ liệu. Tác giả thực hiện kiểm định thang đo nghiên cứu bằng hệ số tin cậy Cronbach's Alpha, phân tích nhân tố khám phá EFA, phân tích nhân tố dựa vào chỉ số Eigenvalue để xác định số lượng các nhân tố được dùng và kiểm định giả thuyết thông qua hồi quy đa biến bằng phần mềm SPSS 20.

3. Kết quả và thảo luận (Results and discussion):

Mô tả mẫu nghiên cứu

Bảng 2: Mô tả mẫu nghiên cứu

		Tần số	Tần suất (%)
Giới tính	Nam	87	29.0
	Nữ	213	71.0
Độ tuổi	Dưới 18 tuổi	8	2.7
	Từ 18 - 35 tuổi	214	71.3
	Từ 36 - 45 tuổi	50	16.7
	Trên 45 tuổi	28	9.3
Nghề nghiệp	Nhân viên văn phòng	57	19.0
	Nội trợ, hưu trí	67	22.3
	Lao động phổ thông	69	23.0
	Tự kinh doanh	42	14.0
	Người có sức ảnh hưởng (KOL, người nổi tiếng,...)	15	5.0
Trình độ học vấn	Học sinh, sinh viên	50	16.7
	Phổ thông	20	6.7
	Trung cấp	19	6.3
	Cao đẳng	34	11.3
	Đại học	209	69.7
Thu nhập	Cao học	18	6.0
	Dưới 3 triệu	15	5.0
	Từ 3 - 5 triệu	39	13.0
	Từ 5 - 10 triệu	68	22.7
	Từ 10 - 15 triệu	99	33.0
Nơi sinh sống	Trên 15 triệu	79	26.3
	Nội thành Hà Nội	235	78.3
	Ngoại thành Hà Nội	65	21.7
Tổng		300	100.0

Nguồn: Kết quả phân tích dữ liệu của nhóm nghiên cứu

Tổng số 300 phiếu hợp lệ, trong đó có 71% đáp viên nữ, 29% là đáp viên nam. Độ tuổi của đáp viên với 2.7% dưới 18 tuổi, 71.3% từ 18 - 35 tuổi, 16.7% từ 36 - 45 tuổi, 9.3% là trên 45 tuổi. Nghề nghiệp của họ với 19.0% là nhân viên văn phòng, 22.3% là nội trợ hưu trí, 23% là lao động phổ thông, 14% là tự kinh doanh, 5.0% là người có sức ảnh hưởng, cuối cùng với 16.7% là học sinh sinh viên. Đa số người tham gia phỏng vấn có trình độ bậc đại học với 69.7%, cùng với đó mức thu nhập hầu hết của họ là từ 10 - 15 triệu với 33%, tiếp đến là 26.3% có thu nhập trên 15 triệu, 22.7% có thu nhập từ 5 - 10 triệu. Cùng với đó có 78.3% đáp viên đang sinh sống tại nội thành Hà Nội và 21.7% đáp viên thuộc ngoại thành Hà Nội.

So sánh với các nghiên cứu cùng đề tài (Phạm Thị Kim Tài, 2020); (Nguyễn Ngọc Đạt, Nguyễn Thanh Hiền, 2017); (Ernest K.S.Lim 2020) thì hiện nay độ tuổi mua thực phẩm hữu cơ trực tuyến ngày càng trẻ hóa từ 30-40 chuyển thành 18-35. Điều đó có thể lý giải vì hiện nay, giới trẻ có xu hướng quan tâm sức khỏe và thực phẩm sạch từ rất sớm. Và nghiên cứu cũng chỉ ra rằng không chỉ những người có mức thu nhập cao, những người đã đi làm mới quan tâm nhiều tới thực phẩm hữu cơ mà ngay cả những học sinh, sinh viên, những người có thu nhập trung bình 10-15 triệu họ cũng rất quan tâm đến những thực phẩm tốt cho sức khỏe. Hiện tại việc mua thực phẩm hữu cơ không còn xa lạ và hạn chế đối với bất cứ khách hàng có lứa tuổi, ngành nghề hay mức thu nhập ở mức thấp hơn này

- Kiểm tra độ tin cậy của thang đo

Hệ số Cronbach's alpha là một phép kiểm định thống kê về mức độ chặt chẽ, mức độ hội tụ mà các mục hỏi trong thang đo tương quan với nhau. Kết quả kiểm định thang đo Cronbach's Alpha của các thành phần được trình bày trong Bảng 3

Bảng 3. Kết quả kiểm tra độ tin cậy thang đo của các khái niệm nghiên cứu

Biến quan sát	Trung bình thang đo nếu loại biến	Phương sai thang đo nếu loại biến	Tương quan biến tổng	Cronbach's Alpha nếu loại biến
Thái độ khách hàng đối với thực phẩm hữu cơ: Cronbach's Alpha = 0.607				
ATT1	11.97	3.457	0.450	0.490
ATT2	12.16	3.664	0.339	0.572
ATT3	12.05	3.553	0.338	0.536
ATT4	12.11	3.500	0.374	0.546
Nhận thức về sức khỏe bản thân: Cronbach's Alpha = 0.884				
HCN1	15.52	9.635	0.698	0.865
HCN2	15.56	9.284	0.789	0.843
HCN3	15.52	9.715	0.676	0.870

HCN4	15.40	9.907	0.659	0.874
HCN5	15.58	9.315	0.788	0.884

Quan ngại về an toàn thực phẩm: Cronbach's Alpha = 0.800

ATTP1	11.84	5.265	0.637	0.737
ATTP2	11.77	5.092	0.687	0.711
ATTP3	11.83	5.236	0.679	0.708
ATTP4	12.00	6.217	0.440	0.827

Cảm nhận rủi ro: Cronbach's Alpha = 0.838

PR1	10.13	6.577	0.673	0.793
PR2	10.39	6.580	0.700	0.781
PR3	10.20	6.580	0.659	0.799
PR4	10.14	6.810	0.645	0.805

Cảm nhận tính hữu ích: Cronbach's Alpha = 0.875

PU1	15.66	10.106	0.712	0.847
PU2	15.76	10.558	0.701	0.850
PU3	15.62	10.978	0.660	0.860
PU4	15.70	10.370	0.717	0.846
PU5	15.67	10.008	0.735	0.842

Cảm nhận tính dễ sử dụng: Cronbach's Alpha = 0.874

PEU1	15.78	10.186	0.694	0.850
PEU2	15.70	10.224	0.681	0.853
PEU3	15.60	10.228	0.746	0.837
PEU4	15.57	10.768	0.699	0.848
PEU5	15.51	10.619	0.696	0.849

Ý định sử dụng: Cronbach's Alpha = 0.846

IU1	11.65	5.686	0.691	0.801
IU2	11.74	5.678	0.669	0.811

IU3	11.66	5.643	0.694	0.800
IU4	11.53	5.862	0.677	0.807

Hệ số Cronbach's Alpha của biến độc lập “*Thái độ khách hàng đối với thực phẩm hữu cơ*” cho thấy đã đạt yêu cầu tối thiểu ($0,607 > 0,6$). Hệ số tương quan biến tổng của các biến quan sát cũng đều lớn hơn 0,3. Các giá trị ở cột Cronbach's Alpha if Item Deleted của tất cả các biến đều thỏa mãn điều kiện $< 0,607$. Như vậy, biến độc lập “*Thái độ khách hàng đối với thực phẩm hữu cơ*” đạt yêu cầu về độ tin cậy. Hệ số Cronbach's Alpha của biến độc lập “*Nhận thức về sức khỏe bản thân*” là 0,884 ($> 0,6$). Hệ số tương quan biến tổng của các biến quan sát đều $> 0,3$. Các giá trị ở cột Cronbach's Alpha if Item Deleted đều thỏa mãn điều kiện $< 0,884$. Như vậy, biến “*Nhận thức về sức khỏe bản thân*” đã đạt yêu cầu về độ tin cậy. Hệ số Cronbach's Alpha của biến độc lập “*Quan ngại về an toàn thực phẩm*” là 0,800 ($> 0,6$). Hệ số tương quan biến tổng của các biến quan sát đều $> 0,3$. Các giá trị ở cột Cronbach's Alpha if Item Deleted đều thỏa mãn điều kiện $< 0,800$. Như vậy, biến “*Quan ngại về an toàn thực phẩm*” đã đạt yêu cầu về độ tin cậy. Tương tự các chỉ số trên với các biến độc lập “*Cảm nhận rủi ro*”, “*Cảm nhận tính hữu ích*”, “*Cảm nhận tính dễ sử dụng*” và “*Ý định sử dụng*” đều đạt yêu cầu về độ tin cậy.

- *Phân tích hồi quy đa biến*

Tác giả đã xác định 4 yếu tố ảnh hưởng đến ý định mua thực phẩm hữu cơ, bao gồm: Cảm nhận tính hữu ích (PU), Cảm nhận rủi ro (PR), Nhận thức về sức khỏe bản thân (HCN), Thái độ khách hàng với thực phẩm hữu cơ (ATT). Tác giả tiến hành phân tích hồi quy đa biến với biến phụ thuộc là Ý định mua thực phẩm hữu cơ (IU), kết quả được trình bày trong bảng.

Kết quả phân tích hồi quy đa biến

Mô hình	Hệ số chưa chuẩn hóa		Hệ số chuẩn hóa	Giá trị T	Sig.
	Beta	Std. Error	Beta		
Hằng số	-.089	.142		-.623	.534
Cảm nhận tính hữu ích (PU)	.340	.035	.313	9.821	.000
Cảm nhận rủi ro (PR)	.041	.023	.044	1.769	.078
Nhận thức về sức khỏe bản thân (HCN)	.637	.028	.670	22.999	.000
Thái độ khách hàng với thực phẩm hữu cơ (ATT)	.013	.030	.010	.437	.663

a. Dependent Variable: Ý định mua thực phẩm hữu cơ (IU)

Nguồn: Kết quả xử lý từ dữ liệu điều tra

Phương trình hồi quy tuyến tính được trích theo hệ số Beta được thể hiện như sau:

$$\text{Quyetchinhmuathucphamhuucotruuctuyen} = -0,089 + 0,340(\text{Camnhantinhhuuich}) + 0,637(\text{Nhanthucvesuckhoebanthan})$$

Theo phương trình hồi quy trên trọng số của các nhân tố ảnh hưởng đến quyết định

mua TPHC trực tuyến của người dân địa bàn thành phố Hà Nội được sắp xếp theo thứ tự từ mạnh đến yếu như sau: Nhận thức về sức khỏe bản thân là nhân tố quan trọng nhất với hệ số Beta đã chuẩn hóa là 0.637, p-value < 0,001. Cảm nhận tính hữu ích là nhân tố quan trọng thứ hai với hệ số Beta đã chuẩn hóa là 0.340, p-value < 0,001.

Sau khi phân tích hồi quy chỉ còn 2 nhân tố tác động đến “Quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Thành phố Hà Nội” là nhân tố “Cảm nhận tính hữu ích” và “Nhận thức về sức khỏe bản thân” trong khi đó các yếu tố ban đầu được đưa ra là “Quan ngại về an toàn thực phẩm”, “Thái độ với thực phẩm hữu cơ” và “Tính dễ sử dụng” bị bác bỏ.

- *Bình luận:*

Như vậy, một số phát hiện từ nghiên cứu này bao gồm:

(I) Nhân tố “ Nhận thức về sức khỏe bản thân” là một nhân tố tác động mạnh nhất đến quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn thành phố Hà Nội. Người tiêu dùng đều đồng ý “tôi theo dõi từng thay đổi đối với sức khỏe bản thân”. Họ thể hiện thái độ tích cực về việc “ý thức về sức khỏe bản thân” ; “thường xuyên theo dõi sức khỏe bản thân” và “ý thức sức khỏe từng ngày” cho thấy ý thức về sức khỏe là động lực mạnh mẽ để người tiêu dùng mua sản phẩm thực phẩm hữu cơ. Bởi sức khỏe luôn là mối quan tâm lớn của tất cả mọi người ở tất cả những thời điểm, nên với việc theo dõi sức khỏe bản thân hàng ngày góp phần thúc đẩy việc mua thực phẩm hữu cơ của người dân hiện nay. Trong khi đó thực phẩm hữu cơ có giá trị dinh dưỡng cao hơn vì việc nhân giống và tăng trưởng của thực phẩm hữu cơ đang được thực hiện một cách tự nhiên mà không liên quan đến việc sử dụng hormone và hóa chất. Bên cạnh đó, các sản phẩm thực phẩm hữu cơ được biết đến với chất lượng vượt trội và tươi hơn so với thực phẩm thông thường. Ví dụ, trái cây và rau hữu cơ dường như có độ tươi hơn vì chúng được sản xuất từ các trang trại không có hóa chất và thuốc trừ sâu. Sản phẩm tăng trưởng tự nhiên này cũng có thể cung cấp nhiều chất dinh dưỡng và vitamin tốt cho sức khỏe. Khi những giá trị này được truyền đạt hiệu quả, người tiêu dùng sẽ phát triển ấn tượng tích cực mà cuối cùng có thể biến thành mua hàng, sự hài lòng và lòng trung thành hướng tới sản phẩm. Kết quả này cũng đồng nhất với kết quả của một số kết quả trước đây (T. B. Chen & Chai, 2010); (Sa’ari & Koe, 2014). Mối quan tâm của người tiêu dùng về dư lượng thuốc trừ sâu và nguồn cung cấp thực phẩm (ThS. Nguyễn Trung Tiến và cộng sự, 2020). Các nghiên cứu của Kuo Ming Chu (2018); Shanjida Chowdhury và cộng sự (2021); Maija Cerjak và cộng sự (2010); Jiangbo Wang và cộng sự (2023)) đều đánh giá cao ảnh hưởng của nhận thức về sức khỏe đến ý định mua thực phẩm hữu cơ của người tiêu dùng.

(II) Nhân tố “Cảm nhận tính hữu ích” là nhân tố không mới nhưng cũng có tác động mạnh mẽ đến quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn thành phố Hà Nội. Mọi người có sự đồng ý lớn nhất với việc “Sử dụng ứng dụng thương mại điện tử làm tăng năng suất”. Nghĩa là thương mại điện tử có thể làm tiết kiệm thời gian, công sức cho người tiêu dùng kể cả trong việc thanh toán và việc nhận hàng ví dụ như khách hàng có thể lựa chọn và sau đó mua được nhiều mặt hàng đa dạng trong một tích tắc với thao tác đơn giản trên các ứng dụng mua hàng thay vì phải đến từng cửa hàng để lựa chọn các mặt hàng ấy như thương mại truyền thống. Ứng dụng thương mại điện tử : “hữu dụng

trong cuộc sống”; “mua hàng nhanh hơn”; “giúp nâng cao hiệu quả làm việc” và “thực hiện giao dịch nhanh hơn”. Khi người tiêu dùng mua sắm trực tuyến nhận thức được tính dễ sử dụng có nghĩa là họ cảm thấy dễ dàng và thuận tiện, thậm chí có thể đạt được nhiều lợi ích ngoài sự mong đợi của họ khi sử dụng trang web mua hàng. Đặc tính của thực phẩm hữu cơ là thời gian sử dụng ngắn, thị trường cung cấp hạn chế trở thành rào cản mua hàng tác động mạnh đến việc mua thực phẩm hữu cơ của người tiêu dùng. Họ nhận thấy việc mua thực phẩm hữu cơ trực tuyến qua hệ thống mua sắm trực tuyến có giao diện thân thiện, thiết kế hợp lý dễ sử dụng, không cần sự trợ giúp của người khác và điều này khiến người tiêu dùng hài lòng, thích sử dụng. Các tính năng của trang web rất quan trọng để phổ biến thông tin về thực phẩm hữu cơ về chất lượng và chứng nhận sản phẩm có tác dụng kiểm duyệt lớn hơn đối với việc mua hàng. Sử dụng Internet được người tiêu dùng tin tưởng sẽ cải thiện hiệu suất hoặc năng suất của mình vì vậy sẽ nâng cao kết quả của trải nghiệm mua sắm của họ. Mua sắm trực tuyến có lợi ích nhanh gọn, thuận tiện và có thể mua hàng với giá rẻ hơn. Kết quả nghiên cứu này cũng đồng nhất với kết quả của một số nghiên cứu trước đó về hệ thống mua sắm trực tuyến dễ sử dụng, nâng cao năng suất (Davis và cộng sự, 1989); mua sắm trực tuyến nhanh gọn, thuận tiện, giá cả phải chăng (Khalifa & 20 Limayem, 2003; Shim, Shin & Nottingham, 2002). Bên cạnh đó kết quả nghiên cứu cho thấy mức độ tin cậy của yếu tố này là 0.340, con số này nhỏ hơn khá nhiều so với nghiên cứu trước đó như theo Phạm Thị Kim Tài (2020) 0.876 cho thấy giờ đây thương mại điện tử đã một nhân tố quen thuộc đối với quá trình mua hàng của người tiêu dùng nhất ở thời đại hiện nay - thời kỳ công nghệ số. Người tiêu dùng đã trở nên thân quen với các ứng dụng mua hàng và có thể dễ dàng sử dụng. Bên cạnh đó họ hiểu biết rõ hơn và nhận thức tốt hơn về việc sử dụng công nghệ thông tin trong quá trình mua hàng hóa. Việc nhận thức theo thời gian tăng cao khiến cho mối quan tâm về tính hữu ích không còn trở nên quá quan trọng.

4. Kết luận và khuyến nghị chính sách:

Kết quả nghiên cứu cho thấy có 2 nhân tố tác động đến “Quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Thành phố Hà Nội” là nhân tố “Cảm nhận tính hữu ích” và “Nhận thức về sức khỏe bản thân”. Trong đó, nhận thức về sức khỏe bản thân là nhân tố tác động mạnh hơn đến ý định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Hà Nội. Kết quả này hoàn toàn phù hợp với xu hướng tiêu dùng hiện nay khi mà nền kinh tế phát triển hơn, thu nhập cao hơn khiến con người quan tâm nhiều hơn tới sức khỏe. Đặc biệt là đại dịch Covid-19 đã tác động mạnh mẽ không chỉ lên tâm lý người tiêu dùng về vấn đề an toàn vệ sinh thực phẩm mà còn tiếp cận nhiều hơn các nền tảng thương mại điện tử. Sự trỗi dậy của các nền tảng thương mại điện tử đã đóng vai trò như một chất xúc tác để thực phẩm hữu cơ tiếp cận với mọi khách hàng ở mọi lứa tuổi, ngành nghề hay mức thu nhập. Như vậy, người tiêu dùng hoàn toàn ý thức được tác động của TPHC đối với sức khỏe bản thân và chấp nhận sàn thương mại điện tử như là nơi phân phối thuận tiện cho việc mua TPHC. Người tiêu dùng ý thức hơn về sử dụng thực phẩm hữu cơ đối với sức khỏe, giúp phòng bệnh, cung cấp dinh dưỡng, không chứa sinh vật biến đổi gen, bảo vệ chức năng sinh sản và tốt cho môi trường. Người tiêu dùng cũng dần quen với việc mua TPHC qua các sàn thương mại điện tử thay vì đi đến các chợ, cửa hàng, siêu thị như trước đây.

Tiêu dùng TPHC không chỉ tốt cho bản thân người tiêu dùng mà còn cho môi trường, cho toàn xã hội nói chung. Để thúc đẩy việc mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng tại địa bàn thành phố Hà Nội, tác giả đề xuất một số giải pháp sau:

Thứ nhất, cần phải tuyên truyền, quảng bá, nâng cao được nhận thức của người tiêu dùng đối với vai trò của TPHC đối với sức khỏe của người tiêu dùng, sự hữu ích khi mua mặt hàng thực phẩm hữu cơ để từ đó góp phần gia tăng số lượng khách hàng mua quan tâm TPHC.

Thứ hai, các nhà sản xuất kinh doanh thực phẩm hữu cơ cần chú trọng hơn tới việc gia tăng cảm nhận tốt của TPHC đối với sức khỏe người tiêu dùng như truy xuất nguồn gốc, chất lượng, thời gian sản xuất, tiêu thụ, nhãn mác tin cậy, hệ thống cửa hàng hữu cơ...

Thứ ba, xây dựng website/ App mua hàng uy tín, đẹp, bắt mắt, thân thiện, chuyên nghiệp và đặc biệt dễ sử dụng để người tiêu dùng có thể truy cập và mua sắm ở đa số lứa tuổi khác nhau, đặc biệt tầng lớp trung lưu và giới trẻ.

Song song với đó, các doanh nghiệp kinh doanh thực phẩm hữu cơ nên thực hiện các hoạt động nhằm giúp người tiêu dùng ý thức hơn về sức khỏe của mình. Ví dụ thực hiện các chương trình tư vấn về dinh dưỡng, nâng cao sức khỏe thông qua việc sử dụng thực phẩm hữu cơ tốt cho sức khỏe. Như vậy, từ ý thức về sức khỏe, người tiêu dùng sẽ có động lực quan tâm đến thực phẩm nhằm đảm bảo nâng cao sức khỏe.

Nghiên cứu này khám phá các nhân tố ảnh hưởng đến quyết định mua thực phẩm hữu cơ trên sàn thương mại điện tử của người tiêu dùng trên địa bàn Hà Nội và bước đầu có những đánh giá mức độ ảnh hưởng của các yếu tố. Tuy nhiên, mô hình nghiên cứu mới dừng lại ở việc xem xét sự tác động một chiều của các yếu tố đến quyết định mua mà chưa xem xét mối quan hệ giữa các yếu tố đó với nhau. Hơn nữa, nghiên cứu còn hạn chế do quy mô mẫu nhỏ, thời gian nghiên cứu ngắn nên tính đại diện cho tổng thể chưa cao. Vì vậy, các nghiên cứu trong tương lai có thể sẽ bổ sung thêm các biến trong mô hình nghiên cứu và mở rộng quy mô mẫu để tăng tính đại diện của nghiên cứu.

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HOẠT ĐỘNG LOGISTICS XANH TRONG CÁC DOANH NGHIỆP SẢN XUẤT TẠI VIỆT NAM - CƠ SỞ LÝ THUYẾT VÀ THỰC TIỄN

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Tóm tắt: *Logistics xanh đang có xu hướng phát triển mạnh mẽ trên thế giới trong thời gian gần đây. Dưới áp lực được tạo ra bởi khách hàng - những người thích tiêu dùng “xanh” và các quy định của chính phủ, các doanh nghiệp có xu hướng thực hiện logistics xanh trong quá trình sản xuất kinh doanh của mình. Nghiên cứu tập trung làm rõ cơ sở lý luận về logistics xanh và phân tích thực trạng hoạt động này tại các doanh nghiệp hoạt động trong lĩnh vực sản xuất tại Việt Nam, qua đó đưa ra các giải pháp nhằm phát triển logistics xanh tại các doanh nghiệp Việt Nam hiện nay.*

Từ khóa: *Logistics xanh, doanh nghiệp, Việt Nam*

GREEN LOGISTICS OPERATION OF VIETNAMESE MANUFACTORIES - THEORY AND FACTS

Abstract: *Recently, Green logistics is trending strongly in the world. Under the pressure created by customers - who prefer "green" consumption and government regulations, businesses tend to implement green logistics in their production and business processes. The study focuses on clarifying the theoretical basis of green logistics and analyzing the current status of this activity at enterprises operating in the manufacturing sector in Vietnam, offering solutions to develop green logistics in Vietnamese enterprises today.*

Keywords: *Green logistics, enterprises, Vietnam*

1. Giới thiệu

Logistics là quá trình tối đa hóa lợi nhuận của hàng hóa từ nơi xuất xứ đến nơi tiêu thụ để đáp ứng nhu cầu của khách hàng thông qua vận chuyển, lưu kho và phân phối (Saripalle, 2018; Rose và cộng sự, 2017). Theo đà phát triển và cạnh tranh thương mại quốc tế, quản lý logistics ngày càng trở thành một phương thức quan trọng để các quốc gia nâng cao năng lực cạnh tranh, và nâng cao hiệu quả hoạt động logistics đã trở thành lực lượng cốt lõi và là yếu tố quyết định để hội nhập hiệu quả vào chuỗi giá trị toàn cầu, duy trì tăng trưởng kinh tế và nâng cao năng lực cạnh tranh quốc gia (Emikonel, 2021; Filova và Hrda, 2020; Soda và Aggarwal, 2020). Với các vấn đề môi trường toàn cầu đang gia tăng, các công ty và các nhà hoạch định chính sách đang phải đối mặt với áp lực ngày càng tăng để giảm tác động sinh thái tiêu cực của các hoạt động hậu cần và làm cho nó bền vững hơn với môi trường

Xu hướng “xanh hóa” hoạt động sản xuất ngày càng được các doanh nghiệp quan tâm và thực hiện, một trong các hoạt động được áp dụng tại doanh nghiệp là thực hiện

logistics xanh. Nguyên nhân lý giải cho hành động này bởi vì logistics xanh được xem là hoạt động mang lại lợi thế cạnh tranh cho doanh nghiệp. Ngày nay, khách hàng đang yêu cầu các doanh nghiệp phải thực hiện các hoạt động sản xuất kinh doanh “xanh”. Nghiên cứu của Shrivastava (1996) kết luận rằng khách hàng đang đòi hỏi các sản phẩm xanh và bao bì thân thiện hơn với môi trường. Nghiên cứu cho thấy một số người tiêu dùng sẵn sàng trả giá cao hơn cho các sản phẩm thân thiện với môi trường và họ đang tìm kiếm thêm thông tin về nội dung, cách xử lý khi sử dụng và khả năng tái chế. Nhưng đó không phải là lý do duy nhất khiến các doanh nghiệp hướng tới sản xuất xanh và thích ứng với logistics xanh. Wu Haw-Jan và Steven C (1995) đưa ra một lý do khác giải thích tại sao sử dụng logistics xanh lại quan trọng là do các vấn đề môi trường nghiêm trọng phát sinh từ tăng trưởng kinh tế. Doanh nghiệp cũng phải có trách nhiệm đối với việc bảo vệ môi trường. Cùng quan điểm trên Thiell, Zuluga, Montanez và Hoof (2011) chỉ ra rằng trong logistics tại doanh nghiệp, hoạt động vận chuyển có tác động đáng kể đến môi trường. Lượng CO₂ mà các phương tiện, máy bay, ô tô và tàu tạo ra được xem là một trong những nguyên nhân chính gây ra hiệu ứng nóng lên toàn cầu đang đe dọa thế giới ngày nay. Theo đó, sự suy giảm tầng ôzôn, sự biến mất nhanh chóng của các khu rừng nhiệt đới, ô nhiễm không khí và nước và sự khan hiếm các bãi xử lý rác thải là những mối đe dọa đối với chất lượng cuộc sống toàn cầu. Các tác giả cho rằng nhu cầu đối với các sản phẩm xanh trên thị trường ngày càng tăng, các quy định ô nhiễm nghiêm ngặt hơn do chính phủ đặt ra và quản lý kinh doanh có trách nhiệm với môi trường hơn. Nếu các chính phủ không có các biện pháp bảo vệ môi trường, lượng khí thải carbon dioxide (CO₂) từ các hoạt động giao thông vận tải sẽ tăng 60% vào năm 2050 và chỉ riêng lượng khí thải từ vận chuyển hàng hóa toàn cầu sẽ tăng 160% (Robaina và Neves, 2021). Theo Thỏa thuận khí hậu Paris, sự nóng lên toàn cầu nên được giữ ở mức dưới 2°C và tốt nhất là dưới 1,5°C, điều này càng đòi hỏi các chính sách môi trường tốt hơn trong lĩnh vực giao thông vận tải để giải quyết thách thức này (Rogelj và cộng sự, 2016). Do đó, chính phủ đặt ra các tiêu chuẩn như tiêu chuẩn khí thải của phương tiện, yêu cầu tái chế ở cấp liên bang, tiểu bang và địa phương, họ cũng đặt ra các tiêu chuẩn trong việc kiểm soát tiếng ồn. Ở Châu Âu và Canada cũng đã đặt ra các tiêu chuẩn nghiêm ngặt về giảm nguồn, tái sử dụng vật liệu và tái chế chất thải. Tại Việt Nam Chính phủ ban hành quyết định số 1658/QĐ-TTg về phê duyệt “Chiến lược quốc gia về tăng trưởng xanh giai đoạn 2021 - 2030, tầm nhìn 2050” trong đó xác định “xanh hóa các ngành kinh tế” là nhiệm vụ trọng tâm.

Như vậy, việc áp dụng logistics xanh là cần thiết đối với các doanh nghiệp hiện nay, hoàn toàn hợp với xu thế phát triển chung của xã hội, giúp thỏa mãn nhu cầu của khách hàng, đáp ứng các quy định của chính phủ và tạo ra lợi thế cạnh tranh cho doanh nghiệp. Nghiên cứu tập trung làm rõ các vấn đề liên quan đến logistics xanh tại doanh nghiệp ở cả phương diện lý luận và thực tiễn. Thông qua phương pháp nghiên cứu định tính và sử dụng dữ liệu thứ cấp, nghiên cứu chỉ ra những thuận lợi và khó khăn trong việc thực hiện logistics xanh tại các doanh nghiệp hoạt động trong lĩnh vực sản xuất tại Việt Nam và đưa ra một số giải pháp cho vấn đề này

2. Tổng quan nghiên cứu và cơ sở lý thuyết.

2.1. Tổng quan nghiên cứu

Các nghiên cứu về logistics xanh hiện tại được tiến hành chủ yếu từ góc độ vĩ mô để cải thiện môi trường kinh doanh cho chuỗi cung ứng toàn cầu và từ góc độ vi mô để đánh giá tác động của các quy định xanh đối với khu vực, ngành, hoặc việc kinh doanh của doanh nghiệp.

Ở phạm vi vĩ mô, điểm chung các nghiên cứu đều chỉ ra logistics và chuỗi cung ứng có mối quan hệ mật thiết với nhau ở khâu chế biến nguyên liệu thô và sản xuất bán thành phẩm. McKinnon và cộng sự (2016) đã làm rõ vấn đề về logistics xanh thông qua việc chỉ ra mối liên hệ giữa các hoạt động logistics và ảnh hưởng môi trường. Theo đó, sự di chuyển của hàng hóa cũng như vận chuyển hàng hóa có ảnh hưởng đến môi trường. Để hạn chế sự ảnh hưởng của hoạt động vận chuyển tới môi trường cần thiết lập một chuỗi cung ứng xanh trong đó thực hiện các hoạt động hậu cần xanh. Logistics xanh được đo lường như một chỉ số của thành phần Quản lý chuỗi cung ứng xanh (Pathak et al., 2020).

Nội dung của logistics xanh cũng được đề cập tới trong nhiều nghiên cứu khác nhau của Tachizawa và Wong (2015), Pathak et al. (2020). Theo đó, hoạt động logistics xanh bao gồm "hậu cần ngược" (Tachizawa và Wong, 2015) và "đóng gói xanh" (Pathak et al, 2020).

Ở cấp độ vi mô, logistics xanh được nghiên cứu ở cấp độ sản xuất - tức là trong phạm vi doanh nghiệp (bao gồm các doanh nghiệp lớn, các doanh nghiệp vừa và nhỏ hoạt động trong lĩnh vực sản xuất) (Thaib, 2020; Lai và Wong 2012; Lin và cộng sự, 2011; Hu và cộng sự, 2019; Zhu 2019). Hầu hết các nghiên cứu về chủ đề này đều đưa ra quan điểm chỉ có các doanh nghiệp lớn mới quan tâm đến logistics xanh, trong khi các doanh nghiệp vừa và nhỏ có xu hướng bỏ qua việc xem xét thực hiện hoạt động này (Bianchi & Noci, 1998). Các tác động của sản xuất ảnh hưởng đến môi trường của các doanh nghiệp vừa và nhỏ hiện đang bị đánh giá thấp. Các nghiên cứu về logistics xanh được thực hiện tập trung vào các doanh nghiệp lớn trong khi các nghiên cứu tập trung vào các doanh nghiệp vừa và nhỏ bị bỏ qua (Del Brio & Junquera, 2003; Meqdadi, Johnsen & Johnsen, 2013). Những nghiên cứu gần đây đã chỉ ra sự hạn chế của vấn đề này, do đó logistics xanh tại các doanh nghiệp vừa và nhỏ đã được đề cập tới trong các nghiên cứu của (King & Ittmann, 2010; Winston, 2012; Sloan, Klingenberg & Rider, 2013; Göransson & Gustafsson, 2014). Các hoạt động logistics xanh trong các doanh nghiệp được thực hiện thông qua: vận chuyển "xanh", lưu trữ "xanh", đóng gói "xanh" (Tanyaş & Arıkan, 2013).

2.2. Cơ sở lý thuyết

2.2.1 Khái niệm Logistics xanh (Green logistics)

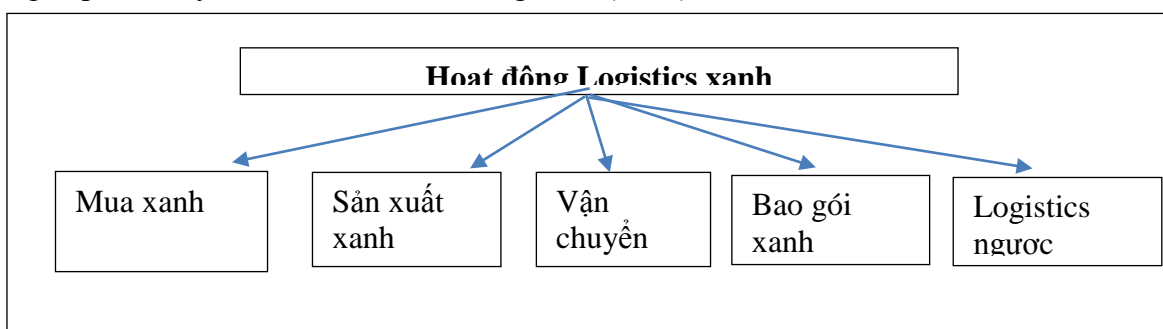
Sbihi và Eglese (2007) định nghĩa logistics xanh là: Logistics xanh liên quan đến sản xuất và phân phối hàng hóa một cách bền vững, có tính đến các yếu tố môi trường và xã hội. Một định nghĩa khác đến từ Rodrigue, Slack và Comtois (2001) các tác giả đã chia các từ và giải thích chúng một cách riêng biệt và đặt chúng lại với nhau. "Logistics" là trung tâm của hệ thống giao thông hiện đại. Như đã được chứng minh, thuật ngữ này ngụ ý một mức độ tổ chức và kiểm soát các hoạt động vận chuyển hàng hóa mà chỉ có công nghệ

hiện đại mới có thể tồn tại. Nó đã trở thành một trong những bước phát triển quan trọng nhất trong ngành vận tải. “Xanh” là một thuật ngữ thể hiện một loạt các mối quan tâm về môi trường và thường được xem xét một cách tích cực, nó được sử dụng để hàm ý khả năng thân thiện với môi trường. Vậy logistics xanh là: hệ thống giao thông và phân phối hiệu quả, thân thiện với môi trường. Định nghĩa thứ ba về logistics xanh của Larsen và cộng sự (2009) là những nỗ lực để đo lường và giảm thiểu tác động môi trường của các hoạt động logistics, những các hoạt động bao gồm một thiết kế chủ động để tháo gỡ. Các hoạt động được xử lý trong logistics xanh là đo lường tác động môi trường của các chiến lược phân phối khác nhau, giảm sử dụng năng lượng trong các hoạt động hậu cần, giảm chất thải và quản lý việc xử lý. Để có thể giải quyết các chủ đề này, các công ty hiện đang đo lường khí thải carbon của họ, để có thể theo dõi tác động môi trường của các hoạt động của công ty.

Trong nghiên cứu này, nhóm tác giả cho rằng logistics xanh là những nỗ lực để tính toán và giảm thiểu các tác động sinh thái của hoạt động logistics trong toàn bộ chu trình sản xuất kinh doanh của doanh nghiệp với mục tiêu để tạo ra giá trị bền vững của doanh nghiệp khi cân bằng giữa hiệu quả kinh tế và bảo vệ môi trường. Logistics xanh yêu cầu sự phối kết hợp chặt chẽ giữa các nhân tố: chính phủ, cộng đồng và doanh nghiệp.

2.2.2 Hoạt động logistics xanh trong doanh nghiệp

Nghiên cứu sử dụng kết quả nghiên cứu hoạt động logistics xanh trong doanh nghiệp của Büyükoçkan, G. & Vardaroğlu, Z. (2008).



Sơ đồ 1: Hoạt động Logistics xanh

Nguồn: Büyükoçkan, G. & Vardaroğlu, Z. (2008)

Mua xanh

Mua xanh là hoạt động mua hàng hóa và dịch vụ có tác động tiêu cực đến môi trường với số lượng ít nhất có thể. Doanh nghiệp ưu tiên sử dụng các vật liệu ít ảnh hưởng xấu đến sức khỏe con người và môi trường. Các quyết định mua của doanh nghiệp được thực hiện sau khi so sánh một loạt các yếu tố như số lượng và loại năng lượng và tài nguyên được sử dụng để sản xuất những vật liệu đó, độ sạch của quy trình sản xuất, phương tiện phân phối và liệu các tài nguyên đã sử dụng có xu hướng bị cạn kiệt hay không. Mua xanh bao gồm việc mua các sản phẩm có khả năng được tái chế. Trong những năm gần đây, các cơ sở nhà nước và các công ty thương mại đã bắt đầu các chiến dịch thu mua hướng tới nội dung tái chế (Corzine & Jackson, 2006).

Sản xuất xanh:

Theo Chương trình Môi trường của Liên hợp quốc, sản xuất xanh được định nghĩa là việc thực hiện các chiến lược quản lý môi trường mang tính phòng ngừa một cách tích hợp trong quá trình sản xuất, loại bỏ các rủi ro đối với sức khỏe con người và các giá trị môi trường, đồng thời nâng cao hiệu quả. Ý tưởng sản xuất hàng hóa và dịch vụ ít chất thải hơn đã đi vào thế giới kinh doanh với tên gọi “sản xuất xanh”. Yücel & Ekmekçiler (2008), Şişman (2015), trong nghiên cứu của mình, lưu ý rằng tiêu hao năng lượng điện (ánh sáng) trong quá trình sản xuất tại các doanh nghiệp là quá mức. Các tác giả tuyên bố rằng việc đặt các nguồn ánh sáng nhân tạo một cách chính xác và thiết kế dây chuyền sản xuất theo cách tận dụng tối đa ánh sáng ban ngày sẽ giúp tiết kiệm năng lượng trong quá trình sản xuất.

Vận chuyển xanh

Phân phối là quản lý các chuyển động của tất cả các nguyên vật liệu trong chuỗi giá trị từ lúc bắt đầu quá trình sản xuất đến khi đưa sản phẩm tới tay khách hàng. Các nhà quản lý doanh nghiệp chịu trách nhiệm từ phân phối quan sát mối quan hệ giữa lợi thế cạnh tranh với các yếu tố môi trường. Phân phối có tác động đáng kể đến môi trường. Ví dụ, ở Anh, khí thải của các phương tiện giao thông là một trong những nguyên nhân quan trọng gây ô nhiễm môi trường (Ar, 2011). Thông qua vận chuyển xanh, thiệt hại đối với môi trường sẽ được giảm đến mức tối thiểu, trong khi tất cả các chi phí kinh doanh đang được giảm và lợi nhuận sẽ tăng lên (Uysal, 2006)

Các yếu tố ảnh hưởng đến phân phối xanh là nhiên liệu sử dụng của phương tiện vận chuyển, tần suất chuyến đi, khoảng cách đến khách hàng và các đặc điểm khác của việc vận chuyển, chẳng hạn như vật liệu, hình dạng và trọng lượng (Büyükoçkan & Vardaloğlu, 2008). Các yếu tố ảnh hưởng đến phân phối xanh là khả năng tái chế hoặc khả năng tái sử dụng của bao bì, việc sử dụng các vật liệu vô hại với môi trường trong bao bì và việc sử dụng các phương pháp quản lý môi trường (Atrek & Özdağoğlu, 2014). Cùng với sự tiến bộ của toàn cầu hóa, khoảng cách giữa các điểm phân phối đang tăng lên rất nhiều. Khoảng cách vận chuyển dài hơn dẫn đến tăng lượng khí thải carbon cho các phương tiện. (Şişman, 2015) đã chỉ ra rằng các phương tiện giao thông vận tải là một trong những yếu tố quan trọng nhất gây nguy hiểm cho môi trường. Giao thông đường bộ là nguồn phát thải khí nhà kính cao nhất với 85% thị phần. Tỷ lệ khí thải từ các hãng hàng không đang gia tăng. Mặt khác, lượng khí thải từ vận tải đường sắt khá nhỏ (UTİKAD, 2012). Do đó, các doanh nghiệp chọn loại, công suất và các thông số kỹ thuật khác của phương tiện được sử dụng trong vận chuyển theo cách làm giảm lượng khí thải carbon trong khu vực (Elhedhli-Merrick, 2012).

Bao gói xanh

Bao bì xanh, còn được gọi là “bao bì sinh thái” được định nghĩa là phương pháp đóng gói coi trọng sức khỏe con người và động vật, cũng như môi trường trong suốt vòng đời, sử dụng vật liệu có thể tái sử dụng hoặc tái chế hoàn toàn từ vật liệu thực vật tự nhiên. Các đặc điểm của bao bì ảnh hưởng đến hiệu suất và hiệu quả thông qua chuỗi cung ứng. Đối với bao bì xanh cần chú ý đến kích thước, hình dáng bao bì và sử dụng các vật liệu thân thiện với môi trường. Cách đóng gói được thực hiện bằng vật liệu tái chế ảnh hưởng

tích cực đến hiệu quả kinh tế của một doanh nghiệp. Các bao bì được sản xuất theo cách đó giúp giảm việc sử dụng vật liệu, cho phép sử dụng hiệu quả không gian trong kho và giảm khối lượng vận chuyển cần thiết (Büyüközkan & Vardaloğlu, 2008).

- Logistics ngược

Sản phẩm, linh kiện, vật liệu, thiết bị và thậm chí tất cả hệ thống kỹ thuật có thể được tái sử dụng trong chuỗi cung ứng (Brito et. al. 2002). Logistics ngược là tái chế các vật liệu không mong muốn (vật liệu phế thải, hộp, chai lọ, giấy, v.v.) và tái sử dụng chúng để sản xuất, đồng thời sử dụng các sản phẩm bị trả lại hoặc bị lỗi bằng cách bán qua các kênh khác nhau (Kaçtıoğlu & Şengül, 2010). Mặt khác, Stock (2001) định nghĩa logistics ngược là “vai trò của hậu cần trong việc tái sử dụng sản phẩm, giảm tài nguyên, tái chế, tiếp tục và tái sử dụng vật liệu, loại bỏ chất thải, sửa chữa và tái sản xuất” (Nakıboğlu, 2007). Logistics ngược là hoạt động lập kế hoạch, thực hiện và kiểm soát dòng chảy hiệu quả của nguyên liệu thô, bán thành phẩm hoặc sản phẩm cuối cùng và thông tin liên quan từ điểm tiêu thụ đến các công đoạn ban đầu, theo cách đảm bảo giá trị gia tăng và xử lý thích hợp (İnce, 2013).

3. Thực trạng hoạt động logistics xanh tại các doanh nghiệp Việt Nam

3.1 Mua xanh

Hoạt động mua trong các doanh nghiệp sản xuất được thực hiện chủ yếu trong việc mua nguyên vật liệu đầu vào. Mua xanh là việc các doanh nghiệp sử dụng các nguyên vật liệu sản xuất đầu vào thân thiện với môi trường. Nhiều doanh nghiệp Việt Nam đã và đang chú trọng hơn sử dụng nguồn nguyên vật liệu tự nhiên, nhiên liệu, hóa chất không gây độc hại; đầu tư dây chuyền máy móc, công nghệ, trang thiết bị dây chuyền sản xuất hiện đại theo các tiêu chuẩn quốc tế để cải tiến quy trình, hướng tới sản xuất xanh.

Đi đầu trong việc sử dụng nguyên vật liệu xanh tại Việt Nam là các doanh nghiệp dệt may (thuộc nhóm ngành kinh tế mũi nhọn), nhiều tập đoàn, công ty dệt may đã xây dựng riêng cho mình một phòng Lab chỉ để nghiên cứu “nguyên liệu xanh” và từ đó ứng dụng vào thời trang “xanh” một cách thực tế.

3.2 Sản xuất xanh

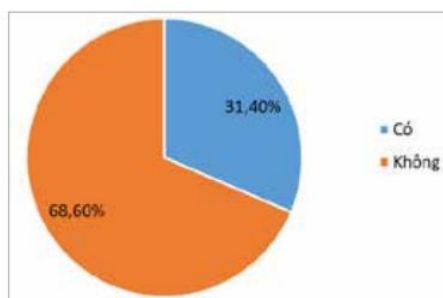
Sản xuất xanh đang trở thành một trong những mô hình được nhiều doanh nghiệp Việt Nam hướng tới, nhằm đáp ứng với yêu cầu mới, phù hợp với xu thế phát triển chung của thế giới. Đồng thời, mô hình này cũng giúp nâng cao vị thế, sức cạnh tranh của doanh nghiệp ở cả thị trường trong và ngoài nước.

Trong nông nghiệp, tại Việt Nam đã hình thành các trang trại xanh, có phương án sản xuất khoa học, tuân thủ quy trình sản xuất nghiêm ngặt; phát triển sản xuất gắn với việc tạo lập môi trường sinh thái bền vững, đa dạng sinh học. Bên cạnh đó, nhiều hộ nông dân tại các địa phương đã tham gia các hợp tác xã sản xuất rau sạch theo hướng hữu cơ, không sử dụng phân bón hóa học và các loại thuốc trừ sâu, cung cấp sản phẩm sạch cho người tiêu dùng.

Trong lĩnh vực công nghiệp, hiện nay các doanh nghiệp đã đẩy mạnh triển khai mô hình sản xuất xanh, thân thiện với môi trường cho các doanh nghiệp thành viên thông qua

việc giảm chất thải phát sinh, thay đổi thói quen và công nghệ sử dụng năng lượng hóa thạch sang nguồn năng lượng sinh học, năng lượng tái tạo... Bên cạnh đó, các doanh nghiệp cũng đang tham gia vào quá trình sản xuất tạo ra sản phẩm xanh. Đơn cử như, Công ty trách nhiệm hữu hạn Sản xuất và Kinh doanh VINFAST đã ra mắt các sản phẩm xe đạp điện và các mẫu thiết kế cho dòng xe ô tô điện cũng đã đánh dấu bước đột phá mới cho xu hướng sản xuất xanh của ngành công nghiệp ô tô, xe máy tại Việt Nam

Bên cạnh những hoạt động tích cực của các doanh nghiệp trong việc thực hiện sản xuất xanh vẫn còn những vấn đề tồn tại mà các doanh nghiệp chưa khắc phục được. Chẳng hạn như vấn đề sử dụng năng lượng sạch trong quá trình sản xuất. Nguồn năng lượng sạch, năng lượng tái tạo như: năng lượng mặt trời, điện gió... được áp dụng ở một số khâu nhất định, chưa áp dụng đồng bộ trong toàn bộ quá trình sản xuất, nhất là ở khâu vận hành nhà kho phục vụ cho các doanh nghiệp. Cụ thể, trong khảo sát của của Bộ công thương (2022), có tới 68,6% số doanh nghiệp chưa sử dụng năng lượng có khả năng tái tạo trong vận hành hoạt động kho tại doanh nghiệp hoặc chưa thuê kho có sử dụng năng lượng tái tạo. Về lý do, 65,3% doanh nghiệp nêu lý do chưa có đủ nguồn lực để thiết kế hệ thống vận hành và 29,2% doanh nghiệp cho rằng chi phí để thiết lập hệ thống kho bãi sử dụng năng lượng tái tạo cao khiến doanh nghiệp không đủ khả năng đầu tư. Trong số 31,4% số doanh nghiệp đã sử dụng năng lượng tái tạo trong vận hành kho bãi thì 81,8% doanh nghiệp sử dụng năng lượng mặt trời; 18,2% sử dụng thủy điện; 12,1% sử dụng năng lượng gió.



Hình 3: Tỷ trọng doanh nghiệp sử dụng năng lượng tái tạo trong vận hành kho bãi

Nguồn: Bộ công thương (2022)

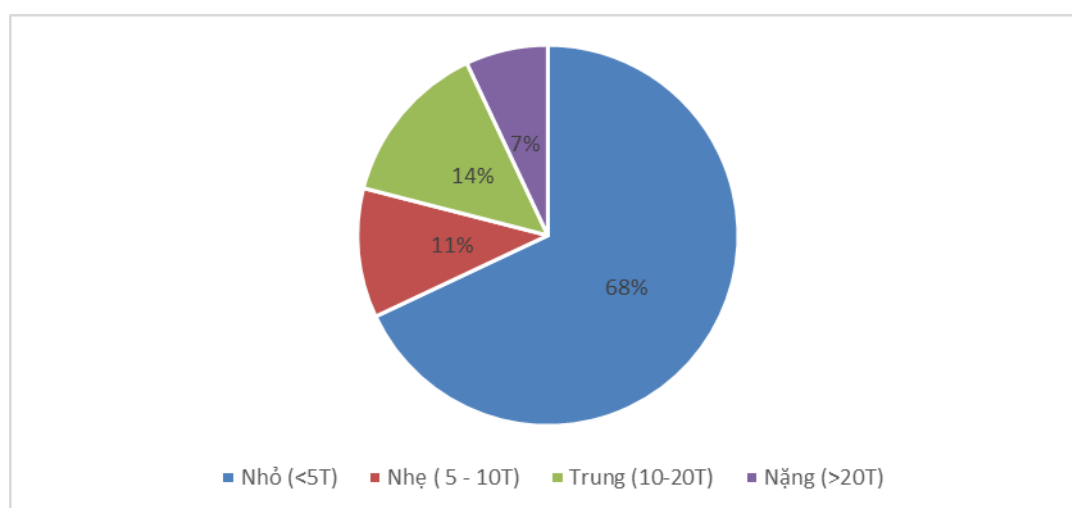
3.3 Vận chuyển xanh

Vận tải đường bộ

Hệ thống cơ sở hạ tầng yếu kém, phương tiện vận tải kém hiện đại cộng với năng lực tổ chức, điều hành và cung ứng dịch vụ vận tải chưa tốt là những yếu tố cản trở thực hiện logistics xanh tại các doanh nghiệp Việt Nam. Bên cạnh đó, kết cấu hạ tầng vận tải cũng được xem là một trong những yếu tố gây khó khăn cho các doanh nghiệp khi thực hiện hoạt động này. Thực tiễn cho thấy mạng lưới đường cao tốc nhìn chung vẫn chưa đáp ứng được yêu cầu vận chuyển của các doanh nghiệp. Việt Nam chưa có hệ thống tuyến đường cao tốc đồng bộ, các tuyến đường cao tốc bị chia cắt, chỉ những tuyến đường có kết nối với các khu công nghiệp, khu kinh tế, cảng, sân bay mới được đầu tư xây dựng. Thêm nữa chất lượng các tuyến đường không đảm bảo, độ bền của mặt đường kém, thường xuyên xảy ra tình trạng hỏng, lún... làm ảnh hưởng đến chất lượng phương tiện và thời

gian cận chuyên, thường xuyên gây ra tình trạng ùn tắc giao thông, tăng lượng phát thải khí nhà kính; từ đó ảnh hưởng đến mức độ xanh hóa hoạt động vận tải đường bộ.

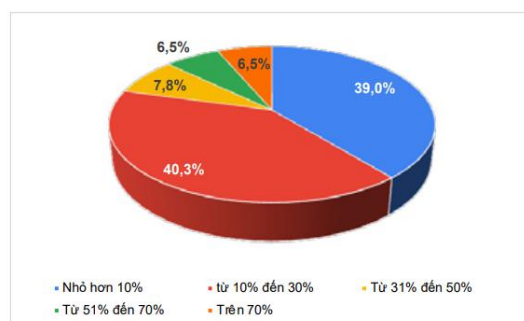
Bên cạnh vấn đề kết cấu hạ tầng vận tải, chất lượng các phương tiện vận tải cũng là một trong những yếu tố cản trở sự phát triển logistics xanh tại các doanh nghiệp Việt. Lượng xe tham gia vào quá trình vận chuyển hàng hóa tại các doanh nghiệp chủ yếu là các xe có tải trọng nhỏ. Cụ thể, trong Báo cáo của Ngân hàng Thế giới (2019), có khoảng gần 1,2 triệu xe tải được đăng ký chính thức ở Việt Nam; trong đó, 68% có tổng trọng lượng xe nhỏ hơn 5 tấn, 11% từ 5 - 10 tấn, 14% từ 10 - 20 tấn và 7% xe tải hạng nặng với tổng trọng lượng xe trên 20 tấn (Hình 1). Trong khi ở các nước có mạng lưới đường bộ phát triển như Đức, Hoa Kỳ phụ thuộc nhiều vào xe tải hạng nặng để vận chuyển hàng hóa với lần lượt là 70% và 53%. So với các quốc gia khác trong khu vực Đông Nam Á như Malaysia (13%), Thái Lan (33%) và tại Châu Á như Trung Quốc (25%) và Ấn Độ (41%), Việt Nam cũng có tỷ lệ xe tải nặng thấp hơn nhiều. Tỷ lệ xe tải hạng nặng ở Việt Nam thấp dẫn đến cần phải sử dụng số lượng xe tải cao hơn để vận chuyển cùng một lượng hàng hóa. Điều này gây ra tắc nghẽn giao thông và làm tăng chi phí, lượng phát thải khí từ các phương tiện.



Hình 1: Phân bố đội xe tải (xe tải, xe đầu kéo, rơ moóc, xe tải nửa rơ moóc) của Việt Nam theo trọng tải

Nguồn: WB (2019)

Tại các doanh nghiệp, vấn đề lớn nhất hiện nay đối với vận tải hàng hoá bằng đường bộ là tỷ lệ xe tải trống chiều về khá cao. Theo Bộ công thương (2022), có 39,0% số doanh nghiệp được khảo sát cho biết số phương tiện vận tải trống chiều về của họ ở mức nhỏ hơn 10%. Trong khi đó, có tới 40,3% số doanh nghiệp khảo sát có tỷ trọng phương tiện vận tải trống chiều về ở mức từ 10 - 30%. Cá biệt có tới 13% doanh nghiệp có tỷ trọng phương tiện vận tải trống chiều về trên mức 50%.



Hình 2: Tỷ trọng phương tiện vận tải trống chiều về tại các doanh nghiệp

Nguồn: Bộ Công thương (2022)

Kết quả khảo sát các doanh nghiệp trong Báo cáo logistics của Bộ Công thương năm 2022 đã chỉ ra nguyên nhân của việc tỷ trọng phương tiện vận tải trống chiều về cao chủ yếu là do: không đủ nguồn hàng; do khách hàng thay đổi lịch giao hàng; chưa tối ưu được tuyến đường vận chuyển; chưa chia sẻ nguồn lực vận tải với đối tác,... báo cáo cũng chỉ ra rằng 51% các doanh nghiệp được khảo sát đã tìm được giải pháp để xử lý vấn đề nhằm nâng cao hiệu quả hoạt động vận tải hàng hoá. Trong đó, có 63,3% doanh nghiệp cho biết, sẽ thực hiện việc giải pháp chia sẻ vận tải với đối tác khác để tối ưu hoá nguồn lực vận tải.

Vận tải đường sắt:

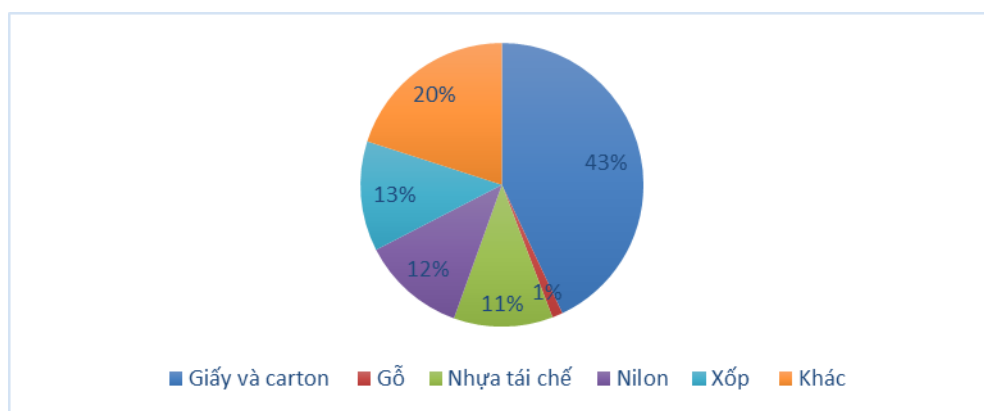
Với động cơ chạy bằng dầu, ít tiêu hao nhiên liệu, đường sắt được xem là phương thức vận tải thân thiện với môi trường, nhưng tại Việt Nam hệ thống vận tải được đánh giá là kém về chất lượng, chưa đáp ứng được nhu cầu vận chuyển xanh của các doanh nghiệp. Cụ thể, đường sắt Việt nam có số lượng lớn toa xe hàng cũ, lạc hậu, thiếu nhiều toa xe cho hàng container. Tốc độ vận chuyển bình quân 60 - 70 km/h - khá chậm so với nhiều nước trên thế giới. Bên cạnh đó, vận tải đường sắt cũng xả một lượng lớn khí thải độc hại và tiếng ồn ra môi trường; xả rác và chất thải đường sắt trực tiếp xuống hai bên đường ray, gây ra các phản ứng phá hủy thiết bị đường sắt, ô nhiễm môi trường và ảnh hưởng đến cuộc sống của cộng đồng dân cư. Ngoài ra, còn phải kể đến bụi bặm, hóa chất, tiếng ồn, độ rung ảnh hưởng đến môi trường trong quá trình vận chuyển, xếp dỡ hàng rời, hàng độc hại,... Giảm vận tải đường bộ và tăng cường vận chuyển bằng đường sắt là một trong các nội dung xanh hóa hoạt động logistics. Tuy nhiên, với thực trạng vận chuyển hàng hoá bằng đường sắt hiện nay thì việc đảm bảo vận chuyển xanh bằng hình thức này đang là vấn đề nằm ngoài tầm kiểm soát của các doanh nghiệp.

3.4 Bao gói xanh

Bao gói xanh là xu hướng các xanh nghiệp đang hướng tới trong những năm trở lại đây. Những thiên tai xảy ra trên khắp thế giới nhắc nhở con người cần có ý thức bảo vệ môi trường. Do đó, các khách hàng của doanh nghiệp cũng yêu thích những sản phẩm được sản xuất xanh bao gồm cả việc bao gói xanh. Để đáp ứng yêu cầu của khách hàng nhiều doanh nghiệp đã thực hiện sử dụng các nguyên liệu thân thiện với môi trường, vật liệu tái chế hoặc dễ phân hủy trong môi trường tự nhiên như: gỗ, nhựa tái chế, bìa carton... để hoàn thiện bao gói sản phẩm. Điều này không những gia tăng giá trị cho sản phẩm mà

còn nâng cao vị thế doanh nghiệp trên khía cạnh bảo vệ môi trường, giảm phát thải và tăng uy tín xã hội.

Các số liệu nghiên cứu của Bộ Công thương (2022) cho thấy tỷ trọng bao bì thân thiện với môi trường như bao bì bằng giấy và carton đã được tới 42,9% các doanh nghiệp sử dụng, 1,2% doanh nghiệp sử dụng bao bì bằng gỗ. Các loại bao bì kém thân thiện với môi trường hơn xốp, nilon, nhựa tái chế được lần lượt 12,5%, 11,9% và 11,3% số doanh nghiệp tham gia khảo sát sử dụng (Hình 4). Khi cần xử lý chất thải từ bao bì hàng hoá, có 54,3% số doanh nghiệp tham gia khảo sát sẽ thuê bên thứ 3 và 41,4% số doanh nghiệp cho biết họ tự xử lý chất thải bao bì theo tiêu chuẩn quy định.



Hình 4: Tỷ trọng các loại bao bì được doanh nghiệp sử dụng để đóng gói hàng hoá

Nguồn: Bộ công thương (2022)

3.5. Thực trạng logistics ngược

Mục tiêu của logistics ngược trong chuỗi cung ứng sản phẩm là khôi phục lại nhiều nhất có thể các giá trị kinh tế - môi trường của sản phẩm và giảm xuống mức thấp nhất lượng chất thải phải xử lý. Tổ chức logistics ngược tại các doanh nghiệp trong chuỗi cung ứng sản phẩm có thể được thực hiện theo 2 phương án, đó là: (1) Tự tổ chức logistics ngược, (2) Thuê ngoài logistics ngược. Xu hướng hiện nay là thuê ngoài và đa dạng hóa hoạt động logistics ngược. Tuy nhiên, doanh nghiệp chỉ có khả năng triển khai dòng logistics ngược cho sản phẩm không đáp ứng yêu cầu của khách hàng hoặc phế phẩm, phụ phẩm phát sinh trong doanh nghiệp mà chưa đủ năng lực, cũng như không bị ràng buộc trách nhiệm để tổ chức thu gom, tái chế các sản phẩm hết hạn sử dụng từ người tiêu dùng.

4. Đánh giá thực trạng và đề xuất giải pháp phát triển logistics xanh tại các doanh nghiệp Việt Nam

4.1. Đánh giá thực trạng

Thuận lợi

+ Các doanh nghiệp đã nhận thức được về vai trò logistics xanh trong phát triển bền vững để có định hướng phát triển đối với hoạt động này

+ Doanh nghiệp nhận được sự ủng hộ từ khách hàng. Người tiêu dùng Việt Nam bắt đầu có ý thức hơn về việc tiêu dùng dịch vụ logistics xanh, đây chính là điểm thúc đẩy áp dụng logistics xanh của các doanh nghiệp cung cấp dịch vụ.

+ Doanh nghiệp nhận được sự quan tâm từ phía chính phủ. Cơ sở hạ tầng giao thông vận tải ngày càng được đầu tư xây dựng và mở rộng, đặc biệt là một loạt hệ thống đường cao tốc trọng điểm, tạo điều kiện thuận lợi cho các doanh nghiệp vận tải tại Việt Nam tiết kiệm thời gian và chi phí vận chuyển. Hệ thống cảng biển cũng ngày càng được cải thiện, được chú trọng đầu tư, cải tiến liên tục, tiếp cận những dịch vụ vận tải tiên tiến, hiện đại và thân thiện môi trường hơn.

- *Khó khăn*

+ Cơ sở hạ tầng logistics tại Việt Nam đã được đầu tư nhưng vẫn còn nhiều hạn chế, đó là khó khăn về phương tiện vận chuyển và mạng lưới giao thông vận tải. Chất lượng cơ sở hạ tầng hạn chế khiến ảnh hưởng đến kế hoạch triển khai và hiệu quả thực hiện các giải pháp logistics xanh của doanh nghiệp. Doanh nghiệp tham gia khảo sát cũng đánh giá đây là nhân tố có mức độ ảnh hưởng lớn nhất tới xanh hóa hoạt động logistics của doanh nghiệp

+ Số lượng các phương tiện vận tải quá nhiều, trong khi năng lực của hệ thống cơ sở hạ tầng giao thông vận tải còn yếu, tất yếu dẫn đến ùn tắc. Khi ùn tắc xảy ra, các phương tiện vận tải dừng lại trên đường và vẫn tiêu thụ năng lượng, dẫn tới việc sử dụng không hiệu quả nhiên liệu cũng như thải lượng khí thải nhiều hơn ra môi trường. Việc ứng dụng công nghệ thông tin vào hoạt động kinh doanh của doanh nghiệp Việt Nam vẫn còn khoảng cách xa so với quốc tế. Với hiện trạng cơ sở vật chất và khả năng tài chính, Việt Nam chưa thể triển khai ngay những công cụ quản lý và các yếu tố công nghệ hiện đại và tiên tiến nhất, mặc dù có khả năng tiếp cận được.

+ Các doanh nghiệp đã có chiến lược phát triển logistics nhưng thực tế triển khai hệ thống logistics xanh tại doanh nghiệp còn nhiều hạn chế do sự thiếu hụt về tài chính và tính đồng bộ của cả hệ thống logistics quốc gia.

4.2. Một số giải pháp phát triển logistics xanh tại các doanh nghiệp Việt Nam

Thứ nhất, cải tiến chất lượng phương tiện vận tải. Dưới áp lực của hệ thống cơ sở hạ tầng logistics hiện tại, các doanh nghiệp phải tự thay đổi phương tiện vận tải của mình cho phù hợp với cơ sở hạ tầng sẵn có. Sử dụng các phương tiện vận tải mới, thân thiện với môi trường nên là ưu tiên hàng đầu của doanh nghiệp.

Thứ hai, Triển khai công nghệ và công nghệ thông tin tiên tiến. Các doanh nghiệp cần phát triển các nguồn năng lượng mới và sử dụng phương tiện bảo vệ môi trường để thúc đẩy sự phát triển sạch và hiệu quả. Ví dụ sử dụng công nghệ GPS quản lý thông tin và định vị trong vận tải; tăng cường phát triển công nghệ lạnh trong quản lý kho bãi nhằm giải quyết các vấn đề kỹ thuật và thiết bị liên quan đến bảo quản nhiệt, lạnh và tiết kiệm năng lượng cho hệ thống kho bãi.

Thứ ba, Nhà nước cần quy hoạch và xây dựng cơ sở hạ tầng nhằm xanh hóa các hoạt động logistics, tiếp tục cải tiến cơ sở hạ tầng theo hướng hiện đại, nâng cao chất lượng cơ sở hạ tầng, tạo thuận lợi cho vận tải đa phương thức. Cần tiến hành đầu tư, nâng cấp, quy hoạch hệ thống kho bãi phù hợp

5. Kết luận

Nghiên cứu đã làm rõ khung lý thuyết về hoạt động logistics xanh tại doanh nghiệp đồng thời phân tích thực trạng của nội dung này tại các doanh nghiệp Việt Nam, từ đó đưa ra các giải pháp để phát triển hoạt động logistics xanh trong các doanh nghiệp. Tuy nhiên, do năng lực nghiên cứu và thời gian hạn chế, nghiên cứu vẫn chưa giải quyết được các vấn đề sau: *thứ nhất*, chưa phân biệt giữa ứng dụng logistics xanh tại doanh nghiệp sản xuất-kinh doanh nói chung và tại các doanh nghiệp cung ứng dịch vụ logistics nói riêng, *thứ hai*, các giải pháp mang khái quát chung, nghiên cứu chưa đưa ra nhóm giải pháp cụ thể cho Chính phủ và doanh nghiệp. Đây sẽ là khoảng trống gợi mở cho các nghiên cứu tiếp theo của nhóm tác giả.

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THE IMPACT OF GOVERNMENTAL POLICIES, BUSINESS CAPACITY AND PERCEIVED RISKS TO THE DIGITAL MATURITY OF SMALL AND MEDIUM ENTERPRISES IN HANOI

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Abstract: *Digital transformation is one of the top concerns of businesses in Vietnam. In the world and in Vietnam, there have been many studies related to this topic, but focusing mainly on the digital transformation process in general in countries, organizations and businesses. The number of studies that contribute to the assessment of the digital maturity in businesses, especially SMEs, is still quite modest. On the basis of the theory presented in the theoretical framework on the influencing factors and the criteria for evaluating the digital maturity of SMEs, the proposed model in this working paper consists of four independent variables. In particular, 3 independent variables have a positive impact on the development of SMEs: innovation capacity and business creativity, leadership capacity and business administration, and governmental policy to support SMEs. The business perception risk variable is identified as having a significant impact on the digital maturity in SMEs.*

Keywords: *Small and medium enterprises, Hanoi, digital maturity, governmental policies, business capacity, perceived business risk*

ẢNH HƯỞNG CỦA CHÍNH SÁCH QUẢN LÝ NHÀ NƯỚC, NĂNG LỰC KINH DOANH VÀ RỦI RO CẢM NHẬN ĐẾN MỨC ĐỘ CHUYỂN ĐỔI SỐ CỦA DOANH NGHIỆP NHỎ VÀ VỪA TRÊN ĐỊA BÀN THÀNH PHỐ HÀ NỘI

Tóm tắt: *Chuyển đổi số đang là một trong những mối quan tâm hàng đầu của các doanh nghiệp tại Việt Nam. Trên thế giới và tại Việt Nam đã có nhiều nghiên cứu liên quan đến chủ đề này nhưng tập trung chủ yếu vào quá trình chuyển đổi số nói chung tại các quốc gia, tổ chức và doanh nghiệp. Số lượng các nghiên cứu đóng góp vào việc đánh giá mức độ chuyển đổi số trong các doanh nghiệp, đặc biệt là các doanh nghiệp vừa và nhỏ còn khá khiêm tốn. Trên cơ sở lý thuyết được trình bày trong khung lý thuyết về các nhân tố ảnh hưởng và tiêu chí đánh giá mức độ chuyển đổi số của DNNVV, mô hình đề xuất trong nghiên cứu này bao gồm 4 biến độc lập. Trong đó, 3 biến độc lập có tác động tích cực đến sự phát triển của DNNVV là năng lực đổi mới và sáng tạo trong kinh doanh, năng lực lãnh đạo và quản trị kinh doanh và chính sách hỗ trợ DNNVV của Chính phủ. Biến rủi ro cảm nhận kinh doanh được xác định là có tác động đặc biệt và rõ rệt đến mức độ chuyển đổi số trong các doanh nghiệp vừa và nhỏ.*

Từ khoá: *Doanh nghiệp nhỏ và vừa, thành phố Hà Nội, mức độ chuyển đổi số, chính sách quản lý nhà nước, năng lực kinh doanh, rủi ro cảm nhận kinh doanh*

1. Introduction

Digital transformation is one of the top concerns of businesses in Vietnam. The Government also paid special attention to digital transformation in the industrial revolution 4.0 and assigned the Ministry of Information and Communications to develop the National Digital Transformation Project and submit the Scheme to the Prime Minister right in 2019. Digital transformation is no longer a playground only for large enterprises, but small and medium enterprises (SMEs) can also effectively approach and participate, seek business opportunities, expand national and international markets in the future. With limited capital, technology, and human resources, but compensated by flexibility, high creativity and not afraid of challenges, SMEs - accounting for 98% of the number of businesses in Vietnam and contributes about 50% of GDP, is actively and proactively in the process of shifting arguments. However, in reality, SMEs are still afraid and passive before this trend. Leaders of many SMEs still lack understanding about digital transformation. On the other hand, due to limited resources, SMEs have not dared to step out of their comfort zone to change and integrate with the general trend of the market.

In the world and in Vietnam, there have been many studies related to this topic, but focusing mainly on the digital transformation process in general in countries, organizations and businesses. The number of studies that contribute to the assessment of the digital maturity in businesses, especially SMEs, is still quite modest. In addition, the factors affecting the digital maturity have not been considered. The works on influencing factors often include enterprises for research, while each type and size of enterprise has different characteristics, conditions, advantages, and difficulties such as conducting transformation. number. In particular, SMEs account for a large part of the business community in Vietnam, so it becomes even more urgent to study the factors affecting the digital maturity in these businesses.

Synthesizing from the above reasons, the implementation of a scientific research project with the theme "The influence of governmental policies, business capacity and perceived business risks on the digital maturity of small and medium enterprises in Hanoi" is appropriate and necessary in the current context.

2. Theoretical framework

2.1. *Digital maturity of enterprises*

2.1.1. *Definitions of digital maturity of enterprises*

Until now, the digital maturity, or specifically the degree of digital transformation completion has been defined by various group of authors according to many different concepts. Bititci et al. (2015) define the digital maturity as the flexibility of transforming to changes from the surrounding environment through management practice. Pedrini and Frederico (2018) argue that the digital maturity of a business reflects the relevance of the management practices of the business to the set strategic objectives and aims to respond to changes in the environment. Rosemann and De Bruin (2005) point out that the digital maturity is a measure of a business's digital adaptability when encountering a certain manufacturing sector.

Although there are different views on the concept of the digital maturity, most scholars believe that the response of businesses to changes in the digital environment comes mainly from learning through experiences. However, the digital maturity is not necessarily related to the experience or time of establishment and development of the business.

On the basis of the above concepts of scholars, in this study, *the digital maturity of enterprises is understood as the relevance of enterprises' digital management practices to the flexibility of transforming and adapting to the digital changes of the environment to achieve the set strategic goals.*

2.1.2. Criteria of evaluation of the digital maturity in SMEs

In recent times, criteria and models for assessing the digital maturity in enterprises have attracted the attention of scholars as well as governments.

OECD (2022) develops a set of criteria for assessing the digital maturity in 5 levels: starting, progressing, completing, leading and expecting. Applied in tax management, the set of criteria is detailed under the framework of 6 pillars: digital identity, access to tax services, data governance and standardization, tax regulation management and application, new knowledge and governance framework.

In Vietnam, the Ministry of Information and Communications issued the Decision No. 1970/QĐ-BTTTT dated December 13, 2021 approving a scheme to determine indicators to evaluate the digital maturity in enterprises and support to promote digital transformation in enterprises. Accordingly, the set of indicators assessing the digital maturity in the enterprise is organized into 06 pillars: (1) Digital experience for customers, (2) Strategy, (3) Digital infrastructure and technology, (4) Operation, (5) Digital transformation of corporate culture, and (6) Data and information assets. In each pillar there are component indicators, in each component indicator there are criteria.

2.2. Factors affecting the digital maturity of enterprises

2.2.1. Governmental policy

Digital transformation brings opportunities to all SMEs but it will be a long, strategic journey, deciding the development, sometimes the survival of each SME in the current context. That process is challenging when SMEs have to face many difficulties in terms of current capacity, resources for future development as well as choosing an appropriate and effective roadmap. The government plays an important role in the first steps and stages of digital transformation of SMEs (Hanna, 2018; Chen et al., 2021). Not only universalizing digital transformation by training programs at the national level, at the association level, at the company level, universalizing digital transformation skills, SMEs need to have quick and effective access to tools and consulting services on models, solutions and experiences of transformation worldwide. In that inevitable trend of digital transformation, Vietnam needs to be ready to participate in the digital transformation alliance, shortening the gap with the world. When deciding on digital transformation, SMEs must accept changes in processes, systems, and human resources, which require sufficient determination to be able to implement synchronously, comprehensively and

without patchwork. Vietnam's manufacturing SMEs cannot be outside the trend of digital transformation and innovation of the world. At the orientation stage, one of the tools SMEs can choose to use is the compact self-assessment indicators capable of providing two main functions: (1) Clarifying the current state of digital transformation of SMEs compared to the common ground and (2) Providing an overall approach to different levels of digital maturity for a manufacturing SME.

2.2.2. Business innovation and creativity capacity

The capacity for innovation and business creativity in the digital era comes from two concepts related to the digital technology transformation process of the era. Business innovation in the digital era must come from the application and development of digital knowledge in business activities of enterprises in general and SMEs in particular, which is a key factor determining the success of enterprises in the market (Jimenez and Sanz-Valle, 2011). Creativity comes from the thinking and ideas of digital workers formed in the process of implementing and solving specific tasks, encountering obstacles and complexities in the business. For businesses, innovation in digital business is the process of researching, developing and renewing products, changing production processes, serving or traditional business models with digital platforms or strategies built on digital platforms, in order to create more benefits, contribute higher value to society, increase corporate profits (Pham Viet Thang, 2020; Vu Minh Khuong, 2021).

2.2.3. Leadership and business administration capacity

The business world is currently changing unpredictably, businesses that do not catch up with the current trend of digital transformation, in the near future will face more difficult challenges (Westerman et al., 2014). Leaders are forced to make more strategic decisions, they stand between the line of choosing to change and adapt or stand still and their businesses off the economic track (Maguire et al., 2007; Tran Thi Le Na and Luong Thu Ha, 2021). The development of technology and redesigned jobs are suitable for the digital era, this change promotes work efficiency in the enterprise to be more smooth, data and book operations should be simplified, SME managers need to consider more the long-term value that technology brings, plan digital human resources, be sensitive to competitor information and markets,... to seize the opportunity to expand the size of their business.

Business leadership and governance competencies in the digital era is a process of working together by a cohesive group of leaders to create a common effect in the digital business transformation process of enterprises, including SMEs (Maguire et al., 2007). The goal of leadership based on digital business knowledge is to be effective, committed to alignment through the cooperation of individuals in the process of transforming businesses to the form of digital business operations. Leadership based on digital business knowledge is a challenge for leaders in inspiring company personnel through new technology to innovate the business operating model of the business.

2.2.4. Perceived business risk

In our current digital context, when advanced technologies create more efficient, productive and lean businesses, companies should adopt a digital transformation strategy to

keep up with their competitors. Especially for SMEs, there are some barriers and risks to adoption of digital transformation, such as costs, security impacts and multiple choices which are overloaded.

IT is growing rapidly with many new achievements such as social media and collaborative technologies; mobile phone technology; data and analytics; and cloud services. These achievements enable SMEs to communicate, collaborate and compute to facilitate the development of digital platforms and digital infrastructure (Nambisan et al., 2019). These platforms and infrastructures include media applications and assets that are central to the development of innovative products and services, while providing new value propositions (Bouncken et al., 2018). Therefore, IT enables SMEs to optimize business processes to create value for customers and businesses, which is considered a key goal of digital transformation in these businesses.

However, the application of IT by SMEs in the digital transformation process encounters certain barriers stemming from the limitations of scale, finance, technical resources, etc. of these enterprises (OECD, 2017; Tong Quang Huy, 2021). Even so, the development of software services allows SMEs to access technology in a cost-effective manner, while providing flexibility in switching between technologies as required, thus avoiding sunk costs and are limited by the IT provider (OECD, 2017).

Faced with perceived risks, SME leaders are aware and understand the risks when implementing conversion (such as strategic risks, risks from outside and inside the enterprise). Before starting a digital transformation campaign, the most important thing is to define the right business goals. A clear and smart goal will help the SME's organization achieve revenue that exceeds expectations. A digital transformation plan is part of the constant evolution of a business. However, specific transformation procedures need a roadmap and the ability to identify the risks when implementing a conversion is a core business goal and set standards to work towards. New technology is the secret weapon for transformation. Therefore, without up-to-date knowledge about the application of technology in transforming business models and governance models, it is difficult to keep up with and understand the specific digital transformation. Especially, the leader must have a background in technology.

3.I. Research Methodology

3.1. Research model proposal

In order to establish a theoretical research model, it is necessary to determine the criteria for the digital maturity of SMEs. The topic uses set of criteria of the Ministry of Information and Communications according to Decision No. 1970/QĐ-BTTTT issued on December 13, 2021. The digital maturity of SMEs is assessed according to 6 pillars: (1) Digital experience for customers, (2) Strategy, (3) Digital infrastructure and technology, (4) Operation, (5) Digital transformation of corporate culture, and (6) Data and information assets. The overall level of digital maturity of SMEs is calculated by the total score of the pillars.

On the basis of the theory presented in the theoretical framework on the influencing

factors and the criteria for evaluating the digital maturity of SMEs, the proposed research model is as Table 2. Specifically, the model consists of four independent variables. In particular, 3 independent variables have a positive impact on the development of SMEs: innovation capacity and business creativity, leadership capacity and business administration, and governmental policy to support SMEs. The business perception risk variable is identified as having a significant impact on the digital maturity in SMEs.

Table 2: Model of evaluating the digital maturity of SMEs in Hanoi

Independent variable	Hypothesis	Dependent variable
Business Innovation and Creativity	H1 (covariant)	Digital maturity of SMEs
Leadership and business administration competencies	H2 (covariant)	
Governmental policy	H3 (covariant)	
Perceived business risk	H4 (inverse)	

Managing digital transformation and creating a digital economy poses new challenges for governments. These challenges come from the fact that investing in digital technology and big data requires new competencies from all actors in the economy. The scope includes establishing national policies and priorities for the digital economy; supporting research and development of potential technologies; regulating and complementing market forces to ensure affordable Internet access; and creating governmental capabilities and institutions to plan, fund and implement national digital transformation strategies. Firstly, it is necessary to establish new policies and adjust digital initiatives in line with the national development strategy. The government is tasked with creating new policies during the digital transformation period. Second, the government might also support SMEs in researching and testing potential digital platforms and technologies. Third, it could expand telecommunications infrastructure, ensure access to the internet. Fourth, the government is also tasked investing with human resources and organizations as well as institutional learning across all sectors. From there, we have the first hypothesis as follows:

H1: Governmental policies have a positive impact on the level of digital transformation of SMEs.

Innovation capacity in the digital era is the driving force for SMEs in modern digital business transformation. Innovation helps businesses reach customers more quickly, improve customer experience, respond and take better care of customers. Innovation in digital business also helps businesses automatically collect data and analyze data information, helping leaders capture gaps in marketing and distribution activities. Innovation and creativity in digital business are activities that help SMEs accelerate the speed of completing digital transformation in business, only innovation can survive and develop in the changing technology economy. The digital maturity of SMEs is achieved thanks to each innovation activity that the enterprise conducts. Therefore, we have the second hypothesis as follows:

H2: Business innovation and creativity capacity has a positive impact on the digital maturity of SMEs.

Leadership is the guideline for all SME activities. Leadership and business administration capacity in the digital era is also an important factor to help SMEs accelerate the current digital business process. A knowledgeable board in digital business will have a long-term vision of the development of the business in the future. Leadership and management development based on digital business knowledge is the agent to accelerate the level of digital transformation of SMEs, the level of development of this factor is proportional to the speed and quality of digital transformation of enterprises. The style of leadership and management of digital-based change determines the quality of digital transformation implementation across the enterprise. Thus the third hypothesis:

H3: Digital business leadership and governance have a positive impact on the digital maturity of SMEs.

New technology and artificial intelligence are promising to completely change the machinery of many businesses, helping to cut operating costs and optimize profits. Although the potential is great, if it is done in the wrong way, digital transformation can cause extremely heavy damage to the development of SMEs if it does not overcome the business perceived risk. Thus, it can be seen that the business perceived risk has a negative impact on the digital maturity of SMEs.

H4: Business perceived risk has a negative impact on the digital maturity of SMEs.

3.2. Data collection methods

Primary data was collected from 221 SMEs registered and operating in Vietnam. The survey is conducted in two forms: direct survey form taken directly by the graduate student to the respondents and survey form through Google Form. In order to ensure the objectivity of the information of the study sample, direct respondents need to confirm that they feel comfortable about the time when conducting the survey. In addition, the doctoral student will answer the questions of the respondents during the survey. For the survey using Google Form software, the survey links are sent to the emails of the business representatives participating in the survey. Data collection results with 300 surveys were sent out, collecting 232 votes. After the 11-vote elimination is invalid, the study sample is determined to be 221. According to the sampling principle of Hair et al. (2006), the minimum sample size based on the scale including 26 observed variables is $26 \times 5 = 130$. So the sample size is consistent with the research model.

The scale of the study is based on many studies on factors affecting the digital maturity of SMEs. On the basis of reference to published studies and from the theoretical basis of the topic, the quantitative research scale is built as the table below.

Table 3: Scale of variables in the quantitative research model

1. Governmental policies to support SMEs in digital transformation , synthesizing the research of Hanna (2018), Chen et al. (2021)
2. Business innovation and creativity capacity , synthesis of studies by Yoo et al. (2010),

Jimenez and Sanz-Valle (2011), Quinton et al. (2018), Yousaf et al. (2021),
3. Leadership and business administration competencies , synthesizing the studies of Rogers (1995), Westerman et al. (2014), Maguire et al. (2007)
4. Business perceived risk , synthesis of studies by Nambisan et al. (2019), OECD (2017), Bouncken et al. (2018),
5. The digital maturity of SMEs , according to Decision No. 1970/QĐ-BTTTT of the Ministry of Information and Communications issued on December 13, 2021, is calculated by the total score of 6 pillars:
<ul style="list-style-type: none"> • MCDS1 - Digital experience for customers • MCDS2 - Strategy • MCDS3 - Digital infrastructure and technology • MCDS4 - Operation • MCDS5 - Digital transformation of corporate culture • MCDS6 - Information Data and Assets

3.3. Data analysis method

Quantitative research of primary data using IBM SPSS 22 software for quantitative analysis. Specifically, SPSS software performs descriptive statistical tests, exploratory factor analysis, Cronbach Alpha coefficient, regression analysis to test the hypothesis.

4. Research results

4.1. Description of the research sample

Primary data was collected from 221 small, medium and micro enterprises registered and operating in Vietnam. Businesses have operating duration from 1 year to 39 years. Businesses are mainly concentrated in two major cities, Hanoi and Ho Chi Minh City. The quantity and proportion of these business groups are described in Table 4.

Table 4: Characteristics of research samples

<i>Characteristics</i>	<i>Quantity</i>	<i>Proportion</i>
Size		
Medium	84	38,0%
Small	76	34,4%
Micro	61	27,6%
Registered business address		
Hanoi	68	30,8%
Ho Chi Minh City	63	28,5%

Other cities	90	40,7%
Years in Business		
Less than 5 years	43	19,5%
5-9 years	51	23,1%
10-19 years	48	21,7%
20-29 years	44	19,9%
Over 30 years	35	15,8%

4.2. Scale inspection

The reliability of the scale is tested based on Cronbach's Alpha coefficient and EFA exploratory factor analysis. The Cronbach's Alpha coefficients of the six scales are all greater than 0.6, ensuring a confidence level to use for further analyses. After removing the unqualified observed variables, the EFA analysis results for independent variables, the extracted variance reached 71.1%, the factor loading are all greater than 0.5. EFA analysis for the dependent variable, the extraction variance reaches 75.4, the factor loading are all greater than 0.5 (Tables 5 and 6).

Table 5: Results of EFA analysis of independent variables

	Factor			
	1	2	3	4
CSSL3	0,906			
CSSL2	0,901			
CSSL1	0,872			
CSSL4	0,768			
NLDM3		0,818		
NLDM1		0,816		
NLDM4		0,807		
NLDM2		0,774		
NLLD4			0,842	
NLLD3			0,834	
NLLD2			0,666	
NLLD1			0,611	
RRKD2				0,838
RRKD3				0,828
RRKD1				0,824
RRKD4				0,789

Table 6: Results of EFA analysis with dependent variables

KMO coefficient	Significance level	Appropriation variance (%)	Observed variables	Factor loading
0,826	0,000	75,381%	MCDS1	0,889
			MCDS4	0,800
			MCDS2	0,743
			MCDS3	0,710

The results of statistical analysis describing the scales show that enterprises appreciate the support of the government through management policies, the average value is 3.55 (Table 7). However, business innovation and creativity capacity is below the average of 2.95. The digital maturity of SMEs remains above the average of 3.38.

Table 7: Reliability of statistical test results

Measurement Scale	Mean	Minimum	Maximum	Standard Deviation
Governmental policy	3,55	1,00	5,00	0,879
Business Innovation and Creativity	2,95	1,00	5,00	0,843
Leadership and business administration competencies	3,46	1,00	5,00	0,817
Perceived business risk	3,38	1,00	5,00	0,743
Digital maturity	3,29	1,00	5,00	0,939

4.3. Regression analysis

The results of regression analysis show that R² reaches the value of 0.728, which means that the influencing factors considered in the model explain 72.8% of the variation in the digital maturity of SMEs. Based on the regression coefficient, the capacity for innovation and business creation has the greatest impact on the digital maturity of enterprises, followed by the governmental policy and the capacity for leadership and business administration (Table 8). The perceived business risk has a negative impact on the level of digital transformation of SMEs. All four hypotheses are accepted.

Table 8: Results of research hypothesis testing

Research Hypothesis		Normalized regression coefficient	Significance level	Note	
H1: Governmental policy	→	Digital Maturity	0,161	0,000	Accepted
H2: Business Innovation and Creativity	→	Digital Maturity	0,185	0,000	Accepted
H3: Leadership and business administration competencies	→	Digital Maturity	0,118	0,014	Accepted
H4: Business Perceived Risk	→	Digital Maturity	-0,023	0,000	Accepted

5. Recommendations for Hanoi governance

Based on the research results of factors affecting the digital maturity of SMEs, a number of recommendations are made to Hanoi management authority based on exploitation to maximize the characteristic advantage of the city. Recommendations for policy solutions for Hanoi include:

Firstly, in order to promote the digital transformation process of SMEs in Hanoi, it is necessary to implement and complete tax-related policies. Tax solutions applied together with the fact of ensuring the increase of the budget for the city need to be oriented towards focusing on the specific characteristics of SMEs, so that SMEs can access and benefit from tax-related policies.

Secondly, Hanoi governance needs to build and establish specialized models, form a network of consultants to support consulting for businesses, especially for SMEs. The city needs to assume the prime responsibility for, and coordinate with relevant departments and branches to build and form a database system and information network to support businesses in the city, continuously update and publicize events related to the network of experts, so that SMEs can easily and quickly access information on new laws, policies and regulations, access tax incentives for the digital transformation process, research and development support programs of research and development of digital transformation and other information related to business activities of enterprises.

Third, the city needs support to solve difficult problems that SMEs are facing in accessing capital from banks. Recommendations that can be considered include: developing an appropriate financial mechanism credit program so that SMEs can maintain their operations by encouraging debt collection and debt relaxation activities and the continuation of Commercial Bank lending for activities related to enterprises' digital transformation. Hanoi governance needs to develop measures to loosen the criteria and forms of guarantee, so that SMEs can easily access capital for the digital transformation process. The city should call for support from the Department of Planning and Investment to allocate appropriate budget resources and encourage commercial banks to increase credit balance and prioritize the disbursement of capital sources to SMEs for the purpose of investment, research and development of digital transformation.

Fourth, Hanoi needs to focus resources to develop digital policies, digitize processes and procedures, so that the digital transformation processes of enterprises are simplified. The city should be interested in leveraging and promoting the opportunities brought about by digitalization and include regulation of digital and electronic communications, networks and information security, frequency policies, and issues related to broadband access and digital infrastructure. This policy area also includes issues of e-Government, i.e. using digital policy to make the operation of government agencies more efficient and simplify public contact with them - for example, through electronic identification, electronic signatures, and open data.

6. Conclusions

Digital transformation is an opportunity and also a challenge for Vietnamese SMEs in general and SMEs in Hanoi in particular in the current context. Therefore, SMEs in Hanoi, or managers need to prepare for this change that will take place continuously and very difficult.

With a technology platform that has rapidly changed in a positive direction, the government's support through defining national strategic digital transformation as well as promulgating and implementing specific policies, transformation activities, etc. digital transformation in SMEs in Hanoi is in a very exciting period. It is expected that the timely transformation of businesses will create new positions and forces, further enhancing the business community's contribution to the country's development.

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CUSTOMERS' ACCEPTANCE FOR USE OF CHATBOT: CASE STUDY AT VIETNAM PROSPERITY JOINT STOCK COMMERCIAL BANK HUE BRANCH

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Abstract: *This study aims to investigate customers' acceptance of using a chatbot in the banking sector. The author collected opinions of 125 customers who experienced chatbots at Vietnam Prosperity Commercial Joint Stock Bank, Hue branch by the convenient sampling. Descriptive statistics, factor analysis, and multivariate regression were applied to analyze the collected data. The results show that perceived usefulness and attractiveness positively influence the acceptance of chatbot while perception of risk has a negative effect. Based on the results, the authors propose some implications to stimulate customers to use chatbot applications at banks.*

Keywords: *Acceptance, Chatbot, banking*

SỰ CHẤP NHẬN CỦA KHÁCH HÀNG ĐỐI VỚI CHATBOT: TRƯỜNG HỢP NGHIÊN CỨU TẠI NGÂN HÀNG THƯƠNG MẠI CỔ PHẦN VIỆT NAM THỊNH VƯỢNG CHI NHÁNH HUẾ

Tóm tắt: *Nghiên cứu nhằm mục đích khám phá sự chấp nhận sử dụng ứng dụng chatbot của khách hàng trong lĩnh vực ngân hàng. Tác giả khảo sát 125 khách hàng đã trải nghiệm sử dụng chatbot của ngân hàng Việt Nam Thịnh vượng chi nhánh Huế bằng phương pháp chọn mẫu thuận tiện. Thống kê mô tả, phân tích nhân tố và hồi quy đa biến được sử dụng để phân tích dữ liệu. Kết quả cho thấy nhận thức sự hữu ích, sự hấp dẫn có tác động tích cực đến sự chấp nhận sử dụng chatbot trong khi đó nhận thức rủi ro có mối quan hệ ngược chiều đối với sự chấp nhận sử dụng. Từ đó, các hàm ý chính sách được đề xuất nhằm thúc đẩy sự chấp nhận sử dụng chatbot trong ngân hàng.*

Từ khóa: *Sự chấp nhận, chatbot, ngân hàng*

1. Introduction

The development of science and technology has had a remarkable impact on consumer behavior. According to We Are Social (2022), the global population is 7.91 billion people, of which more than 67% have mobile phones, more than 60% connect to the Internet, and 58.4% have social media accounts. In addition, consumers increasingly prefer quick responses (Forbes, 2016; Mero, 2018) and anytime, anywhere (Chung et al., 2018). In addition, customers pay attention to highly personalized messages and service solutions (Taylor, 2020).

The chatbot has risen since 1950 (Turning, 1950). Chatbot is defined as a computer program that can mimic human communication using natural language and computer

learning programs (Araujo, 2018).). The first known chatbot was Eliza (Weizenbaum, 1966). Chatbots have had continuous innovation over the years with different technologies, and today chatbots are virtual assistants, such as Siri of Apple) or Alexa of Amazon (Adamopoulou & Moussiades, 2020).

Chatbots have brought benefits to businesses as well as users. As for the company, chatbots provide 24/7 service, increase touch points, collect data, personalize data, interact one-one, and reduce service and support costs (Zumstein & Hundertmark, 2018). In addition, customers can use the service at all times, save time and cost in communication, and obtain relevant information (Zumstein & Hundertmark, 2018).

Chatbots are seen as "services, powered by rules and sometimes artificial intelligence that you interact with through a chat interface" (Schlicht, 2016). Chatbots are used in a variety of industries, including healthcare, e-commerce, retail, insurance, and customer service.etc. The studies on chatbots are also conducted such as on "the interaction of Chatbots with consumers in the banking sector" (Mogaji et al., 2021), "the level of consumer acceptance of Chatbots for consumers in the retail industry" (Rese et al., 2020) or "customer experience using Chatbots has an impact on brand love" (Trivedi, 2019).

In Vietnam, the Bank industry has undergone many changes in the application of technology to optimize the experience and meet customers' needs. Currently, chatbots are developed and used in some banks such as Vietinbank, Vietcombank, and Vietnam Prosperity Bank (VPBank). VPBank, established in 1995, is one of the largest joint stock commercial banks in Vietnam. VPBank owns a large transaction network with 230 transaction points, 61 branches, and 166 transaction offices. To grasp the general development trend of the banking industry, Vietnam Prosperity Joint Stock Commercial Bank is one of the pioneer banks to build a Chatbot system on Fanpage to optimize work and reply quickly to customers' inquiries. It results in the improvement of bank service quality. However, using chatbots is not popular when few customers know and hesitate to use them. Therefore, this article aims to examine customers' acceptance of the Chatbot of VPBank, Hue Branch. The results might help the bank to improve the adoption of chatbot usage among customers at the bank.

The paper consists of 5 parts, after the introduction and theoretical overview is the research method section. Part 4 is the Research results and discussion, and finally, the Conclusion and implications.

2. Theoretical overview

2.1. The concept of technology acceptance

For a few decades, scientists have had efforts to explain consumers' behavior through models such as the Theory of Reasonable Action (TRA) (Fishbein & Ajzen, 1975), the Theory of Planned Behavior (TPB) (Ajzen, 1991) or the Technology Acceptance Model (TAM) (Davis, 1986). TRA uses Attitudes and Subjective Norms to predict human action in general (Fishbein & Ajzen, 1975). According to TPB, the Perceived Behavioral Control (PBC) factor is added to the TRA model to form a new model and determine behavior intention and actual behavior adoption. In the TAM model,

Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) are the set of beliefs that may impact the attitude and actual usage. Then TAM model was revised by Davis, Bagozzi & Warshaw (1989), Venkatesh & Davis (1996), Venkatesh & Davis (2000), and Venkatesh & Bala (2008).

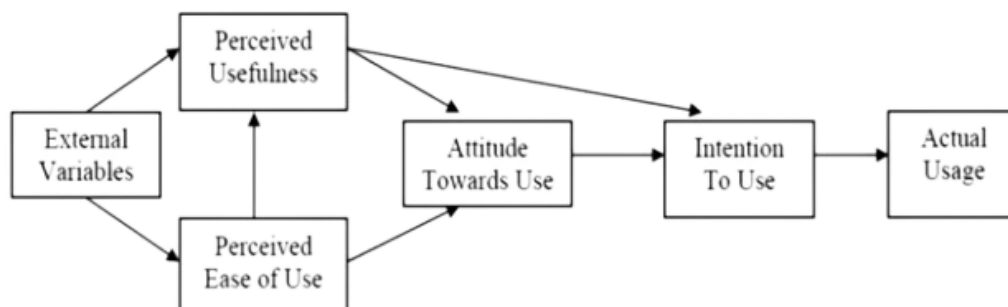


Figure 1: Technology Acceptance Model

Source: Davis, Bagozzi & Warshaw (1989)

2.2. Overview of Chatbots

2.2.1. Chatbot definition

Chatbot is an "online conversation system between humans and computers in natural language" (Jia, 2003). A chatbot is a computer program capable of responding like an intelligent entity when conversing through text or voice and understanding one or more human languages using "natural language processing" (NLP) (Khanna, 2015). On a technical level, a chatbot is a computer program that simulates a human conversation to resolve customer queries. When a customer or potential customer contacts through any channel, the chatbot will be available to greet them and solve their problem. They can also help customers submit service requests, email, or connect with human agents if needed (Shweta, Kelly, 2022). It is one of the most basic and popular applications of intelligent human-computer interaction (Bansal & Khan, 2018).

2.2.2. Benefits and disadvantages of Chatbots

Chatbots can bring advantages to companies and customers. Thanks to chatbots, businesses can supply 24/7 services (Zumstein & Hundertmark, 2018). It is undeniable that chatbots can reply to all requests of consumers anywhere, anytime during the day, on any day in the week, especially on holidays that are day-offs of humans. Hence, it may increase customers' satisfaction with immediate answers and reduce personnel costs. Furthermore, using chatbots can support companies in conducting the one to one communication with chatters. Moreover, chatbots can collect information in the time of conversations with users. This data source may be useful for personalized offers or marketing strategies to target customers (Zumstein & Hundertmark, 2018).

On the other hand, chatbots have some drawbacks and threats. Firstly, private information such as personal or financial data may leak when consumers do contact chatbots (Zumstein & Hundertmark, 2018). It may result in users' fears of chatbot usage. Therefore, chatbot owners and creators should advance the technology for data protection.

The second is the acceptance of users. Chatbot has changed the method of communication between companies and consumers. Instead of approaching information from websites, TV, emails, or apps, customers can use chatbots. However, most of them are not familiar with this new communication channel. Thus, it will be costly and time-consuming for businesses to promote chatbots and get chatbot adoption of users (Zumstein & Hundertmark, 2018).

2.2.3. The fields of the chatbot application

Chatbot applications are applied in many different fields and successfully in many industries. In customer care, the chatbot may save time and improve customer experience (IBM, 2017; Accenture, 2018). Chatbots are also widely used in the financial and banking sectors to assist in looking up information about assets, securities, currencies, and paying bills (Forbes, 2017). In the medical field, chatbots are useful to schedule medical appointments and give health advice and information about drugs and diseases (Healthcare IT News, 2017). In education, chatbots can support career counseling and learning orientation for students (EdTech Magazine, 2018). The tourism industry is known for using Chatbots to provide information about landmarks, book flights, book hotels, and advise on travel schedules (Travolution, 2017). Chatbots can also be used in competitions and entertainment, organizing, providing information, and serving the audience in contests, TV games, and entertainment events (Chatbots Magazine, 2017). In addition, Chatbots are also used in the technology field to assist customers in using products, troubleshooting, and updating product information (HubSport, 2018).

2.3. Developing research hypothesis

In the TAM model, users accept technology based on perceptions that lead to intention and behavior (Davis, 1989). Three main components in the TAM model include Perceived ease of use, perceived usefulness, and attitude towards use. Therefore, the author uses the factors in the TAM model in combination with the perceived attractiveness factor (Dowling, 1994; Vander Heijden, 2004) in accepting the use of technology. In addition, empirical studies have shown that consumers perform risk and benefit analyses of all factors involved in disclosure situations. And the level of consumer privacy concerns is a prerequisite for risk assessment (Hann et al., 2008; Kehr et al., 2015). From there, the author proposes criteria to measure customer acceptance of Chatbot of Vietnam Prosperity Commercial Joint Stock Bank, including five factors that are (1) Perceived usefulness; (2) Perceived ease of use; (3) Attitude towards use; (4) Perceived attractiveness; (5) Perceived risk.

Perceived usefulness

Perceived usefulness is the degree to which a technology model is believed to improve job performance. (Davis, 1989). In agreement, Wu and Wang (2005) argue that perceived usefulness is the degree to which users believe that using certain technology will help them achieve their goals more effectively. In the TAM model, perceived usefulness is identified as a factor that directly affects the intention to use technology products including mobile applications. When users find applications useful, they will have a positive attitude

and tend to use the application more (Choi et al., 2011). Therefore, the study proposes the following hypothesis:

H1: Perceived usefulness has a positive relationship with users' acceptance of using chatbots

Perceived ease of use

According to the technology acceptance model of Davis et al. (1989), perceived ease of use is a crucial factor in determining consumer acceptance of new technology. Perceived ease of use is the degree to which an individual believes that using a particular system will be effortless (Davis et al., 1989). Using a particular technology does not require too much effort in terms of time and effort. In the banking industry, chatbots can provide customer service and customer account support to improve customer experience and increase consumer acceptance of this technology. The second hypothesis is:

H2: Perceived ease of use has a positive relationship with users' acceptance of using chatbots

Perceived attractiveness

Perceived attractiveness is defined as the user's preference for new technology, new technology features, and perceived value of technology (Venkatesh & Bala, 2008). Consumers will be interested in technology and willing to experience and use it (Li et al., 2012). If chatbots are judged to be pleased, they will be considered attractive and accepted by consumers. Perceived attractiveness can play an important role in determining consumer acceptance of new technology. Therefore, the study proposes the following hypothesis:

H3: Perceived attractiveness has a positive relationship with users' acceptance of using chatbots

Risk perception

Perceived risk is the ability to represent a loss in achieving desired outcomes when using an e-service (Yang et al., 2015). Shin (2010) defines risk perception as the user's understanding of the possible negative effects of technology use and the possibilities that users can minimize or accept those risks. These risks can be identity, security, financial or health threats. Therefore, a risk assessment may determine consumer acceptance of new technology. If the consumer feels safe using the technology, then the acceptability of the technology is high, so the fourth hypothesis is:

H4: Perceived risk is negatively related to user acceptance of chatbots

Attitude towards use

Attitude definition refers to an individual's use of positive or negative feelings about the performance of the target behavior (Davis et al., 1989). Attitudes toward the use of technology are closely related to users' acceptance of that technology. If consumers have a positive attitude towards technology, they are more likely to accept and use it. Conversely, if consumers' attitudes are unfavorable towards the use of technology, they may refuse to use or switch to another technology, so the last hypothesis is as follows:

H5: Attitude has a positive relationship with users' acceptance of using Chatbots

3. Research Methods

The scales used in the customer acceptance of Chatbot measure 6 research concepts are all multivariate scales and use 5-point Likert scale, with 1 being strongly disagree and 5 as strongly agree. The scales are first built and developed from the theoretical basis, inherited from previous studies, and then adjusted via on qualitative research. More specifically, the scale of Perceived usefulness; Perceived Ease of use; Attitude are inherited from Davis et al. (1989), Dobholkar & Bagozzi (2002); the scale of perceived risk adopted from Trivedi's (2019); the scale of the attractiveness variable inherited the research of Dobholkar and Bagozzi (2002). Finally, the acceptability scale is inherited from the research of Richad, Vivensius, Sfenrianto & Emil (2019).

The questionnaire sampled 15 customers to ensure that the questions were suitable for the research topic and that the customers understood the same. Quantitative research was then conducted with a questionnaire consisting of 3 parts, Part 1 is for exclusion questions, Part 2 is for the main content, and Part 3 is for demographic factors.

Table 1: Concepts and items of scales

Concepts and items of scales	Authors
<i>Perceived usefulness</i> Using chatbots would improve my performance. Using chatbots would increase my productivity. Using chatbots would enhance my effectiveness. I would find chatbots useful.	Davis et al. (1989), Dobholkar & Bagozzi (2002)
<i>Perceived ease of use</i> Learning to operate chatbots would be easy for me. I would find it easy to get to do what I want to do with chatbots. It would be easy for me to become skillful at using chatbots. I would find easy to use chatbots.	Davis et al. (1989), Dobholkar & Bagozzi (2002)
<i>Attitude</i> Receiving information and transaction in chatbots is not a good idea. I am willing to use chatbots. I like the idea of using chatbots to facilitate getting information and doing transactions. Using chatbots would be a good idea.	Davis et al. (1989), Dobholkar & Bagozzi (2002)
<i>Perceived risk</i> I perceived that chatbots service was risky. I perceived that while using chatbots, there was a chance that something could go wrong in the outcome. I perceived that chatbots service outcome and effect were difficult to predict.	Trivedi (2019)

<i>Perceived attractiveness</i>	Dobholkar & Bagozzi (2002)
I perceived that chatbots were not interesting.	
Interacting to chatbots would be entertaining.	
I perceived that chatbots were not be fun.	
I perceived that chatbots would be attractive.	
I perceived that chatbots would be enjoyable	
<i>Acceptance</i>	Richad,Vivensius, Sfenrianto và Emil (2019)
I choose to use chatbots for getting information and doing transaction.	
There is possibility that I will use chatbots.	
I will not recommend anyone to use chatbots.	
I expect to always be able to use chatbots.	

The study used the method of determining sample size according to the formula of Hair et al., (2019) corresponding to $n = 115$ ($n = 5 * 23$ (expected number of observed variables)). The number of questionnaires issued was 130, the number of valid collected was 125, and the response rate was 96.15%. Data were processed by SPSS 20.0 software. Descriptive statistics by frequency and percentage, scale testing by Cronbach's Alpha, factor analysis (EFA), and multiple linear regression were used to describe and analyze research data.

4. Research results and discussion

4.1. Descriptive statistics test of the scale

4.1.1. Respondents' demographic profile

The characteristics of the study sample are shown below:

Table 2: Study sample characteristics

Criteria		Number (N)	Percentage (%)
Gender	Male	82	65.6
	Female	43	34.4
	Total	125	100.0
Age	Under 18 years old	7	5.6
	18-25 years old	75	60.0
	From 25 to 35 years old	35	29.6
	Over 35 years old	6	4.8
	Total	125	100.0
Job	Student	59	47.2
	Officer	47	37.6
	Other	19	15.2
	Total	125	100.0

Income per month	Under 3 million VND	54	43.2
	From 3-5 million VND	17	13.6
	From 5-7 million VND	16	12.8
	Over 7 million VND	38	30.4
Total		125	100.0

(Source: Author's data processing)

According to Table 1, 65.6% of respondents are male, and rest are female (34.4%). As for age, just under 90% of respondents are young and from 18 to 35 years old. Furthermore, about 50% of customers are students, and 37.5% is the officer. Regarding income, most respondents have income under 3 million VND are the greatest, accounting for 43.2%, followed by those with over 7 million VND (30.4%). Groups of 3-5 million VND and 5-7 million VND are 13.6% and 12.8 respectively.

4.1.2. Scale reliability

The study used a scale with the following main components: "Perceived Usefulness - PU" with 5 observed variables, "Perceived Ease of use -PEOE" with 5 observed variables, and "Attitude - AT" with 4 important variables. The survey, "Perceived risk - PR" with 4 observed variables, and "Perceived Attractiveness – PA" with 5 observed variables. Performing the Cronbach's Alpha reliability test for the research components shows that Cronbach's Alpha coefficient of most concepts is greater than 0.6. The lowest is the conceptual scale "Perceived Usefulness" – 0.721 and the highest is the conceptual scale "Perceived risk" – 0.92. Which, the fifth observed variable of the scale "Perceived Usefulness - PU5" and "Perceived Attractiveness - PA5" has a correlation coefficient of less than 0.3, so removing these two observed variables and Cronbach's Alpha coefficient of "Perceived Usefulness" remained the same, "Perceived Attractiveness" increased to 0.758. This shows that the scale of independent variable concepts can be used well and is suitable for performing EFA exploratory factor analysis. The results of testing the reliability of the scale using Cronbach's Alpha coefficient for the acceptance scale (AC) show that Cronbach's Alpha coefficient is equal to 0.774 (>0.6) and the total correlation coefficient is greater than 0.3 so the scale used meets the requirements.

4.2. Customer usage behavior for Chatbot of VPBank

4.2.1. The source of information that customers know about VP Bank's Chatbot

Table 3: Sources of information that customers know about VPBank Chatbot

Information sources	Number (N)	Percentage (%)
Teller	88	70.4
Friend advice	52	41.6
Bank media	40	32.0
Self-discovery	26	20.8

(Source: Author's data processing)

The table 2 shows that most customers know the Chatbot Vietnam Prosperity Bank thanks to the bank staff with 88 people (70.4%). It shows that bank staff does well in introducing customers to use the Chatbot of VPBank. Just over 40% of consumers approach the chatbot after receiving advice from their friends. Moreover, bank media increased customers' awareness about chatbots (32.0%). Thus, the bank should make efforts to promote chatbots to consumers. Lastly, one-fifth of people do self-discovery about chatbots.

4.2.3. Customer platform using Chatbot of VPBank

Table 4: Customer platform using Chatbot of VPBank

Communication	Number (N)	Percentage (%)
Facebook	109	87.2
VP Bank NEO App	112	89.6

(Source: Author's data processing)

The survey result shows that about 90% of customers accessed chatbots of VPBank on VPBank NEO app, accounting for 87.2%, and on Facebook (89.6%).

4.2.3. Purpose of customers when using Chatbot of VPBank

Table 5: Customer's purpose when using VPBank Chatbot

Criteria	Number (N)	Percentage (%)
Register to open more cards	72	57.6
View information about savings interest rates on loans	64	51.2
Seek information	45	36.0
Meet a counselor	34	27.2
Other	7	5.6

(Source: Author's data processing)

According to Table 5, 72 customers use the chatbot of VPBank to open more cards, equivalent to 57.6% of people. Customers can open cards directly with Chatbot without going through the bank office. All operations are solved online so that it is time-saving for users. Moreover, 64 customers (51.2%) approached chatbot of VPBank to view information about savings and loan interest rates, and 45 customers (36.0%) used chatbot of VPBank to seek information (27.2%). In contrast, only seven customers (5.6%) accessed chatbots to meet counselors.

4.2.4. Benefits of using Chatbot VPBank

Table 6: Benefits of using VPBank Chatbot

Criteria	Number (N)	Percentage (%)
Quick response	87	69.9
Easy and simple communication	76	60.8
Obtaining the desired correct answers	37	29.6
No waiting time	19	15.2

(Source: Author's data processing)

The research result in Table 6 shows that 87 (69.6%) customers found that they received quick responses from chatbots. Based on the pre-programmed questions and answers, the chatbot will reply immediately when the user chooses the inquiry. Next, 76 customers (60.8%) can easily communicate with chatbots. In addition, 29.6% of customers received the desired answers. It proves that the chatbots partially meet the user's requirements. However, when the customer makes requests not in the available scenarios, the customer will not receive the answers. Therefore, the bank should solve this problem by adding circumstances and choices corresponding to the generated questions. Lastly, 19 respondents (15.2%) choose chatbot because it is time-saving.

4.2.5. Disappointment when using Chatbot of VPBank

Table 7: Disappointment when using Chatbot of VPBank

Criteria	Number (N)	Percentage (%)
Receiving undetailed answers	89	71.2
Complaints cannot be resolved	62	49.6
Limited feedback	37	29.6
Untrustworthy tree	14	11.2
Interacting with Chatbots is not the same as interacting with humans	25	20.0

(Source: Author's data processing)

The survey outcome showed that 89 customers (71.2%) said that they did not receive detailed answers. The chatbot is pre-programmed, so the answers can not go into detail in some circumstances. The second biggest disappointment is that chatbots could not manage complaints (49.6%). The VPBanks chatbot is a simple type with prepared answers. Therefore, banks often combine chatbots with staff to solve these situations. Next, 37 customers (29.6%) think that chatbot feedbacks are limited. Lastly, 20% of customers stated that interacting with a chatbot was not similar to interacting with a human because a

chatbot works mechanically with unnatural language. Thus, it confused the user during the conversation.

4.3. Customer acceptance of VPBank Chatbot

4.3.1. Exploratory factor analysis for independent and dependent variables

Exploratory factor analysis is applied to reduce and summarize variables for research into concepts. The relationships among many variables are shown, and the factors that represent the observed variables are found by factor analysis. Exploratory factor analysis should be based on specific and reliable criteria and should satisfy the following conditions: (1) According to Kaiser (1975), the KMO coefficient (Kaiser - Meyer - Olkin) in the range from 0.5 to 1 ($0.5 \leq KMO \leq 1$) is used as the index to consider the appropriateness of data when analyzing factors; (2) Barlett's test is used to evaluate the correlation between the observed variables in the population and has statistical significance when $Sig.<0.05$; (3) Kaiser (1960) said that factors with Eigenvalue > 1 will be kept in the analytical model; (4) Total Variance Explained shows how much of the extracted factors are condensed and the EFA model is considered appropriate when the Total Variance extracted is greater than or equal to 50%; (5) Factor Loading is the value indicating the correlation between the observed variable with the factors and the value of the factor loading coefficient is greater than 0.5, the observed variable is statistically significant good (Hair et al., 2010).

Table 8: KMO and Bartlett's Test for the independent variable

Evaluation factor	Independent variables
KMO. Coefficient	0.74
Sig value. in Bartlett's test	0.000

(Source: Author's data processing)

For the independent variable, based on the above table, we see that the coefficient $KMO = 0.74$ (satisfying the condition $0.5 < 0.74 < 1$) with Sig level. = 0.00 (< 0.05), so the variables correlated with others in the population, and using factor analysis is appropriate. At the value of Eigenvalue > 1 , there are 5 factors with the Total Variance extracted. Total Variance Explained 62.79 % ($>50\%$) indicates that these 5 factors will explain 62.79 % of the variation of data. After analyzing EFA factors for 21 observed variables, all observed variables meet the conditions well to conduct the analysis.

Table 9: Rotation matrix of independent variables

Observed variables	Factor				
	1	2	3	4	5
PR1	0.883				
PR4	0.883				
PR2	0.876				

PR3	0.876
AT1	0.809
AT3	0.792
AT4	0.788
AT2	0.745
PEOE5	0.804
PEOE3	0.780
PEOE2	0.731
PEOE1	0.637
PEOE 4	0.508
PU4	0.770
PU3	0.722
PU1	0.674
PU2	0.649
PA1	0.790
PA3	0.680
PA4	0.586
PA2	0.575
Eigenvalue coefficient	1.321
Extracted Variance (%)	62.79

(Source: Author's data processing)

For the dependent variable, based on the exploratory factor analysis results, the dependent variable consists of 3 observed variables, showing that the significance level of Bartlett's Test is less than 0.05; KMO value is 0.742 (>0.5), total variance extracted is 65.025% and Factor Loading factor of all observed variables is more than 0.5, proving that factor analysis is appropriate.

Table 10: Results of factor analysis for dependent variable

Element	Value
KMO Coefficient	0.742
Sig value – Bartlett. Test	0.000

Total variance extracted	59,706
Eigenvalue coefficient	2,388
AC3	0.833
AC4	0.828
AC2	0.795
AC1	0.615

(Source: Author's data processing)

4.3.2. Correlation analysis and regression results

The correlation coefficient test aims to assess the linear relationship between the independent variables and the dependent variable. If the variables are highly correlated, the problem of multicollinearity must be taken into account after the regression analysis. According to the correlation coefficient matrix, the dependent variable has a linear correlation with the three independent variables. The Pearson correlation coefficient test table reveals that the correlation coefficient between the dependent variable AC and independent variables that have a significance value of Sig.< 0.05 are PU, PR, and PA.

The results of the regression are shown below:

Table 11: Regression results

Variable	Regression coefficient	Test value t
Coefficient β_0	-	-
PU	0, 102 ***	2.414
PR	-0.93 **	-3.972
AT	0.802 ***	17,516
$R^2 = 0.829$		
$R^2_{\text{adjusted}} = 0.824$		
F = 195,063 ***		
Durbin Watson coefficient = 1.902		

(Source: Author's data processing)

The result indicates that the adjusted R^2 is 0.829. It means that 82.9% of the variation of the dependent variable is explained by the linear relationship of the independent variables. It demonstrates a relatively high level of model fit. The Durbin-Watson score for the model is 1.902 ($1 < D < 3$), indicating that the model does not have autocorrelation. However, the fit is only valid for the sample data. To test whether the model can be applied to the real population or not, the ANOVA test is performed. The results demonstrate that the F-test's significance level in the model is small (< 0.001),

indicating that the model is suitable for the dataset and can be generalized to the entire population or that there is a significant relationship between the independent variables and the dependent variable. The coefficients of the independent variables' VIF (covariance) are all less than 10, indicating that multicollinearity in the regression model is within the acceptable threshold.

Based on the Sig values of the t-test of independent variables, such as PU having a Sig value of 0.0017, PR with a Sig value of 0.000, and PA with a Sig value of 0.000, it can conclude that the regression model is appropriate and exhibits the relationship between acceptance and the three factors. According to the normalization coefficient, the regression equation takes the following form:

$$AC = 0.783PA + 0.102PU - 0.163*PR$$

From the normalized regression equation Beta, the positive sign of the regression coefficient indicates that the factors in the regression model have a proportional influence on the attitude towards accepting the use of Chatbot. It means that when the customer's evaluation level for the Incremental models of these factors increases, the level of acceptance of using Chatbot will increase. Conversely, the negative sign of the regression coefficient indicates that those factors have a negative relationship with chatbot acceptance. Looking at the regression model, it can be seen that two factors have a positive influence, and one factor negatively affects the acceptance of Chatbot use. The coefficient $\beta_1 = 0.783$ shows that when the attractive variable (PA) changes by one unit while the other variables remain unchanged, the acceptance (AC) moves in the same direction by 0.783 units. The coefficient $\beta_2 = 0.102$ shows that when the utility variable (PU) changes by one unit while the other variables remain unchanged, the acceptance (AC) moves in the same direction by 0.102 units. The coefficient $\beta_3 = -0.163$ indicates that when the risk perception variable (PR) changes by one unit while the other variables remain unchanged, the acceptance (AC) moves in the opposite direction by - 0.163 units.

The research results indicate that three factors impact consumers' acceptance of chatbots in the banking industry. The perceived attractiveness influences most significantly consumers' willingness to use a chatbot because the target audience is young and open-minded. Therefore, they are more willing to experience and use technology than other age groups. Moreover, perceived usefulness has a positive connection with the intent to use the chatbot. The usefulness of chatbots may be quick response, solving problems effectively, or saving time and cost. However, users' acceptance is negatively impacted by the perceived risk. Chatbots can collect data from customers during the conversation. Hence, consumers have the fear of losing private information or financial data. The research results are considered a crucial contribution to the research thesis on accepting the use of new technology for the TAM model.

5. Conclusion and implications

In the era of technology and the changes in consumer behavior, companies have applied chatbots to optimize service operations. The study outcomes showed that customers of VPBank have experienced the bank chatbot on Facebook and NEO app.

Moreover, users found that using the chatbot has both advantages and disadvantages. In addition, three factors impact customers' perception of using chatbots at VPBank, Hue Branch including perceived attractiveness, perceived usefulness, and perceived risk. From the results, some implications are figured out:

Firstly, as for the attractiveness of using chatbots, banks should build a chatbot system with many different scenarios to best respond to customers' needs. Simple things such as addressing the customer by name when texting or inserting customer's social network account name into the message can help the business reach more customers and encourage them to use the bank's services. Thoughtfully preparing chatbot scripts will improve customers' experience and make them feel like they are being talked to, listened to, and consulted by the business. Furthermore, a more customer-friendly chatbot interface can make customers excited to use it.

Secondly, to address the risk perception factor when using the chatbot, especially in the banking sector where privacy and data security are crucial, banks must ensure that customer data is owned and can only be accessed by the bank. The bank should have more solutions to protect customer information and commit to securely protecting customer information and not misusing it. Building trust in user protection when using the chatbot in banks is crucial.

Thirdly, it is necessary to build diverse questions that provide more features so that customers have more choices. Banks should offer more information about interest rates and exchange rates directly in the conversation without customers having to go to a link provided by the chatbot. It can make customers feel that chatbots can provide many benefits. Updating more features for chatbots and combining chatbots and human service when customers make complex requests that the chatbot cannot fulfill can help avoid customer frustration. Chatbots have the potential to positively impact customer loyalty and brand engagement while helping to increase revenue and reduce costs. However, this will only happen if they deliver the experience customers want. Choosing the right development platform that offers intelligent communication, scalability, and control is critical to success.

However, this study has some limitations. Firstly, the sample size of 125 may only apply to the current set of customers of VPBank. Therefore, in the future, the research should be applied to a bigger sample size from different banks using chatbots. Secondly, there was no difference in adoption among groups. Hence, researchers in the future should make a comparison among categories so that suggested marketing plans for each segment will work effectively.

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**YẾU TỐ ẢNH HƯỞNG ĐẾN SỰ GẮN KẾT CỦA NGƯỜI LAO ĐỘNG
VỚI TỔ CHỨC CÔNG ĐOÀN CƠ SỞ TẠI VIỆT NAM TRONG BỐI CẢNH
THỰC HIỆN CÁC HIỆP ĐỊNH TỰ DO THẾ HỆ MỚI:
NGHIÊN CỨU TRƯỜNG HỢP DOANH NGHIỆP MAY**

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Tóm tắt: Lựa chọn nghiên cứu sự gắn kết của người lao động với tổ chức công đoàn cơ sở tại Việt Nam trong bối cảnh thực hiện các Hiệp định tự do thế hệ mới: Nghiên cứu trường hợp doanh nghiệp May là cần thiết để làm rõ các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở. Nghiên cứu được thực hiện nhằm đánh giá 4 yếu tố: Bảo vệ lợi ích của người lao động; Truyền thông tổ chức; Đại diện cho người lao động; Tham gia quản lý có ảnh hưởng như thế nào đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở tại các doanh nghiệp May Việt Nam. Mô hình được kiểm định với bộ dữ liệu khảo sát 221 cán bộ công đoàn và người lao động đến từ các doanh nghiệp May Việt Nam. Từ kết quả nghiên cứu, đưa ra các khuyến nghị giúp thúc đẩy sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong bối cảnh thực hiện các Hiệp định thương mại tự do thế hệ mới.

Từ khóa: Sự gắn kết, Người lao động, Công đoàn cơ sở, Doanh nghiệp May

**FACTORS AFFECTING THE COMMITMENT OF WORKERS WITH
GRASSROOTS TRADE UNIONS IN VIETNAM IN THE CONTEXT OF
IMPLEMENTING NEW - GENERATION FREE TRADE AGREEMENT:
A CASE STUDY OF GARMENT ENTERPRISES**

Abstract: Choosing to study the commitment of workers with grassroots trade unions in Vietnam in the context of implementing new-generation Free Trade Agreements: A case study of garment enterprises is necessary to clarify factors affecting the employee's commitment to the grassroots trade union. The study was conducted to evaluate five factors: Protecting the interests of employees; Organizational communication; Representing workers; Participating in management how it affects the commitment of employees with grassroots trade unions at Vietnamese garment enterprises. The model is tested with a survey dataset of 221 members of grassroots trade unions and workers from Vietnamese garment enterprises. From the research results, recommendations are made to help promote the commitment of employees with grassroots trade unions in the context of the implementation of new-generation free trade agreements.

Keywords: Commitment, Employees, Grassroots Trade Union, Garment enterprise

1. Đặt vấn đề

Công đoàn đã bắt đầu xuất hiện tại xã hội phương Tây từ đầu thế kỷ 18, với vai trò là tổ chức bảo vệ quyền và lợi ích hợp pháp và chính đáng của người lao động trên toàn thế giới. Hiện nay, trong các doanh nghiệp công đoàn là tổ chức đại diện đấu tranh, thương lượng với người sử dụng lao động nhằm bảo vệ quyền và lợi ích của người lao động, chia sẻ lợi ích và trách nhiệm, giải quyết tranh chấp lao động,... qua đó góp phần thúc đẩy lành mạnh hóa quan hệ lao động giữa các bên. Tại hầu hết các quốc gia trên thế giới, quyền công đoàn đã trở thành một trong những quyền cơ bản và bình đẳng của mỗi người lao động và được quy định rất cụ thể trong các văn bản pháp luật quan trọng của các nước này. Hiện nay, khi toàn cầu hóa và hội nhập quốc tế đã và đang tác động vô cùng mạnh mẽ đến tất cả các quốc gia dân tộc, ở tất cả các lĩnh vực của đời sống xã hội, đến tất cả các giai cấp và tầng lớp trong xã hội. Con người nhận ra sự cần thiết phải tạo ra một nền tảng xã hội bền vững nhằm tạo tiền đề cho sự phát triển thương mại bền vững. Hệ quả là trong Tuyên bố năm 1998 của Tổ chức Lao động Quốc tế (ILO) đã dẫn đến sự ra đời của các công ước mới nhằm bảo vệ người lao động, trong đó có công ước 87 - Tự do hiệp hội và bảo vệ quyền được tổ chức. Trong bối cảnh đó, các quốc gia thành viên, trong đó có Việt Nam sẽ phải tuân thủ luật chơi chung trong khuôn khổ các định chế quốc tế. Dẫn đến các tổ chức đại diện cho người lao động mới phi truyền thống sẽ ra đời và tạo ra sự cạnh tranh với tổ chức công đoàn truyền thống trong thu hút, tập huấn, phát triển đoàn viên và phải chia sẻ nguồn lực tài chính cho các tổ chức này.

Chính vì vậy, nghiên cứu của nhóm về yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở là cần thiết trên cả phương diện khoa học và thực tiễn. Nhằm cung cấp một nghiên cứu chuyên sâu hơn về vấn đề sự gắn kết của người lao động với tổ chức công đoàn cơ sở. Từ đó, đề xuất các giải pháp, kiến nghị giúp thúc đẩy sự gắn kết của người lao động với tổ chức công đoàn cơ sở tại các doanh nghiệp May Việt Nam trong bối cảnh thực hiện các Hiệp định thương mại tự do thế hệ mới.

2. Tổng quan nghiên cứu

Đề tài được thực hiện dựa trên cơ sở khảo lược các nghiên cứu về “Sự gắn kết của người lao động với tổ chức” và các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức của: Meyer & Allen (1991) trong “*Three - component conceptualization of organizational commitment*”; Yasmin (2011) trong “*The impact of motivational factors on employee commitment in the oil and gas industry in Malaysia. Masters thesis, Open University Malaysia*”; Trần Thị Hiền & Nguyễn Hồng Quân (2021) trong “*Trách nhiệm xã hội của doanh nghiệp và sự gắn kết của nhân viên: Nghiên cứu tại các doanh nghiệp nhỏ và vừa Việt Nam*”. Trong đó, các nghiên cứu này chỉ ra các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức đều phản ánh chức năng và nhiệm vụ lõi của tổ chức đó. Trong khi đó, các nghiên cứu của Immanuel Ness (1998), “*Trade Unions and the Betrayal of the Unemployed: Labor conflicts during the 1990's*”; Diệp Thanh Nguyên (2005), “*Vai trò của Công đoàn trong bảo vệ quyền và lợi ích hợp pháp của người lao động*”; Ewing (2005) với nghiên cứu “*The function of Trade Unions*”; Trần Tuấn Sơn (2021) trong nghiên cứu “*Vai trò đại diện của tổ chức công đoàn cho người lao động trong quan hệ lao động theo Hiệp định đối tác toàn diện và tiến bộ xuyên Thái Bình Dương* -

Pháp luật một số quốc gia thành viên và kinh nghiệm cho Việt Nam”,... đã chỉ ra vai trò quan trọng và các chức năng lõi của tổ chức Công đoàn. Theo đó, các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở sẽ phản ánh chức năng lõi của tổ chức đó.

3. Cơ sở lý thuyết

3.1. Khái quát về sự gắn kết của người lao động với tổ chức

3.1.1. Khái niệm về sự gắn kết của người lao động với tổ chức

Theo Porter & cộng sự (1974), gắn kết của người lao động với tổ chức là niềm tin mạnh mẽ và chấp nhận các mục tiêu của tổ chức, sẵn sàng nỗ lực hết mình vì tổ chức và mong muốn duy trì là thành viên của tổ chức. Meyer & Allen (1997) cho rằng gắn kết của người lao động với tổ chức là ở lại với tổ chức, tham gia công việc thường xuyên, nỗ lực làm việc mỗi ngày, bảo vệ tài sản của tổ chức và tin vào mục tiêu của tổ chức. Theo Macey & Schneider (2008) cho rằng, sự gắn kết của người lao động với tổ chức là sự sẵn sàng làm việc tích cực vì tổ chức, cảm thấy tự hào là một thành viên của tổ chức và có sự gắn bó chặt chẽ với tổ chức. Qua nghiên cứu các quan điểm khác nhau về “Sự gắn kết của người lao động với tổ chức”, trong nghiên cứu này nhóm nghiên cứu xác định: *Sự gắn kết của người lao động với tổ chức là sự phản ánh mức độ cam kết gắn bó lâu dài, tích cực tham gia cống hiến và tự hào về tổ chức, cũng như sẵn sàng giới thiệu người khác gia nhập vào tổ chức của mình.*

3.1.2. Các hình thức của sự gắn kết người lao động với tổ chức

Sự gắn kết của người lao động với tổ chức đã được đo lường bằng nhiều thang đo khác nhau. Theo O’reilly & Chatman (1986), đó là Sự tuân thủ (Compliance): sự lười cuốn vì những phần thưởng đặc biệt; Sự đồng thuận (Identification): sự gắn kết vì mong muốn hội nhập với tổ chức; Sự tiếp thu (Internalisation): sự lười cuốn do có sự phù hợp, sự tương đồng giữa giá trị của cá nhân với giá trị của tổ chức. Meyer & Allen (1991) đề xuất ba thành phần gắn kết với tổ chức: Gắn kết vì tình cảm (Affective commitment): đề cập đến sự gắn kết tình cảm, sự gắn kết chặt chẽ và dồn hết tâm trí vào trong tổ chức của nhân viên; Gắn kết do bắt buộc (Continuance commitment): gắn kết do người nhân viên nhận thấy chi phí phải trả cao (chi phí cơ hội) khi phải rời bỏ tổ chức; Gắn kết vì quy chuẩn (Normative commitment): phản ánh gắn kết dựa trên nghĩa vụ của nhân viên đối với tổ chức.

3.2. Khái quát về tổ chức Công đoàn

3.2.1. Khái niệm về tổ chức Công đoàn

Theo David Macdonald & Caroline Vandenaabeele (1996) đã định nghĩa công đoàn như sau: “Một hiệp hội của những người lao động liên kết lại để bảo vệ và thúc đẩy các quyền lợi chung của họ”.

Điều 1 Luật Công đoàn năm 2012 và Hiến pháp 2013 quy định tại Điều 10 về khái niệm công đoàn như sau: “Công đoàn Việt Nam là tổ chức chính trị - xã hội của giai cấp công nhân và của người lao động được thành lập trên cơ sở tự nguyện, đại diện cho người

lao động, chăm lo và bảo vệ quyền, lợi ích hợp pháp, chính đáng của người lao động; tham gia quản lý nhà nước, quản lý kinh tế - xã hội; tham gia kiểm tra, thanh tra, giám sát hoạt động của cơ quan nhà nước, tổ chức, đơn vị, doanh nghiệp về những vấn đề liên quan đến quyền, nghĩa vụ của người lao động; tuyên truyền, vận động người lao động học tập, nâng cao trình độ, kỹ năng nghề nghiệp, chấp hành pháp luật, xây dựng và bảo vệ Tổ quốc". Như vậy, công đoàn là tổ chức chính trị - xã hội, là tổ chức quần chúng rộng lớn nhất của giai cấp công nhân và nhân dân lao động. Công đoàn xuất hiện khi giới công nhân biết ý thức về sức mạnh tập thể và biết chăm lo bảo vệ quyền lợi cho chính mình. Sự phát triển của công đoàn gắn liền với sự lớn mạnh của giai cấp công nhân, với sự phát triển của công nghiệp, kỹ nghệ và sự liên kết của giới những người chủ.

1.1.1. Vai trò và chức năng của tổ chức Công đoàn

Vai trò của tổ chức Công đoàn

Thứ nhất, vai trò quan trọng nhất của công đoàn là bảo vệ quyền lợi chính đáng của người lao động là đoàn viên công đoàn. Vai trò này xuất phát từ nguồn gốc ra đời của các tổ chức công đoàn.

Thứ hai, công đoàn kiểm tra giám sát hoạt động của các cơ quan nhà nước, tổ chức kinh tế, giáo dục người lao động.

Thứ ba, tham gia đổi mới cơ chế quản lý, củng cố nguyên tắc tập trung dân chủ, giúp tuyên truyền giáo dục người lao động nắm vững, nhận thức đúng về quyền và nghĩa vụ của mình trong quan hệ với người sử dụng lao động.

Thứ tư, tổ chức công đoàn góp phần lành mạnh hóa quan hệ lao động.

Thứ năm, công đoàn hỗ trợ các dịch vụ và kỹ thuật cho các công đoàn viên và các tổ chức thành viên của công đoàn là vai trò thứ năm.

Vai trò của công đoàn đang ngày càng được nâng cao bởi công đoàn tham gia vào các cuộc thương lượng hai bên, giải quyết các tranh chấp lao động với vai trò là đại diện người lao động. Ngoài chức năng đại diện cho người lao động, công đoàn còn là tổ chức trực tiếp tham gia giải quyết những tranh chấp khi lợi ích giữa người lao động và người sử dụng lao động nảy sinh.

Chức năng của tổ chức Công đoàn

Thứ nhất, công đoàn có chức năng bảo vệ lợi ích của người lao động: Chức năng này của tổ chức công đoàn được thể hiện ở chỗ tổ chức công đoàn là một tổ chức thực hiện các hoạt động để bảo vệ lợi ích hợp pháp của người lao động.

Thứ hai, chức năng giáo dục, vận động, tuyên truyền: Trong hoạt động của mình, công đoàn thực hiện việc tuyên truyền chính sách, luật pháp, đảm bảo thông tin cho người lao động về những quyền, lợi ích chính đáng của họ để phòng ngừa và đấu tranh chống lại các vi phạm về quyền và lợi ích từ phía người sử dụng lao động.

Thứ ba, chức năng đại diện: Trong các cuộc đấu tranh, thương lượng, công đoàn luôn đứng ra đại diện cho người lao động thể hiện ý chí, nguyện vọng và quan điểm của họ.

Thứ tư, chức năng điều tiết: Tổ chức công đoàn còn có vai trò điều tiết thị trường lao động trong chừng mực và các trường hợp nhất định. Sự điều tiết được biểu hiện ở chỗ,

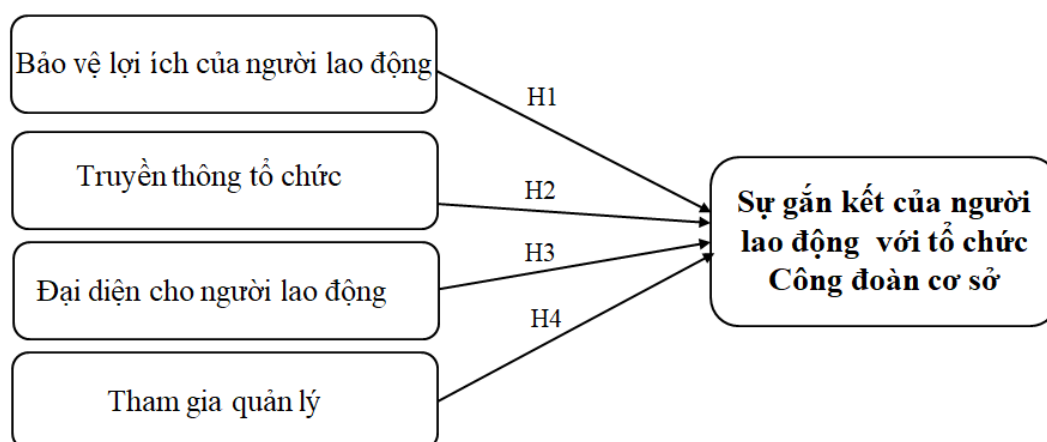
hầu hết các tổ chức công đoàn hoạt động theo các thỏa thuận tập thể với người sử dụng lao động, còn được gọi là thỏa ước lao động tập thể.

Thứ năm, chức năng quản lý: Công đoàn tổ chức các phong trào thi đua lao động, tham gia quản lý lao động, giải quyết lao động dôi dư, quản lý lương, thưởng, quản lý vật tư, kỹ thuật tài chính.

4. Mô hình và giả thuyết nghiên cứu

Kế thừa nghiên cứu của các tác giả: Meyer & Allen (1991); Yasmin (2011); Nguyễn Thị Ngọc Phương & cộng sự (2019); Abu Khalifeh & Mat Som (2013); Hà Nam Khánh Giao (2016); Trần Thị Hiền & Nguyễn Hồng Quân (2021); Bùi Hữu Đức & Lê Thị Tú Anh (2022); Immanuel Ness (1998); Johanson & Partanen (2002); Liên đoàn Lao động thành phố Hà Nội (1999); Nguyễn Hồng Nhung (2019); Nguyễn Thị Diễm (2019); Bùi Hữu Đức & Lê Thị Tú An (2022); Edwing (2005). Mô hình nghiên cứu các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở bao gồm 1 biến phụ thuộc, 4 biến độc lập (xem hình 1).

Hình 1: Mô hình nghiên cứu đề xuất



Nguồn: Tổng hợp của nhóm nghiên cứu

Giả thuyết 1 (H1): Thực hiện chức năng bảo vệ lợi ích của người lao động có ảnh hưởng tích cực đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam.

Giả thuyết 2 (H2): Thực hiện chức năng truyền thông tổ chức có ảnh hưởng tích cực đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam.

Giả thuyết 3 (H3): Thực hiện chức năng đại diện cho người lao động có ảnh hưởng tích cực đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam.

Giả thuyết 4 (H4): Thực hiện chức năng tham gia quản lý có ảnh hưởng tích cực đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam.

Mô hình nghiên cứu các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ

chức công đoàn cơ sở tại các doanh nghiệp May Việt Nam được thực hiện với 5 biến và 26 thang đo. Cụ thể:

Biến phụ thuộc “Sự gắn kết của người lao động với tổ chức công đoàn cơ sở” (GK) bao gồm: GK1 - Tôi mong muốn tiếp tục gắn bó lâu dài với tổ chức công đoàn cơ sở; GK2 - Tôi cảm thấy tự hào khi là thành viên của tổ chức công đoàn cơ sở; GK3 - Tôi sẵn sàng giới thiệu với đồng nghiệp khác tham gia vào tổ chức công đoàn cơ sở; GK4 - Tôi tích cực hưởng ứng và tham gia vào các hoạt động mà công đoàn cơ sở tổ chức.

Các biến độc lập: Các biến độc lập trong nghiên cứu này bao gồm (xem Bảng 1)

Bảng 1: Thang đo của biến độc lập

STT	Mã hóa	Biến/Thang đo	Nguồn gốc
1	BV	Bảo vệ lợi ích của người lao động	
	BV1	Công đoàn cơ sở tích cực tham vấn cùng doanh nghiệp để tạo điều kiện làm việc tốt cho công nhân	Meyer & Allen (1991), Yasmin (2011), Johansson & Partanen (2002), Immanuel Ness (1998)
	BV2	Công đoàn đảm bảo phối với doanh nghiệp thực hiện quy chế dân chủ cho công nhân tại doanh nghiệp	
	BV3	<u>Công đoàn cơ sở chủ động hướng dẫn, tư vấn về quyền lợi, nghĩa vụ cho công nhân khi giao kết và thực hiện hợp đồng lao động với doanh nghiệp</u>	
	BV4	Công đoàn cơ sở tích cực tham gia cùng doanh nghiệp xây dựng chính sách về lương, thưởng và phúc lợi cho công nhân	
	BV5	Công đoàn cơ sở tích cực đối thoại với doanh nghiệp xây dựng và giám sát thực hiện các chính sách bảo đảm an toàn vệ sinh lao động và bảo hộ lao động cho công nhân tại đơn vị	
2	TT	Truyền thông tổ chức	
	TT1	Công đoàn cơ sở thực hiện tốt truyền thông, quảng bá về hình ảnh và hoạt động của công đoàn đến công nhân trong doanh nghiệp	Roberts & O'Reilly (1974), Johlke & Duhan (2000), Joann Keyton (2017), Hoàng Hồng Hà (2019), Đinh Thị Thúy Hằng (2021)
	TT2	Công đoàn cơ sở chủ động thực hiện tuyên truyền về pháp luật lao động tới công nhân	
	TT3	Công đoàn cơ sở tích cực tổ chức tuyên truyền và giáo dục cho công nhân về quy trình tổ chức đấu tranh hợp pháp khi xuất hiện tranh chấp lao động	
	TT4	Công đoàn tích cực tuyên truyền cho công nhân về vai trò và nội quy về an toàn vệ sinh lao động, bảo hộ lao động tại nơi làm việc	
	TT5	Công đoàn cơ sở thực hiện tốt truyền thông về những phúc lợi tới công nhân	
	TT6	Công đoàn cơ sở cập nhật và phổ biến nhanh chóng tới công nhân những quy định mới liên quan đến quyền và lợi ích của họ	
3	ĐD	Đại diện cho người lao động	

	ĐD1	Công đoàn cơ sở quan tâm lắng nghe và nắm bắt tâm tư, nguyện vọng của công nhân trong doanh nghiệp	Leo Troy (1961), Bowen (1974), El Mikawy, & Posusney (2000), Ewing (2005), Võ Thị Minh Hiếu (2010)
	ĐD2	Công đoàn cơ sở thực hiện tốt đối thoại với doanh nghiệp để giải quyết các vấn đề liên quan đến quyền, lợi ích và nghĩa vụ của công nhân	
	ĐD3	Công đoàn cơ sở tích cực phối hợp với cơ quan, tổ chức và cá nhân có thẩm quyền xem xét, giải quyết các tranh chấp lao động trong doanh nghiệp	
	ĐD4	Công đoàn cơ sở đại diện cho công nhân khởi kiện tại Tòa án khi quyền, lợi ích hợp pháp và chính đáng của công nhân bị xâm phạm	
	ĐD5	Công đoàn cơ sở chủ động tham gia với doanh nghiệp tiến hành thương lượng, sửa đổi, bổ sung và ký kết thỏa ước lao động tập thể	
	ĐD6	Công đoàn cơ sở thực hiện tốt việc lãnh đạo công nhân đình công theo đúng quy định của pháp luật	
4	QL	Tham gia quản lý	
	QL1	Công đoàn cơ sở quan tâm giám sát thực hiện các chính sách pháp luật và thỏa ước lao động tập thể tại doanh nghiệp	Meyer & Allen (1991), Ewing (2005), Nguyễn Thị Hồng Nhung (2019), Nguyễn Thị Minh Nhàn (2019), Johansson & Partanen (2002)
	QL2	Công đoàn cơ sở quan tâm giám sát thực hiện các tiêu chuẩn, quy phạm về an toàn vệ sinh lao động, bảo hộ lao động cho công nhân của doanh nghiệp	
	QL3	Công đoàn cơ sở tham gia giải quyết tốt các khiếu nại, tố cáo của công nhân	
	QL4	Công đoàn tích cực giám sát thực hiện quy chế dân chủ của công nhân tại doanh nghiệp	
	QL5	Công đoàn cơ sở tham gia kiến nghị với cơ quan nhà nước, tổ chức có thẩm quyền xây dựng, sửa đổi và bổ sung các chính sách, pháp luật liên quan đến quyền và nghĩa vụ của người lao động	

Nguồn: Tổng hợp và phát triển của nhóm nghiên cứu

5. Phương pháp nghiên cứu

Để nghiên cứu các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở tại các doanh nghiệp Việt Nam, nhóm nghiên cứu đã sử dụng kết hợp phương pháp nghiên cứu định tính và phương pháp nghiên cứu định lượng.

Đối với phương pháp nghiên cứu định tính: Nhóm nghiên cứu sử dụng phương pháp phỏng vấn chuyên gia với 9 đối tượng là cán bộ công đoàn và một số người lao động tại các doanh nghiệp May Việt Nam. Đối tượng phỏng vấn được lựa chọn kỹ càng để đảm bảo tính đại diện theo các tiêu chí, bao gồm: độ tuổi, giới tính, vị trí công tác, trình độ học vấn,... Lấy ý kiến đối tượng phỏng vấn về bảng hỏi dự trù với các thang đo để làm cơ sở hiệu chỉnh/ bổ sung để phù hợp với bối cảnh nghiên cứu. Trên cơ sở đó xác lập khung nghiên cứu các yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở tại các doanh nghiệp May Việt Nam.

Đối với phương pháp nghiên cứu định lượng: Về kích cỡ mẫu: Trong nghiên cứu này nhóm tác giả sử dụng 26 thang đo trong phân tích nhân tố, do đó cỡ mẫu tối thiểu cần đạt được là $26 \times 5 = 130$ quan sát. Thời gian diễn ra từ ngày 25 tháng 12 năm 2022 đến ngày 05 tháng 02 năm 2023. Kết quả là, số phiếu thu về là 257 và sau khi sàng lọc các phiếu trả lời loại 23 phiếu không hợp lệ và còn lại 221 phiếu hợp lệ (đạt tỷ lệ 78,9%) được sử dụng để nhập và xử lý dữ liệu với cơ cấu khá đồng nhất với quy mô tổng thể do đó có tính đại diện. Phương pháp nghiên cứu định lượng được thực hiện với mục đích của kiểm tra các giả thuyết đã đưa ra. Các phiếu khảo sát sau khi làm sạch đã được phân tích bằng phần mềm SPSS 26 tạo ra những dữ liệu phục vụ cho phân tích, kiểm định, đánh giá bằng các kỹ thuật phù hợp, đó là: Kỹ thuật phân tích thống kê mô tả; Kỹ thuật kiểm định độ tin cậy thang đo; Kỹ thuật phân tích EFA; Kỹ thuật phân tích tương quan; Kỹ thuật phân tích hồi quy.

6. Kết quả nghiên cứu và thảo luận

6.1. Thông kê mô tả mẫu nghiên cứu

Nhóm nghiên cứu sử dụng 26 thang đo trong phân tích nhân tố, do đó kích cỡ mẫu tối thiểu cần đạt được là $26 \times 5 = 130$ quan sát. Để đáp ứng yêu cầu về mẫu khảo sát phù hợp với điều kiện tiếp cận, nhóm nghiên cứu đã tiến hành gửi phiếu khảo sát thông qua các phương tiện internet và mạng xã hội như Zalo, Facebook, Email,... từ ngày 25 tháng 12 năm 2022 đến ngày 05 tháng 02 năm 2023. Kết quả là, số phiếu thu về là 257 và sau khi sàng lọc các phiếu trả lời loại 23 phiếu không hợp lệ và còn lại 221 phiếu hợp lệ (đạt tỷ lệ 78,9%) được sử dụng để xử lý dữ liệu.

Bảng 2: Thống kê mô tả mẫu khảo sát

	Đặc điểm	Số lượng	Tỷ lệ
Độ tuổi	18 - 23 tuổi	86	38,9%
	23 - 35 tuổi	72	32,5%
	35 - 45 tuổi	60	27,3%
	Trên 45 tuổi	2	1,3%
Cộng		221	100%
Giới tính	Nam giới	59	27,1%
	Nữ giới	162	72,9%
Cộng		221	100%
Vị trí việc làm	Người lao động	160	72,6%
	Cán bộ công đoàn	61	27,4%
Cộng		221	100%
Quy mô	DN quy mô lớn	128	57,9%
	DN nhỏ và vừa	92	42,1%
Cộng		221	100%
Vị trí	Hà Nội	103	46,5%
	Vĩnh Phúc	38	17,3%
	Tỉnh thành khác	80	36,2%
Cộng		221	100%

Nguồn: Kết quả phân tích từ SPSS 26

6.2. Phân tích độ tin cậy của thang đo

Thang đo các biến độc lập: “Bảo vệ lợi ích của người lao động”, “Truyền thông tổ chức”, “Đại diện cho người lao động”, “Tham gia quản lý”, có hệ số Cronbach’s Alpha lần lượt là 0,914; 0,942; 0,826; 0,836 đều $> 0,6$ điều này đảm bảo độ tin cậy cao. Hệ số tương quan biến tổng (corrected item-total correlation) thấp nhất lần lượt là 0,568; 0,059; 0,679; 0,575, có 1 hệ số tương quan biến tổng của biến quan sát ĐD4 (0,059) $< 0,3$ nên tiến hành loại biến quan sát ĐD4 và kiểm định lại độ tin cậy của thang đo lần 2. Kiểm định lại độ tin cậy của thang đo lần 2 cho kết quả: Thang đo biến “Đại diện cho người lao động” có hệ số Cronbach’s Alpha = 0,894 $> 0,6$ đảm bảo độ tin cậy cao, hệ số tương quan biến tổng thấp nhất đạt 0,672 đều cao hơn 0,3. Do đó, tất cả các biến đều có hệ số tương quan biến tổng cao hơn 0,3 và đều được sử dụng để phân tích nhân tố khám phá EFA.

Thang đo biến phụ thuộc “Gắn kết của người lao động với tổ chức công đoàn cơ sở”: Hệ số Cronbach’s Alpha = 0,924 $> 0,6$ điều này đảm bảo độ tin cậy cao. Hệ số tương quan biến tổng (corrected item-total correlation) thấp nhất đạt 0,792 đều cao hơn 0,3 và hệ số Cronbach’s Alpha nếu loại các biến quan sát này đều nhỏ hơn hệ số Cronbach’s Alpha của biến “Gắn kết của người lao động với tổ chức công đoàn cơ sở” cho thấy tất cả các biến quan sát đều được sử dụng để phân tích nhân tố khám phá EFA.

6.3. Kết quả phân tích nhân tố khám phá EFA

Khi phân tích EFA cho các nhân tố biến độc lập, kết quả cho thấy hệ số KMO = 0,85 $> 0,5$; mức ý nghĩa sig của kiểm định Bartlett’s = 0,000 $< 0,05$ thỏa mãn điều kiện nên có thể nhận định rằng các biến quan sát có tương quan với nhau. Các chỉ số này thỏa mãn điều kiện để mô hình phân tích nhân tố khám phá. Có 4 nhân tố được trích dựa vào tiêu chí eigenvalue > 1 , như vậy 4 nhân tố này tóm tắt thông tin của 21 biến quan sát dựa vào EFA một cách tốt nhất. Tổng phương sai mà 4 nhân tố này trích được là 72,879% $> 50\%$. Như vậy 4 nhân tố được trích giải thích được 72,879% biến thiên dữ liệu của 21 biến quan sát tham gia vào EFA. Chạy EFA cho biến GK kết quả thu được EFA cũng phù hợp với dữ liệu vì tổng phương sai trích bằng 81,392 ($> 50\%$), KMO = 0,671 ($> 0,5$) và kiểm định Bartlett có ý nghĩa thống kê (sig = 0,000 $< 0,05$). Vậy thang đo vẫn được sử dụng cho các phân tích tiếp theo.

Xét bảng ma trận thành phần Pattern Matrix có thể thấy hệ số tải nhân tố (factor loading) các biến quan sát của các biến lớn hơn 0,5 nên đạt tiêu chuẩn và không có biến xấu. Chạy hồi quy thu được nhân tố (factor) trong đó có 4 nhân tố là biến độc lập (nhân tố BV, nhân tố TT, nhân tố ĐD, nhân tố QL) và một biến phụ thuộc là GK (xem bảng 3).

Bảng 3: Ma trận xoay

	Nhân tố			
	1	2	3	4
TT1	0,899			
TT4	0,883			
TT2	0,882			
TT3	0,844			
TT6	0,744			
TT5	0,693			

BV4		0,909		
BV3		0,907		
BV2		0,833		
BV1		0,740		
BV5		0,607		
ĐD6			0,865	
ĐD3			0,841	
ĐD5			0,781	
ĐD1			0,723	
ĐD2			0,697	
QL5				0,817
QL1				0,807
QL4				0,760
QL2				0,749
QL3				0,720

Nguồn: Kết quả phân tích từ SPSS 26

1.2. 4.4. Kết quả phân tích tương quan Pearson

Dựa vào kết quả tương quan Pearson, nhóm nghiên cứu nhận thấy rằng các biến độc lập có tương quan tuyến tính với biến phụ thuộc vì hệ số tương quan Pearson của các biến phụ thuộc đối với biến độc lập đều > 0.4. Đối với sự tương quan của các biến độc lập, các biến có sự tương quan với nhau nhưng không quá mạnh nên có thể xem là nghiên cứu tạm thời không có hiện tượng đa cộng tuyến giữa các biến phụ thuộc.

Bảng 4: Correlations

		GK	BV	TT	ĐD	QL
GK	Pearson Correlation	1	0,591**	0,455**	0,478**	0,191**
	Sig. (2-tailed)		0,000	0,000	0,000	0,002
	N	221	221	221	221	221
BV	Pearson Correlation	0,591**	1	0,296**	,559**	,285**
	Sig. (2-tailed)	0,000		0,000	0,000	0,000
	N	221	221	221	221	221
TT	Pearson Correlation	0,455**	0,296**	1	0,243**	0,383**
	Sig. (2-tailed)	0,000	0,000		0,001	0,000
	N	221	221	221	221	221
ĐD	Pearson Correlation	0,478**	0,559**	0,243**	1	0,204**
	Sig. (2-tailed)	0,000	0,000	0,001		0,004
	N	221	221	221	221	221
QL	Pearson Correlation	0,191**	0,285**	0,383**	0,204**	1
	Sig. (2-tailed)	0,002	0,000	0,000	0,004	
	N	221	221	221	221	221

Nguồn: Kết quả phân tích từ SPSS 26

6..5. Kết quả phân tích hồi quy tuyến tính bội

Phân tích hồi quy tuyến tính bội thu được: Giá trị R^2 hiệu chỉnh (Adjusted R Square) = 0,400 cho thấy các biến độc lập đưa vào phân tích hồi quy ảnh hưởng 40% sự biến thiên của biến phụ thuộc, còn lại 59,8% do các biến ngoài mô hình và sai số ngẫu

nhiên; giá trị DW = 2,043 nằm trong khoảng 1,5 cho đến 2,5 nên kết quả không vi phạm giả định tự tương quan chuỗi bậc nhất (Yahua Qiao, 2011); giá trị sig kiểm định F = 0,000 < 0,05 do đó, mô hình hồi quy là phù hợp.

Bảng 5: Coefficients

Model		Unstandardized Coefficients			Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error		Beta			Tolerance	VIF
1	(Constant)	1,168	0,211			5,539	0,000	0,596	1,079
	ĐD	0,374	0,152		0,390	7,232	0,000	0,799	1,252
	TT	0,152	0,141		0,188	3,672	0,000	0,653	1,331
	BV	0,178	0,146		0,209	3,886	0,000	0,505	1,422
	QL	0,015	0,035		0,022	0,421	0,004	0,596	1,033

Nguồn: Kết quả phân tích SPSS 26

Các biến gồm: ĐD, BV, TT, QL đều có sig kiểm định < 0,05. Do đó các biến này đều có ý nghĩa thống kê, đều tác động lên biến phụ thuộc GK. Hệ số hồi quy các biến độc lập này đều mang dấu dương, do đó các biến độc lập có tác động thuận chiều lên biến phụ thuộc.

Phương trình hồi quy đã chuẩn hóa:

$$GK = 0,152ĐD + 0,146BV + 0,141TT + 0,035QL$$

Dựa vào độ lớn của hệ số hồi quy chuẩn hóa Beta, thứ tự mức độ tác động từ mạnh nhất tới yếu nhất của các biến độc lập tới biến phụ thuộc GK là: **ĐD (0,152) > BV(0,146) > TT (0,141) > QL (0,035)**.

7. Kết luận và khuyến nghị

7.1 Kết luận

Nghiên cứu đã xây dựng và kiểm chứng mô hình nghiên cứu xác định các nhân tố tác động tích cực đến “Sự gắn kết với tổ chức công đoàn cơ sở của người lao động” theo mức độ tác động giảm dần bao gồm: Yếu tố “Đại diện cho người lao động” có tác động mạnh nhất với giá trị trọng số chuẩn hóa là 0,152; tiếp theo là “Bảo vệ lợi ích của người lao động” với trọng số 0,146; yếu tố “Truyền thông tổ chức” có trọng số 0,141 và cuối cùng là “Tham gia quản lý” với trọng số 0,035.

Bảng 6: Bảng tổng hợp kết quả kiểm định các giả thuyết nghiên cứu

GT	Giả thuyết nghiên cứu	Hệ số hồi quy chuẩn hóa	Kết quả
H3	Thực hiện chức năng đại diện cho người lao động có ảnh hưởng tích cực đến sự gắn kết giữa người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam	0,152	Chấp nhận
H1	Thực hiện chức năng bảo vệ lợi ích của người lao động có ảnh hưởng tích cực đến sự gắn kết giữa người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam	0,146	Chấp nhận

H2	Thực hiện chức năng truyền thông tổ chức có ảnh hưởng tích cực đến sự gắn kết giữa người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam	0,141	Chấp nhận
H4	Thực hiện chức năng tham gia quản lý có ảnh hưởng tích cực đến sự gắn kết giữa người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam	0,035	Chấp nhận

Nguồn: Tổng hợp của nhóm nghiên cứu

Như vậy, đối với người lao động trong các doanh nghiệp May Việt Nam, yếu tố “Đại diện cho người lao động” có ý nghĩa quan trọng đối với sự gắn kết của họ với tổ chức công đoàn cơ sở. Điều này là phù hợp, bởi đặc thù của lao động ngành May là lao động chủ yếu có tuổi đời còn khá trẻ, trình độ học vấn còn thấp, phần lớn lao động mới chỉ tốt nghiệp trung học phổ thông và trung học cơ sở. Do đó họ cần có tổ chức công đoàn cơ sở đủ mạnh để đại diện bảo vệ cho quyền và lợi ích hợp pháp, chính đáng của họ.

7.1. Khuyến nghị

7.1.1. Khuyến nghị về chức năng đại diện cho người lao động

Đây là yếu tố tác động mạnh nhất đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở (giá trị trọng số chuẩn hóa là 0,152). Từ kết quả phân tích có thể thấy rằng điểm trung bình của ĐD thấp nhất là 3,06 (ĐD4) ở mức độ trung lập và điểm trung bình cao nhất là 4,35 (ĐD1). Nhìn chung, người lao động được khảo sát đều quan tâm đến khả năng đại diện cho người lao động của các tổ chức công đoàn cơ sở (với giá trị trung bình bằng 3,75). Vì thế, tổ chức công đoàn cần chú trọng hơn trong công tác nâng cao năng lực đại diện cho người lao động của tổ chức công đoàn cơ sở tại các doanh nghiệp May.

Thứ nhất, cần xây dựng nguồn tài chính công đoàn đủ mạnh để thực hiện tốt chức năng, nhiệm vụ của công đoàn cơ sở. Cần phải kịp thời rà soát, sửa đổi các quy định pháp luật liên quan đến sử dụng kinh phí công đoàn, tài sản công đoàn phù hợp với quy định của pháp luật, bảo đảm công khai, minh bạch trong thu - chi kinh phí công đoàn. Kịp thời phát hiện những vi phạm tiêu cực và xử lý nghiêm khắc. Bên cạnh đó cần quan tâm, đổi mới mạnh mẽ, nâng cao tính tự chủ tài chính của các tổ chức công đoàn cơ sở, hạn chế sự phụ thuộc tài chính vào doanh nghiệp và góp phần tạo nguồn lực cho các hoạt động công đoàn cơ sở được thực hiện hiệu quả.

Thứ hai, thường xuyên tổ chức đào tạo bồi dưỡng cán bộ công đoàn cơ sở. Cán bộ công đoàn cơ sở cần được tham gia vào các buổi tập huấn thường xuyên do đội ngũ chuyên viên, giảng viên và chuyên gia đứng lớp. Nhằm nâng cao kiến thức và kỹ năng công tác thực chiến cho các bộ công đoàn cơ sở; đồng thời, giúp cho cán bộ công đoàn thêm tự tin, chủ động hơn trong đối thoại và thương lượng để ký kết thỏa ước lao động tập thể thực sự hiệu quả, góp phần mang lại nhiều điều khoản có lợi hơn cho người lao động.

7.2.2. Khuyến nghị về chức năng bảo vệ lợi ích của người lao động

Yếu tố ảnh hưởng đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở mạnh thứ hai là yếu tố “Bảo vệ lợi ích của người lao động”. Kết quả cho thấy 5 biến quan sát được người lao động đánh giá ở mức độ đồng ý, với giá trị trung bình 3,10 đến 4,37. Do đó, công đoàn cần quan tâm đến thúc đẩy khả năng bảo vệ lợi ích của người lao động.

Thứ nhất, nâng cao năng lực của đội ngũ cán bộ công đoàn cơ sở. Cán bộ công đoàn cơ sở cần được quan tâm và tạo điều kiện hơn nữa để tham gia vào các lớp tập huấn nghiệp vụ nhằm nâng cao năng lực hoạt động. Các nội dung được huấn luyện nhằm bồi dưỡng và nâng cao các kỹ năng nghiệp vụ cho đội ngũ cán bộ công đoàn cơ sở.

Thứ hai, đổi mới nội dung và phương pháp hoạt động của công đoàn cơ sở. Tiếp tục đổi mới các nội dung, phương thức hoạt động của công đoàn cơ sở; hướng tới tổ chức các hoạt động công đoàn nhằm đáp ứng yêu cầu, nguyện vọng chính đáng của người lao động, đồng thời phù hợp với tình hình sản xuất kinh doanh tại doanh nghiệp. Đổi mới các phong trào thi đua ở cấp công đoàn cơ sở; đẩy mạnh ứng dụng công nghệ thông tin trong công tác thông tin - truyền thông và báo cáo giữa các cấp công đoàn.

Thứ ba, đảm bảo sự chủ động và độc lập của công đoàn cơ sở với doanh nghiệp. Cần tiến tới sửa đổi và bổ sung pháp luật quy định về đối tượng có quyền tham gia và trở thành cán bộ công đoàn, để các bộ công đoàn chỉ thuần túy là người lao động hoặc chỉ hoạt động công đoàn và không kiêm nhiệm hoạt động sản xuất tại doanh nghiệp. Nhằm hạn chế sự chi phối và ảnh hưởng từ phía doanh nghiệp vào hoạt động của công đoàn trong bảo vệ quyền, lợi ích hợp pháp của người lao động.

7.2.3. Khuyến nghị về chức năng truyền thông tổ chức

Yếu tố “Truyền thông tổ chức” đứng ở vị trí thứ ba thông qua kết quả khảo sát. Yếu tố này góp phần quan trọng vào sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong doanh nghiệp May tại Việt Nam. Từ kết quả phân tích cho thấy 6 biến quan sát của yếu tố truyền thông tổ chức có giá trị trung bình từ 3,33 đến 4,08 đều được công nhận đánh giá ở mức độ đồng ý. Vì vậy, công đoàn cần quan tâm hơn trong công tác phát triển truyền thông công đoàn cơ sở vững mạnh:

Tăng cường truyền thông về Công đoàn cơ sở. Công đoàn cơ sở cần đẩy mạnh đa dạng các hình thức truyền thông và cập nhật các phương tiện truyền thông gần gũi nhất với người lao động. Trong đó, tập trung thông tin về các nội dung trọng tâm liên quan đến tổ chức công đoàn, đoàn viên và người lao động.

Công đoàn cơ sở cần được tổ chức, tập huấn, chia sẻ kinh nghiệm trong công tác truyền thông nội bộ và kiến thức về truyền thông mạng xã hội cho các cán bộ công đoàn nhằm áp dụng hiệu quả vào thực tế hoạt động của tổ chức công đoàn cơ sở tại doanh nghiệp. Đặc biệt, tận dụng lợi thế của mạng xã hội để đẩy mạnh hoạt động truyền thông, tuyên truyền qua Zalo, Facebook, website,... Bên cạnh đó, truyền thông công đoàn ngoài cập nhật thông tin từ phía công đoàn đến người lao động, cần phải xây dựng được kênh thông tin hai chiều, để cập nhật và tiếp nhận phản hồi từ người lao động.

7.2.4. Khuyến nghị về thực hiện chức năng tham gia quản lý

Cuối cùng, yếu tố “Tham gia quản lý” tác động yếu nhất đến sự gắn kết của người lao động với tổ chức công đoàn cơ sở trong các doanh nghiệp May Việt Nam. Với hệ số 0,035, người lao động ít quan tâm đến các hoạt động tham gia quản lý của tổ chức công đoàn. Kết quả phân tích cho thấy 5 biến quan sát của yếu tố tham gia quản lý có giá trị trung bình từ 3,55 đến 3,81 đều được người lao động đồng ý. Trong đó, biến quan sát QL1 có giá trị trung bình cao nhất 3,81. Điều này phản ánh công đoàn cơ sở quan tâm sát sao trong giám sát thực hiện các chính sách pháp luật và thỏa ước lao động tập thể tại doanh nghiệp, có ảnh hưởng mạnh đến sự gắn kết của người lao động với tổ chức công đoàn cơ

sở. Do đó, công đoàn cơ sở cần có giải pháp nhằm nâng cao khả năng tham gia quản lý của công đoàn cơ sở tại các doanh nghiệp.

Thứ nhất, chú trọng tìm kiếm đội ngũ chủ tịch công đoàn cơ sở tiềm năng, trách nhiệm. Chú trọng lựa chọn đội ngũ chủ tịch công đoàn cơ sở thực sự là thủ lĩnh quyết đoán của đoàn viên, người lao động; cần tăng cường hơn nữa trong đào tạo, bồi dưỡng nâng cao năng lực đội ngũ chủ tịch công đoàn cơ sở; đồng thời tăng cường các biện pháp bảo vệ và quan tâm chăm lo tới chủ tịch và các cán bộ công đoàn. Kịp thời biểu dương, khen thưởng và khích lệ các tập thể, cá nhân có thành tích xuất sắc trong công tác xây dựng công đoàn vững mạnh.

Thứ hai, đảm bảo quyền tham gia quyết định của tổ chức công đoàn cơ sở. Chú trọng rà soát, sửa đổi, bổ sung các nghị định quy định chi tiết về quyền được tham gia quyết định của Công đoàn nhằm đảm bảo tiếng nói của Công đoàn được công nhận và góp phần bảo vệ quyền, lợi ích hợp pháp của người lao động hiệu quả. Bên cạnh đó, cần xây dựng những quy chế thanh tra, kiểm tra và giám sát thực hiện các quy định pháp luật về quyền của Công đoàn tại các đơn vị, kịp thời phát hiện và kiến nghị với các cơ quan nhà nước có thẩm quyền xử lý các hành vi “lách luật” tại các doanh nghiệp.

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IMPACT OF CIRCULAR ECONOMY PRACTICES (CEP) ON SUSTAINABLE PERFORMANCE (SP) OF CONSTRUCTION ENTERPRISES IN VIETNAM

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Abstract: *Circular economy practices (CEP) is currently being prioritized in construction enterprises, particularly in construction materials production. After carrying out a context-based investigation and reviewing theories related to circular economy, sustainable performance (SP), the goal of the article is to test the impact of CEP on SP of Vietnamese construction enterprises. The author has researched 778 on enterprises in Viet Nam, the interview and questionnaires were taken focally the period from 2020 -2023.*

Keywords: *Circular economy practices, sustainable performance, construction enterprises, construction materials.*

ẢNH HƯỞNG CỦA THỰC HIỆN KINH TẾ TUẦN HOÀN ĐẾN HIỆU SUẤT BỀN VỮNG CỦA CÁC DOANH NGHIỆP NGÀNH XÂY DỰNG TẠI VIỆT NAM

Tóm tắt: *Thực hiện kinh tế tuần hoàn (CEP) là hoạt động được ưu tiên tại các doanh nghiệp xây dựng, đặc biệt trong lĩnh vực sản xuất vật liệu xây dựng. Sau khi xem xét bối cảnh và rà soát các lý thuyết liên quan đến kinh tế tuần hoàn, hiệu suất bền vững, mục đích của bài viết nhằm kiểm định ảnh hưởng của thực hiện kinh tế tuần hoàn tới hiệu suất bền vững của các doanh nghiệp xây dựng Việt Nam. Tác giả đã nghiên cứu khảo sát với 778 doanh nghiệp, phỏng vấn và bảng hỏi được thực hiện chủ yếu trong giai đoạn từ năm 2020 - 2023.*

Từ khóa: *Thực hiện kinh tế tuần hoàn, hiệu suất bền vững, doanh nghiệp xây dựng, vật liệu xây dựng.*

1. Introduction

In recent years, Vietnam has made many environmental commitments in new-generation free trade agreements such as EVFTA and CPTPP. The commitments aim to minimize the impact from economic development on the natural environment and build a social model following the trend of sustainable development on all three pillars: economic, social and environmental (J. Wu et al., 2014).

Currently, the circular economy (CE) is considered an important component in sustainable economic development (Genovese et al. 2017). At the same time, the knowledge economy is built in parallel with regulations and policies from the government and efforts from all levels of government to create a strong green (Zeng et al., 2017)business system . In the knowledge-based economy, enterprises comply with environmental protection policies and consciously reduce waste and environmental

pollution , and share useful resources (green materials, clean energy, efficient information, etc.) infrastructure and natural resources) and integrating the use of clean production forms is important (Bai et al., 2020a; C. J. C. Jabbour et al., 2019a). Along with that, when enterprises raise their awareness and carry out activities with more focus on sustainable development trends, they will bring more economic benefits, social efficiency and improve environmental quality (C.-H. Yu et al., 2015). Stemming from the positive effects of the circular economy on enterprises, many previous studies have investigated the activities of enterprises in the process of implementing a circular economy (CEP) with the aim of achieving Sustainable Performance (SP) . Not only that, a number of studies have assessed the impact from CEP to SP with the intermediate influence being Sustainable Supply Chain Flexibility (SSCF) or Dynamic Capability (DC) in the context of economic events. many fluctuations (LAWSON & SAMSON, 2001).

Although the study of the self-contained economy has received attention from many scholars around the world, there are still limited studies evaluating the role of CEP in the development of the SSCF of enterprises (Bai et al., 2020a). Most studies have investigated the association between the concepts of CEP, SSCF, DC, SP in a distributed manner with little attention paid to understanding how this construct interacts with each other (Chirra et al., 2021a). This is considered a major limitation in the approach of many researchers - the research is in the form of preliminary inquiry, simple analysis and lack of an overall view. At the same time, due to the concept of CEP, SP is still limited in Vietnam; CEP is a new business and economic model (Edwin Cheng et al., 2021b) and not much empirical research has been done on CEP, SP (Bai et al., 2020a; Chirra et al., 2021b). In particular, there has been no research in Vietnam showing the influence of CEP on products in enterprises in the construction industry, specifically in the field of building materials (building materials) .

Currently, a number of enterprises in the field of building materials in Vietnam have prioritized sustainable development through the use of high and environmentally friendly technologies, activities related to the community and the environment, and application of support policies. support workers. However, actions towards CEP from building materials enterprises have not taken place continuously, so they have not created products for enterprises. After reviewing, the author finds out research gaps as follow:

Firstly, at present, there is little research to determine the role of CEP in the development of SSCF of enterprise (Bai et al., 2020a). Most previous studies have investigated the association between the concepts of CEP, SSCF, DC, SP in a distributed manner with less attention paid to understanding how this structure interacts with each other (Chirra et al., 2021a). This is considered a major limitation because the approaches of the studies are only preliminary, simple analysis and lack of an overall view.

Second , previous studies on CEP and its impacts on SP were mainly conducted in more developed countries. Thus, in the context of a developing country like Vietnam, you will get a more holistic view of the knowledge economy, especially in construction enterprises in Vietnam. direct and indirect relationship from CEP to SP but mainly research on the feasibility of the conceptual economy for construction.

Third, the concept of SSCF, DC, CEP, SP is new in Vietnam. Therefore, the research is still limited when it comes to this topic in different enterprises. This is a big gap in the previous studies due to the constant change and urgent requirements from the fields related to the influence of CEP on the SP of enterprises.

Fourth, there are some studies that apply dynamic capacity theory and are still limited in linking with other theories such as the three-pillar theory of sustainability to build a model to evaluate the influence of CEP on SP. This gap makes the link between the local economy and the Sustainable Development Goals not close and convincing.

Fifth, the effects on SP are mainly based on the conventional linear model. Some studies have used intermediate variables to analyze the structural model, but there is no strict basis in the selection of intermediate variables.

Finally, studies have not clarified the regulatory role of some related variables such as firm size to assess the influence of CEP on SP.

This paper is organized in the following manner. In the next section, the author develops the model and the associated hypotheses. Subsequently, we describe the methodology, conduct the analysis, discuss the results, and provide implications. The study proposes solutions and recommendations towards Sustainable Development for construction enterprises in Vietnam, especially in the effective implementation of the concept economy. At the same time, the research results are the theoretical basis for future studies on this topic.

2. Theoretical framework and Model development

2.1. Theoretical framework

2.1.1. Circular economy practices

The basic economic model is applied to natural resource recovery activities. It aims to replace the traditional linear economic model of fast and cheap production with the purpose of producing durable goods, applying repair and recycling. In general, the application of production models based on the circular economy will have the aim of prolonging the life of the product, promoting repair, upgrading, reuse, and ultimately recycling into raw materials instead of being discharged into the environment. The general-purpose model is to simulate processes similar to those occurring in the natural environment (European Parliament, 2015).

Conceptually, there is no general agreement on the definition of a sustainable development economy, so the ways in which the basic economy, linear economy or sustainable development will be linked, compared in different ways can be applied to reality. However, scientists all agree that the implementation of a theoretical economy is an effective solution in sustainable development. For scholars in the field of environmental economics, sustainable development is a concept that is still independent, a social goal formed at the macro level and includes many broad concepts of ecological sustainability, economic development, if the application of the market economy can bring better results for society, towards sustainability, then it is one of the effective tools for sustainable development (Bartelmus, 2013; Geng & Doberstein, 2008).

2.1.2. *Theory of Dynamic Capabilities*

The dynamic capacity theory proposed by (TEECE & PISANO, 1994) is based on the theoretical perspective on the strategic source of the enterprise (J. Barney, 1991; J. B. Barney, 1986). Based on the resource theory, firms in the industry operate differently because they have different types of resources (J. Barney, 1991; J. B. Barney, 1986), however, the resource-based theory is considered static in nature and is not sufficient to explain the competitive advantage of firms in changing the business environment (Priem & Butler, 2001). In addition, the resource-based view of enterprises is to consider unique and difficult to imitate resources so that the enterprise can have a solid competitive advantage for long-term growth (J. B. Barney, 1986), and the process of maintaining a competitive advantage is dynamic (Hung et al., 2010). As a result, scholars have made the claim that in order for companies to remain competitive in the business market, they need to develop their specific capabilities as well as undergo continuous learning. Argyris & Schon, 1978; Jashapara, 1993; Zott, 2003), comes from a dynamic point of view, especially in this new and ever-changing environment (Wilden et al., 2013). Indeed, the lack of dynamism limits firms to maintain their competitive advantage, especially in variable environment (Gnizy et al., 2014). Based on the previous research literature, an increasing interest in dynamic competence theory can also be seen, which also shows that dynamic capacity is a strong foundation for dealing with the complexity of the environment and international business (Hsu et al., 2013).

Indeed, scientists have also shown the product relationship between DC and the performance of enterprise based on experiments (Hung et al., 2010). The impact of firm dynamics on firm performance has also been demonstrated in different firms and in different DCs. From an international business perspective, (Luo, 2000) found that exploiting dynamic capabilities can increase a company's expansion in the international market and at the same time increase solid performance.

According to (Teece et al., 1997a), the initial proposals of DC also assert that it has a direct relationship with firm performance. (Zollo & Winter, 2002) also identified this direct relationship and emphasized that if the enterprise does not have the ability to be dynamic in the changing environment, the superiority and development of the enterprise is only temporary. Again reaffirmed by (Teece, 2007), whereby, the development of core competencies are identified as competitive advantages at the enterprise level and it also contributes to the success or failure of that enterprise.

However, there are also arguments about a direct relationship between DC and firm performance. As mentioned (Eisenhardt & Martin, 2000) also argued that the DC factor alone cannot guarantee the competitive advantage of enterprises, but the arrangement and stabilization of resources of enterprises are created by DC in a way. will lead to competitive advantage. (Zott, 2003) also talked about the modification and change of the company's resources through the new DC, leading to the operational efficiency of the enterprise, not just the DC factor. (Eisenhardt & Martin, 2000) have also suggested that when firms are highly variable, they have an advantage over their competitors, indeed, (Zott, 2003) have also stated that firms have A good DC can develop different types of

resources and produce different levels of performance as a result.

Furthermore, it should be noted that DC is not like other specific capabilities like supply chain or R&D etc. (Gnizy et al., 2014), which, in fact, DC represents as a spiritual resource, sustains the competitiveness of enterprises, especially in today's ever-changing environment (Wilden et al., 2013). DC is also associated with organizational factors such as habits, processes, management, learning (Easterby-Smith et al, 2009) and the ability to adapt, absorb and create (Grant, 1996; Pisano , 1994; Wang & Ahmed, 2007).

2.1.3. Sustainable Supply Chain Flexibility

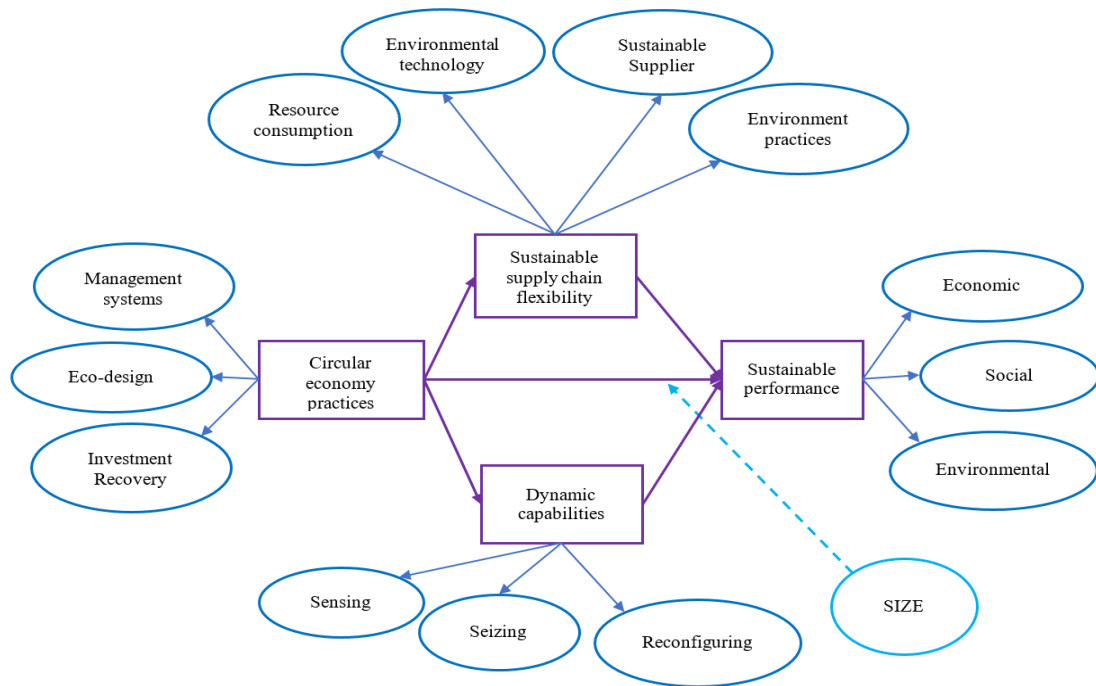
The Sustainable Supply Chain Flexibility (SSCF) was first introduced by Slack, which, according to him, is the ability to respond to customer needs in a timely manner (Slack, 2005). (G. Li & Ma, 2009) also believes that supply chain flexibility refers to resource sharing, business integration and optimization, and cooperation between member enterprises in the supply chain to achieve the ultimate goal of satisfying customer needs at the lowest cost. Although the SSCF concept has not yet reached a broad consensus in academia, researchers also believe that supply chain flexibility is the ability to deal with uncertainty and meet customer expectations. goods (Gosling et al., 2010; Rojo et al., 2016). Supply chain flexibility is an important element of a business's dynamic ability to positively improve supply chain resilience and enhance its competitiveness. In this complex and volatile market, businesses need to actively improve the flexibility of the supply chain to reduce losses that may occur due to uncertain environment (Liu & Zhong, 2012).

2.1.4. Sustainable Performance (SP)

SP has been researched and proven in recent years. Enterprises tend to adopt sustainable technologies and optimize their operations in a sustainable way to be able to meet customer needs as well as market requirements (Nowak et al., 2011). Consistent with this, business leaders mentioned methods, techniques, and tools to research, analyze, and design business processes including improving cost factors. cost, quality, timing and flexibility, and according to (Seidel et al., 2015) also include sustainability. Based on the theory of three sustainable pillars, products can be approached from three aspects of economy, society and environment, according to which enterprises need to focus on all three factors simultaneously to be able to achieve products in the long term.

2.2. Model development

With those mentioned theories combined with the theory of three pillars of sustainable development (sustainable development) to build a research model with a solid theoretical basis on the impact of CEP on SP of construction enterprises in Vietnam as shown in Fig.1

Figure 1. Hypothesized model

Source: The model was developed by the author

- Independent variable: CEP (Circular economy practices) is made up of 3 other factors, namely Management System, Ecological Design and Investment Recovery.

- Dependent variable: SP (Sustainable performance) is included in 3 aspects: Economic, Social and Environmental

- The endogenous/intermediate variables are: Variable Sustainable supply chain flexibility is made up of 4 factors namely Resource Consumption, Environment Technology, Sustainable Supplier and Environment Practices. The DC variable (Dynamic capabilities) is composed of 3 factors: Reconfiguring, Sensing and Seizing.

- Moderator variable: Enterprise size (SIZE)

Table 1. Summary of the hypotheses

Hypothesis	Content
H1	CEP has a direct positive impact on SP
H2	CEP has a positive impact on SSCF
H3	CEP has a positive impact on DC
H4	SSCF has a positive impact on SP
H5	DC has a positive impact on SP
H6	SSCFs and DCs act as mediators explaining the impact of CEP on SP .
H7	Firm size regulates the impact from CEP to SP: The larger the enterprise size, the closer the relationship between CEP and SP.

Source: The hypotheses were proposed by the author

The scale items were referred to the previous researches and constructed, revised after the results of preliminary research.

Table 2. Synthesis of research variables, items and origins

Variable	Items	Origins	Encryption
<i>CEP – Management system</i>	<ol style="list-style-type: none"> 1. Overall quality management environment 2. Environment related audit programs (e.g. ISO 14000 certification) 3. Eco-labelling 4. Pollution prevention programs 5. Internal Performance Evaluation System 6. Our company generates environment reports for internal audit purposes 	(Edwin Cheng et al., 2021a)	<i>CEP_MS</i>
<i>CEP – Eco-design</i>	<ol style="list-style-type: none"> 1. Reduce material consumption and focus energy in design 2. Focus on 3R principles ('reduce,' 'reuse' and 'recycle' of materials) in product design 3. Reduce the use of hazardous products in the design 4. Process design with a focus on waste reduction 5. Use the supplier's packaging environment 	(Edwin Cheng et al., 2021a)	<i>CEP_ED</i>
<i>CEP – Investment Recovery</i>	<ol style="list-style-type: none"> 1. Sale of excess inventory/materials 2. Sell scrap and used materials periodically 3. Selling surplus main equipment 4. Collection and recycling of end products and materials 	(Edwin Cheng et al., 2021a)	<i>CEP_IRP</i>
<i>SSCF – Resource consumption</i>	<ol style="list-style-type: none"> 1. Implement measures to reduce resource consumption costs 2. Quick response to resource shortages 3. Works on the availability of recycled resources 4. Increase the ratio of resources/recycled materials 	(Edwin Cheng et al., 2021a)	<i>SSCF_RC</i>
<i>SSCF – Environmental technology</i>	<ol style="list-style-type: none"> 1. Implement measures to reduce technology costs environment 2. Reduce environment technology implementation time 3. Introducing new environment technology 	(Edwin Cheng et al., 2021a)	<i>SSCF_ET</i>
<i>SSCF – Sustainable Supplier</i>	<ol style="list-style-type: none"> 1. Reduce environment-related communication costs with suppliers 2. Work on the availability of sustainable trending suppliers 3. Supplier selection tends to be sustainable 	(Edwin Cheng et al., 2021a)	<i>SSCF_SS</i>
<i>SSCF – Environment practices</i>	<ol style="list-style-type: none"> 1. Speed up crawling environment 2. Reduce time/cost of implementing environmental measures 3. Introducing new environment practices 	(Edwin Cheng et al., 2021a)	<i>SSCF_EP</i>
<i>DC – Sensing</i>	<ol style="list-style-type: none"> 1. Monitor new market trends 2. Analyze competitor's actions 3. Engage customers/suppliers in product development 4. Do R&D to try new ideas with strategic/operational implications 5. Assess potential environmental impacts of products/processes/services 	(O. Khan et al., 2020a)	<i>DC_SEN</i>
<i>DC – Seizing</i>	<ol style="list-style-type: none"> 1. Looking for strategic partners 2. Necessary human resource planning 3. Cooperate to acquire necessary knowledge/skills 4. Cooperate to obtain necessary raw materials/resources 5. Cooperation between departments 	(O. Khan et al., 2020a)	<i>DC_SEI</i>
<i>DC – Reconfiguring</i>	<ol style="list-style-type: none"> 1. Change in organizational structure 2. Make modifications in existing technology/machinery 3. Acquisition of a new factory 4. Organized training for employees 5. Applying new methods of organizing foreign relations 6. New or significantly improved logistics have been applied 	(O. Khan et al., 2020a)	<i>DC_REC</i>
<i>SP – Economic</i>	<ol style="list-style-type: none"> 1. Organizational profit growth is generally due to reduced consumption of energy and raw materials 2. Increase the market share of enterprises and improve the reputation of the organization. 3. Reduce the cost of energy use 4. Reduce waste handling and disposal fees 	(Mousa & Othman, 2020)	<i>SP_EC</i>
<i>SP – Social</i>	<ol style="list-style-type: none"> 1. Increased attention to employee health and safety rules 2. Improve community health and safety 3. Develop economic activities in the community and bring more job opportunities. 4. Reduce the impact of waste on the community. 5. Improve the quality of services provided and commit to the code of ethics. 	(Mousa & Othman, 2020)	<i>SP_SO</i>
<i>SP – Environmental</i>	<ol style="list-style-type: none"> 1. Significant direct and indirect reduction in harmful emissions 2. Increase the volume of recycled materials and reduce waste 3. Commitment to the system of separating waste from the public wastewater system 4. Increase the rate of buying eco-friendly goods 5. Reduce the risk of environmental accidents such as waste leakage, poisoning. 	(Mousa & Othman, 2020)	<i>SP_EN</i>
<i>Size of company</i>	Number of employees		<i>SIZE</i>

3. Research methodology

The research has provided the theoretical basis for this research work in chapter 2. The research framework has been clarified through the corresponding hypotheses, variables and scales. In chapter 3, the research process and research methods used to complete this work are described. The main content of this section consists of 3 main parts: (1) *Research process*, (2) *Qualitative research* and (3) *Quantitative research*.

3.1. Data collection method and sample size

The research process can be summarized in two main stages

Stage 1: Preliminary research

Preliminary research phase using 2 methods of qualitative and quantitative research. Qualitative research methods create a tight and solid framework for the research work. After understanding the underlying theories and expected models, the study conducts preliminary testing of the reasonableness and exploits potential scales in the real context through qualitative research. The qualitative method chosen by the research is group and in-depth interviews. The goal of this process is to discover potential factors and complete the questionnaire for the survey process.

The preliminary quantitative research method follows the results of the qualitative research to distribute the preliminary survey sample. The study used quantitative measures and techniques with the support of two softwares SPSS.23 and Smart PLS 3.3 to remove unreliable scales, determine the reasonableness of the model, and calibrate it. again the scale and survey form to enter the formal research process.

- Interview time: From November 1, 2020 to February 15, 2021 with an interview sample of 115 managers from mid-level or higher from 15 construction enterprises across the country that selected according to large, medium and small scale. The interview process took place over two months from November 01, 2020 to February 15, 2021. Interview questions were developed and information about enterprises was collected preliminarily before conducting the interview.

The content of each interview is divided into 4 different sections based on the models and theories given. In the first part, the study introduces and sets out the objectives of the interview. After that, the study will find out the perceptions of the subjects about the knowledge economy and its application in the activities of enterprises. Part 2, interviewees will be asked about activities related to the supply chain of enterprises. The DC of enterprises will be mentioned in part 3. Finally, part 4 will collect the criteria for evaluating the enterprises' products. In order to minimize risks and errors in data collection and processing, the study conducted recording interviews with the support of Nvivo software.

- Preliminary quantitative research period 16/02/2021 - 30/07/2021 with a research sample (valid) of 135 observations.

Stage 2: Formal research

With the survey questionnaires adjusted from the preliminary research stage, the

official research sample was collected from construction enterprises in three regions of Vietnam. Official quantitative research period: August 1, 2021 - March 28, 2023 with 608 valid survey questionnaires.

The study still uses two software SPSS.23 and Smart PLS 3.3, but analytical methods and quantitative techniques are performed with a more complete study sample. The study used exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) methods with the aim of removing unnecessary scales and checking the appropriateness of the model. Using the PLS - SEM path model, the relationships in the empirical model were explored. The results of the formal research phase will be used to propose solutions and recommendations in chapter 5 of the study.

3.2. Questionnaire construction

The questionnaire consists of two main parts: general information about enterprises and survey content. Information about enterprises including number of employees, location of head office, main production products. Survey respondents answered by ticking (\surd) the appropriate option which rated on a 5-point Likert scale from 1 to 5 depending on the questions about CEP, SSCF, DC and SP. The survey form is minimized in order for the survey respondents to have an overview of the questions and make accurate statements.

4. Results

4.1. Preliminary research

After 21 interviews, 96 pages were compiled from audio files. Research conducted to check, compare with the records to unify information. After that, the information is aggregated and classified with the help of Nvivo software, allowing research to analyze, group factors and find new scales (detailed in Appendix).

4.2. Analysis of the measurement model

The study sent 778 survey questionnaires to 778 enterprises operating in the field of building materials mainly through online. Particularly for construction enterprises in the northern region and Ho Chi Minh City, the study carried out direct sampling. At the end of the official sampling period, the study collected 704 survey questionnaires. The response rate of 90.49% is relatively high, indicating that enterprises are very active in contributing to the research. However, after researching and eliminating invalid votes, only 608 valid questionnaires remained.

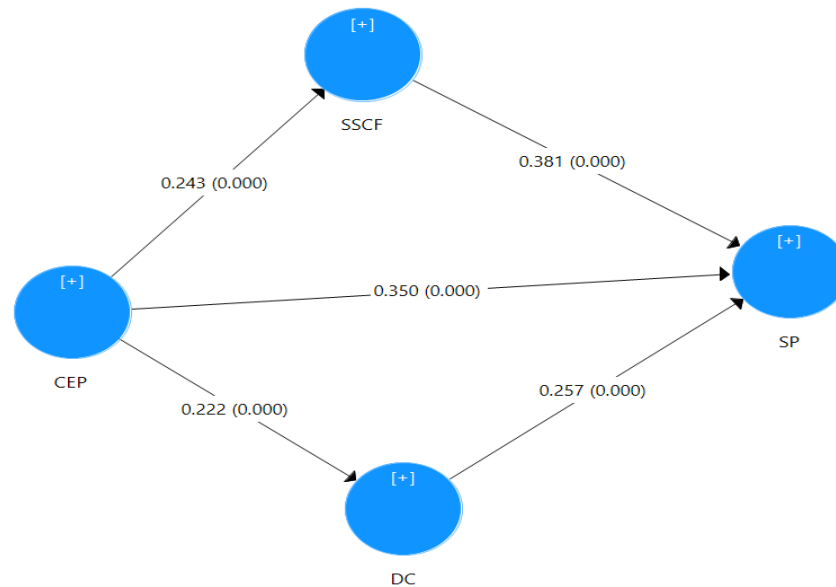
Cronbach's Alpha (CA) coefficient (Nunnally and Bernstein, 1994) and AQI (Hair et al., 2014) used to evaluate the reliability of the scale. In which, $CA > 0.7$ will ensure good reliability and if $CA > 0.8$, it ensures very good reliability scale (Nunnally and Bernstein, 1994). If the scale has a $LO < 0.3$, then this scale should be removed from the study to ensure reliability (Hair et al., 2014).

Thus, after removing the scales with the Corrected item - Total correlation < 0.3 , the factors all satisfy the reliability and are eligible to perform the next steps of the research (details in Appendix).

4.3. Testing the hypothesized structural model

The model to evaluate the measurement model used on Smart PLS is shown as follows:

Figure 2. Model evaluation of measurement models on Smart PLS



All effects are statistically significant at the 1% level because the P-values are all less than 0.01. In addition, a positive HSTD indicates that these effects are all positive. Therefore, hypotheses H1-H5 are supported at 1% significance level.

The impact from CEP is still statistically significant so if SSCF and DC are mediating, it will only be a partial mediator, which will be clarified in the next section.

The impact from CEP to SSCF and DC is relatively large with HSTD to SSCF of 0.243 and to DC of 0.222. The impact from CEP to SSCF is slightly better, showing that improving CEP will help businesses improve the flexibility of green supply chains, and also improve the DC of enterprises, but to a lesser extent. In fact, enterprises building CEP will make many aspects of enterprises better, such as management systems or investment circulation (which are important for sustainable supply chain management) as well as improve systems. management system and eco-design positively impact DC.

Among the impacts on SP of construction enterprises, the impact from SSCF is the strongest with HSD of 0.381. Next, the direct impact from CEP is strongest with HSTD of 0.350 and the smallest is from DC with HSTD of 0.257. Thus, it can be affirmed that the improvement of SP depends a lot on the improvement of SSCF as well as from CEP. In addition, DC enhancement should also be considered. The premise of improving MT performance in fact depends on whether enterprises are flexible towards a sustainable supply chain. If enterprises operating in the construction industry do not have good sustainable supply chain management, they may drag down their products because they do not guarantee MT technology or consume resources.

In general, the impact from CEP to SP is mainly direct or through SSCF. However,

to better understand, the study carried out a detailed relationship test and obtained results about the intermediary role of the two factors SSCF and DC.

The research results especially the quantitative results, helped the study achieve the research objectives. Specifically, CEP has both direct and indirect impacts on the environmental performance of enterprises operating in the construction industry in Vietnam. This impact is mainly direct, but still mediates between the firm's DC and sustainable supply chain flexibility. In addition, regulatory analysis shows that both firm size plays a role in regulating the impact of CEP on environmental performance, in which, the larger the size, the stronger the relationship between CEP and environmental performance.

Table 3. The results of the model fit with the research data

	Saturated Model	Estimated Model
SRMR	0.048	0.053
d_ULS	2.816	3.388
d_G	2.376	2.406
Chi-Square	6845.538	6842.006
NFI	0.754	0.755

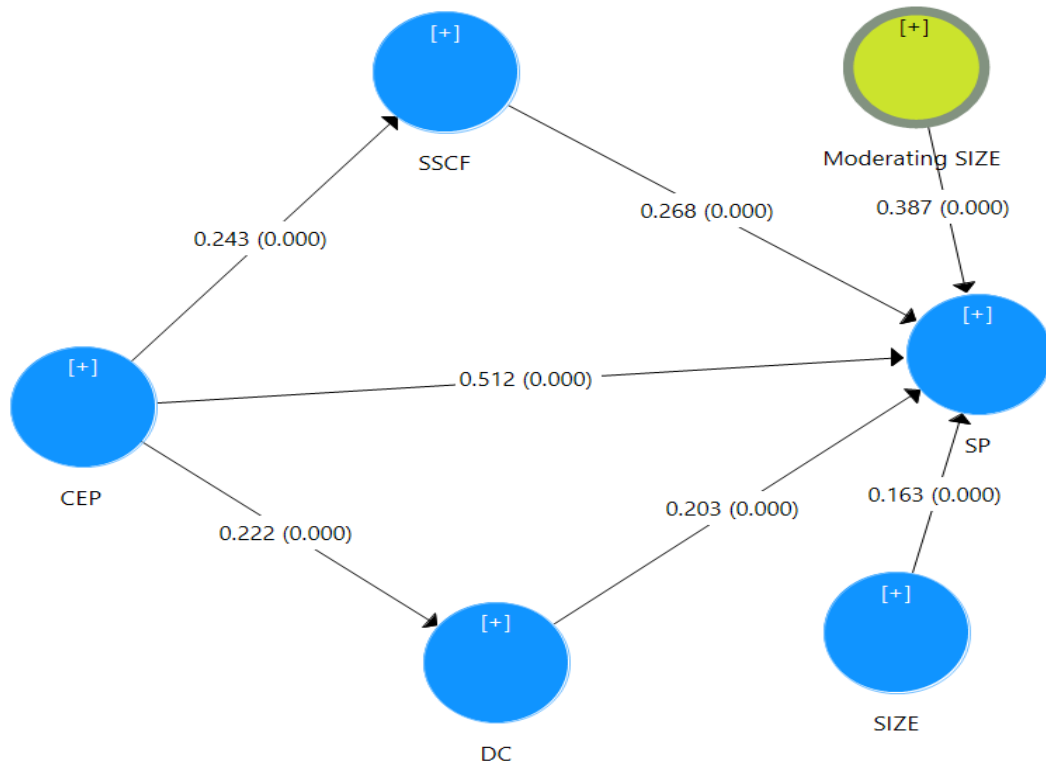
	CEP	DC	SP	SSCF
CEP		0.052	0.208	0.063
DC			0.117	
SP				
SSCF			0.254	

Source: The result of R-square and F-square

If the standardized root mean square residua (SRMR) coefficient of the model is < 0.08, then the model is considered suitable (Hu and Bentler, 1999). However, if the SRMR coefficient is < 0.1, the model can still be accepted (Hu and Bentler, 1999). The results show that the model has the SRMR coefficient of both models < 0.08, showing that the model is suitable (Hu and Bentler, 1999). Based on the f-square coefficient, the relationship between CEP and SP, SSCF and SP is relatively close. In addition, the coefficients are all > 0.02 indicating that relationship between the two factors is clear (Hair et al., 2014).

The role of moderating variable of model is evaluated by using Bootstrapping technique on Smart PLS and obtained the following results:

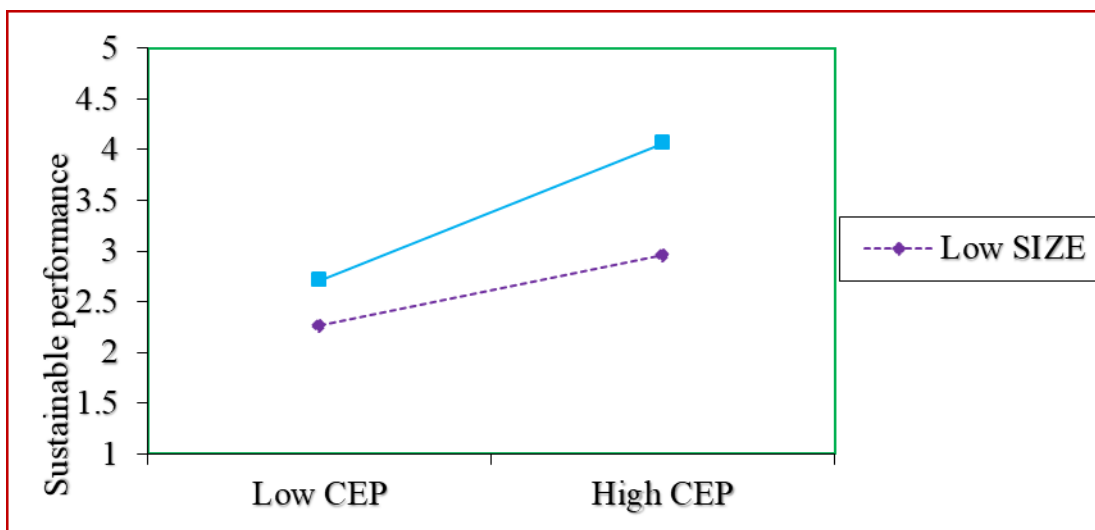
Figure 3. Evaluation of Moderating variable on Model



Source: The result of tested model by Smart PLS

The results show that enterprise size has a moderating role for the impact from CEP to SP at 1% significance level because the P-value of Moderating SIZE has P-value = $0.000 < 0.01$.

Figure 4. Evaluation of Company size



Source: The summary of tested moderating variable

The results show the enterprise size is large leading to the relationship between CEP and SP is also strong that evidenced by the High SIZE line being higher than the Low SIZE line and having a steeper slope. In general, whether a business is large or small, improving the CEP of a construction company also helps businesses achieve higher environmental performance. This is especially important for large-scale enterprises, with clear specific processes and very large output, then the application of a circular economy can help either businesses cut operating cost or achieve social, environmental goals.

5. Discussion and implications

Environmental protection plays an important role, becoming an increasingly urgent issue for human life. Recognizing that, the effective use and quality of natural resources and sustainable growth have been increasingly focused and become a strategic goal of many countries around the world, including Vietnam. Vietnam has soon introduced policies and directions for economic development associated with environmental protection, growth orientation and sustainable development.

Our results also have implication for both enterprises and policymakers. Firstly, it is necessary to raise awareness of enterprises in CEP. Perception plays a decisive role in determining the producer's action. Manufacturers need to be clearly aware of their responsibilities to products throughout their lifecycle.

Secondly, enterprises have increased investment of financial resources in the transformation of production methods. In addition, the manufacturer strengthens the close association between the development of the knowledge economy with scientific and technological progress. Promote learning, research and application of advanced and effective technologies. Research and technology innovation always play an important role in production and business activities of enterprises. To improve the effectiveness of CEP, this is a core factor with strong influence. In particular, in the context of digital economic transformation, technological innovation brings great opportunities for construction enterprises to develop the green economy. At the same time, manufacturers need to focus on building a team of qualified professionals and excellent experts in all stages from management to production and sales. From there, combining good human resources and advanced technology to improve the operational efficiency of enterprises.

In addition, the vision of the enterprise represents the position of the enterprise. Businesses always face the opportunity cost problem between short-term benefits and investments for long-term benefits in the future. Facing the situation that natural resources are becoming more and more depleted, coupled with economic development, environmental protection and survival requirements. Therefore, developing according to the economic model is inevitable. Although, in the initial stage, the investment caused many difficulties for these enterprises. Specifically, the investment in technology and machinery for the waste collection and treatment process will push up product prices relatively high, which has the effect of reducing output or reducing the competitive position of enterprises. However, when enterprises implement a stable circulation system, it will bring great efficiency to enterprises. Therefore, enterprises need to consider and calculate towards long-term development goals.

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GREEN HUMAN RESOURCE MANAGEMENT PRACTICES AND THEIR BENEFITS: A QUALITATIVE CASE STUDY OF A VIETNAMESE CORPORATION

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Abstract: *In some recent years, researching about green human resource management has become more popular. Green human resource management focuses on shaping employee behavior to help organizations achieve their environmental goals. This paper is qualitative research that determines the application of Green human resource management in a famous Vietnam corporation. It is expected that this study can contribute to extend the literature on green human resource management practices and its impacts to organization and employees. The findings of this study have implications for other organizations and other developing countries as well.*

Keywords: *Human resource management, Green human resource management, Green human resource management practices, Benefits of application Green human resource management*

THỰC HÀNH QUẢN TRỊ NHÂN LỰC XANH VÀ CÁC LỢI ÍCH CỦA THỰC HÀNH QUẢN TRỊ NHÂN LỰC XANH: NGHIÊN CỨU TÌNH HUỐNG TẠI MỘT TẬP ĐOÀN VIỆT NAM

Tóm tắt: *Trong những năm gần đây, nghiên cứu về quản trị nhân lực xanh đã trở nên ngày càng phổ biến hơn. Quản trị nhân lực xanh tập trung vào việc hình thành hành vi của nhân viên để giúp các tổ chức đạt được các mục tiêu môi trường. Bài viết sử dụng phương pháp nghiên cứu định tính nhằm xác định việc áp dụng quản trị nhân lực xanh tại một tập đoàn nổi tiếng của Việt Nam. Nghiên cứu này góp phần mở rộng tài liệu về thực hành quản trị nhân lực xanh và tác động của nó đối với tổ chức và người lao động. Những phát hiện của nghiên cứu này cũng có ý nghĩa đối với các tổ chức và các nước đang phát triển khác.*

Từ khoá: *Quản trị nhân lực, Quản trị nhân lực xanh, Thực hành quản trị nhân lực xanh; Lợi ích của thực hành quản trị nhân lực xanh*

1. Introduction

Global warming and environmental pollution have forced organizations to rapidly jump on the environmental sustainability that require greater awareness of environmental ethics from all related parties. Global concern about climate change, natural resource, environmental protection has put organizations under pressure to speed up their transition

toward an adequate adaptation of environmental management system. In order to do that, organizations need to be supported by all members at all levels with environmentally friendly behavior.

Human resource management (HRM) is one of the strategic organizational functions to manage the most important resource - human resource. Through HRM, organization can stimulate the positive behaviors of employees and shape employees' environmentally friendly behavior. The terms "green economy", "sustainable development" are becoming more and more popular nowadays. Creating green jobs, towards green growth, contributing to build a green economy are becoming strategic goals of each country. The application of the green business concept in HRM (Called Green human resource management - GHRM) is an inevitable trend to support the implementation of business strategies of enterprises towards the goal of sustainable development for businesses and society. Promoting GHRM towards sustainable development is not only the responsibility of the State, management agencies at all levels, but also needs the participation of each person, each business to raise awareness, spread the spirit and promote action. Green human resource management aims to shape employee behavior to help organizations achieve their environmental goals.

Green human resource management began to be mentioned at the end of the twentieth century, but it has only been interested in recent years by scholars, researchers and economists. Although numerous scholars have mentioned the positive impacts of GHRM on companies, only few studies have focused the positive effects at both the individual and organizational levels (Lieli & Agus 2020). The literature on GHRM is mostly theoretical and focuses on the perspective of Western countries and limited in Asian countries. Especially, researching on GHRM is a relatively new topic in Vietnam.

Vietnam is facing serious environmental problems. EPI (Environmental Performance Index) of Vietnam in 2020 was on the 141th out of 180 countries. Thus, developing GHRM, green initiatives in enterprises in Vietnam have received great attention from the Party and State, supported by the legal framework, guided by the national strategy. Government required enterprises to apply GHRM in order to create green attitude and behavior for their employees. This study is a qualitative research in a reputable company in Vietnam that has applied GHRM concept. The main objectives of this study are: (1) exploring the implementation of GHRM through various HRM functions such as recruitment and selection, training and development, performance management... and (2) analyzing the benefits of application GHRM for not only organization but also employees. This paper will address the following questions: (1) What is GHRM and how does organization practice GHRM? and (2) How do GHRM practices impact on organizational level and individual level.

2. Literature review

The growing concern about global environmental issues and the development of international standards of environmental management have increasingly stimulated organizations to adopt environmental strategies. Green human resource management is a

topic that began to be mentioned at the end of the twentieth century and in recent years, it has been recognized by scholars, researchers, and managers. Green human resource management was perhaps originated in 1996 from the contribution by Wehrmeyer in the book: *Greening people - Human resources and Environmental Management*. In the world, there are many basic studies that have provided the definition, practices, the benefits and the effect of green human resource management, which can be mentioned as follows: Richa Chaudhary (2019) when researching at automobile industry enterprises in India, pointed out the activities of GHRM; Jie Shen, Jenny Dumont, Xin Deng (2019) examined how Chinese enterprises, including local companies and foreign organizations operating in China, use human resource management to perform environmental management. Simultaneously, research on green recruitment and selection, green human resource training, green performance management, and green salary and bonus are practiced in Chinese enterprises; Kelvin Mwita (2018) addressed the role of green recruitment and selection in the performance of the processing industries in Tanzania; Adnan Mousa Rawashdeh (2018) explored the relationship between GHRM practices and environmental performance in a Jordanian health service organization; Sumittra Jirawuttinunt, Kunnika Limsuwan (2019) empirically examined the relationships between GHRM and organizational performance through intellectual capital and environmental performance in ISO14000 certified enterprises in Thailand...

In Vietnam, studies related to the sustainable development of enterprises and corporate social responsibility have also mentioned the content of environmental protection during the operation of enterprises, in which especially paying special attention to human resources - is the core resource for implementing fundamental activities for businesses for the environment, but there are not many direct scientific studies on GHRM. Most studies use quantitative methods to test the research models and there are not much case studies. So that, this paper will use case study method to discover about green human resource management in one Vietnamese corporation.

3. Theoretical background

3.1. Definition of green human resource management

The term GHRM is mainly used to refer to the contribution of human resource policies and practices to the environmental status. It refers to employ every employee to support sustainability practices and increase employees' awareness and commitment on sustainability issues. Ramachandran (2011) defines: GHRM is the integration of environmental management into HRM. Prasad (2013) identifies: GHRM is the contribution of human resource policies to the protection of natural resources. With the same point of view, Mandip (2012) said that: GHRM is the use of HRM policies to promote the sustainable use of resources in business organizations and promote environmental sustainability. Mampra (2013) states more specifically: GHRM is the use of HRM policies to encourage the sustainable use of resources in business enterprises, promote environmental protection and further boost employee morale and satisfaction. By

extending the AMO theory into green context, Renwick et al. (2013) clarify GHRM practices and its roles by developing three core components: (i) The development of green Abilities (A) such as green training and green recruitment; (ii) The Motivation of employees for green activities (M) such as green performance management, green reward; (iii) The creation of green Opportunities (O) such as green employee involvement and green organizational culture.

From the definitions mentioned above, it can be drawn that *GHRM is a collection of activities to create, stimulate and develop green behavior of human resources to create a friendly environmental workplace and contribute to improve business performance as well as sustainable development of enterprises.*

3.2. Green human resource management practices

A set of activities to stimulate GHRM is integrated right in the activities of HRM, that are: green recruitment and selection; green training and development; green performance management, green reward...

Green recruitment is the process of attracting and selecting employees with knowledge, skills, and behaviors suitable for the green work system of the enterprise. Research synthesis of Richa Chaudhary (2018); Kelvin Mwita (2018); Mandip (2012); Adnan Mousa Rawashdeh (2018); Jie Shen, Jenny Dumont & Xin Deng (2019); Oyewale Oluwapelumi Oyedokun (2019), green recruiting is demonstrated through the following activities:

- Mention environmental values in the job announcement
- Replace recruitment flyers with online recruitment communication to reduce paper waste.
- Applications (CVs) can be submitted online to reduce the waste of printed materials.
- Conduct interviews over the internet to minimize environmental impact
- Verify the candidate's ecological knowledge and skills in recruitment.
- Priority will be given to candidates with capacity and experience in ecological projects.

Combining the idea of green business in a sustainable enterprise with the theory of human resource training and development, the authors define green training and development as the process of providing human resources with knowledge and values on environmental protection; diffusing awareness of energy saving, waste reduction and creating opportunities for employees to participate in solving environmental problems. According to Richa Chaudhary (2018); Mandip (2012); Adnan Mousa Rawashdeh (2018), green training and developing human resources is shown:

- Analyze and determine employees' attitudes, skills and knowledge on issues related to environmental protection.

- Create detailed training plans, suitable for employees' training needs: awareness training plans on aspects related to green human resource management, environmental protection, ...

- Training on energy saving methods through seminars, classes...
- Training methods to reduce waste through seminars, classes...
- Training on recycling methods through workshops, classes...
- Implement online training.

Green performance management system is the assessment of human resources associated with green criteria at work. Enterprises revise the employee rating and evaluation system associated with behavioral competence and green job performance skills. Managers will evaluate the capacity and performance of employees through the implementation and action of environmental protection. According to Richa Chaudhary (2018); Mandip(2012); Jie Shen, Jenny Dumont & Xin Deng (2019); Oyewale Oluwapelumi Oyedokun (2019), green performance management is expressed:

- Set up ecological criteria in evaluating employee's work performance.
- Set up criteria on energy saving in evaluating work performance.
- Set criteria for waste minimization in evaluating work performance.
- Set up recycling criteria in evaluating employee's work performance.
- Establish employee goals and responsibilities related to the implementation of environmental protection rules.
- Provide regular feedback to employees on their progress in implementing, improving and achieving their environmental protection goals.
- Send employee evaluation results by e-mail instead of using paper.

In term of reward function, enterprises aim to recognize employees' contribution in creating more sustainable company. Practicing green compensation is the most powerful method to link the interests of individuals with the interests of the organization with a number of specific manifestations. Enterprises need to reward related to environmentally friendly behavior. According to Richa Chaudhary (2018); Adnan Mousa Rawashdeh (2018); Jie Shen, Jenny Dumont & Xin Deng (2019); Oyewale Oluwapelumi Oyedokun (2019), green compensation is recognized as:

- Rewards for employees when taking initiatives to protect the environment.
- Organizing extracurricular programs and activities for the green environment.
- Pay attention to the welfare and health of employees.
- The office has natural green trees, uses natural light, solar batteries to replace grid electricity, uses recycled equipment, ...
- Provide flexible working opportunities for employees to work remotely or work from home...

Table 1: Green human resource management practices

GHRM Components	GHRM Measures
Green Recruitment and Selection	<ul style="list-style-type: none"> - Indication of the environmental performance of communicating recruitment messages. - Reflecting the organization's environmental policies and strategies in its recruitment policy. - Expressing certain environmental values in the company's job advertisements. - Selecting applicants who are engaged as consumers in greening under their domain of private life.
Green Training and Development	<ul style="list-style-type: none"> - Train environmental awareness among the workforce to produce green workspace analysis. - Providing proper greening knowledge and skills (to each employee through a greening-only training program). - Analysis and identification of employees' environmental training needs. - Implementing a serious and systematic training program given to all employees
Green Performance appraisal	<ul style="list-style-type: none"> - Incorporate environmental management objectives and targets with the organization's performance evaluation system. - Integrating green criteria in assessments or evaluating the job performance of employees according to green criteria. - Including a separate component for greening progress in the performance feedback interview. - Introduce or formally evaluate all employees ' green work performance.
Green Reward and Compensation	<ul style="list-style-type: none"> - Financially or non-financially rewarding good environmental performance for employees. - Rewards for innovative environmental initiative/performance. - Communicating environmental excellence of employees. - Incentives for the promotion of environmentally friendly activities and behaviors. - The reward for acquiring green skills.

(Source: Paudel TULSI, Yunho JI (2019))

3.3. The benefits of Green human resource management practices: Organizational level and individual level

GHRM plays an important role in improving organizational performance at enterprises. A measure of a firm's organizational performance includes metrics related to production, finance or marketing (Sohn et al. 2007). Wolff and Pett (2006) show that the organizational performance of firms is often related to growth and market share. GHRM is of prime importance in achieving broad goals such as: (i) developing a green way of living and creating a new environment-friendly, cost-effective due to more efficient use of energy, water and raw materials; (ii) acquiring and managing talent, retaining employees and reducing labor turnover, stimulating employee innovation, helping employees achieve satisfaction to improve productivity; (iii) building brand image and reputation, create positive public relations, increase sales, gain advantage over competitors and bring competitive advantage to enterprises; (iv) increasing business opportunities for businesses as some Government agencies and stakeholders require that only businesses that meet specific green standards can bid for their contracts.

Green human resource initiatives have been considered as a strategy to promote business activities in a sustainable way. Through GHRM, businesses promote the implementation of environmentally friendly human resource initiatives, save costs, reduce pollution and have great significance for the environment (Sumittra Jirawuttinunt & Kunnika Limsuwan, 2019; Pham et al., 2019) with activities such as: electronic filing, transportation sharing, job sharing, teleconference and virtual interview, recycling, remote power off, online training, energy-saving office space... It is clear that enterprises that implement a greater level of environmental management system can have better benefits from it. GHRM enhances resource efficiency, improves organizational and environmental performance and from that creates sustainable competitive advantages (Macke & Genari, 2018).

Besides, GHRM will affect Organizational Citizenship Behavior for the Environment (OCBE), form certain values and build the internal culture of the business (Pham et al., 2019). Organizational citizenship behavior (OCB) is an individual, voluntary behavior that is not directly or explicitly acknowledged in the normal reward activities of the organization but has an impact on the promoting the effective operations of the organization. This behavior does not stem from imperative requirements, job characteristics or work agreements. Since then, OCBE is considered as arbitrary acts of individuals that are not explicitly recognized by the official reward system but has made an effective contribution to improve the environment and manage the environment more effectively, help businesses and society be more sustainable through the combined efforts of each employee. GHRM contributes to spread the sense of green living and responsible living to each member of the businesses to join hands for green earth. From being concerned about waste management, environmental pollution and overcoming their negative impacts, the business community contributes to spread awareness about the use of natural resources to society. The application of GHRM increases green employees' outcomes such as green passion, green innovation and creativity, green lifestyle, environmental commitment...

4. Research method

This qualitative study investigates GHRM practices in a Vietnamese corporation that has reputation for being an environmental friendly organization. This study aims to explore the implementation of GHRM through various HRM functions and analyze the benefits of application of GHRM for organization and employees. The study adopts the case study method. The interview and observation data were supplemented with secondary data of corporation documents. The research informants: 3 leaders (Chief Executive Officer, Human resource director, R&D center director), 3 employees and 1 group discussion. The research chooses these leaders because they were directly involved in doing green business and GHRM in the studied corporation.

5. Results and discussion

5.1. *Introduce about the Vietnamese corporation in the case study*

The studied corporation was established in 2004 with the goal of becoming one of the leading units in the field of investment - construction, consulting and designing of real estate projects as well as serving people and the community in Hanoi and other provinces across the country. The corporation studied has the concept of the Green Business. After more than 10 years of operation, the corporation has made its mark on the real estate market with the strategy of "Creating a green life", thereby serving as the foundation for all business activities, education, and building sustainable, financially stable inheritance values, creating momentum for future development. The corporation operates with the mission of "Committed to providing customers with quality products and synchronous utilities by applying smart design solutions and modern technology". The corporation understands that corporate social responsibility is reflected in the highest quality products, best service to the community, therefore, all of its products have achieved EDGE (Excellence in Design for Greater Efficiencies) certification.

5.2. *Green human resource management practices*

Refer to the application in HRM, the research results show that the corporation did environmental friendly in HRM in several functions such as Green Recruitment and Selection, Green Training & Development, Green Performance, Green Reward, Green culture... Informant CEO confirmed that "... all our products bring to the community as an affirmation of the strong and healthy competitiveness of this corporation. In order to achieve sustainable development, green human resource management activities have been carried out with the strategic goal of green human resource development..."

Green recruitment and selection: The corporation had included environmentally friendly values in interview process for evaluating candidates and choosing the suitable employees with environmentally friendly commitments. Human Resources Director shared: "... in order to select the right personnel for the group, we have a Green Recruitment process - also known as the Seed Selection Process. In this process, candidates will be given a life value test, the most important thing after a candidate takes a life value test is that recruiters determine that the candidates have personal values

harmonize with the organization or not, the candidates are living with life oriented towards green values for individuals and society or not? During the interview process, in addition to meeting the criteria of personal value, the candidate who meets all the criteria for the capacity of the position applied for will be selected” Complying with the green recruitment process, the corporation has satisfied candidates who are in line with the values of the organization, making the candidates feel loved and want to stick with the corporation when they understand the value story of the corporation which they will contribute. The informant employee also agrees with this point when he mentioned that “... when I read job description in recruitment advertising, I found that they (recruiters of studied corporation) want green orientation beside required knowledge and skill. During the test and interview, they have questions and case study to check candidate’s characteristics that fit the corporation’s green value”.

Green training and development: The corporation also has offered training and development program to improve employees’ environmentally friendly competencies. After selecting the right human resources, Green Human Resource Training started by giving the “Buddy Process” for the success candidate. In specific, one selected candidate has three buddy guides, which are colleagues in the culture or human resources departments, colleagues in the department, helping the new employee to visit the office, participating in clubs within 2 months to better understand the culture of the organization. Next is the “Grain Classification process” - helping employees know their strengths and weaknesses, then they will be supported with appropriate professional training. In addition to professional training, the corporation also builds DNA genes in its human resources - Gen ECO (ECO Green Generation): Ecology (Ecosystem, living in harmony with nature); Economical (economical, appropriate, efficient, do not waste, must not consume resources, do the best responsibility within the scope of their work); Ecolife (harmony between life and work with nature, harmony in the office environment, living in harmony with residential areas and harmony with nature and motherland). For example, the training program “We are GENECO - Developing the Green Generation ECO” with the participation of more than 100 employees. One employee describes for author this training program and shows her happy when joining this training program: *“The Director of Human Resources guides members to access Mentimeter software through “rooms” of Green values. This is a new software applied to internal training courses and seminars with the aim of conveying the Group’s content and messages in the easiest and most effective way. Next, Chairman of the Board of Directors of the Group shared passionately about Green Values, the meaning and purpose of the program, and encouraged staffs to make efforts to change themselves from the smallest things to become green future generations. In the introduction to the concepts of the Group’s Green value set in each field such as Green Design, Green Project Management, Green Construction, Green Services, Green Operations, Green People. Next, Director of R&D Department combined the sharing and Q&A sessions through Menti software, thereby equipped with the most useful and simple information about green values. Participants in the contest learn about green values right in the program through Menti software to create a fun and exciting atmosphere.”*

The corporation studied also built a set of Green value concepts in all the Group's fields. Through that, each employee will know what to do to go Green, how to go Green, how to apply Green values to work and life and then contribute to build a future Green generation for society. Besides that, the corporation also conducts community-oriented programs and events such as: tree planting event, program of saying no to garbage, saying no to plastic, cleaning residential areas, minimalist lifestyle program, recycling to raise the awareness of human resources and the community.

Green performance: The performance appraisal also supported the implementation of GHRM in the corporation. Evaluation of Green human resources is reflected in the performance measurement activities according to the KPI system, in which 10% accounted for measuring cultural criteria. For example, the evaluation criteria for the Green Finance Department: An efficient and transparent reporting system that doesn't take much time, doesn't consume energy, doesn't use too many resources. In particular, each year, a green standard registration will be performed and upgraded to a new level, aiming to help employees work smarter, live more balanced lives, more equal to their personal and family lives, promote those people not only to go green at work but also to green the values of personal interests in society.

Green reward and compensation: Refer to reward, the corporation formulated regarding environmentally friendly behavior. The staffs are allowed to work at the Green Lotus standard office with real green space, no electricity and water consumption, saving paper, being allowed to raise fish and plant ornamental plants to create a lifestyle in harmony with nature. Oxygen is always fully supplied from the tree system and especially the synchronized fresh air system of the whole EcoLife Capitol tower. The source of steam is also added from the leaves and the water drainage system at the foot of the tree wall, so the staff does not have a feeling of dry skin, discomfort when staying in the room for a long time. Not only are there very friendly designs from windows, wall paints, tables and chairs..., CEO also Group shared about Green culture: *"... everyone gives exchange and coordinates work in a spirit of responsibility, mutual respect and support. It is from such a green and friendly working space that helps to maximize the capacity of each member, creating a Green consciousness in every action. We are building such a green culture."*

5.3. Benefits of applying Green human resource management

By group discussion and individual interviews, the authors can find the benefits of implementation GHRM as in the table 1.

Table 1: Benefits of GHRM

The benefit of Green HRM for employees	The benefit of Green HRM for organization
<i>Individual Green Values:</i> Employees had good knowledge and understanding of environmentally-friendly values. The value of environmentally friendly	Green Organization Culture Pro-Environmental Climate Resource Efficiency

<p>values become the value of individual employee values.</p> <p><i>Green Behavior:</i> Employees always showed eco-friendly behavior in carrying out their working activities in the office and factory environment</p> <p><i>Green Competency:</i> Employees had environmentally friendly ability and skills to carry out various activities in the company</p> <p><i>Green Commitment:</i> Employees had a high level of responsibility and commitment in implementing the Green Business concept in the company</p> <p><i>Company Positive Image:</i> Employees felt proud to be able to join a company that was committed to the environment. Employees were proud of the company's reputation</p> <p><i>Sense of Ownership:</i> Employees felt proud because they could work in a company that had received many environmental awards.</p> <p><i>Job Satisfaction:</i> Employees feel satisfied when working at the company</p>	<p>Cost Reduction</p> <p>Company's Positive Image</p> <p>Economic & Environment Performance</p> <p>Competitive Advantage & Sustainability</p>
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(Source: L. Suharti và A. Sugiarto 2020 & Primary data)

The findings in this case study support other previous studies that mention about the benefits of application GHRM to increase green employees' competencies, environmentally friendly commitment and then lead to develop green culture of enterprises.

6. Conclusion and Recommendations

The implementation of Green HRM in organization has benefits for organizational and individual employee as well. In order to practice Green HRM organizations need to make all HRM activities "green". Some suggestions for organization to practice Green HRM:

Green recruitment and selection is the process of starting to recruit and select candidates who meet the requirements of green jobs. To do this well, businesses need to focus on the following activities: Firstly, putting environmental values, green recruitment standards in the recruitment announcement, Second, using a job portal in recruiting and customizing phone, internet and video interviews can reduce the need for paper. The recruitment announcements will be made in the form of recruitment communication as well as receiving online CVs to reduce the waste of printed materials, reduce waste and save energy; Third, using technology applications for interview to minimize any impact on the environment related to mobility; Fourth, verify the candidate's knowledge, ecological

skills and life value perspective during the recruitment process. Administrators and business managers interested in Green HRM should often ask questions related to the environment to know the candidate's level of awareness, knowledge and concerns about environmental aspects; Fifth, giving priority to candidates who have capacity and experience in practicing ecological projects and initiatives, caring about the environment.

Green training and development: Organize green training and development programs that are suitable for each human resource in the enterprise: (i) Regarding training content: Green business model innovation; Develop a green business strategy; Green product innovation; Green packaging innovation; Effective use of resources and Cleaner production; Greening the supply chain; Greening the logistics system; Green purchasing; Green branding; Green human resource management...; (ii) Regarding the form of training and development: Operate green programs such as online training, television training, distance training... with Class Google applications; Zoom; Trans...

Green performance management: Enterprises implement a rating system to evaluate employees associated with their behavioral competencies and skills to perform Green jobs. Key activities carried out include: (i) Establish a system of standards for assessing human resources associated with green work. In which, there are standards shown in the green human resource assessment sheet, including: ecology, energy saving, waste reduction, and use of recycled products; (ii) Provide regular feedback to employees on their progress in implementing, improving and achieving their environmental protection goals; (iii) Send results and receive feedback, interview and evaluate employees via e-mail instead of using paper.

Green reward and compensation: Organizations can focus on the following tools: (i) Apply a fair reward and punishment policy to the human resources who create and effectively implement green initiatives in enterprises; (ii) Organize workplace and flexible working time so that employees can work anywhere; Provide job opportunities to employees remotely or work from home through the use of email or intranet and internet; (iii) Green office design creates space to realize green ideas in the business: Green office nurtures and promotes green living behavior at the office instead of focusing on structural change, Design of buildings and facilities. The value brought by the "Green Office" model in both aspects: Saving operating costs and Elevating business value; (iv) Create conditions for human resources to participate in programs and events for the environment, honoring green living such as: encouraging employees to share cars by providing parking spaces; Employees and officials to participate in Green activities, volunteer activities that bring many benefits to the community; Enterprises actively participate in national and global Green programs such as: Earth Hour Program; Award "Effective and economical use of energy"; running program for the environment;...

Although the results show clearly about the application of GHRM and its benefits for a business, this research just only study in one Vietnamese corporation that has applied the Green concept in HRM. For the future research, it can be investigated about GHRM in some different types of corporation (different countries, different sectors...).

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GREEN ECONOMIC DEVELOPMENT IN VIETNAM

TẬP 2

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