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IPL 2022

THE 1st INTERNATIONAL CONFERENCE ON INNOVATIVE PHILOSOPHY AND LAW

"Rethinking Life and Normative Order in a World of Conflicting Values: Transdisciplinary Perspectives from Asia"

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UEH | 14 & 15 December 2022

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WELCOME ADDRESS

Professor Su Dinh Thanh, Ph.D.

President of University of Economics Ho Chi Minh City (UEH)

Good morning, everyone,

Greetings Professors, Scholars, and Lecturers,

I would like to begin by welcoming you all to the International Conference on Social Sciences – Innovative Philosophy and Law (IPL 2022), which represents one of the first steps that the University of Economics Ho Chi Minh City (UEH) has taken to build and maintain its Social Sciences curriculum at the university.

Social Sciences hold great significance as it is the study of societies and the relationship between individuals in their respective settings. It also explores the cultural and social aspects of human behaviors, especially how people interact and grow as a culture and influence the world.

In a world with diverse value systems, there have been efforts by countries, organizations, and individuals to promote economic, political, and educational cooperation. However, at the same time, there are distinct contradictions regarding national strategy, culture, religion, ethnicity, among others. Thus, that further clarifies the role and value of social sciences, as well as what our university needs to do to develop, research, and teach these disciplines.

As part of UEH's plan to become a multidisciplinary and sustainable university, it is crucial that we include social sciences curriculum as a long-term and essential strategy as it requires and promotes cooperation between domestic and foreign scholars, as well as deliberate, careful, and practical actions in response to societal needs.

I am delighted to hear that our international conference, IPL 2022, has attracted the interest and participation of numerous domestic and international scientists from numerous universities and other fields of study, including philosophy, law, economics, psychology, sociology, management science, international relations, political science, to environment, and more. Later, you will find that the presentations not only focus on academic commentary, which is valuable for further studies, but also propose practical solutions for sustainable development in terms of society and individuals.

Having said that, I want to express my deepest thanks to all leading scholars who have agreed to participate in this conversation. I appreciate your efforts in traveling from the United States, Japan, Korea, China, and even Greece to Ho Chi Minh City to deliver your sharing. In particular, I was told that Professor James Morley even flew close to 30 hours just to get here. Once again, thank you all very much for your confidence and your support as UEH transforms to be a multidisciplinary and sustainable future university.

On behalf of the Board of Management at UEH, thank you all for being here and I look forward to a successful IPL 2022 International Conference.

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UNITY AND CONFLICT IN A WORLD OF DIVERSE VALUE SYSTEMS

Do Kien Trung

University of Economics Ho Chi Minh City

The IPL 2022 international conference has received nearly 70 papers from domestic and foreign authors. Topics in the papers are highly diverse, from philosophy, phenomenology, law, economics, psychology, sociology, management, international relations, education, environmental science, political science, and public policy. The papers differed in approach and research methods. However, all focused on the theme of this year's conference, "Rethinking Life and Normative Order in a World of Conflicting Values: Trans-disciplinary Perspectives from Asia."

The papers are divided into five parts: Part 1. Philosophy, Phenomenology and Political Science; Part 2. Law; Part 3. Economics, Environment, and Digitalization; Part 4. International Relations and Public Policy; and Part 5. Psychology, Education and Management. The content of the papers approaches topics of society, human issues, politics, economy, law, and public policies with diverse perspectives with insightful references.

Why is the issue of diversity and interdisciplinary interests and attention? The authors' papers all point to the fact that today's world, in addition to cooperation and connection based on respect and peace, is also intertwined with contradictions and fierce confrontations. The questions and explanations in the papers at this conference prove that no field of research or one individual or organization can explain and provide solutions most effectively. We need multidisciplinary cooperation from scholars and researchers around the world.

The question of cooperation and sustainable development based on respect for human dignity and life is an important topic, especially in today's world context. Take nuclear energy as an example. It is difficult to understand and accept that humans, with all our creative and conquering nature abilities, can invent advanced and very powerful energy and use that invention to create the fastest and most deadly weapons.

Professor Kazashi Nobuo gives us a fascinating and insightful perspective on this topic in his speech titled On Technology and Governance: Social Contractarian Dilemmas in the Nuclear Age. By analyzing two philosophical foundations of Thomas Hobbes (on the fundamental law of nature - seek peace) and of John Locke (life and health as property), Professor Kazashi pointed out "the dilemma of the law of nature," in which he concludes that this fundamental dilemma internal to the social contractarian philosophy still haunts us living today. Starting with the concepts of the state of nature and the laws of nature in the thought of Hobbes and Locke, the presentation discussed the social contract and the role of the government. Professor Kazashi Nobuo also examined these concepts concerning Eastern culture, which Confucianism profoundly influences. In the later part of the speech, Professor Nobuo considered the ancient concepts in a new context with the change of technology and war, reflecting on the new social order and the role of international law. He also discusses TPNW (Treaty on the Prohibition of Nuclear Weapons) as an attempt by nations to bring about a future free from the threat of doom.

He concluded that this attempt sounded just naive, but it is a very sobering fact that at stake in such global efforts to create new orders is nothing but our future and the earth.

The development of science and technology not only brings advancements and conveniences. The threat of science and technology, both potential and apparent, to human civilization, will be analyzed by Professor Lee Jong Kwan in a talk entitled Envisioning the Future through the Ontological Architectural Phenomenology in Current Existential Crisis. The talk highlighted concerns about the future of the existential crisis. By warning us that the sixth mass extinction is not a worry for the future; it is happening now, much faster than previously expected, and it is entirely our fault, Professor Lee questions whether the Smart linear economy is the failure of the fourth industrial revolution? Furthermore, at the same time, he also aims for the fifth industrial revolution, which is the light of hope in the meta-verse and circular economies.

Is humanity on its way to extinction? Will the advances of science and technology come back to destroy their creator, humans? Do we have any possible solutions? In his lecture Phenomenology, Mindfulness, and Intercultural Understanding, Professor James Morley will give us some exciting and insightful wisdom.

Mindfulness and phenomenology both offer us not only a more positive worldview, not only a more authentic, more accurate worldview of the human condition, but points out a way out of the dangerous abyss we now face - not just war, but nuclear war, not just economic injustice but ecological catastrophe and famine mass, migration and the violence that followed. He discussed the mechanical approach of natural science, which views humans as an objective governed by social dynamics and natural selection; Professor Morley reaffirms people's ability to create reality and change the world through the practice of empathy between people. According to him, positive empathy will arise when people find their original consciousness and actively practice sympathetic and loving thinking instead of approaching the machine, which is a cold and rational science, excluding unprovable states of mind. The phenomenological methodology is a tool to help us realize subjectivity and the importance of consciousness in creating and defining the world. Through that, Professor Morley also recalled the profound conceptual achievements that the ancient easterners had long been enlightened with. Professor James Morley emphasizes mindfulness, which he claims is the "ancient Asian gift" to humanity, and Husserl's model of 20th-century phenomenology practice. These are a hopeful, optimistic and realistic approach to the crisis of modernity and the moral collapse that threatens to destroy humanity.

With all due respect to the contributions of the authors as well as the organizing committee members, we wish all the best to the entire conference.

ON TECHNOLOGY AND GOVERNANCE: SOCIAL CONTRACTARIAN DILEMMAS IN THE NUCLEAR AGE

Kazashi Nobuo, Ph.D.

Professor Emeritus, Kobe University, Japan
Visiting Researcher, Hiroshima City University

Outline

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in Social Contract, Confucianism, and Nuclear Disarmament

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Section-1. The "State of Nature" and the "Law of Nature" in Hobbes and Locke

1-1. Hobbes on the "fundamental law of nature": "Seek peace"

Though the Hobbesian notion of the "natural condition of mankind as the state of war of every one against every one" is widely known, let us have a close look at the text to confirm, at the beginning of our consideration, how Thomas Hobbes (1588-1679) viewed the relationship among the state of nature, rights, and law in *Leviathan* (1651).

In Chapter 13 entitled "Of the Natural Condition of Mankind as Concerning their Felicity [Happiness] and Misery," Hobbes depicted what he considered the "condition of nature" as follows:

> … in the nature of man, we find three principal causes of quarrel [conflicts]. First, competition; secondly, diffidence [suspicion]; thirdly, [desire for] glory. The first makes men invade for gain; the second, for safety; and the third, for reputation….
>
> "Hereby it is manifest that during the time [when] men live without a common power to keep them all in awe [fear], they are in that condition which is called war; and such a war as is <u>of every man against every man</u>. For war consists not in battle only, or the act of fighting, but in a tract [duration] of time, wherein the will to contend by battle is sufficiently known…[1]

[1] Hobbes continues:

Hobbesian picture of the state of nature is dismal[2], but it contains the seeds for peace, which is called the nature of law. In the following Chapter 14, "Of the First and Second Natural Laws, and of Contracts," Hobbes argues that, as long as the original condition of nature, that is, state of perpetual war, continues,"…there can be no security to any man,…. And consequently it is a … general rule of reason: that every man ought to endeavor peace, as far as he has hope of obtaining it; and when he cannot obtain it, that he may seek and use all helps and advantages of war."[3]

1-2. Locke on "life and health as property"[4]

On the other hand, John Locke propounds "the law of nature" in *The Second Treatise of Government* (anonymously published in 1689) as follows:

> The state of nature has a law of nature to govern it, which obliges every one: and reason, which is that law, teaches all mankind, who will but consult it, that being all equal and independent, no one ought to harm another in his life, health, liberty, or possessions: for men being all the workmanship of one omnipotent, and infinitely wise maker; all the servants of one sovereign master, sent into the world by his order, and about his business; they are his property…. (Chapter II, Section 6)

And this Lockean view echoes in many legal declarations such *American Declaration of Independence* (drafted by Thomas Jefferson in 1776)[5], and Japan's postwar Constitution (1946)[6], and the United Nations' Universal Declaration of Human Rights (1948).[7] And American scholar Belousek highlights what is essential in the most fundamental Lockean vision as follows:

"To this war of every man against every man, this also is consequent; that nothing can be unjust. The notions of right and wrong, justice and injustice, have there no place. Where there is no common power, there is no law; where no law, no injustice. Force and fraud are in war the two cardinal virtues. Justice and injustice are none of the faculties neither of the body nor mind.

"And thus much for the ill condition which man by mere nature is actually placed in; though with a possibility to come out of it, consisting partly in the passions, partly in his reason.

The passions that incline men to peace are: fear of death; desire of such things as are necessary to commodious living; and a hope by their industry to obtain them. And reason suggests convenient articles [agreements] of peace upon which men may be drawn to agreement. These articles are they which otherwise are called the laws of nature, whereof I shall speak more particularly in the two following chapters."

[2] Famously, Hobbes described it as "no society; and---worst of all—continual fea and danger of violent death, and the life of man solitary, poor, nasty, bruitish, and short." (13. The Natural Condition of Mankind.)

[3] Hobbes paraphrases his point as follows: "The first branch of which rule contains the first and fundamental law of nature, which is: to seek peace and follow it. The second, the sum of the right of nature, which is: by all means we can to defend ourselves."

It should be aslo noted Hobbes argues that "[f]rom this fundamental law of nature, by which men are commanded to endeavor peace, is derived this second law: that a man be willing, when others are so too, as far forth as for peace and defence of himself he shall think it necessary, to lay down this right to all things; and be contented with so much liberty against other men as he would allow other men against himself.

[4] This section is based on my talk given at the International Workshop on Medical Humanities hosted by The Renxin Yizhe Cultural Research Institute, China Medical University, on November 26, 2022.

[5] It states: "We hold these truths to be self-evident, that all men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty and the pursuit of Happiness."

Let's note here that "health" is omitted while "possessions" is replaced with "pursuit of happiness." Though "health" can be regarded as being included in "life," this omission can conceal the importance of "health" as a most fundamental condition for humans.

[6] Japan's Constitution states In Article 13 of Chapter III Rights and Duties of the People,: "All of the people shall be respected as individuals. Their right to life, liberty, and the pursuit of happiness shall, to the extent that it does not interfere with the public welfare, be the supreme consideration in legislation and in other governmental affairs."

[7] The U.S. Universal Declaration of Human Rights states in Article 1 and III: "All human beings are born free and equal in dignity and rights. They are endowed with reason and conscience and should act towards one another in a spirit of brotherhood."; "Everyone has the right to life, liberty and security of person."

> According to Locke's formulation..., health is the equal right of all persons no less than liberty and property. The rights of liberty and property, moreover, are dependent on the rights of life and health…: without life, liberty is impossible; without health, liberty is impotent. Health is thus a natural right that, like the right to life, is practically prior to the rights of liberty and property. (Belousek 2013: p.465)

Locke was regarded, for a long time, as the philosopher who advocated the so-called "possessive individualism" fit for modern civil, capitalist society. But such conventional image of Locke as a "modern or mundane thinker" has been changed drastically by recent scholarship based on the enormous amount of Locke-related new materials, including many drafts and over 3,600 letters written by Locke, which were made public and published after the World War II.[8]

These documents shed new light on John Locke. First, the internal relationship between Locke's philosophical views and his experience as a doctor became much clearer than before. Elaine Scarry highlights this point as follows:

> The social contract prohibits us from trespassing across the boundaries of another person's body. Locke's concreteness, his sense of persons as embodied, reflects the fact he was a physician: one of his biographers writes that until at least 1683 Locke "regarded himself as (before anything else) a doctor".[9] He collaborated extensively with Thomas Sydenham, then a controversial physician, now widely regarded as "the father of English medicine"[10] …. Their correspondence reveals two key facts: Locke was extremely sensitive to his own pain[11]; more important, he was extremely sensitive to other people's pain and was able to describe it with unusual vividness and precision.[12] (Scarry 2014: 159; notes are by E. Scarry.)

For Locke, to care for life and health means to be sensitive to pain, not only in one's self but also in others. Thus, "care for life and health as property" in this sense should be regarded as sustaining our society at its very ground.

Secondly, Locke has to be re-comprehended as a deeply devout, Christian thinker. In other words, there had been a wide gap between the real intent of Locke's overall thought and his image created by the effects of his ideas exerted on the following generations. And such gap is recognized most typically in the way the notion of "property" has been understood. Japanese specialist Kato Takashi summarizes the point as follows:

> Locke's thought on "property" has been one of the most controversial topics. Its greatest reason is that it had a semantic width that could not be contained in the linguistic customs of the 17th century, when "property" was usually understood to mean "assets=possessions as things" such as movable property and real estate. In contrast, Locke's "property" was given meaning much wider than such common usage. It was supposed to include, in addition to "possessions," "life, health, liberty" that concern human bodies and persons.
>
> Then it was quite natural that such unique, Lockean conception of "property" has caused

[8] These materials remained because his drafts were preserved carefully by Locke who feared prosecution and also because his friends and correspondents retained Locke's letters as very valuable documents written by a person of historic repute (Kato 2018: iv-vi).

[9] Henry Richard Fox Bourne, *The Life of John Locke* (1876; rpt. Darmstadt: Scientia Verlag Aalen, 1969), vol. 1, p. 446.

[10] Ralph H. Major, *Classic Descriptions of Disease: With Biographical Sketches of the Authors*, 3rd ed. (Springfield, IL: Charles C. Thomas, 1945), p. 194.

[11] See Sydenham's 1674 letter to Locke, reprinted in Kenneth Dewhurst, "Sydenham's Letters to John Locke," *The Practitioner* (1955): 315).

[12] See Locke's 1675 letter to Sydenham, reprinted Dewhurst, "Sydenham's Letters to John Locke," p. 316.

> divergence in interpretation... Among the properties, "liberty, life, health" were considered innate values, belonging to individual persons as "what is proper to them," while "assets" were what individual persons own as the results of their "labor…Thus, clearly Locke regarded "properties" as the fundamental condition that sustains human activities to construct this world, which was, for Locke, the human obligation to God. (Kato 2018: 87-88)

Now we see that it is not correct to grasp the Lockean notion of "property" simply as possessions or assets because it contains "life and health" as "what is proper to the self. [Here "proper" does not mean "suitable," but "one's own" or "specific.] And it is to be highlighted that "life and health as property" were of critical importance in Locke's thought in the dual sense, that is, as the God-given ground for human activities and as the ultimate object to be protected by governance.[13]

1-2. Dilemma of the "Law of Nature"

Despite the pioneering legacy of such comprehension of "property," however, there are some questions remaining for us, or rather haunting us, till today. Let us go back to the most critical passage in *The Second Treatise of Government*. Locke stated: "The state of nature has a law of nature to govern it, and reason, which is that law, teaches all mankind,… that being all equal and independent, no one ought to harm another in his life, health, liberty, or possessions," but we notice that actually Locke qualified "all mankind" by adding the conditioning phrase, "who will but [only] consult it. This shows that Locke was clearly aware that the power of the "law of nature as reason" cannot be expected to work for everyone, but only for those who are willing to listen to it, and it means that Locke was actually quite close to Hobbes, whose dismal view of "human nature" Locke did not share as a devout Christian, in his awareness of the very precarious position of human reason in the state of nature. However, we have to admit that this fundamental dilemma internal to the social contractarian philosophy still haunts us living today. We shall see later that it has been even aggravated and amplified today.

Section-2. "Nature and Order" in Confucian Thought[14]

2-1. Confucian Culture in East Asia

In *Phenomenology and Intercultural Understanding: Toward a New Cultural Flesh* (2016), Kwok-ying Lau refers to one of the most intriguing moments of philosophical encounter; an encounter between European Enlightenment philosophers like Voltaire (1694-1778) and Confucian thought. After touching upon the positive views of Leibniz (1646-1716) and Wolff (1679-1754), Lau summarizes Voltaire's evaluation of Chinese culture as "pluralist, tolerant and rational" as follows:

> The culture of the Chinese intelligentsia who serves the imperial court incarnates the Confucian culture of propriety, virtue and justice; these are ingredients of a rationalist culture. In short, Chinese society is advanced materially and morally; China is a country of religious tolerance…. (122-124)

---

[13] One question derives from the fact that apparently Locke himself could be satisfied with his "theological" characterization of "properties" as the ground for human activities to construct a better world. (In this sense, indeed Locke was a transitional thinker connecting between the Christian times and the mundane modern world[13].) But this poses a fundamental question: how can we secure a philosophical ground to sustain our "properties" without the theological framework, which was presupposed in Locke.

And, despite Locke's recognition of "nature as the commons" entrusted to humans by God, Locke's view of "private assets as legitimate results of labor" was not immune from a colonialist presumption regarding ownership of "new continents." (Kato 2018: 212-215)

[14] This section is based on my talk given at the International Conference
"What After Eurocentrism? Phenomenology and Intercultural Philosophy" held at Chinese University of Hong Kong, 23-25 June 2021.

This is intriguing in terms of bringing into light the way Confucian culture was appreciated by the Enlightenment philosophers in contrast to the hugely different situation in the Confucian homeland today. However, Confucian thought-culture would disclose its far-reaching significance under very different lights when we look at how it was greeted and developed in East Asia.

Confucian thought forms a deep and wide cultural ground of East Asian countries, notably in Vietnam, Korea, and Japan. More specifically, the so-called Zhuzi Studies[15], a system of Confucian learning synthesized by Zhu Xi (1130-1200) of Southern Song, exerted such decisive influences that it would be legitimate to say; "Without Zhuzi Studies, it is impossible to talk about the thought-culture of East Asia in early modern times" (Tsuchida 2014：13). [Though it is indispensable for a fuller understanding to consider the Buddhist traditions and their complicated relationships with other traditions including modern thoughts, let us focus on Confucian thought in this paper.]

Regarding the famous civil service examination [*Keju*] based on the Zhuzi-centered interpretation of the cardinal texts in Confucianism, however, it is to be noted that in Japan this system was not institutionalized in such rigorous ways as in Imperial China (1313 to 1905) or in Yi Dynasty Korea (1292-1897)；in other words, there was relative institutional flexibility with regard to this examination system despite the fact that Confucian education became widespread via small learning schools around the country. This point is of crucial importance in understanding the various ways Japanese thinkers responded to the Confucian thought in the Edo period.

2-2. Confucian Debates in Edo Japan

In the case of Japan, during the Edo period (ca.1603-1867) ruled by the Tokugawa Shogunate, Confucian thought-culture attained wide spread, not only among its ruling class, but also among the ordinary people and children through "Tera-koya" (temple schools= local private schools)[16].

In addition, some new developments began to emerge among Confucian scholars as early as the latter half of the 17th century. One was the growing awareness of Confucian texts as written in Chinese, a foreign language for Japanese. This may sound strange, but it shows how they were accustomed to reading Chinese texts in Japanese way: that is, pronouncing Chinese

[15] Major achievements and features of Zhuzi Studies would be summarized as follows:

1) Compilation of commentaries on the Four Books (the Great Learning, the Doctrine of the Mean, the Analects of Confucius, and the Mencius) as the core curriculum for aspiring scholar officials, which later formed the curriculum for the civil service examination (科挙).
2) As different from the previous philological treatment of the cardinal Confucian texts, however, it is meant to be a cosmology (incorporating Buddhism and Taoism) to explain the mind, the political world, and the universe in terms of the same principles, that is, Li (理; rational principle) and Qi (気; vital force) as grounded in the supreme ultimate (太极).
3) Centrality of the "investigation of things" (格物致知) and active moral cultivation. In emphasizing the importance of meditation practice（居敬）, it resembled Zen, but it differed from it in its explicitly moral purpose following the Confucian emphasis on Five Relationships & Five Virtues (五倫五常).

Tsuchida writes: "It was a cliché Confucian critique against Buddhism that whether these social ethical norms are to be taken seriously or lightly is where Confucianism and Buddhism part company with each other."; "In Zhuzi studies, it is considered natural and authentic for the mind to respond "morally" to the external world. On the other, Buddhism considers that the natural and authentic mind can be set in motion only by erasing one's consciousness of such [everyday] morality" (Tsuchida pp. 53, 55).

[16] It is estimated that the number of such schools amounted to about 15,000, contributing to a very high literacy, presumably about 80 % toward the end of Edo period. It is noteworthy that, together with Confucian teachings, basic arithmetic using abacus, which became increasingly necessary as commerce developed, formed the mainstay of such schools for ordinary people.

characters in Japanese ways and restructuring Chinese syntax with the help of notation devices. Hence, some fundamentalist attempts to "return to *The Analects and The Mencius*" based on thorough textual critique.

The initiators of such movement were Itō Jinsai（1627-1705）and Ogyū Sorai (1666-1728). Kyoto-based scholar Jinsai[17] criticized the speculative and moralistic aspects of Zhuzi Studies and emphasized the importance of human emotions as expressed in everyday life and poetry.

However, it was Edo [Tokyo today]-based Ogyū Sorai who radicalized such fundamentalist movement by adopting the *Ancient Rethoric* approach as a means to comprehend the original meanings of the cardinal texts.[18] Sorai adopted a consciously critical stance toward linguistic expressions; in phenomenological terms, he attempted to "bracket" the concepts of Five Confucian Virtues (仁義礼智信= humanity, justice, propriety, wisdom, faith), to re-discover the presence of concrete "manners and customs." In other words, he looked at social "institutions" as the embodiment of the "Way," and highlighted the critical importance of distinguishing the "political institutions as human-made" from the natural order.

With many followers Sorai came to form "Sorai School" and exerted distinctive influences, which reach into the postwar years as we see shortly. However, there also emerged some counter-initiatives against Confucianism as such, which have also left deep influences leading up to today. One is the so-called *Kokugaku* (Japanese Nativist Studies) school represented by Motoori Norinaga (1730-1801). Norinaga rejected Confucianism as "Chinese mind (*karagokoro*)," which he considered too "moralistic." Instead, he sought to locate the source of "Japanese mind and sensibility" in the ancient myths and poems. He is best known for upholding the sense of "*mono no aware*" (literally the pathos of all things), or, to paraphrase, "sensitive appreciation of transient beauty of nature and beings." According to Norinaga, such poignant realization of humans as vulnerable but capable of deep appreciation of the transient beauty of life is at the core of "Japanese sensibility."[19] Here it may be noteworthy that, just like John Locke, Norinaga was a local doctor who had close contact with people and children suffering from illnesses.[20]

Thus, during the Edo period there emerged a variety of Confucian and non-Confucian

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[17] Japanese authors' names are expressed in the Japanese way; that is, family name is written first. Also please note that it is customary to refer to well-known authors, especially in the case of pre-modern writers, by their first names, just like "Jinsai" or "Sorai" here.

[18] It should be noted here that in his move Sorai was following the *Ancient Rethoric* school of the Ming period.

[19] According to Norinaga, it is most eloquently in the love relationships depicted in *The Tale of Genji* by Lady Murasaki (circa 970-1020).

Despite its potentially universal appeal, Norinaga's move was basically an attempt at "nationalistic" self-assertion against the prevailing Chinese thought, and it was laden with apparent inconsistencies due to its mythological underpinnings.

In contrast, Ueda Akinari (1734-1809), a staunch critic of Norinaga, affirmed the "hybrid nature" of Japanese language and literary tradition[19]. Ueda's most popular work, *Tales of the Rain and the Moon* (1776), is a collection of supernatural short stories adapted mainly from Chinese stories. In this regard it may be of interes that its influences are noticeable also in the works of Murakami Haruki (1949-), one of the most poplura Japanese writers today.

[20] Among other non-Confucian thinkers, Andō Shōeki (1703-1762) was quite unique. Also a local doctor residing in northern Japan, Shōeki witnessed people suffering from famines. He criticized the unjust feudal government and advocated an egalitarian agriculture-based society. Though he was not known widely during his life time, he has been rediscovered as a pioneer in ecological thought. Cf. Norman, E. Herbert, *Ando Shoeki and the Anatomy of Japanese Feudalism* (The Asiatic Society of Japan Tokyo, 1949); Yasunaga, Toshinobu, *Ando Shoeki: Social and Ecological Philosopher of Eighteenth Century Japan* (1992, Weatherhill).

Furthermore, Tominaga Nakamoto (1715–1746), Osaka-based merchant, was as a rationalist historian of thought. Based on historical and textual methods, he presented critical and positivistic arguments on Buddhism, Confucianism and Shintoism. He advanced comparative observations of "ethnic penchants（habits/style）" in Indian, Chinese, and Japanese thinking, but died at the age of thirty-one.

philosophical initiatives. Next let us turn to their continuing significance for contemporary Japan and hopefully, Asia as well.

2-3. "Nature and Order-making" in Maruyama Masao:

Fusing Innovative Confucianism and John Locke

Maruyama Masao (1914-1996) is a leading intellectual of postwar Japan, who advocated democracy-based "citizen-society." In 1946 Maruyama became, almost overnight, an iconic young opinion leader by his article entitled "The Logic and Psychology of Ultranationalism," a critical analysis of the totalitarian system of wartime Japan. He was a prolific writer and left many books, essays, and dialogues. Studies on his works continue to appear every year, and some of his works have been translated into a number of languages.[21]

What is of utmost relevance to our interest is: firstly, Maruyama's starting point was formed by his studies on Sorai's thought conducted while Japan was still engaged in the desperate war[22]; and, secondly, John Locke's political ideas also formed a core of his postwar thinking on "nature and order-making (作為＝*sakui*) , which can be regarded as Maruyama's terms corresponding to the contractarian questions over the "state of nature" and the "law of nature."[23]

As already mentioned, Sorai highlighted, contra Zhuzi studies, the importance of distinguishing the "political institutions as human-made" from the natural order. Actually, this was the major point put forward by the young Maruyama in his articles written during the Asia-Pacific War. Hence, an implicit but clear critique of the "absolute" rhetoric for the emperor-centered authoritarian regime. The young Maruyama concluded: "The independence of the public domain in the wide cultural activities together with the liberation of the private domain must be the important features of 'what is modern'" (MM 107). Hereby we can recognize the critical importance of Sorai's "innovative" Confucianism for the political thought of Maruyama who spent his young years under the wartime regime; allegedly, Sorai opened up a way toward modern political thinking in Japan (Tsuchida 86-88).[24]

With the arrival of the turbulent years of students' revolts in the 1960s, however, Maruyama came to be harshly criticized as an "Eurocentric modernist."[25] In a word, his political

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[21] For example, *Thought and Behaviour in Modern Japanese Politics* (1956-7), which includes his debut article mentioned above, was translated in English in 1969 and in French in 1988. When Michel Foucault visited Japan for a second time in 1978, he asked for a dialogue with Maruyama because of his interest in this work in French translation.

[22] His articles of these years were to be published in *Studies in the Intellectual History of Tokugawa Japan* in 1952 (English translation in 1989).

[23] One of Maruyama's important articles was "John Locke and the Principles of Modern Political Science" published in 1949.

[24] This would appear to go against the general image of Confucianism as "conservative"; the most well-known critique of such aspects was carried out by Fukuzawa Yukichi (1835-1901), the foremost intellectual and educator who exerted decisive "civilizing" influences through his best seller books such as *Things western* (1866-) and *Encouragement of learning* (1872–). [I hear that some of his works are known through translation in Vietnam as well.] But when we think of the fact that Maruyama evaluated Fukuzawa's thought very highly, it may be understood that the relationship between Confucian thought-culture and Japan's modernization is a complicated matter in need of careful, multiple approaches.

[25] Also, his characterization of Sorai as a "discover of politics" came under critical scrutiny, too. For example, it has been pointed out that, in fact, Zhuzi Studies attracted more followers and became common culture in the later Edo (Tsuchida 89). In 1790 the Tokugawa Shugunate issued an order to ban Confucian teachings other than Zhuzi Studies" because new schools such as Sorai's were regarded as "disturbing culture and customs." This fact may be induced rather to validate Maruyama's characterization of Sorai's thought as "modern," but it brings into light the factual trajectory of Sorai's thought in the overall intellectual field in Edo.

According to Tsuchida, more significantly, "The significance of Zhuzi Studies in the Edo period consists, not only in its flourishing as a school, but also in inducing counter-Zhuzi thoughts or non-Zhuzi thoughts, whose philosophical expressions became possible because of the framework provided by Zhuzi Studies.... The formation of the stage of Zhuzi

views were criticized as "elitist," not rooted in the everyday lives of the ordinary masses. To put it in our terms, his general orientation under the heading of "nature and order-making" was called into question in the face of harsh political reality of the Cold War times. The problematic situation appears most sharply in the nuclear dilemma Japan faces; that is, Japan underwent the A-bomb attacks, but now it stays under the U.S. nuclear umbrella. In this sense, the question Maruyama had to face is also ours, and getting more urgent today at that.

Section-3. War and Governance Today

3-1. Technology and Transformation of Governance

Needless to say, however, the nuclear predicament is a global problem, getting aggravated more and more because of the technological transformation of war and governance in the nuclear age. In her 2014 work, *Thermonuclear Monarchy: Choosing between Democracy and Doom*, American thinker Elaine Scarry summarizes the core of the matter as follows:

> The term *weapons of mass destruction* reminds us that the weapon is designed to kill millions of people… [and] that such weapons always have two (not one) key features: that they are designed to kill millions of people and they are designed to be fired by a small number of persons. (5-6)

In a nutshell, as we are realizing it painfully through the ongoing Russian invasion in Ukraine, the use of or even the threat of nuclear weapons are fundamentally incompatible with the vision of democratic governance.[26] In this sense, today we are faced with the question over the "state of nature and order-making" in a most pressing manner as never before.

3-2. Humanitarian Disarmament: TPNW (Treaty on the Prohibition of Nuclear Weapons)

In concluding, to end with a hopeful note despite the gloomy reality, let us highlight the international efforts to create a new order in the world to bring the nuclear predicament under control, however hard it may be.

On January 22, 2021, TPNW (Treaty on the Prohibition of Nuclear Weapons)[27] came into force with more than 50 signatories having ratified it. As of today, 68 state-parties have joined this new international law; Vietnam was one of the original 50 countries that signed and ratified it to bring it into force as an international treaty, while the nuclear powers and their allies, including Japan, have not shown any sign of joining it in the near future or giving serious consideration to it.[28] It must sound just like a "cliché," but it is a very sobering fact that at stake in such global efforts to create new orders is nothing but our future and the earth.

Studies and the counter-Zhuzi Studies contributed to the various developments of thought in the Edo period" (Tsuchida 96). Thus, recent work sheds new light on the significance of the Confucian debates as a whole in terms of having provided a stage for diverse daring thinking, thus paving a way toward engagement with Western thoughts. A similar view is presented also by Yama Yasuyuki in his recent work, Thought-Strife in Edo, 2019.

[26] In this context one may remember that, in *On Revolution* (1963) , Hannah Arendt pointed out the radical transformation of democratic governance due to the advance of military technology: "Under modern circumstances, this appearance or reappearance of total war has a very important political significance in so far as it contradicts the basic assumption upon which the relationship between the military and the civilian branches of government rests: it is the function of the army to protect and to defend the civilian population. In contrast, the history of warfare in our century could almost be told as the story of the growing incapacity of the army to fulfill this basic function, until today the strategy of deterrence has openly changed the role of the military from that of protector into that of a belated and essentially futile avenger." (Arendt 1963: 14-15)

[27] It was adopted at the General Assembly of the United Nations in September 2017.

[28] The 1st Meeting of the State-Parties was held in Vienna in 21-23 June, 2022, to discuss roadmaps toward its objectives, but Japan did not participate in it even as an observer, although some countries such as Germany and Norway did.

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ENVISIONING THE FUTURE THROUGH THE ONTOLOGICAL ARCHITECTURAL PHENOMENOLOGY IN CURRENT EXISTENTIAL CRISIS

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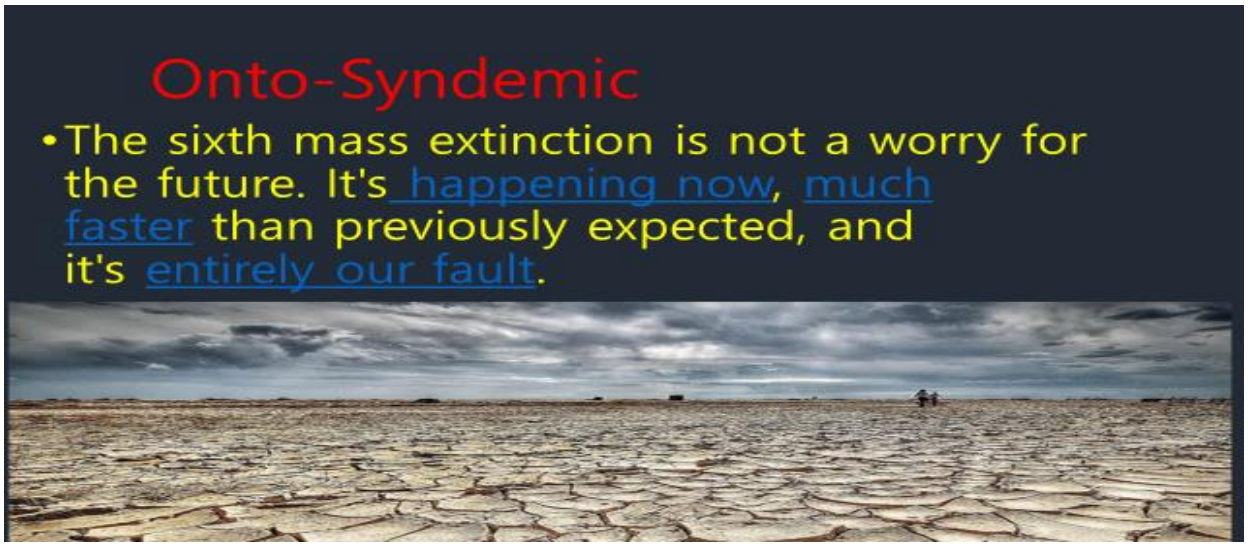
"When the stars shine in the sky, the dew on the earth also shines. That's the first philosophy I learned."

I. THE BARBARITY OF THE CONTEMPORARY TECHNOLOGICAL CIVILIZATION AND CHALLENGES FOR FUTURE GENERATIONS

Every generation inherits the legacy left by the previous generation. The legacy can cast hope or shadow over the future for the next generation to live. When shadows cast, future generation should create their own windows for the light of hope. And when this is successful, history leads to a future that creates good values. Unfortunately, our future generationinherited the risk of an ontological disaster exposed as the COVID-19 and the 6th Mass Extinction from the older generation.



The crisis of an era is the process of revealing the barbarity lurking in the depths of civilization of that era. The present technologically advanced age is no exception. Therefore, our

future generation must carefully interpret the historical meaning of the present era in which the protagonist of history is replaced from the older generation to the future generation. Only then will the future generation be able to live in the future with the light of hope.

The barbarity of contemporary technological civilization is not a problem that can be overcome simply with buzzwords such as New Normal. The crisis requires grand change through in-depth thinking that critically reflects on and innovates modern technological civilization from its source.

II. REASONS TO ENVISION FUTURE CITIES

However, this grand transformation presupposes a tremendous challenge of designing a huge future vision that encompasses all problems confronting us now. How on earth can our future generations afford such a tremendous job? In fact, it would be impossible for a generation to plan a grand mega future vision concretely. Nevertheless, if we choose well one of the various areas of human life, we can address almost all the problems of human life and discuss future problems in detail in real-world situations close to life. This area is a city where human daily life takes place vividly every day. Therefore, planning a grand mega future vision to overcome the barbarity of modern technological civilization exposed by the Corona pandemic and the climate emergency converges on the question of what city our future generation will actually live in.

Moreover, the way of human life is mainly determined by what kind of city is created through architecture. As Winston Churchill said, "Man makes a city, but a city makes man again." In a similar sense, the phenomenological architect Palasma reveals the relationship between man and the city as follows. "I live in the city and the city lives in me." In fact, architecture provides a materially stable form for almost all areas of urban space and for the everyday interactions of the people living there. For this reason, architecture cannot be free from responsibility for the community whatever purpose it may pursue.

Furthermore, architecture determines how humans perceive, interpret, and value their surroundings. Architecture can lead to a wasteful life that corrupts the context of life, and destroys nature. Conversely, it can promote well-being, strengthen community identity, raise awareness of historical heritage, and promote respect for nature. In short, urban architecture of an era plays a decisive role in materializing the space in which humans live by mobilizing materials from nature and further in binding humans into communities. Needless to say, when architecture plays such a decisive role, it uses the state-of-the-art science and technology of the era.

III. THE NECESSITY OF AN ONTOLOGICAL ARCHITECTURAL PHILOSOPHY

Therefore, attempts to envision a future city to clarify and materialize the Grand Mega Vision for the future should be able to create social values that are faithful to the responsibility of architecture for history, future, and nature as well as for the use of technology. As we are currently experiencing with our bodies, large-scale natural disasters such as COVID-19 and climate emergency caused by our technological civilization reveal a complex pathology that puts all living things, including humans, at the risk of extinction. So the city for this future generation should be a concrete place of life where practical actions to overcome this complex pathology of modern technological civilization take effect.

In this context, the work of envisioning a future city cannot be handled by an architectural philosophy that focuses either on the technical or the aesthetic aspect of architecture. The architectural philosophy needed now should be fundamentally based on the understanding of architecture that encompasses not only culture but also nature. This kind of understanding that encompasses beings as a whole is called ontology in philosophy. So what is desperately needed is an ontological architectural philosophy.

At the same time, the ontological architectural philosophy should critically reflect on the relationship between architecture and modern technology through which contemporary technological civilization has been constructed. And then it should attempt to change that relationship in depth to overcome the afore mentioned complex pathology. Only with this fundamental ontological understanding of architecture and technology, we can design the vision of building a future home and city where the two dimensions of nature (namely, the sky and the earth) and humans as well as technology can reconcile with each other.

But is there such an architectural philosophy? Fortunately, there is a philosophy that explores architecture in terms of encompassing the entire beings and carefully examines the fundamental problems of modern technology. It is an ontological architectural phenomenology that emerges from Heidegger's ontology and matures into Christian Norberg-Schultz's architectural phenomenology.

IV. KEY CONTENTS OF ONTOLOGICAL ARCHITECTURAL PHILOSOPHY

The ontological architectural phenomenology is not obsessed with physicalism that believes in uniform spatiality that drives all beings into a homogeneous physical space. According to modern science, space is thought to be the extension that is already infinitely unfolded, and things are regarded as the mass of physical matter located in this infinitely extended space. This relationship between space and things is reversed in Heidegger.

Since his first successful philosophical work, Heidegger has conducted critical study on the various mode of spatiality and on the origin of the scientific spatiality, on which the modern functionalism of architecture is based. According to him, things are opening up a place where four elements or fourfold in the Heideggerian terminology, namely sky, earth, mortal human, and divinities, come attuned in certain way, and the space that encompasses these things can never be a uniformly expanded universal space. As Edmund Husserl, an outstanding mathematician and Heidegger's teacher, revealed in his scrutinizing study on geometry and modern science in detail, scientific space is only an abstract geometric space constructed by idealizing the original space. And the original space on which this idealization is based is the attunement of heterogeneous places opened by each thing.

Christian Norberg Schulz takes over this Heideggerian ontological conception of spatiality into architecture.

He then uses the Heideggerian understanding of thing, on which the fourfold is gathered, as a connection node toward the domain of architecture. However, Schulz explains this concept in more detail: Place is unfolding, while being concentrated on things as foci. At the same time, with various directions and rhythms according to the mode of spreading from the foci, place is qualitative phenomenon itself that takes place with certain meaning. The appropriate word for place is thus attunement or mood, not space. And the thing onto which the place is centered is not a mass of physical matter. As elucidated in Heidegger, thing is the process of gathering, in which sky, earth, mortal human, and divinity arise from one another. (Christian Norberg-Schulz, ibid.)

Thus, Schultz sees the term place not as a meaningless static physical completion, but as a unique meaningful dynamic event that always takes place in some way depending on the way the fourfold are gathered. In addition, he emphasizes that the direction of the place unfolding around the thing is not arbitrary, but ultimately embedded in the original direction of sky and earth.

There are things in which the gathering of sky and earth stands out. Therefore, these things are respected by mortal humans as implying divine meaning and are accepted as the source of human life to which their mortal fate has to be handed over at the last minute of their lives. A prime example of such a thing is the mountain. The mountain is rooted in the earth and rises to

the sky, so it elucidates and visualizes a divine meaning that the gathering of the two elements, the sky and the earth, is excellently achieved. In other words, a mountain is a place or landscape in which the structure of place comes to fore sublime and distinct. (Christian Norberg-Schulz, Existence, Space & Architecture, New York 1971, 18p.) So, as we witness in the various cultural areas, mountains have been always discovered and admired as divine natural landscape by mortal human. This admiration of mountain as divine foci is the way the fourfold, sky, earth, mortals and divinities, are gathered in the thing like mountain.

Trees also play the role of foci and are respected as the thing with excellent meaning because trees are also revealed to be an exquisite gathering of sky and earth. Moreover, trees repeat the process of production every year. In general, the growth of plant, i.e. the vegetation, is the manifestation of the creation of Being. Indeed, in Greek and Roman as well as in Islamic myths or legend, the world has foci. And its foci are embodied as a tree or a mountain symbolizing the vertical axis mundi of the two directions of sky and earth.

V. THE ONTOLOGICAL MEANING OF DWELLING AND ARCHITECTURAL CREATION

The human dwelling in a place as well must be understood in the light of this ontological understanding of place.

Needless to say, dwelling first requires a process of settling down. However, it is not human choice alone to choose a settlement, but a natural place should invite him. In other words, human dwelling starts with being invited to settle down in a place where the gathering of the fourfold is clear, and so forms a community of humans.

To human being, as already noted, the meaning of things as gathering is revealed in the things such as mountains, trees and lake etc., in the most exquisite sublime way. And natural landscapes are centered on these things. Radiating to human beings the existential meaning like divinities, the things that form the center of the natural landscape invite mortals to settle down. In other words, human dwelling is not a biological behavior for survival but an existential activity for meaning. Therefore, human dwelling wants to settle down in a place where the meaning of existence becomes clear, and such settlement starts by staying among things which prominently materialize the meaning of existence with the help of architecture.

The architectural creation begins thus to be achieved when the architect is called from the landscape and the meaning of the landscape is brightened to him

Indeed, there are close affinity between poem and architecture. As the great Chilean poet Pablo Neruda confessed that " poetry arrived in search of me, … from a street it called me … .", Schulz says: " A work of architecture does not exist in a vacuum, … . Man dwells poetically when he is able to listen the saying of things, when he is capable of setting what he apprehends into work by means of the language of architecture. ". Heidegger says: “ Language is house of Being, then house is the language of Being.

In this sense, Antonio Gaudi who is recognized as one of the most creative architects in the 20th century preaches in his touching lecture as follows. "Creation occurs constantly through artists. Nevertheless, an artist does not create, but discovers... Thus, being original means a return to the origin."

The houses for human dwelling are built by listening the invitation from the natural landscapes, so they are closely related to a natural landscape. The natural landscape and the houses for dwelling are thus in the intimate corresponding interaction. The meaning of a natural landscape permeates into building for the dwelling of humans, while the buildings and houses bring forth the meaning of the natural landscape. That is, the existential place of human is not a

nature understood as a reservoir of raw materials that must be processed for use value to satisfy human needs. Nature is the original meaningful text, that is, the landscape, in which the meaning to be revealed through human dwelling is concealed in herself. And humans who dwell in this landscape can make their site through building in the original sense that materializes the meaning of landscape into an abode, village and city. In other words, the form of urbanity and the conditions of the natural landscape have, so to say, a relationship of meaningfully embracing and breathing each other.

VI. THE INEVITABLE RELATIONSHIP BETWEEN ARCHITECTURE AND ECONOMY

As we all know, the ancient Greek word for house is Oikos. When the houses or Oikos for dwelling are built on the basis of such a return to the fundamental dimension where the inter-breathing between the human dwelling and the natural landscape occurs, a wise management method is needed to preserve the well-being of humans living in the Oikos and in the settlement. Otherwise the Oikos or the settlement would be nothing more than a pedantic showcase. This management method is Oikonomia, the original meaning of today's economy.

The original meaning of economic life as oikonomia is a way to take good care of the Oikos and make those who live there live well. If this original meaning of economic life is not ignored, the economy should take care of the settlement and the city, and preserve the communal well-being of the humans dwelling there. However, the contemporary urban economic life is not an economic life in this original sense that takes care of the city as a communal Oikos. The contemporary urban economy is a smart linear economy which has been rapidly advanced by the 4th industrial revolution accelerated by the total digital transformation.

VII. SMART LINEAR ECONOMY: FAILURE OF THE 4TH INDUSTRIAL REVOLUTION?

What is then the smart linear economy?

Recently it is almost common knowledge that the modern economic system has undergone a revolutionary upheaval from the 1st industrial revolution to the 4th industrial revolution. However, seeing in depth, there is no innovation from the first industrial revolution to the fourth industrial revolution in that the economy, which is the basis of modern technological civilization, is a linear economy. Only the linear economy has so far become increasingly efficient and smart by new science and smart technology like AI.

What is then a linear economy? The linear economy work as follows. In the linear economy, everything in nature deserves to exist only as resources and therefore, resources are mined from nature as much as and as efficiently as possible. However, resources are not worth existing in themselves, but are given the value to exist only when they are manufactured into commodities. And the commodities actualize their value only by making humans consume them. In this process, humans are forced or tempted to act only as consumers, and eventually mass-produce waste by owning and consuming commodities. This linear economy thus sustains and grows by amplifying human desire for consumption infinitely, leading to excessive consumption of resources mined from nature. After all, the linear economy is practically nothing more than a tremendous consumption system that mass-produces waste. And this linear economy is rapidly growing into the smart linear economy as it becomes smart and intelligent through the 4th Industrial Revolution led by AI. This smart linear economy is expanding exponentially into a mega waste production civilization as waste increases exponentially with the high efficiency and speed enabled by smart digital technology.

As a result, nature, the oikos of all living beings is over flooded with waste that can no longer be handled. Due to this astronomical amount of waste the boundaries of each living

being's environment collapse, causing planetary confusion. Consequently, the human world and the animal environment are chaotically intertwined, leading to ecological confusion in which a new human-animal common epidemic emerges. The epidemic rapidly leaks across the boundaries of the countries to become pandemic through the global nomadic lifestyle of contemporaries. The situation in which this pandemic appears is not just a public health issue. This is a situation that destroys the entire life of humans and all living things in nature. In this sense, the COVID-19 pandemic should be called a complex ontological crisis, that is, Ontosyndemic, which is translated as 'the 6th mass extinction' in the scientific community.

IX. TOWARD THE FIFTH INDUSTRIAL REVOLUTION: THE LIGHT OF HOPE IN METAVERSE ECONOMY AND THE CIRCULAR ECONOMY

Therefore, it is urgent to reflect on the relationship between the smart linear economy and nature, and to innovate fundamental thinking about the relationship. And as a result of this reflection, a new economy is being envisioned. It is a circular economy. The circular economy is an attempt site to overcome the fatal error of the smart linear economy.

The circular economy is an economic paradigm that minimizes the consumption of nature as resources. The linear economy works in nature in a way called 'take → production → use → dispose'. Unlike the linear economy which is now become the smart linear economy through the 4th industrial revolution, the circular economy itself is designed to preserve the resilient and regenerative power of nature. Circular economy has already been explored in Europe since the late 20th century. However, it faced considerable difficulties due to the lack of technology to substantially and efficiently realize the cycle of resources from nature.

What kind of technology can realize the urban economy in which the purpose of the circular economic system is efficiently realized and human identity is newly formed other than consumer?

Fortunately, the technology is currently latent in the basic technology of the 4th Industrial Revolution, which produces waste on an astronomical scale by making the linear economy highly smart and ultra-fast. It is digital technology. If digital technology is applied differently than it is today, it could provide a way out of the fast-expanding smart linear economy. And this path can develop into a revolution that pursues fundamentally different values and directions from the fourth industrial revolutions. In that sense, this revolution deserves to be called the 5th Industrial Revolution.

Now, let's revisit the underlying technology of the Fourth Industrial Revolution, i.e. the digital technology, to discover new possibilities in it toward the 5th industrial revolution.

The digital technology digitizes everything and implements it into a virtualized reality. The digital technology digitizes everything and implements it into virtualized reality. In the virtual reality things are dematerialized. In addition, digital technology has the extreme accurate tracking ability and generates big data through it, which is processed through AI. Here we are offered opportunities to escape material overproduction and overconsumption. In particular, this opportunity can be captured by carefully looking at economic activities in the digital space called metaverse.

Economic activities occurring in the digital space of metaverse show a different pattern from that of the existing economic activities. In metaverse, no material product is produced, consumed, and disposed. The economic activities of future generations participating in metaverse consist of the production, purchase, and consumption of digitals content such as digital characters, avatars, digital music sources, webtoons, digital dramas, and even virtual properties. However, these digital contents consumed in this metaverse do not go through the same process as physical functions are purchased, used, and discarded. Buyers who purchase

digital content do not consume the content in the same way as consuming material commodities that provide ownership value with certain physical functions. Rather they discover and appreciate immaterial values and meanings different from physical ownership value in the digital content. In other words, the function of digital technology that virtualizes materials has a very important function that allows humans to escape from the material world and enter into the dematerialized economic world.

Moreover, the metaverse that enables these dematerialized economic activities suggests a future in which everyone could become both a creator and an appreciator. In metaverse, a venue has been opened where anyone can become a kind of artist while doing creative activities if they make good use of various apps and artificial intelligence tools.

In this way, in metaverse, we can create images, narratives, and even games, and provide people with opportunities to appreciate images or enjoy games. Through this, it is possible to realize the possibility of moving from a material hyper production & consumption economy to an immaterial creation & appreciation economy. As we all know, it is the empathy between the creator and the buyer that enables the created content to be appreciated. And empathy plays a significant role in the formation of social and cultural communities. Since the economic behavior in metaverse is activated by creation and appreciation between participants, empathy becomes the basis of the metaverse economy. Therefore, the immaterial economic activities of metaverse have the potential to mature into a sense of community, that is, the ability to create social values through empathy.

And this sense of community can develop into the sense of social responsibility to transform the smart linear economy, the cause of the complex ontological crisis, into a smart circular economy for the sake of all communal members even of nature.

In this transition, big data stored by the ultra-precise tracking and monitoring function of digital technology and AI processing the big data can be applied in a different reversed direction from the smart linear economy. For example, a reverse logistic platform can be established to accurately track the production and consumption process of a product, collect big data, and then process these big data through AI to identify and match demand and supply in real time. By applying big data and AI processing technologies in reversed directions, we can achieve a smart circulation system, an economic system that recreates continuously another value in all products manufactured from materials mined from nature. The smart circular economy is thus the economy which respect the value of the materials from nature and recreates it ceaselessly. In order to achieve such a smart circular economy successfully, it is important to cultivate the empathy inherent in the metaverse economy toward a sense of community responsibility.

X. FUTURE OIKONOMA AND NEW CONSTRUCTION METHOD: METAVERCULARNOMY AND PNEU-VEGITECTRUE

Cities continue to sustain on the basis of economic activity. The future city, which we propose to be built by the ontological architectural philosophy, is no exception. The ontological architecture fundamentally requires an economy that utilizes the technology of participating in the process of reconciliation and harmony between humans and nature. This economy is the smart circular economy. In order for this smart circular economy to be realized, it should be encouraged by community responsibility sense which can be cultivated by metaverse immaterial economy, the main participants of which is our future generation. In short, the smart circular economy should be combined with metaverse immaterial economy. The combination of the metaverse economy and the smart circular economy, let’s call it Metaverclularnomy. And the Metavercularnomy is realized as an oikonomia that builds houses and cities where natural landscapes and human settlement breathe with each other according to the ontological meaning of architecture and makes people living in them well.

The metavercularnomy will require architects to develop new construction methods. As the ontological architectural philosophy reveals, human settlement and natural landscape are in the process of coordinating and mutual breathing with each other. However, it is necessary to understand this relationship of mutual breathing practically, not just metaphorically. Indeed, the most substantial and practical interaction between humans and nature is the process in which humans and nature breathe each other. The process in which all beings, including nature and humans, breathe is called cosmic breathing (Pneuma) in ancient Greece. However, the modern technological civilization suffocates the "cosmic breathing" (Pneuma). Evidence for that suffocation is the coronavirus pandemic, micro dust, and climate emergency that fatally attacks the human breathing organ, namely the lungs. Therefore, the work of resuscitating the cosmic breathing between human and nature is of paramount. But is there a way to save the cosmic breath, Pneuma?

The most important activity that mediates the breathing between humans and nature is the growth of plants, namely vegetation, which occurs in the process of gathering sky and earth, as shown in the ontology of architectural philosophy. If this ontological understanding of vegetation is respected, it becomes clear what method to be developed for the future of reviving cosmic breathing. It is the development of new architectural technologies that promote the Pneuma by entangling architecture with vegetation and caring for wind paths; we call it 'Pneu-Vegitecture'. Of course, we already have Agri-tecture in High-line Park in New York and Vegitecture in VanDusen Botanical Park in Vancouver. Or the most inspiring examples indicating the future of Pneu-Vegitecture are built in Hochimin City.

These architectural methods should be more cosmologically and ontologically enhanced in order to resurrect the Pneuma through Pneu-vegitecture

XI. CLOSING REMARK

Of course, the development of Pneu-Vegetecure cannot be done only by architecture. It can be successful by collaborative work involving architect, botanist, ecologist, and landscape architects as well as climate scientists. And if this collaborative work succeeds, the future city, which will be built by Pneu-Vegetecture, will open a new site for practically harmonizing the wind, forests, and cities as well as human. Everything that exists in this site can be aimed at overcoming the suffocation of the pneuma caused by the modern architecture and its civilization, and at restoring relationships in which nature and humans breathe each other. And as long as the lives of the humans in the city built by Pneu-Vegitecture are based on the Metavercularnomy, which operates on the immaterial economic activities and on the cycle of natural resources, the city will open the way to Oikonomia, which can prosper as Oikos of all beings. Of course, this future will not come spontaneously. There is an urgent need for the active participation of architects in the road of the 5th industrial revolution toward this future of oikonomia. But architects alone are not enough. It is more urgent for young people who will become citizens of future cities to actively encourage and support these architects. With the hope that this international conference will serve as such a venue of the encouragement, I finally conclude my presentation today by citing the words from a philosopher, György Lukács.

HAPPY ARE those ages when the starry sky is the map of all possible paths — ages whose paths are illuminated by the light of the stars. Everything in such ages is new and yet familiar, full of adventure and yet their own. The world is wide and yet it is like a home, for the fire that burns in the soul is of the same essential nature as the stars; the world and the self, the light and the fire, are sharply distinct, yet they never become permanent strangers to one another, for fire is the soul of all light and all fire clothes itself in light.

PHENOMENOLOGY, MINDFULNESS AND INTERCULTURAL UNDERSTANDING

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What follows is an exploratory essay on the possibilities for phenomenology, mindfulness and new developmental evolutionary theory for revisioning a possible human future. Phenomenology and yogic mindfulness will be applied as frameworks for stepping out of the assumed cultural beliefs about the negativity of our human nature – that I diagnose as the essential problem. Moreover, both phenomenology and mindfulness reveal empathy as something inherent to our condition and our common human ancestry. I support this with corroborating naturalistic evidence from our increasing knowledge of epigenesis, neuroplasticity and the new evolutionary psychology that, with phenomenology and mindfulness, endorses a positive baseline for human thriving that would supplant the negative assumptions of selfishness and competitiveness that haunt and limit interpersonal and intercultural understanding.

HUSSERL'S HISTORICAL MISSION FOR A CULTURE IN CRISIS

The historical need for phenomenology arose with the advent of the physical sciences. Husserl was distressed by how the universe posited by the metaphysical assumptions of physical sciences afforded no place for both values and the human person – as person (Husserl, 1970). The ancient and medieval Western world's Aristotelian metaphysical universe - composed of four causes (material, efficient, formal, and final) was, after the rise Isaac Newton's strictly materialistic metaphysics, fractured into only two causes - material and efficient - better known as just matter and energy. The other two deleted causes, formal and final, denoted intelligence, and purposiveness. This is exactly what was stripped from the modern metaphysical worldview. A worldview that swallowed all reality into a meaningless void of randomly impinging physical forces. Subjectivity itself disappeared into this void and was only considered as an *aesthetic* garnish to an otherwise pointless universe. Meaning, morality, and values all became epiphenomenal in this psychologized universe where the mind itself is just a thing amongst other things.

The danger here is that human relations become reduced to explanatory models that open the door to the perpetually looming specter of social Darwinism. In other words, here, the social sciences take up human relations as (biologically) causally explainable through *self-interest, domination and power*. This strictly utilitarian, aggressive, competition-based and *radically individualistic* worldview has hijacked Western social thought and, to this day, is operative in much of what we call academic social science. Unfortunately, if we view persons as motivated strictly by self-interest and impulses for domination and power, so will we project this into our understanding of intercultural relations. It is these unchallenged negative assumptions, harkening back to Machiavelli and Hobbes and Spenser, that are the true problem.

What I will propose here, is that both mindfulness and phenomenology offer us, not just a more positive worldview, not just the truer worldview that is more *accurate* with regard to our common human condition, but that they point a way out of the dangerous precipice that we are currently facing - not just war, but *nuclear* war, not just economic injustice but also ecological

catastrophe and the mass starvation, migration and violence that follows. What I will propose is that mindfulness, this ancient Asian gift to humanity, and Husserl's 20th century paradigm of phenomenological practice, in tandem and across history and culture, corroborate and mutually validate this hopeful, positive and practical approach to the crisis of modernity and the moral collapse that threatens to engulf us.

One of Husserl's greatest contributions was his articulation of what phenomenologists call the *natural attitude*. This is an approach to reality in which we are all unconsciously emerged. It is *taken for granted* - especially those educated in a Western scientific empiricist worldview. This approach metaphysically assumes physical causality and takes for granted that all reality, including the mind itself, can be explained by the physical forces of nature. What this natural attitude is incapable of seeing, its blind spot, is *consciousness itself.* The phenomenological position also reverses this natural attitude by arguing that it is consciousness that sustains our belief in a physically real world, that *all of experience* has its origin in consciousness. Like the metaphor of the unseen movie projector throwing light upon the movie screen, consciousness is the invisible backdrop to all the phenomena it beholds. But, again, the modern natural attitude is blind to this. To recover from this blindness, Husserl developed an approach, or one could say a 'contemplative method', technically called the *epoche'*, where one puts into parentheses or abstains from any beliefs about the 'world as object' and just steps back to view the world as it manifests – again, without any presuppositions of causality or physicality. This attitude of abeyance (or *epoche'*) speaks to the essence of phenomenology - to retrieve the world in its *immediate intuitive givenness*, to recover the world of experience prior to categorization, prior to conceptualization and prior to cognition. This is also called *the primacy of lived experience* or 'the theory of intuition.' *(Husserl, 1982)* To phenomenologists, it is this lived experience that is the foundation of all rationality and all objectivity. Far from an anti-science perspective, phenomenology only asks that, as good scientists, we should never stop practicing experimental physical science, but we should also practice science with an intellectual (metaphysical) flexibility and be aware of our blind spots and limitations as scientists. In other words, this would be to practice the epistemological humility and open-mindedness that comes with remembering the primacy of lived experience. This is to simply become more sensitive, more openminded, more tolerant of ambiguity, and perhaps even more creative, scientists.

This discovery of the natural attitude and the method of suspending this objectivizing attitude, inherent to Western modernity, reopened the door to a positive and humanistic vision for human freedom, values, personhood and social possibilities. It salvaged the relevance of inherent values that were not solely contingent to natural forces such as evolution, genes, neurons or hormones. Severed from this explanatory framework, phenomenology most importantly reveals the *primacy of empathy* in our directly lived spontaneous experience with other people. The natural attitude as a series of presupposed mental habits can embody all the typifications that can otherwise be called 'social prejudice.' By restoring us to our directly lived experience phenomenology offers a framework for remembering our primary condition of empathy - our unthinking communion with other people. By stepping outside of the natural attitude, or at least becoming aware of it, the door is opened to a positive, or at least neutral, recasting of our understanding of the human condition. It also opens the door to a rapprochement and mutual dialogue with the ancient wisdom of Asian thought.

YOGIC MINDFULNESS TRADITIONS

Firstly, it is of course widely known that there no one single Asian philosophical or contemplative tradition. I also wish to stress that not only is the concept of a split between Asian thought and Western thought somewhat problematic, and a dated holdover from the colonial era, but it is also true that Western or European culture, until the advent of natural science, had its

own rich diversity of mystical theologies and contemplative meditative systems that converged more with Asian thought then it diverged. (McEvilly, 2002) These systems, however, went into serious decline with the rise of physical science. They have only been recovered recently via the popular surge of interest in Asian meditative thought. Through contact with Asian meditative thought westerners have been able to recognize and reevaluate their own desiccated meditative traditions. In other words, through acquaintance with Asian systems of meditation we have learned that it may be possible to resuscitate European modalities of meditation. It is perhaps no accident that this has happened in parallel to the rise of European phenomenology.

I choose Patanjali because he serves as something of an international classic. Patanjali's Yoga Sutras function as a foundational text to the many streams of Asian contemplative thought - especially Buddhism. Patanjali is something of a compendium of different systems of meditation that were existing in South Asia in the period in which Patanjali wrote - roughly the 7th century. The yoga sutras are an instruction manual designed for 1. the alleviation of suffering and 2. the attainment of clear knowledge. For Patanjali, yoga is essentially a *method* which he spells out very clearly in his opening sutras. The method is as follows: "yoga is the suspension of the whirlpools of the mind such that the true seer may come forth and see the world as it is." (my rough rendering, Y.S. 1-5). The assumption here is that the 'moving and swirling whirlpools of the mind' prohibit or obfuscate our ability to see oneself and the world as it is. 'Mind' here is understood as *chitta* or mental stuff that occupies of our wandering minds. This is composed of imaginings, unchallenged opinions, and mental habits. The heart of this method is the neutralization of these mental habits by means of what Patanjali calls *nirodaha*. To perform *nirodaha* is not to eliminate our mental habits but to simply recognize them 'as' habits, as assumptions, as presuppositions. The direct English translation should be the word *abeyance*. In other words, in yogic meditation, one puts all the cognitive doings of the mind into suspension, into deferment, held forth - at least temporarily - from the activating power of belief or even doubt. If I may play with words, they have been 'de-doxified' or 'de-believed.' The idea here is that when we learn to suspend the doings of the mental cogitations (Chitta) we begin to discover a point of view, a perspective, an observing *seer* which usually lies dormant to our conscious experience. What we can learn from *doing* yogic meditation is that most of our social life it's essentially stereotyping - we typify other people and ourselves. Typification is not a bad thing in itself and is socially necessary. Typification, like the psychological ego, serves a function. The problem is that, like with symbols/words and their referents, we forget that all typification is merely an expedient abstraction, and we forget *what* these abstractions were originally based upon. This meditation method allows us to remember our primal experiences, with the observing seer, and distinguish them from the abstract typification's of our ordinary mind's mental activities. I hope we can see from this, how yogic meditation, like phenomenological approach or method, also opens the door to recovering empathy that is originally natural to us. But can be retrieved or reactivated thought meditation practice.

Further, and as an aside, it is interesting to note that in Patanjali's ethical prescriptions, otherwise called the *yamas* and the *niyamas*, The *yamas* involving interpersonal relationships come primary to the *yamas* involving self-discipline. The implication seems to be that in practicing sensitivity towards others, self-discipline with oneself will follow.

It is true that these yogic meditation (or mindfulness) traditions have been critiqued for producing a monastic insularity from worldly politics or, on the other extreme, in certain cultures, the promotion a monastic caste system that could support oppressive power structures – even political violence. This serious critique is also applicable to monastic institutions of the medieval Europe. While I would not argue against such critiques, I would only venture to agree that yogic meditation methods can be distorted by cultural contingencies. Nothing is immune to

the pernicious influences of hierarchy and the dominating systems of class and caste (manifestations of the natural attitude). Nor, however, would this necessarily negate the value of contemplative practices, in and of themselves, for addressing the problem of intercultural understanding and the resolution of conflict though enhancing empathy. If any monastic communities may have fallen into degeneration, this is a beneficial warning from which we can all learn - a call to deeper resoluteness with regard to the empty and false morality of pietism and ideological puritanism. Patanjali warns us of these pitfalls when he teaches that the greatest of moral dangers threaten those who have achieved advanced meditation practices (powers or *siddhis*) but without the personally transformative moral insights that should come with such practices. Such false leaders do the most harm.

EMPATHY IN ASIAN MINDFULNESS AND EUROPEAN PHENOMENOLOGY

Again, the watchword here is *empathy*. Social science is troubled by the concept of empathy. As Merleau-Ponty famously writes: "the existence of other people is an outrage to objective thought." (1962) Feeling into the other person, immediately intuiting their emotional and bodily presence, entering-into and following the intentions of others – these are all experiences that are lived pre-reflectively in our ordinary everyday lives - without our even noticing this. But this has a remarkably limited place in social sciences.

It's important to note that empathy is a recent and artificially constructed word. It was developed in the context of German phenomenological philosophy at the turn of the last century. In German this word is *einfulun*g - which literally means 'feeling myself into the other.' It is important to reiterate that in empathy we do not think our way into the other, we do not cogitate into the other. Instead, we directly intuit the presence of the other, *as other*, and as immediately given within the 'perception' of the other as other. This givenness is passively received, not unlike the way our own emotions come to us. Empathy is pre-reflective, pre-categorical, and *lived* more than it is *thought*. Let me give an example. I am riding in the bus and I see an elderly woman standing. Her weariness, her tiredness, speaks to me without my thinking. I do not *know* she is tired; I *see* she is tired. I do not know *how* I see –I just do. A certain feeling of uneasiness comes over my body, and for one split micro-second the image of my mother and grandmother enters my imaginary field and just as quickly disappears as I find myself standing up to offer this anonymous elderly woman my seat. I did not act out of virtue or ethics. There was nothing moral or 'do-goody' about me. I just gave her my seat. It's just what you do. Well, of course this example could be taken apart and explained as cultural conditioning, or given various psychological explanations, but phenomenologically, in terms of my own directly lived experience, these explanations do not come to bear.

Another even more simple example: Thousands of us, riding our bicycles in the streets, do not stop for one split second to cogitate over the movements of the other bicyclists around us. We simply respond. We view the person's movements on the bicycle, and we immediately intuit their intentions to steer the bicycle in a certain direction. We both swerve to avoid each other in the manner of dancers dancing. In both examples we directly intuit the intentions of others through our perception of their bodily comportment. This is because we all share the same human body and, through this common symmetry, that is the human body, we know the movements of others as intentions as motivated in a direction. We see where they are going, we tune into these intentions; we *resonate* not unlike sound waves that interpenetrate, or as flocks of birds, or schools of fish, through and within one another - as a cacophony of bodies.

Empathy is inherent to our human condition, and, if I may say it, our human *nature*. I would even dare to say that empathy is more natural to us then is aggression. Thousands of years of evolutionary experience have led to a nervous system that is fine-tuned to each other in this

way. It is these pro-social, cooperative and profoundly communicative faculties that opened the development of our languages, our technologies and governance systems that have allowed us to so successfully proliferate as a species. This is also exactly what offers such great hope for our common human future.

So while phenomenology allows us to see and articulate the primacy of empathy, it is the ancient Asian mindfulness practices that can offer us the tried and true meditation practices to best recover this capacity. Here, Asian yogic methods have much to offer the Western phenomenologist and the possibilities for mutuality are profound.

CORROBORATION FROM DEVELOPMENTAL EVOLUTIONARY SCIENCE OF EMPATHY

So, if this prosocial inclination toward empathy is so natural to us, why are we not seeing more of this in our current world? The answer is that we have created a social and developmental environment that does not nurture this natural capacity. Alas, it is *our own cultural creations*, our governance systems, economic systems and technologies, that, like out of control Frankenstein monsters, are ironically threatening us.

It is here that I want to introduce the evidence from new ideas in the biological sciences that support exactly what I'm talking about. Both phenomenology and yogic mindfulness allow us to step outside of the common natural attitude assumption of human negativity – that so restrains us. What we will see is that the positive insights of phenomenological and mindfulness thinking is corroborated by new evidence from within the natural sciences. Evolutionary theory has been going through transformation over the past few decades. The old model of narrow evolutionary thinking is based on a simplistic cause and effect mechanistic model of neo-Darwinian adaptation theory to explain how we have evolved as a species.

Firstly, there is the discovery of neuroplasticity. Put simply, our nervous system does not have a unidirectional influence on how we perceive the world. Our physical brains do not cause perception. Instead, our experiences of the world, equally and proportionally, influence the development and structures of our nervous system. In short, while it is true that damage to the brain will impact our relationship with the world; it is equally true that is our experiences of the world profoundly influence the development and physical structures of our neuroanatomy. It's neither one nor the other - it’s both. Different experiences will have different impacts on the brain. For example, Tibetan monks who have developed significant meditation practices, have a uniquely developed part of the brain called the amygdala. (Tang, et al, 2015) Neural density in the amygdala corresponds with an enhanced ability to regulate emotional responses to stressors. Years of meditation practice have influenced physical structures of their brains, and, in turn, their brains have influenced the way they regulate their emotions and experience other people in the world. This is an exact example of neuroplasticity. The brain is not a fixed object. It is capable of dynamic change across the entire lifespan. This exemplifies how the human species is unique its capacity for perpetual learning. We are designed to be open-ended and capable of neurological, behavioral, self-transformation and, in essence, *learning* across the entire lifespan. Put another way, we are capable to evolution within a single lifespan – both in terms of neural structures and genetic expression.

The old model of evolutionary psychology viewed current behavior as caused by vestiges from earlier stages of evolution. To give a crude example, behaviors such as male aggression would be explained as *natural* mating strategies for the proliferation of one's genes. This commonly labeled the “selfish gene.” Genes are personified as “fighting” not just survival but for “wining” the competition – not unlike a World Cup match. Here the aggressive capitalist competitive model is projected on to nature – which we in turn re-project onto ourselves.

In opposition to this regressive and negative thinking, a new generation of evolutionary developmental psychologists, led by theorist Darcia Narvaez (2022, 2013) are taking an open-minded and unprejudiced examination of tribal or indigenous societies where we see how children in these societies are raised in a noncompetitive, highly cooperative and emotionally nurturing milieu.

Narvaez claims that the old simplistic Neo-Darwinist narrative of a strictly competitive adaptationist approach to evolution has been replaced recently by dramatically different models that have emerged from new discoveries about how genes communicate with our environment. Over the past few decades, scientists have learned the genes are much more *malleable* in relation to the environment than ever previously believed. For example, we have learned that negative genetic propensities will not express themselves if the organism, during epigenetically developmentally sensitive periods, are not exposed to any environmental trauma and are, instead, exposed to a nurturing, positive and resource rich environment. Nurturing environments change our genes – much more quickly than previously believed. In the new theory of epigenesis we are learning that evolution can happen fast.

Genes do not determine us. They operate like triggers, or mousetraps, that are only activated if put under certain stress or pressures at sensitive developmental stages. In an environment that does not inflict negative stress or trauma to the developing organism, these negative pathological traits will not be triggered into expression. Even more to the point, these genes will remain dormant and unexpressed *in the next generation*. (Gapp et al, 2016, Lickliter et al, 2017) The negative trait is permanently shut down. This is the new epigenesis that, coupled with what we now know about neuroplasticity, is coalescing into an entirely new approach to an evolutionary and developmental psychology that offers remarkably optimistic possibilities for our common human future. We have the freedom to influence the course of our own evolution into a more empathic, pro-social and positive direction. This is not falsely naïve romanticism.

What Narvaez is saying is that most of our time as a species was spent in in the condition of hunter gatherer tribes. This condition is our *baseline evolutionary niche*. Our time spent in industrialized settings is relatively recent and - frankly - unsuitable to us. Our modern social context is not, she argues, the appropriate environmental niche that we were adapted for. Instead, we were adapted to live in communally, cooperative, non-hierarchical tribal systems that have little semblance to the alienated individualized competitive lifestyles imposed upon us by industrialization, capitalism, and modernity. This is most glaring when we attend to the child rearing practices of most tribal peoples. Firstly, infants' needs for maternal touching and soothing are much more strongly met than in modern child rearing situations. Tribal mothers never stop holding their children, are perpetually soothing and responsive to their children when troubled and meet every need immediately without hesitation. They also have a wide variety of extended alter maternal figures in aunties and grandmothers. All tribal children are breastfed and sleep with their mothers from birth until middle childhood. Tribal children are given great flexibility and freedom to *play* as they choose, and most of their play is unsupervised and free. In short, they develop in an environment most conducive to human *thriving*. Psychologists such as Peter Gray (2013) have observed that indigenous children are the most social, emotionally, and psychologically well-developed children he has ever observed. Tribal children show *empathy and social skills* unimaginable in industrial western children. In short, childhood has an entirely different meaning for tribal peoples – as it was for most of our ancestors. Contrasting this with the epidemic of depression, suicide rates, and anxiety disorders of suburban Western youth should suggest sober reflection and a reconsider the meaning of and purpose of our approaches to child rearing and education.

Despite appearances, this is actually hopeful news. Tribal culture teaches us the correct baseline or social conditions for raising and being humans. Put another way, tribal indigenous cultures reveal the appropriate evolutionary niche that maximizes our potential for healthy human development and thriving. This new understanding does not just diagnose the problem but points the way out of our current demoralized condition and its breeding ground for despair.

Narvaez recommends a "cultural commons" for shaping human

nature toward cooperation and openness, crucial features

of our adaptive past.." and goes on to propose that we

"…reset the baseline for normal human nature away from the "nasty and brutish" perceptions advanced by writers in the last millennium (Hobbes,1651; Spencer, 1850)." In so doing she supports exactly the vision of humans as inherently naturally empathic – not self-interested or aggressively competitive. Re-indigenizing our approach to childrearing an education. Retrieving the wisdom of our common ancestors.

RETRIEVING OUR CAPACITY FOR EMPATHY

My take home message is that both phenomenology and mindfulness can promote empathy. Both phenomenology and mindfulness are practices - not merely abstract intellectual ideologies. They offer techniques, practical techniques, for learning to retrieve the empathy there is always already natural to us but hidden from us due to our mental habits and typifications. Let me now outline, in narrative form, a technique for teaching empathy.

We rarely listen to each other. We speak to one another, but we only acknowledge what we're *able* to hear. If a listening person is traumatized, pathologically suffering, or in pain, then that listening person will only hear the other through *their own* suffering and pain. Only that which is relevant to the listeners' suffering and pain will be heard. Such is the structure of self-interest, selfishness or narcissism. The more we inflict suffering and trauma and pain on one another – as exemplified in warfare and carried on in traumatized families – the more we lose our capacity for empathy and, in the manner of psychic vampirism, only inflict more harmful trauma on others. (Herman, 1997) This is how violence, like a fire or a pandemic, grows exponentially and takes generations for the trauma to recede. The resolution to this traumatic desensitization to others is make the teaching and learning of empathic listening an activity with the highest educational priority.

It is commonly said that one cannot teach empathy; that it cannot be learned. "You have it or you don't." There is no evidence to support this belief. This belief is based on a very narrow and limited understanding of what it means to teach and learn. Education in our bureaucratized modern life is understood as the transmission of *abstract* conceptual knowledge. While no one could possibly argue against the importance of abstract knowledge, I would still contend, as a phenomenological psychologist, against the exclusive emphasis on abstract intellectual knowledge *alone*. I would argue that this abstract knowledge makes most sense, with emphasis on the word *sense*, through an education that *also* directs itself to lived embodied experience and our connection to one another and the world – this is the empathy that underlies all such abstraction. And yes, this capacity to return to lived experience can be taught. We've already been teaching this for thousands of years in the practice of yogic mindfulness meditation, and this technique has returned in the West in the practice of phenomenological methodology and even John Dewey's practice of experiential education. We have also, on another level, been teaching this in the practice of arts that are heavily based upon embodied skills requiring a special kind of focus and radical social interaction between teacher and student. Witness, for example, the Japanese arts of wood crafting, flower arranging and archery. Asian martial arts,

done mindfully, also exemplify this embodied learning.

An expert on the phenomenology of empathy, Magnus Englander, has developed a systematic approach to the teaching of empathy (2014, 2019, 2023). It is not complex. He simply instructs each student to listen to another person describe a problem in their lives. It quickly becomes clear that most students, in the role of listener, do not listen very well. Most of us are looking to solve the person's problem and give advice – essentially showing mastery of a task. This is not empathy. Instead of listening, we are comparatively striving to succeed at performing a task. Pointing this out, Englander trains students to bypass their natural attitude for mastery and to, in very simple terms, learn to only follow what the speaker is saying – *to follow the other*. One could say that putting aside one's project to be competent at a task, ie. mastery, is a form of the phenomenological attitude. In due time students learn, *experientially* – not conceptually – how to follow the other. This is a gestalt switch, a change in attitude, that is *easily teachable* – but not prioritized in our education systems.

CONCLUSION

International conflict like interpersonal conflict happens when we forget our empathy for each other that is inherent to us. Violence is the jettisoning of empathy and the mental hijacking of our minds by the false belief in the other as a thing an object - a non-human. But more than just a neutral object of the physical world, in violence the other is an immoral thing who like the villain of any fantasy, dream or Hollywood action movie, deserves to be killed or tortured. (One could poetically call this the 'demonic') For example, Ukrainians call Russians 'orcs.' Russians call Ukrainians 'Nazis.' In my own country that dehumanizing rhetoric and name calling between political communities is reaching a danger point. It is hard to imagine committing violence against someone whose emotional state we can directly intuit and understand.

Communication technologies can proliferate, and the volume and quantity of communication may increase, but it is of little use if we have lost our capacity for empathic listening. It may even be possible that the more our communication technology is expanding the less we are understanding - due to a lack of empathy. We are moving ahead quantitatively for falling behind qualitatively. More media, less understanding. In fact, in situations of social conflict our mass media has degraded into propaganda that only exacerbates misunderstanding and the descent into violence. This can be reversed.

So in closing, I hope I have persuaded my listeners to reconsider any presumption of human nature as negative. I hope I have made the case that the evidence is otherwise, that our future can be hopeful, but that we do need to soberly take stock of where we are going wrong. William James famously said that "my first act of free will would be to **believe** in free will." Similarly, even if I have been unsuccessful in rationally persuading you of our inherency empathic and cooperative nature, I would ask you to still give this idea a chance. Try believing this on a trial basis – like a thought experiment. Take this seed with you, put it aside, and see if, in the fullness of time, it may sprout within the garden of your own mind.

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BEYOND LANGUAGE: REASSESSING DELIBERATIVE DEMOCRACY AMID THE CHALLENGE OF IMMIGRATION

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Abstract

When migrants raise linguistic rights issues, they are not mere language claims. The debate goes beyond language. In this paper, I posit that language issues are never only about language. These are mere symptoms of the real problem where migrants seek to have a voice, to be represented in deliberations in their new communities. Based on this perspective, we reassess the notion of deliberative democracies within nation-states as they face immigration challenges.

We begin these considerations with a thorough definition of deliberative democracy to show the connection between language and politics within the context of nation-states. Secondly, through the work of Sue Wright—specifically *Community and Communication: The Role of Language in Nation State Building and European Integration*—we explain the importance of language in these political practices as exercised within national borders. Thirdly, we demonstrate how these deliberations come about as it pertains to migrant claims by revisiting the scarf affair as analysed by Seyla Benhabib. The purpose is to establish that these problematics go beyond language. Lastly, we conclude with a brief summary of the discussion as well as recommendations for further study.

Keywords: *deliberative democracy, immigration, linguistic rights, migration*

INTRODUCTION

For deliberative democratic practices to be possible, a common ground is presupposed. Usually, that foundation is a single language. In the developed world, several nation-states found a way to accommodate multiple languages in order to reach deliberations which test as well as strengthen their democracies. However, another element is challenging this already tenuous political sphere and this is immigration.

We analyse how immigration phenomena affect our deliberations, specifically our discourses on the immigration policies of nation-states contra the migrants' claims. Because of the continuous movement of people, the democratic structures of migrant receiving nation-states are being tested. Just how democratic are one nation's deliberations when immigrants with their language rights and culture claims are considered? Because of this migration reality, migrant-receiving nations are forced to recalibrate their democratic stances. Language, as the initial indicator of sameness, plays a definitive role because it connotes that these democratic deliberations are possible. In this light, we basically argue that migrant claims are fought beyond language. The particularity of their status pushes us to reassess our notions of deliberative democracy and how we express our political claims through these deliberations.

We begin these considerations with a thorough definition of deliberative democracy to show the connection between language and politics within the context of nation-states. Secondly, through the work of Sue Wright—specifically *Community and Communication: The Role of Language in Nation State Building and European Integration*—we explain the importance of language in these political practices as exercised within national borders. Thirdly, we demonstrate how these deliberations come about as it pertains to migrant claims by revisiting the scarf affair as analysed by Seyla Benhabib. The purpose is to establish that these problematics go beyond language. Lastly, we conclude with a brief summary of the discussion as well as recommendations for further study.

We recognize that the stories of refugees and asylum seekers are different from migrant workers as well as expatriates. Thus, these notions are generally construed. This is not a linguistic work but rather a philosophical one. It neither uses methodologies of linguistic studies nor quantitative data though this may be a worthy study later on. At this stage of the research work, we use conceptual analysis to study the link between multiple languages and deliberations as applied to immigrant claims.

DELIBERATIVE DEMOCRACIES DEFINED

> "Only in the freedom of our speaking with one another does the world, as that about which we speak, emerge in its objectivity and visibility from all sides. Living in a real world and speaking with one another about it are basically one and the same." (Arendt 2005: xxx-xxxi)

In political philosophy, speech is undergirded in the idea of freedom precisely because of the importance afforded to discourse in democratic spaces. Plato himself expressed his philosophical thoughts through dialogues, which not only proved to be a fitting medium to demonstrate his major concepts, the dialogues were also able to capture the democratic élan of the Athenian polis. The possibilities of the Socratic Dialectic both as a philosophical method and as a literary tool are well discussed in the academic world. Using Socrates as a mouthpiece, Plato was able to present his epistemological, ethical, and political notions in an accessible and effective way. However, in *The Apology*, Socrates's speeches were unable to move the Athenian jurors in his favour despite his eruditeness. We may surmise then that Plato does not consider speech as an effective tool in politicking. But a dialogue—an exchange of opinions and judgments—is still acceptable. See (Arendt, The Promise of Politics, 2005). To deliberate was essential in both classic and modern concepts of democracy. As an example, Aristotle claims that, "We deliberate about things that are in our power and can be done; and these are in fact what is left. For nature, necessity, and chance are thought to be causes, and also reason and everything that depends on man. Now every class of men deliberates about the things that can be done by their own efforts." (Aristotle, 1958, p. 203)

In ancient Greece, the ability to convince others of one's views is the cornerstone of political action. Speech is afforded pride of place in the education of its citizens. It is well noted that the equality afforded to the citizens of Athenian society rests on a hierarchy and this elitism persisted in more modern notions of democracy. Nevertheless, their democratic agora is still the foundation of more modern forms of political practices and worthy of note. Hannah Arendt describes it this way, "To persuade, *peithein*, was the specifically political form of speech, and since the Athenians were proud that they, in distinction to the barbarians, conducted their political affairs in the form of speech and without compulsion, they considered rhetoric, the art of persuasion, the highest, the truly political art." (2005: 7)

Our modern notion of democracy may be vastly different from its original Athenian roots. The main difference lies in the concept of woman as a rational and free being capable of authoring her own laws. Authorship obviously begets language. The other major difference lies in the form of collective belonging which we have grouped ourselves—that of the sovereign state. The coming together of such rational and free individuals in a national community seems to necessitate a common language (This will be further discussed in the next chapter.), the practical and necessary tool in reaching consensus in order to deliberate on laws which the individual is willing to subject herself under. "The most prominent nineteenth-century advocate of 'government by discussion'—John Stuart Mill—is rightly considered as one of the sources of deliberative democracy. But he too continued to prefer that this discussion be led by the better educated.' (Gutman 2004: 9) Thus, the elitist character of our democratic practices persisted and it is only later, i.e.

> "In the writings of John Dewey, Alf Ross, and A.D. Lindsay we finally find unequivocal declarations of the need for political discussion in a polity recognizably democratic in the modern sense. These theorists not only included widespread deliberation as part of democracy, but saw it as a necessary condition of this form of government." (Gutman 2004: 10)

Indeed, modern democracy as an ideal or as a work in progress, as Dewey himself said, hinges on the freedom to deliberate. To do so otherwise is paradoxical to its very nature, to its flexibility as a mode of government. In a collection of essays entitled *Democracy and Difference: Contesting the Boundaries of the Political* (Benhabib 1996), contemporary philosophers debated on the scope, foundations (including if there is a need for such foundational questions), and practical analyses of deliberative democracy. For example, Jurgen Habermas makes distinctions among possibilities of deliberations in various spheres of action. He, "more than any other theorist, is responsible for reviving the idea of deliberation in our time, and giving it a more thoroughly democratic foundation." (Gutman 2004: 9) He states that, "Democratic procedures can generate legitimacy through a combination of deliberation and inclusion because they justify the presumption that the results are in the equal interest of all, and hence are *universally acceptable*."[1] (Habermas 2017: 116)

Meanwhile, Iris Marion Young adds greeting, rhetoric, and storytelling to argumentations as legitimate forms of communication in political discourse. These show the many ways we may practice and understand the notion. This expansion of the definition serves us well, especially if we take into account the non-verbal expressions of political claims. To further analyse these concepts, Amy Gutman and Dennis Thompson (2004) gave four characteristics of a deliberative democracy which may be helpful to our project:

1. Reason-giving: These reasons must be acceptable "by free and equal persons seeking fair terms of cooperation".
2. Accessibility: The reasons given in this process should be accessible to all the citizens to whom they are addressed.
3. Duration: Its process aims at producing a decision that is binding for some period of time.
4. Dynamic: It keeps open the possibility of a continuing dialogue, one in which citizens can criticize previous decisions and move ahead on the basis of that criticism.

The writers combined these four characteristics to define deliberative democracy as: "a form of government in which free and equal citizens (and their representatives), justify decisions

in a process in which they give one another reasons that are mutually acceptable and generally accessible, with the aim of reaching conclusions that are binding in the present on all citizens but open to challenge in the future." (2004: 7)

Gutman and Thompson limit the discussion to a form of government because their central objective was to show its normative possibilities within the nation-state. For our purposes, we use the philosophical notion of deliberative democratic processes in a much broader sense in order for us to concentrate on whether it is even possible to have deliberations— and democratic ones at that—given the variety of languages and cultures in the political spheres of migrant-receiving nations. Based on our histories, it is safe to assume that such differences, linguistic as well as other factors, cause inequalities which weaken the very possibility of deliberations as well as democratic processes.

The abovementioned characteristics should then be viewed in light of these questions. In instances when there are multiple languages at play, is reason-giving at all possible? If free and equal people seek fair terms of cooperation, how will they comprehend the terms and follow them if they cannot understand them in the first place? This directly pertains to the second point given above, how do aliens in migrant-receiving nations who do not understand the native language or only have limited language skills gain access to it? It is indeed paradoxical that those who absolutely need to access such deliberations are the very ones who are more likely left out of such discourses. After all, communication is the bedrock of democratic inclusion.

COMMUNITIES OF COMMUNICATION

> "The modern age, in its early concern with tangible products and demonstrable profits or its later obsession with smooth functioning and sociability, was not the first to denounce the idle uselessness of action and speech in particular and of politics in general." (Arendt 1958: 220)

We borrow from the ideas of Sue Wright and her notion of "communities of communication" to establish, not just the importance of language in such deliberations, but also the challenges faced in multilingual situations. Is it even possible to build communities of communication wherein language is not fixed? In her work, *Community and Communications: The Role of Language in Nation State Building and European Integration*, she meticulously articulates the relationships between language, democracy, and building communities, which are essential to this research study. However, in her notes, she expressly omits migration simply because of the immensity of the subject matter.[2] Thus, this paper attempts to expand on her problem by applying some of these notions on the migrant experience.

For now, we focus on how language and democracy is related. This is a philosophically laden question. Wright says that "Democracy is inextricably bound with language, and one wonders how it can be managed without a community of communication." (2000: 7) In fact, the notion of a democracy that is able to transcend language differences requires, "the same kind of conceptual leap that was necessary in the move from participatory to representative democracy." (Wright 2000: 7) In her work, she dealt with criticisms on the issue at hand. Written within the context of the European Union, she basically argues that the EU will have to invest and sustain a community of communication to effectively legitimize its own mandate which promote inclusion, justice, and equality. From the national point of view to the regional perspective, Wright helps us navigate the linguistic challenges that may be impeding the structures and the institution that the EU is endeavouring to legitimize.

Her community of communication may be viewed as a form of political sphere, a public realm where language is utilized to formulate policies as well as further establish their own legitimacy as a body in light of the various sovereignties that comprise it. Hannah Arendt attributes the relationship of liberty and language in the "peculiarity of the public realm which, because it ultimately resides on action and speech, never altogether loses its potential character." (1958: 200)[3] This means that as long as people interact with one another and use language as the primary means of communication, the political is always a possibility. Thus, a variety of languages seems antithetic to the liberty and equality necessary to form a community of communication. It seems safe assume that the community of communication is a space where the political is possible.

When nation-states arose from the ashes of the empires and kingdoms of old, it became necessary to underscore the importance of sameness. To lean into the shared histories and cultures which would become the foundation of what was then a novel concept subsequently termed "nationalism". This notion which pertains to the essence of the bounded community had two main functions. It is meant to solidify the constituents, inculcating loyalty to the nation as well as a sense of duty to one's fellow citizens. Its second purpose is to differentiate the community from its neighbours—other communities who have their own shared identity and history. This differentiation is essential in the early days of nation-building and state-formation. (For more, read Karatani 2014). As mentioned, the unique histories and rich cultures which constitute the shared meanings of its people were tangible manifestations of the "essence" of the nation. Among these factors, it is a common language that is considered as the most concrete signifier of identity.

> "Plurilingual societies were dismissed as the mode of organisation of the old empires, where stratification and differentiation could be accepted. As soon as subjects were members of a national family, participating in national education and national welfare and contributing to defence, then linguistic unification seemed necessary and inevitable." (Wright 2000: 3)

The quote above was cited in the European context but it can also be claimed for nations elsewhere. The inevitability of language unification under the Westphalian tradition seemed the most efficient approach since this pertains to idea of a shared culture and identity,[4] which further legitimized state structures and national policies. Of course, linguistically and politically speaking, the experience of colonized countries is vastly different but this is outside the purview of this work. In any case, these concepts are helpful in establishing the role of language in nation formation. For example, Wright aptly discusses how the French, German, and Romanian national narrative used language as an organizing principle to foster nationhood. She points out that in France "Linguistic unification was seen as a prime requirement in a participatory political system which derived its legitimacy from the people and which would not be achieved unless the revolutionaries could create a community of communication." (Wright 2000: 37) This is directly connected to the thrust of their immigration policies, which are based on a philosophy of assimilation. This will be further discussed in the next section. Meanwhile in Germany, "the rational way to form a state is to regroup all those of the blood… Language is important here because it is a more salient marker than blood and the concept of language as mother tongue is key in this model." (Wright 2000: 47) Here, Wright underscores the essentialist approach of the German model. She gives another example in Romania, "a Latin language cut off from contact with other Romance languages survived for centuries to become, in the nineteenth century, the main marker of a national group and the basis for nationhood." (Wright 2000: 47) Though these three countries utilized various techniques which testify to the uniqueness of their particular

visions of the good life as a community, their insistence on a common language persist and continue to undergird their political and social goals even up to the contemporary period. This philosophy can be observed in their immigration policies as well. Hence, it will dictate the trajectory of future discourses on immigration and other related issues.

It also seems prudent to note that Wright is careful not to dismiss the possibility of language being used as a political tool or in propagandizing nefarious elements. However, she pertinently insists on the purposive and communal properties of language.

> "For me the idea of community seems inextricably linked to the idea of community of communication. Indeed, the latter tends to tautology since a community must communicate to be a community in any meaningful sense. While not subscribing to the linguistic nationalist thesis and not believing that language is anything other than a construct, I would nonetheless suggest that language constantly organises experience and that experience constantly generates new language and causes a review of old." (Wright 2000: 69)

Wright clearly argues that language is a key ingredient in nation-building and is essential in forming statehood. Any community should be able to decide amongst themselves their conceptions of the good and consequently be able articulate the processes which may help them achieve these goals. This goes beyond the age-old debate between communitarian and individualist conceptions of the good and the right. The important point being raised is that representation in deliberations is a must in any democratic society. One's voice must be counted among the multitude, especially in democratic societies. Since language is the tool we use to "organize experience and that experience constantly generates new language and causes a review of old", then democratic deliberations should also undergo constant change because such discourses not only utilize language; more importantly, they are the initial indicators of democratic practices. If we apply Wright's notion on immigrant claims, it gives us a view of how representation is expressed in various languages and deliberative practices, which are supposed to be democratic. This understanding of democracy presupposes the acceptance of variety and more flexible attitudes towards the Other.

To conclude this section, it is sensible to note that the "familiar and constant feature of social life', i.e. 'communication through speech, oral and written" (Dewey 2000: 275) is something we take for granted until our ability to use it is put into peril, as in the case of immigrants. Thus, applying the notion of whether communities of communication are possible in immigrant-receiving nations, especially as it applies to migrant deliberations, is a noteworthy endeavour.

POLITICAL CLAIMS, LANGUAGE GAMES

In this particular work, we highlight an important function of language which is the expression of individual and group-based political claims. This can be better understood if there is a more active component in political involvement--meaning how are migrant claims expressed in the political sphere of their current residences? Any discussion of migration and language is incomplete without an acknowledgement of this underlying intention in many academic discourses regarding the topic.

In this particular case, we find Benhabib's essay on the topic apt and applicable. Her conception of deliberative democracy is founded on "the already implicit principles and logic of existing democratic practices." (Benhabib 1996: 84) Chief among these practices is the "significance of deliberative bodies".[5] (Benhabib 1996: 84) I understand these deliberative

bodies as akin to Wright's communities of communication which was discussed earlier. Benhabib herself admits that her version of deliberative democracy is designed to prove the "necessary condition for attaining legitimacy." (Benhabib 1996: 84) We may argue that her model of deliberative democracy, which is in keeping with the inscription of norms and laws are not even supposed to be strictly imposed but instead may be practiced in everyday cosmopolitanisms. These everyday cosmopolitanisms are taken for granted and have rarely been academically studied but they are significant in instilling a sense of continuity in common practices. For example, Jeremy Waldron mentions that even prior to transnational, international maritime laws, there are already unwritten codes of conduct and laws which are eventually learned and practiced by seafarers. (2006: 94) This is also echoed by Appiah because he underscores how national policies react to and are affected by transnational movements.

> "Transnational migrations reveal the interdependence of states upon the world-wide movement of peoples as well as each other's policies. Since every inch of the face of the world, with the exception of North and South Poles, are now etatized, and governed by a state which has territorial jurisdiction, cross-border movements initiated by migrants as well as refuge and asylum seekers bring to light the fragility as well as the frequent irrationality of the state-system." (Kwame, et al. 2007: 56)

Waldron's and Appiah's notions show that laws, perhaps even immigration policies, may be rooted on practices and activities from the ground up. This is important to note because this means that deliberations may be productive.

A good example can be taken from Will Kymicka's insight on immigrants when they come to the United States. "They bring with them a 'shared vocabulary of tradition and convention,' but they have uprooted themselves from the social practices which this vocabulary originally referred to and made sense of." (1995: 77) In the absence of these former social practices, it is safe to suppose that these will be replaced or a similar activity be introduced. New seeds may be sown via other social practices which come about during interactions in local spheres. These could potentially be political, depending on the circumstances. A shared language certainly makes it easier for these practices to flourish. In the case of Overseas Filipino Workers for example, language skillsets acquire various significances which spell the difference between success and failure, and in some cases, life and death.[6]

These discussions show that migrant experience is rife with political challenges that is dependent on language. Even the terminologies we use in the discourse are politically laden. For example, there is a significant political undertone with the usage of the terms: expatriates and migrant workers. Expatriates are used to refer to people moving from the developed world to some other place, and usually pertains to professional or highly skilled workers who will eventually return to their countries of origin. Whereas the term immigrant generally refers to migrant workers, refugees, and asylum seekers—connotating permanence, low skills for lower wages.[7] Given these frameworks, what is the nature of deliberations? It may be the case where deliberations occur despite language differences and this may actually be better indicators of communicative instances.

The likes of Seyla Benhabib (2002), Kojin Karatani (2014), and Kwame Anthony Appaiah (2018) argue that cultures, even ones that seem delineated homogenous wholes are, upon closer inspection, not truly so. What concerns us in this research work is whether there are philosophical underpinnings relating to migration in this type of cultural border-crossings. Our main argument is hinged on the idea of how these differences are deliberated on—not necessarily solved or answered. They persist in the public sphere as part of the contentious

realities of the political milieu. Hannah Arendt says,

> "The space of appearance comes into being wherever men are together in the manner of speech and action, and therefore predates and precedes all formal constitution of the public realm and the various forms of government, that is, the various forms in which the public realm can be organized." (Arendt 1958: 199)

When it comes to migrant workers then, how are deliberative democratic practices manifested? How is the space of appearances or, to be more concrete, how is a community of communication possible when one is uprooted from one's own community? More importantly, how can deliberations start when there is no common language being used to even begin the process let alone reach an intersubjective consensus? Deliberative democracy attempts to discuss rights and other claims by assuming that everyone has a voice to use them to begin with. It is important to contextualize the problem here.

> "Because immigrants uproot themselves with the expectation of entering another national society, they 'rarely put forward concrete ethnic demands of the type we might see in nations where ethnic groups formed more compact, self-conscious, culture-maintaining entities', such as the right to use their language in a state's government, or to establish institutions reflecting their distinctive ethnic culture, or to secede." (Nathan Glazer 1983 cited in Kymlicka 1995: 20)

Kymlicka further clarifies that because migrant-receiving nations do not have an obligation to provide the means for voluntary immigrants to refabricate the culture that they left behind, these nation-states have to at least safeguard that these migrants are still free to express their ethnicities and identities. (Kymlicka 1995: 96) This freedom relates to the deliberative bodies and communities of communication which Wright and Benhabib posed. This means that nation-states should have the moral and normative flexibility "to accommodate ethnic differences, not of setting up a separate societal culture based on the immigrants' mother tongue." (Kymlicka 1995: 97) He refers to this as "polyethnic rights, not national rights."

It seems doubly challenging therefore to use a theoretical framework based on a deliberative model of democracy to explain the possible positive consequences of multilingual societies. A discourse-based theory assumes a common language, equal footing, a neutral venue, and so on before even the introductions commence. However, thinkers like Will Kymlicka and Alan Patten has this to say about the attraction of deliberative democracy as a theoretical framework, "… the very process of selecting a single language can be seen as inherently exclusionary and unjust. Where political debate is conducted in the language of the majority group, linguistic minorities are at a disadvantage, and must either invest the time and effort needed to shift as best as they can to the dominant language or accept political marginalization." (2003: 16)

Thus, even establishing a common language does not guarantee democratic deliberations or migrant assimilation. While it is true that deliberations are founded on a common language, it does not seem to adequately address the disparities, inequalities, and marginalization inherent in the exchanges. It may also be true that these exchanges will not be possible without the group playing the same language game, so to speak. To take the argument further, if we follow Wittgenstein's paradigm, the same language game, is not just about using common words but using similar forms of life. What we are forgetting here is that in multi-lingual societies, shifting from one language to another is a skill that is learned and is essential to deliberations. We may argue that these linguistic shifts can be understood as perspective shifts as well.

To explain this further, let us use the infamous 1990s scarf affair in France as an example. In order to show how essentialisms in our notion of citizenships are being tested by the constant movements of people, Seyla Benhabib refers to the scarf affair in France as an illustration.

> "The affair began when on October 19, 1989, M. Ernest Cheniére, headmaster of the Collége Gabriel Havez of Creil, forbade three girls — Fatima, Leila, and Samira — to attend classes with tehri head covered. The three had appeared in class that morning wearing their scarves, despite a compromise reached between their headmasters and their parents encouraging them to go unscarfed.

The three girls had apparently decided to wear the scarf once more upon the advice of Mr. Daniel Youssouf Leclerq, the head of an organization called Intégrité and the ex-president of the National Federation of Muslims in France. Although hardly noted in the press, the fact that the girls had been in touch with M. Leclerq indicates that wearing the scarf was a conscious political gesture on their part, a complex act of identification and defiance." (Benhabib 2004: 186-187)

We need to highlight a particular point which Benhabib makes—that the insistence of these girls in wearing their scarves is a political act. Yes, it is an expression of their religious freedom but more importantly, it should be analysed as a political act. Benhabib states that, "(i) ronically, they used the freedom given to them by French society and French political tradition, not the least of which is the availability of free and compulsory public education for all children on French soil, to transpose an aspect of their private identity into the public sphere." (2004: 187)

In these expressions of political will, the girls, with their simple wearing of a scarf expressed several political points. These are: their freedom to exercise their religion, freedom to express their identity, and freedom of speech. They did not even have to use words. Ironically, they used the scarf—a symbol of chaste obedience—to protest. Their reaction to what has transpired is a combination or *layering* of their multiple identities and roles. They were navigating shifts in cultural and sociological practices. Their ability to switch and play through the various spheres of their lives including their multi-layered cultures may be a part of the cosmopolitan skillset afforded to them by their very exposure to these diversities. This poses a problem in the philosophical framework of immigration adopted by France.

> "The conceptual framework in France is *integration*; the French overwhelmingly reject the Anglo-Saxon concepts of 'race relations' and 'ethnic minority'. This desire to be 'blind' to immigration seems to me to be totally in accord with the centuries of assimilatory policies…" (2000: 40)

These shifting skills may be part and parcel of these deliberative democratic practices, based on the definition we set earlier. These actions are precisely what gives these girls their cosmopolitan élan. It is not so much that they know various languages and various ways of living but that they have become more cognizant of the latitude of their claims as individuals and citizens in their new country of residence. Assimilation in the case of the scarf affair should then be understood this way: The girls have found their voice in an egalitarian society. They have begun to understand that their liberty in wearing the scarf is a right which came with their citizenship. Their assimilation into the French society where egalitarian and liberal ideals are respected and kept is made even more apparent because of this incident. This is their way of joining the deliberations in their new democratic space. There is further irony that it is the very institutions that hold these liberal ideals which are preventing them from expressing their freedoms in their use of the scarves. Once again, Will Kymlicka and Alan Patten said, "that none of the recent international declarations on language rights asserts that there is a right to official

language status, or even recommends such a policy. On the contrary there has been great reluctance to view policies of official bilingualism or multilingualism as 'rights' rather than pragmatic considerations." (2003: 5)

In this light, what they said reaffirms Benhabib's claim. When it comes to language claims, they are never really only about language claims. More often than not, they are demands for better representation or considerations that are linked to socio-political and cultural differences which affect our egalitarian sensibilities. Thus, immigrants—whether they are legal or illegal workers, refugees or asylum seekers—are outsiders and whose voices are not often heard in the political sphere. Any other right is considered a gift that may easily be taken away. However, according to Hannah Arendt, "a place in the world is always the space within which human behaviour and interaction takes place and thought and opinion are communicated because humans cannot exist but by appearing to each other." (1958: 179) Regardless of language barriers, the need will ensure that a community of communication will rise. After all, even in concentration camps during the Second World War, political deliberations and moral agency were still exercised.[8] However, structures and institutions will have to be put in place in order for these deliberative democratic practices to become productive, as Wright claims (i.e. again for the European Union but it may be said for other migrant-receiving nations as well).

SUMMARY AND CONCLUSION

> "The existence of communication is so disparate to our physical separation from one another and to the inner mental lives of individuals that it is not surprising that supernatural force has been ascribed to language and that communication has been given sacramental value." (Dewey 2000: 275)

The debate between multicultural or assimilation approaches is at the forefront of immigration discourse. But this conversation goes hand in hand with questions of national identity and sovereignty. Wright[9] and Benhabib[10] very rightly observed that sovereignty is slowly, begrudgingly being forced to concede its status as the source of legitimate authority. One of the factors that challenge this authority is the movement of people, especially through their claims and multicultural practices. This is related to what Hannah Arendt describes as the paradox inherent in the nation-state, which is that in the face of sovereignty it has proven that it is not capable of upholding the rights of man, only the rights of its citizens. "The Rights of Man, supposedly inalienable, proved to be unenforceable even in countries whose constitutions were based upon them-whenever people appeared who were no longer citizens of any sovereign state." (1979, p. 293) This means that when nation-states are confronted with migrant claims, their adherence to a democratic way of life is suddenly put to the test. Leading us to ask the question, do the same freedoms and equalities apply to immigrant claims on language and culture rights?

In this work, we focused on one of the challenges towards the legitimacy of the nation-state and that is the relationship between immigration policies and language. Both concepts play key roles in challenging the legitimate authority of nation-states. The gap or the link that bridge the two could possibly be through deliberative democratic practices but these gaps cannot be filled with a single language alone, not in the case of immigrants, at least. With their status on the fringes of their new communities, learning the language or knowing English (for example) is only the beginning of that journey.

We proved that the exercise of organizing experience through language reaches its culmination in deliberations for political representation. We showed how the migrant "experience constantly generates new language and causes a review of old". This means that it

can go beyond linguistic expression as well, such as the wearing of a scarf or a veil. We describe this ability to shift and switch between various cultures and languages as skillsets necessary in engaging in deliberations which are necessary in democratic societies. However, are migrants invited to these deliberations as free and equal citizens?

Being able to speak the language or several languages for that matter does not entail that they will find a voice to push for their claims. In this paper, we tried to show that the freedom to use multicultural and multilingual expressions is more indicative of the very democracy that migrant-receiving nations purport to have, even more so compared to the sovereign-based policies that are supposed to ensure the well-being of both natural-born citizens and immigrants.

Language differences are much more difficult to navigate[11] because they are never really just about language. Due to this difficulty, even the most well-intentioned norms and laws will not be able to truly cover all the conflicts and contestations which occur on a daily basis. Moral agents are left on their own to navigate these differences, especially when a migrant is in a new national community. This means that people are required to adjust to various modes of communication and expressions.

The conventions of deliberative democracy are also challenged by these movements. The conceptualizations of deliberative democracy which were presented earlier must take into consideration the fact that, for example, legal migrants may have claims that are generally not accessible or mutually acceptable to natural-born citizens. Thus, democratic practices have to be open to reassessment. In the case of the scarf affair, it is a democratic practice to push for the right to wear it in their schools. This implies that the right to express this culture claim is more democratically fundamental than the secularization argument of the state.

Learning the language and exposure to various languages does help you enter democratic deliberations. However, it is not an assurance that your claims will be heard. There are other factors that bring to light the claims of immigrants that go beyond language because even armed with language skillsets, their voices may still be stifled.

Word Count: 7526 words

ENDNOTES

[1] Habermas continues the quote to add, "However, the inclusion condition—that is, the requirement that all those potentially affected should be assured appropriate access to the procedure —would be violated if the collectively binding decisions were not formulated *and justified* in a *universally accessible language*." (Habermas 2017: 116) Sue Wright thoroughly discusses the many political and logistical difficulties of a "universally accessible language." (Wright, 2000)

[2] "Migration is the process which is omitted. It has, of course, had an immense impact and no European state, except perhaps Iceland, has been untouched by the vast movement of peoples in the second half of the twentieth century. Migration touches language because it breaks down the homogeneity of the communities of communication created by national governments, including large numbers of bilinguals into largely monolingual societies, and because it has been accompanied by racist backlash and reaffirmation of nationalism among autochthonous groups. However, the migration aspect of the language issue will not be treated in this work. It is a story which touches the issues dealt with here at many points but which remains largely parallel. It is an immense subject which deserves a book of its own for an adequate treatment." (Wright 2000: 9)

[3] "That civilizations can rise and fall, that mighty empires and great cultures can decline and pass away without external catastrophes—and more often than not such external "causes" are preceded by a less visible internal decay that invites disaster—is due to this peculiarity of the public realm, which, because it ultimately resides on action and speech, never altogether loses its potential character." (Arendt 1958: 200)

[4] "The attempt to build monolingual nation-states in Europe has often been justified by the identification which many peoples have developed between the consciousness of being a distinct national group and their native tongue. It is widely recognised that the language often becomes a symbol of a group's identity and the core value of its culture. This link

between cultural identity and language persists to this day for a great number of national/ethnic groups and is likely to continue in the future. It is difficult to deny the cohesive power of a language as a building block of national solidarity, around which people can gather, especially in times of stress or danger to their survival." (Jerzy J. Smolicz, 1997)

[5] Other practices that her deliberative theory of democracy must have are "the significance of deliberative bodies in democracies, the rationale of parliamentary opposition, the need for a free and independent media and sphere of public opinion, and the rationale for employing majority rule as a decision procedure. For this reason, the deliberative model of democracy is not a theory in search of practices; rather it is a theory that claims to elucidate some aspect of the logic of existing democratic practices better than others." (Benhabib 1996: 84)

[6] "English remains the language of opportunity and aspiration… because it endows Overseas Filipino Workers (OFWs) headed for Singapore, Hong Kong, Taiwan, Europe, and the Middle East with an edge, a selling point, over their competitors from Indonesia, Thailand, Korea and so on…. It is in this moment of globalization that even Filipino English, with its peculiar variation from the standard norm, despite its hybridized and indigenized character, becomes commodified and begins to engage in precarious games of power and identity politics. It is here where English becomes instrumentalized without losing its own normative singularity. The field of English is once more traversed by historical forces with both repressive and emancipatory potential depending on the conjuncture of the social formations where the language is lived, acted out, or embodied by flesh-and-blood speakers and writers." (San Juan 2008: n.p.)

[7] "McNulty, who lives in Singapore, said that though the term is often used to describe high-status migrants (whom she defined as being highly paid and highly educated), it is rarely applied to foreign workers who are not. Instead, those workers tend to be referred to as "economic migrants," people who have left their home country for a place with better living and working conditions. "They meet every condition of being an expatriate—all of them," McNulty said, noting that in addition to requiring valid work permits, many of the countries hosting economic migrants, such as the United Arab Emirates, strictly prohibit them from seeking permanent residency. Still, "nobody thinks of them as expatriates, because in the sort of colloquial language we refer to them as migrant workers," McNulty said, adding: "These people are in every way expatriates in the same way white Westerners are. The fact that they are a different color [or] the fact that they come from a poor developing country is to a large extent irrelevant when we look at the boundary conditions." (Serhan, 2018)

[8] "It is clear that in camps the space of appearances of human action and words does not just cease and humans have not really lost all their capacity of action and opinion." (Benhabib 2018: 111)

[9] "However, the concept of sovereignty does seem to be losing ground in the legal, ideological, political, defence, economic and cultural domains, as I hope to demonstrate. And if this is the case, power must be relocating elsewhere. One view is that power is leaking both up and down from the state to reconceive the political community in more pluralistic terms." (Wright 2000: 79)

[10] "State sovereignty is no longer the ultimate arbiter of the fate of citizens or residents. The exercise of state sovereignty even within domestic borders is increasingly subject to internationally recognized norms that prohibit genocide, ethnocide, mass expulsions, enslavement, rape, and forced labour." (Benhabib & Waldron 2006: 29)

[11] "'The link between nationhood and language is complex.' Having a distinct language is clearly not a necessary condition for a group to view itself as a distinct nation (for example, nationalist conflict in Northern Ireland or Serbia.)" (Kymlicka & Patten 2003: 5)

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TITLE: ANOTHER UNIVERSAL EXCEPTION AS "REIGAI" REEVALUATING THE "EXCEPTION" (REIGAI) THOUGHT OF JAPAN'S POSTWAR INTELLECTUAL SHUICHI KATO

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Summary

Against the backdrop of the intellectual trend to problematize and overcome the questions of postwar and modernity, this paper attempts to discover the distinctiveness of Shuichi Kato's thought of the "exception" (*reigai*) and to find suggestions for a series of issues in postwar society. More specifically, it seeks to clarify the implications of Kato's "indigenous worldview" and "exception" (*reigai*) and the relationship between them, and to reveal the diachronic composition of Shuichi Kato's thought, which embodies the correlation between "indigenous worldview" and "exception," "personal" and "whole," "particular" and "universal," and "exceptional thought" and "mainstream thought."

Kato had a comprehensive perspective on the history of literature and of thought, patterned specific events in both, traversed and interpreted both sides of literature and thought, stepped over the boundary from literature to thought, and observed the history of thought from outside. I consider that Kato's "exception" (*reigai*) is not aimed at Sartre's "singular universal" as Kierkegaard's "single individual," nor is it an indigenization of Sartre's thought; rather, it is a new system of thought constructed with his own understanding. The thought of Shuichi Kato, who "visualized" the origin of Japanese culture, the process of change, and the state of the times, is a mutual return of philosophy and literature and a new type of philosophy that gives new meaning to modern society. I propose that Kato's thought should be included in the history of thought and not only in literature, and it should be reconfirmed as part of Japanese philosophy. This paper attempts to show the systematic composition of Kato's philosophy, which is the spatiotemporal structure of the "special (individual) ⇔ universal (whole)" of Japanese culture.

Keywords: *Exception (Reigai), solitary series, indigenous worldview, single individual, Sartre, personal, whole, correlation, duality, universel singulier*

CHAPTER I

Why talk about Shuichi Kato now?

In "The Hybridity of Japanese Culture"[1] (1955), published soon after his return to Japan from studying in France, Shuichi Kato attracted attention by criticizing both nationalistic theories of Japanese culture and the excessive worship of Western culture and by developing a theory that affirms the hybridity of culture. In *An Introduction to the History of Japanese Literature* (1975–1980), his original major work, which aimed to analyze thought and literature not as separate entities but rather from the perspective of their mutual influence, he tried to shed light on the universal significance and potential of a group of "exceptional" texts that form an "isolated series of masterpieces" in the history of Japanese thought and literature.

[1] Shuichi KATO, "The Hybridity of Japanese Culture," *Thought,* Iwanami Shoten, June 1955.

Kato's thought has been treated almost exclusively outside the history of thought. He was a friend of the thinker Masao Maruyama, with whom he had sought a way forward for postwar Japan, but Kato was a critic who looked at the history of thought from the outside. For this reason, Kato, an "outsider" to the history of thought, has been neglected in its history in Japan. This is probably because he had a comprehensive viewpoint on the history of literature and the history of thought, patterned concrete events in both, interpreted them by going back and forth between the two sides, stepped on their boundary, and observed the history of thought from the outside. According to Kato, Japanese literature is not only about literature, but it has also taken on the role of representing thought and should not be considered separately from Japanese thought. This idea itself may have been skepticism and a bold criticism of the Western-derived academic system that had existed since the Meiji era (1868–1912), starting from the reality of Japan; however, Kato's range was always within the history of Japanese thought. For Kato, who seemed to have distanced himself from the history of thought, the distance was necessary for objectively and accurately grasping a subject. He was strongly willing to capture the whole of things, and at the same time, he tried to have a two-way relationship with personal events. The most representative work of Kato's thought, *An Introduction to the History of Japanese Literature*, is an attempt to interpret the history of Japanese thought from the outside through the history of literature. The relationship between literature and thought, which had not been clarified in the history of literature before him, is explicitly the subject of study in Kato's history of literature. I argue that Kato created a new genre of philosophy that mediates between literature and thought.

According to Thomas Kuhn (1922–1996), who once caused a "paradigm controversy" with his work *The Structure of Scientific Revolutions* (1962), scientific inquiry is not an isolated phenomenon but a social activity usually carried out by a particular group of scientists who share a set of assumptions, procedures, and so on. However, Kuhn says, Revolutionary discoveries that reconfigure and overthrow existing paradigms begin with noticing anomalies, that is, when breaking the predictions that arise in nature from the paradigms common to ordinary science. The next step would be to explore the anomalies extensively. This work is done by modifying the paradigm theory so that anomalies can also be predicted. The inclusion of a new kind of facts in a theory implies more than a mere modification of that theory.[2]

In other words, noticing the unusual and the peculiar leads to new discoveries in science, and investigating the wider applicability of these new discoveries leads to the revision of old theories into new ones. Although we must be cautious about naively associating it with theories of natural science, Shuichi Kato's speculation on the significance of "exceptions" in Japanese thought and culture may have a significance that is consistent with Kuhn's paradigm theory, which sheds light on the role of "anomalies."

Shuichi Kato (1919–2008) was a doctor and critic from Tokyo. After graduating from the prefectural Daiichi Junior High School and Daiichi Senior High School, he entered the Faculty of Medicine at Tokyo Imperial University, where he visited the French literature study room and became fascinated with the subject. During the war, he was keenly aware of its irrationality, and his strong antipathy toward it is evident in his various later writings. After the war, he published (co-authored) his first book, *1946: Literary Considerations*,[3] which severely criticized the war. In 1951, he went to France to study medicine, but in addition to it, he studied French literature, European art, music, theater, and European thought in depth; in particular, he became aware of

[2] Thomas Kuhn, translated by Shigeru Nakayama, *The Structure of the Scientific Revolutions*, Misuzu Shobo, 1971, p. 59.

[3] Shuichi Kato, Shinichiro Nakamura, and Takehiko Fukunaga (co-authorship), *1946: Literary Considerations*, Shinzenbisha, 1947.

the meaning of historical things in the modern world and the relationship between thought and literature. Stimulated by Western culture and keenly aware of the need to reevaluate what Japanese culture was, he returned to Japan in 1950's and published a series of articles on "hybrid culture."[4] Later, in the 70s and 80s, he published *An Introduction to the History of Japanese Literature* (volumes I and II), in which he proposed the concept of "indigenous worldview." Although Kato's diverse writings and activities are often treated only in terms of individual aspects, I believe that we can find something consistent in them, as we will see later. Among Kato's published writings and remarks, the 24 volumes of *Shuichi Kato's Works* and the 10 volumes of *Self-Selected Works*, as well as many collections of lectures and interviews, are worth mentioning. In the context of postwar Japanese thought, Kato's activities were more committed to literature and art than those of Hideo Kobayashi, Takaaki Yoshimoto, Shunsuke Tsurumi, and others. In his later years, he was actively involved with the "Kyujo no kai" and devoted himself to activities to protect the Constitution.

Shuichi Kato left this world more than 10 years ago. While his writings and words seem to have been forgotten by the world, the hardships that Kato encountered and tackled seem to appear before us in different forms and shapes. Now is the time to go back to the time of Shuichi Kato, the postwar intellectual who pioneered the "hybrid culture" in the 1950s, in order to confirm the position of our time in history and to live in the future. The above is my view of the need to clarify the scope of Kato's thought.

CHAPTER 2:

"EXCEPTIONS" CONTAINED IN THE "INDIGENOUS WORLDVIEW" THE WORLDVIEW OF AN INTRODUCTION TO THE HISTORY OF JAPANESE LITERATURE

The groundbreaking aspect of *An Introduction to the History of Japanese Literature* is that it is neither an individual description in chronological order of history nor a description by category. He had removed the categories and arranged them by historical era, closely following a single axis of Japanese culture (literature and thought). By doing so, he was able to "visualize" the origin of Japanese culture, the process of change, and the state of the era. Shuichi Kato presented one coordinate axis different from the previous books because he tried to give us a tool to measure not only the past as history but also the present location and future direction.

An Introduction to the History of Japanese Literature was highly regarded as an outstanding history of Japanese culture and thought and became a monumental work. The main reason for this is that, as the central axis, he pointed out the existence of Japan's indigenous worldview—or in other words, the "unchanging" aspects of Japanese culture, that is, the worldview that has always existed and continued to function at an ancient level when confronting foreign cultures. Shuichi Kato points out the following in *An Introduction to the History of Japanese Literature*.

The historical evolution of the Japanese worldview is characterized not by the penetration of many foreign ideas, but rather by the persistent preservation of indigenous worldviews and the repeated "Japanization" of foreign systems to that end.[5]

Shuichi Kato defines the meaning of this indigenous worldview as follows: Here, I tried to confirm the series of reactions of the indigenous worldview of Japan to the ideological challenges from outside in each period, under the social conditions of each period, through

[4] Shuichi Kato, *The Theory of Hybrid Culture: Japan's Little Hope*, Kodansha, 1956.

[5] Shuichi Kato, *Introduction to the History of Japanese Literature*, Chikuma Shobo, 1975, p. 24.

literature as a form of reaction. The word "indigenous" in English (*indigène* in French), means born and bred from the soil of the country without any outside influence. The term "worldview" (*weltanschauung* in German) encompasses a person's view of the natural and social environment, including not only aspects of being but also aspects of doing (values).[6]

In summary, Kato's definition of "indigenous worldview" is a comprehensive view of "the natural and social environment, including the existence and actions" of people "born and raised on the soil of the country. Kato wanted to capture the "series of reactions" of the "indigenous worldview" to foreign ideas through a form of literature. A "series of reactions" is not a single reaction but a superposition of multiple individual reactions. When we consider the universal concept defined here as "indigenous worldview," which is assumed to be shared in Japan, together with the content of the various reactions of historical figures written in a "personal" way, the correlation between the two becomes clear. The "personal" reaction constitutes the "series" reaction. It is indigenous, individual, and exceptional at the same time.

In *An Introduction to the History of Japanese Literature*, he attempted to explain the function of the indigenous worldview on a scene-by-scene basis by considering the dynamism of Japanese mental activities on a grand scale, moving away from the conventional framework of narrow and simple literature to determine how the Japanese people reacted to and transformed themselves in response to external ideological challenges.

The "indigenous worldview" has a continuity of thought consistent with the "hybrid culture" that Shuichi Kato published in his youth. Let us now review Kato's understanding of the structure of Japanese culture. In his lecture, which Kato summarized as *"An Introduction to the History of Japanese Literature, Supplementary Lectures*"[7] he schematized the mechanism for creating a hybrid culture. It is the view that "a" is the indigenous worldview, "b" is the foreign ideology, and "c" is the change of the indigenous aspect influenced by the foreign ideology, as shown in the figure below.

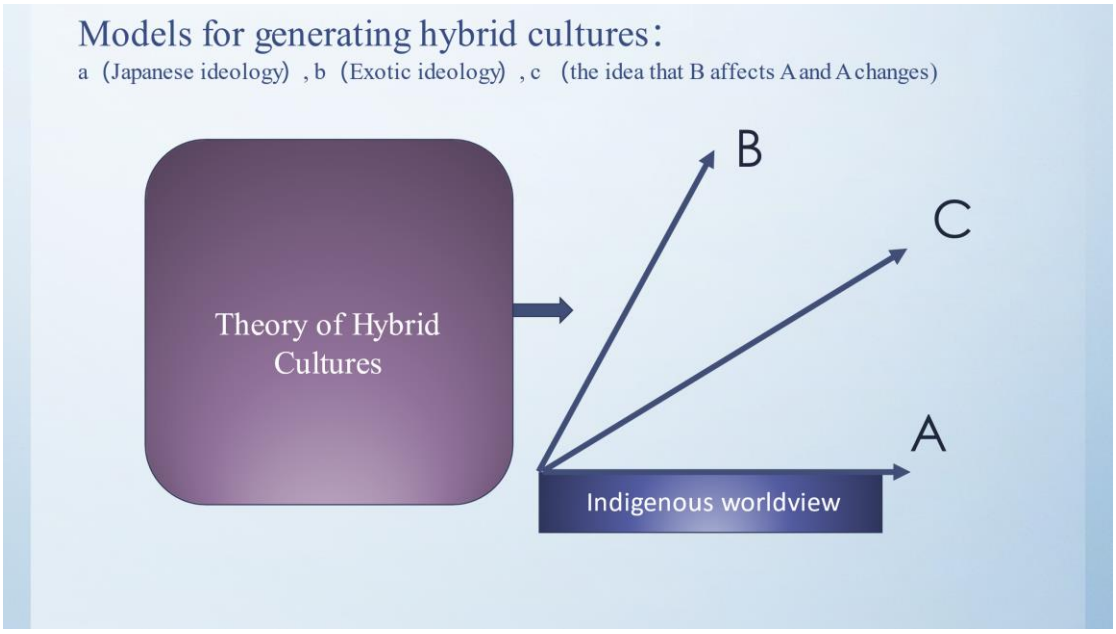

Figure 1[8]

[6] Shuichi Kato, *An Introduction to the History of Japanese Literature, Vol. 2*, Chikuma Shobo, 1980, p. 492.

[7] Shuichi Kato, *An Introduction to the History of Japanese Literature, Supplement Lectures*, Chikuma Gakugei Bunko, 2012.

[8] Created by the author based on the figures in the aforementioned book.

According to Shuichi Kato, the indigenous worldview of "a" can be inferred by subtracting both the foreign thought of "b" and the Japanese thought that was established under the influence of the foreign thought of "c," but it is not something that can be visualized as it is. It can be schematically shown that the individual phenomenon of each time and place on the axis "c" is the (individual) hybrid culture that Kato once discussed. In this way, the unique "indigenous worldview" in Kato became the axis that supported his perspective of "hybrid culture" and enabled him to compose a magnificent historical picture scroll of Japanese literature: his masterpiece, *An Introduction to the History of Japanese Literature*, in which he attempts to sketch the various reactions of Japan's "indigenous worldview" when it encounters foreign thoughts in the context of the social and personal backgrounds of the time.

Shuichi Kato's *An Introduction to the History of Japanese Literature* was created to present to us, modern people, the dominant force inherent in the hybrid nature of Japanese culture (i.e., the indigenous worldview), which has been shared by intellectuals of all ages, has played a decisive role in the development and formation of Japanese culture, and is a work in which Kato incorporated his own independent character[9] into the history of Japanese hybrid culture. This independent character can be seen in his selection of "exceptions."

Kato said that when the indigenous worldview accepts foreign thought as a system, it tends to dismantle it by means of the three characteristics of modernism, presentism, and collectivism[10] and to focus on the subdivisions rather than the big picture. This point can be interpreted as a criticism of the weakness of ideology and politics, which lack the perspective to grasp the big picture. Kato pointed out the relationship between "part and whole" from the angle of time and space and then criticized "Japanese culture." He described the time as follows:

> The typical representation of "time" in Japanese culture is a kind of presentism. The meaning of the present or "now" event is complete on its own, and there is no need to specify its relationship to past or future events in order to derive its meaning. The flow of time has a fixed direction, but without a beginning and without an end, the flow of historical time resembles an endless straight line heading in a particular direction. We can talk about the before and after of the events in it, but we cannot structure the whole of time any more than that.[11]

Kato pointed out that presentism is the "completion by itself" of the "now," which

[9] In this book, the term "independent character" does not mean cognitive subjectivity or existentialism but rather the relationship between conscious awareness and the practice or action of that awareness.

[10] Kato characterized the indigenous worldview as "collectivism," "presentism," and "modernism."
The first reason for this is that the scope of the group has been expanding with time. From one class to another, for example, the esthetic sense shared and refined among the aristocracy gradually expanded to the samurai class and the merchant class. In the process of this expansion, the esthetic sense evolved and changed; in this case, change means making use of what has been handed down to us while creating something even more creative. In this way, what is considered to be Japanese has expanded along with the expansion of the group. In doing so, "closed things" were broken through with "universal things" that appear as "exceptions" in the situations confined to the groups in the closed spaces of each era. The evaluation of female writers in the Heian period is a typical example.
Second, Shuichi Kato often used the term "presentism" in a sense similar to "hedonism," which is often manifested simultaneously with collectivism. The term "group" here refers to people who belong to the same class, hierarchy, or organization, and it may also refer to people who are similar in origin, educational background, and composition of knowledge and experience. For example, Junichiro Tanizaki's perverse depiction of sexuality reminds us of "The Tale of Genji," and Kato points out that they share the same interest in personal trifles within a restricted space.
Third, Shuichi Kato used "modernism" in a sense similar to *shigansei*. When speaking about modernism, Kato often analyzed Chinese Confucianism and Song studies (Neo-Confucianism) side by side, and without exception praised those who made achievements in constructing a system that encompassed rationalism and realism. For example, he praised the rational policies of Arai Hakuseki more than those of Ogyu Sorai.

[11] Shuichi Kato, *Time and Space in Japanese Culture*, Iwanami Shoten, 2007, p. 233.

disconnects the "now" from the "past" and the "future." Such a partial view of time cannot "structure the whole of time"; therefore, Kato considered time not as a mere "straight line" but as a "series of lines" or "circumferences."

The "whole" of time is an infinite series of straight lines, or infinite circumferences, in which the present = now. If each "present = now" is a "part" of the whole, and they are mutually equivalent, then the presentcentrism emphasized by the Japanese cultural tradition can be understood as an expression of the tendency to emphasize parts over the whole. So, dividing the whole does not constitute the parts, but when the parts come together, the result is the whole.[12]

Kato believed that "present centrism," in which only parts are considered, is a characteristic of the Japanese cultural tradition. One "part" is recognized as having "equivalent" value to another "part" as they constitute the whole. Kato then discussed the relationship between "whole" and "part" also in terms of space. He said that Japan did not have a strong interest in the "whole of outer space" except for "certain aspects that have direct dealings with the inside of the group to which they belong."

The whole of "space" is an infinite expanse. The part is "here", in other words, "my place". The place is typically a Mura (village) community, with clear boundaries and two spaces, one inside the boundary and one outside, that make up the whole world for the Mura people. The realm of Mura is not the result of dividing the entire world space, but a collection of Muras creates a Kuni (country) (what Kuni means is not the issue at hand) and the whole of space is given as an infinite expanse outside of Kuni. The place where I live = "here" exists first, and the outer space spreads around it.[13]

Kato described the Japanese view of the space of "here" as follows. This text is a criticism of the fact that Japanese people tend to see the "world" as something condensed into "here" rather than "here" as a part of the whole world.

The "here" expands and contracts, layers upon layers. From family to nation, from "gender" to generation, a person belongs to many different groups, but is aware of each group's territory as "here." We see the whole world from "here," not one part of it = Japan = "here" from the whole of the world order. I wonder if that structure, in other words, the way of looking at things where the part precedes the whole, has changed in the latter half of the 20th century after the war defeat and occupation. If we take Japan's external attitude as an example, it does not seem to have fundamentally changed.[14]

As stated above, Kato pointed out that the essential problem of both the "here" culture in space and the "now" culture in time can be reduced to the relationship between the part and the whole. This recognition is also shared with the "collectivism" (partial space) and "presentism" (partial time) of the characteristics of the "indigenous worldview" of *An Introduction to the History of Japanese Literature*.

What makes it possible to cover both the part and the whole in the two perspectives of space and time? It is a coordinate axis that runs through the history of Japanese thought and literature, as seen from Kato's perspective. In short, it is an axis consisting of several successive figures, which Kato himself called "solitary series."

These "solitary series" of figures are listed in *An Introduction to the History of Japanese*

[12] Same as above, p. 235.

[13] Same as above, p. 235.

[14] Same as above, p. 236.

Literature, beginning in Volume 1 with Yamanoue no Okura, an exception in the age of the Manyoshu, and ending in Volume 2 with Tatsuo Hayashi, Jun Ishikawa, and Hideo Kobayashi in the age of industrialization. Shuichi Kato takes up these figures by thoroughly evaluating their characters based on a consistent standard and shows the readers something close to a belief that will not be swayed by any era.

"SOLITARY SERIES" AND "EXCEPTIONS"

In *An Introduction to the History of Japanese Literature*, Shuichi Kato showed a series of similarities in the structure of thought by referring to intellectuals of the previous era when describing those of the later era. It is a patterned depiction of the scattered Japanese intellectuals that have emerged over a long history.

Against the backdrop of this structure, Shuichi Kato pieced together the pattern of Japanese intellectuals using the expression a "series of solitary masterpieces." Some may perceive a similarity between such a series and Thomas Kuhn's paradigm theory, as this paper first mentioned. The "series of solitary masterpieces" refers to those who have transcended Japanese collectivism. The driving force that made him transcend collectivism was his pursuit of truth. Kato was generous in his appreciation of intellectuals who sought universal truth (truth and reality) in thought beyond the category of Japanese culture. They were regarded as the ideal of intellectuals, a "series of solitary masterpieces."

They have characteristics in common. These are, (1) a scientific spirit that respects the facts of individual matters, (2) a comprehensive or holistic perspective that emphasizes the interconnectedness of individual matters, and (3) a universal worldview. Some of them emerged on the historical stage as non-mainstream "exceptions" rather than the mainstream of the era, but their spirit was gradually passed on to intellectuals of later eras, and many of them eventually became the mainstream. According to Kato, for example, Yamanoue no Okura, an alienated ancient man, and Jun Ishikawa, an uncompromising modern man, are typical examples; they were somewhat aliens in their own eras, but they would eventually be appreciated in later eras.

In each era, Shuichi Kato judged the nature of certain people and their thoughts by certain criteria and defined the "exceptions" of intellectuals. It is also possible that "exception" (*reigai*) was used as a common Japanese word. In particular, since his descriptions are sometimes contradictory, we cannot deny the possibility that there are places where Kato unconsciously used the word "exception" (*reigai*). However, I believe that it is important to remember that there are clearly more situations in which it was used intentionally. If he did not use "exception" (*reigai*) unconsciously, what would be implied in that inflected context?

His evaluation of the naturalistic novelist Hakucho Masamune is a typical example. Kato says that the "naturalistic novelists" were an exception to the strong influence of Western culture and "nationalism" in Japanese society in the nineteenth century. However, he then goes on to strongly criticize the Japanese naturalism of the late nineteenth and early twentieth centuries. In Kato's view, the Japanese naturalist novelists only conveniently read parts of the nineteenth-century Western novels, which included Zola's scientific worldview and Dostoevsky's religious issues. In addition, in Japanese naturalism, "the world of the novel is extremely narrow and limited to the author's personal affairs," and the essence of the novel is the "anti-intellectualism" of "pragmatism."[15]

Further, he pointed out that there are further "exceptions" among the "naturalistic novelists"

[15] Same as above, p. 384.

who are exceptions; it is a double exception, or "exception" (*reigai*) on top of "exception." One of them is said to be Hakucho Masamune.[16] The details of the private everyday space drawn by naturalistic novelists are the same as the ones by Hakucho Masamune, who distinguished the "human truth" from the Christian "fantasy." Although Hakucho is not an exception in that sense, Kato pointed out that he is an exception in another sense. This is because Hakucho was in search of the "truth of life" and had a desire to "escape" from the "earthly desires of daily life."[17] He was the only one who called by that name the fact of "worship of the West"—a fact that was tacitly shared at the time but that people were afraid to openly state.

Only Hakucho, the almost self-deprecating pursuer of the "truth," called by that name a fact shared by everyone.[18]

In his positioning of the "naturalistic novelists" in the historical context, Kato portrays the naturalistic novelists as the inheritors of a tradition that has existed since the Heian period (794–1185), while he uses the word "exception" (*reigai*) to describe the duality of Hakucho Masamune and shows his tortuous logical development to expose the "truth" or "facts." The word "exception" only works against a limited background, but the ambiguity of exposing "exception" on top of "exception" without limitation is probably that it encompasses the accumulation of such truths. This overuse of the word "exception" is rather a byproduct of the process of connecting individual people and things, and it should be understood as a term used to indicate something that has temporarily become "not so" because it has deviated from the patterned tendencies of the times. The "exception" (*reigai*) is not only a concept inherent in Kato's conceptual tool of indigenous worldview but also a kind of ambiguity in his own narrative. However, I believe that a kind of universal and transcendental "reality" or "truth" is contained in the ambiguity of the "exceptions" that Kato cannot explain.

As mentioned above, Kato's use of the terms "series" and "exception" (*reigai*) is sometimes in the sense of "special" and sometimes in the sense of "universal." Because of this ambiguity, we must recognize the duality of concepts in Kato's thought, which is represented by his terms "series" and "exception."

One work related to "exceptions" is *Japanese Views on Life and Death*, published by Shuichi Kato in 1977. This book attempts to elucidate the "complex pattern" of the "universal experience" of the "individual in history" by focusing on six individuals: Maresuke Nogi, Ogai Mori, Nakae Chomin, Hajime Kawakami, Hakucho Masamune, and Yukio Mishima.[19] After an analysis and evaluation of these six "outliers," the book strongly criticizes the sanctification of groups as universal values in themselves, concluding that the assumption of universality, that the universal value of a group is true within certain limits, "distorts universal values at the surface." Furthermore, universal values "become a reality only through the actions of each person, and usually only through the activities of a group."[20] The "exception" (*reigai*) is the individual, and "each person's action" is the only way to make universal values a reality.

In this way, while *Japanese Views on Life and Death* focuses on only these six "exceptions"

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[16] *An Introduction to the History of Japanese Literature, Vol. 2*, Chikuma Gakugei Bunko, 1999, p. 384.
Kato stated the following: "The first exceptions are the so-called 'naturalistic' novelists. They came from the countryside (wealthy farmers, merchant families, and the lowest class of samurai), studied at private schools in Tokyo, aspired to study literature, and from the very beginning closed off the path to success in the Meiji bureaucratic state."

[17] Shuichi Kato, *An Introduction to the History of Japanese Literature, Vol. 1*, Chikuma Shobo, 1975, p. 390.

[18] Same as above, p. 391.

[19] Shuichi Kato, M. Reisch, and R. J. Lifton, *Japanese Views on Life and Death*, Iwanami Shinsho, 1977, p. 8.

[20] The same above, pp. 247–251.

individually, *An Introduction to the History of Japanese Literature* depicts a series of "exceptions" as a "solitary series" and as a single axis.

CHAPTER 3 "EXCEPTIONS" AND "SINGLE INDIVIDUALS"

"SINGLE INDIVIDUALS" AND "SINGULAR UNIVERSAL"

Among the postwar intellectuals, Shuichi Kato is naturally considered one of those who were greatly influenced by Western philosophy. Kato's theory of the "hybrid culture" was published after he returned to his country from studying in France, and he was also traveling back and forth between Japan and abroad while writing *An Introduction to the History of Japanese Literature*. He was invited to the University of British Columbia in Canada in 1960, became a professor at the Free University of Berlin in 1970, and spent a long time working and living in Europe. Shuichi Kato is well known as one of the postwar intellectuals who were greatly influenced by Sartre. It is unclear whether Kato's "exception" (*reigai*) is aimed at the "singular universal" of Sartre's thought or the "single individual" of Kierkegaard's thought, which Sartre targeted; however, while I cannot prove that his intention was to use the history of Japanese literary thought to depict the specific aspects of the "single individual" as "personal," I think it is undeniable that the concept is similar.

Before the 1960s, there had been the "Kierkegaard boom"; after, the "Sartre boom." In other words, many intellectuals of that time were influenced by Sartre, and Shuichi Kato was one of them. However, Sartre's acceptance in Japan was not passive but proactive. According to the study conducted by Motoko Ishii on the matter,[21] Sartre had a great impact on Japanese intellectuals for about 40 years, from around 1937 to the late 1970s. Sartre and Beauvoir came to Japan in September 1966, stayed for four weeks, and made three appearances in Tokyo and Kyoto, when the Sartre boom was at its "peak." As of 1966, the total circulation of "The Complete Works of Sartre" in Japan was around 16 to 17 million copies. The total number of copies published by other publishers is expected to exceed 2 million. And among them, "What is Existentialism?" tops the list with 160,000 copies sold.[22]

On the other hand, the understanding of the "single individual" in Sartre's thought is said to have originated from Kierkegaard's own thought, but how was Kierkegaard's case absorbed in Japan? His writings had been introduced, to some extent, before the war, but it was Jimbun Shoin, a publishing company founded in 1922, that monopolized this topic at that time by publishing the complete works in 15 volumes.[23]

The nineteenth-century Danish philosopher S. A. Kierkegaard (1813–1855) described the "single individual" (*den Enkelte*) as an existential subjective being. This concept is considered to be Kierkegaard's "fundamental concept." *Enkelte* is a term derived from the Danish adjective *enkelt*, meaning "single," which is interpreted as encompassing nuances of both "only" (*einzig*/*unique*) and "special" (*einzeln*/*particulier*).

Regarding the dual meaning of the single individual, Kierkegaard said the following in *Synspunktet for min Forfatter-Virksomhed* (1859): "The term 'single individual' can mean the

[21] Motoko Ishii, "A Discussion on the Acceptance of Jean-Paul Sartre in Japan: From the Perspective of Translation and Publication History," Bulletin of the Graduate School of Education, Kyoto University, 2006, 52, pp. 93–107.

[22] Interview with Jimbun Shoin for a special feature article on the visit of Sartre and Beauvoir to Japan, "Josei Jishin," September 26, 1966.

[23] Motoko Ishii, "A Discussion on the Acceptance of Jean-Paul Sartre in Japan: From the Perspective of Translation and Publication History," Bulletin of the Graduate School of Education, Kyoto University, 2006, 52, pp. 93–107.

only one among all. Also, 'single individual' can mean each person."[24] Kierkegaard presented not only the single individual but also the exception (*Ausnahme*). While the singular is in a relationship of individuality–universality, the exception is an entity that deviates from that trajectory. Every human being is both a universal human being and an exception. Kierkegaard repeatedly referred to universals and exceptions in *Repetition* (1843).

The exception explains the universal and the self. If you really want to master the universal, all you have to do is seek out the exceptions, which you have a right to do. These exceptions reveal much more clearly than the universal person himself.[25]

While the traditional theological interpretation of Kierkegaard's writings had it as "the one," Jean-Paul Sartre (1905–1980) developed a new understanding of "the single individual." The "singular universal" (*universel singulier*) that typifies Sartre's later thought was inspired by and developed from Kierkegaard's existential thought. Sartre proposed the concept of "singular universal" at the symposium on the 150th anniversary of Kierkegaard's birth in 1964. Sartre evaluates Kierkegaard as follows:

> Kierkegaard was probably the first person to show that a universal comes into "history" as a single individual, so long as a single individual sets himself as a universal in "history." In this new historical reality, we find a paradox of ambiguity that seems insurmountable.[26]

Sartre found a correlation between the single individual and the universal in that the singular has an aspect of the universal, while the universal can participate in "history" as the singular. He also presented the interpretation that the "single individual" is not a single but a plurality of individuals as a coexistence.

The "singulier" in "universel singulier" that he intentionally used means "unique" or "singular," but on the other hand, the root of "singulier," "singuli" is used only in the plural. In other words, the nuance of "singulier" that Sartre used with regard to Kierkegaard is a singular but plural existence, a singular person whose peculiarity becomes apparent only when compared with others, and at the same time, it refers to multiple individuals who exist with regard to as a collective entity.[27]

According to a study on Kierkegaard conducted by Madeleine Kim in the 1980s, Kierkegaard criticized the absolute spirit of Western philosophy, especially Hegel's philosophy, and the goal was to establish a "Christian philosophy." However, his thought "is such as to lead people to truth through a confrontation with metaphysical thought, to a truth which is valid for each single individual as a single individual, and for all single individuals, and therefore for all people."[28]

Kim also points out that Kierkegaard was aiming at "the relation of the individual to the universal" and "the relation of the individual to universality."[29] Furthermore, she notes that the dialectical relationship between such individuality or "singulier" and universality is inherent in

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[24] Søren Kierkegaard Samlede Varker, udg. af A.B. Drachmann, J. L. Heiberg og H. O. Lange. København. 1962-1964 ("3rd edition of the original document") 18, 160.

[25] Søren Kierkegaard, *Repetition*, Iwanami Bunko, 1983, pp. 194–195.

[26] Sartre, Jean-Paul, *Situations Philosophiques*, Gallimard, 1998, p. 318.

[27] Minami, Connie, "'Singular Universal' - On Sartre's Interpretation of Kierkegaard," New Kierkegaard Studies, No. 13, p. 87.

[28] Madeleine Kim, translated by Ichiro Sakai, *Single individual and Universal: Kierkegaard's Path to Human Self-realization*, University of Tokyo Press, 1988, p. 20.

[29] Ibid., p. 20

existence. It is possible to raise individuality or "singulier" to a "higher" level than universality, and at the same time, it is something that cannot be severed from it: "In other words, something 'higher' than universality, such as individuality or 'singulier,' must be considered. Nevertheless, the individual cannot give up the universality of his or her own existential performance."[30] In addition, Connie Minami points out the following about the "singular universal" in Sartre: "Sartre's 'singular universal' refers to a singular existential subject who is conditioned and universalized by his own time, but who, through his own participation in society, has his own stance and escapes universalization."[31]

By presenting a dialectical relationship between the "single individual" and the universal, Sartre brought about a new understanding that is neither pure "single individual" as isolated by society nor a loss of uniqueness as completely "universalized." In other words, Kierkegaard's "single individual" evolved into Sartre's "universel singulier."

SHUICHI KATO AND SARTRE

I believe that Sartre's understanding of "universel singulier" had a particular impact on one of the postwar Japanese intellectuals; that person is Shuichi Kato. It is already generally known that Kato was a fan of Sartre. In the foreword to his book *The Intellectual Heritage of Humanity: Sartre* (1984), Kato wrote the following:

> There are three reasons why I decided to read, or re-read, all of Sartre's major works and make my own summary. First, because I thought that many people would know his name but few would read the entirety of his work. Second, because I have a great respect for and affinity with Sartre as a person. And third, because I wanted to find out for myself what I have learned and what I will learn from his writings.

However, perhaps the first reason why Kato highly praised Sartre as "one of the greatest philosophers of our century" was not his name or his humanity alone; the reason is the dialectical manipulation that takes place between the special and the universal. Kato describes Sartre's method as follows:

> It is a dialectical manipulation that constantly takes place between the global and special, and the abstract and universal in relation to its methods. He started from an abstract universality and never stopped only at that level. Nor has he ever attempted to transcend the concrete and special toward the universal.[32]

Kato spent nearly a decade writing his book on Sartre and had it published in 1984. Considering that he published the first and second editions of *An Introduction to the History of Japanese Literature* in 1975 and 1980, respectively, it is highly likely that he was working on the history of Japanese literary thought and on Sartre at the same time.

It took him nearly ten years to write this book, due to many interruptions and other work in between, and during that time, he read Sartre in the mountains of Shinshu, at home in Tokyo, on the shores of a lake in Geneva, in a dormitory in Cambridge, and then again in Venice.[33]

In *An Introduction to the History of Japanese Literature*, Kato emphasized the spatiotemporal axis of thought of "solitary series" composed of "exceptional" historical figures

[30] Ibid., pp. 25–26

[31] Minami, Connie, "'Singular Universal' - On Sartre's Interpretation of Kierkegaard," New Kierkegaard Studies, No. 13, p. 87.

[32] Shuichi Kato, *The Intellectual Heritage of Humanity: Sartre*, Kodansha, 1984, pp. 2–3.

[33] Shuichi Kato, Ibid., p. 3

and "exceptions" of each period. Such a composition of the correlation between "exception" (*reigai*) and universal can be read from the perspective of Kato's understanding of Sartre.

The basic problem of human beings here is the relationship between the irreplaceability of a single person and the historical aspects that condition that person from outside. The same can be said of the structure of the mutual transcendence relationship, in which human beings transcend history, and history transcends human beings. Existentialism talks about the aspects of human beings that transcend to history, and historicism talks about the aspects of history that transcend to human beings. It can be said that one is the Kierkegaardian dimension and the other is the Hegelian dimension, and that the two dimensions are not mutually reducible.[34]

When Sartre passed away in the spring of 1980, Kato's second volume of *An Introduction to the History of Japanese Literature* was published. Although this major work has the humble title of "Introduction," it is a compilation that embodies Kato's thought. If there was something that Kato had received from Sartre, it would have been a good opportunity to weave it right in there. As I mentioned in the preamble, it is unclear whether Kato's "exception" (*reigai*) is aimed at Sartre's "singular universal" as Kierkegaard's "single individual," and it is also impossible to prove whether his intention was to use the history of Japanese literary thought to depict the specific aspect of the "single individual" as "personal."

However, Kato hardly mentions Sartre in *An Introduction to the History of Japanese Literature* and uses the ordinary Japanese word *reigai* (exception) instead of the Western concept. I believe that Kato did not indigenize Sartre's thought, but he built a new system of thought with his own understanding.

Naturally, Kato's "exception" (*reigai*) can be recognized as reflecting or supporting Sartre's understanding of Kierkegaard, but it does not hold a superficial agreement with the Western "single individual," or it could be said that it is merely an inherent coincidence. Kato was not trying to prove that there was a type of single individual that is unique to Japan by incorporating concepts from Western philosophy into Japanese thought. He showed that he was not only a discrete point of existence as a single individual but a solitary series in the eyes of history; in this sense, Shuichi Kato's "exception" (*reigai*) is not an indigenization of Sartre's "singular universal" but a new creation.

CHAPTER 4 AIMING FOR "UNIVERSAL EXCEPTIONS"

A DIACHRONIC COMPOSITION OF THOUGHTS EMBODYING CORRELATIONS

This paper has discussed the relationship between Shuichi Kato's "exception" (*reigai*) and "indigenous worldview" in *An Introduction to the History of Japanese Literature* and Kato's composition of the "special" (personal) and the "universal" (whole) in Japanese culture. The system constructed by Shuichi Kato was a diachronic composition that embodied the correlation between "personal" and "whole," "special" and "universal," and "exceptional thought" and "mainstream thought," in which a two-way reciprocal relationship between the former and the latter and a certain compatibility are maintained. Is this composition really Kato's subjective recognition, or can it be accepted as objective? Despite the fact that these problems remain unresolved, I believe that their establishment has great significance in contemporary Japan, Asia, and the entire world. The thought composition cultivated by both traditional and modern thoughts that Shuichi Kato repeatedly addressed—in other words, the system of "special (personal) ⇔ universal (whole)" in Japanese culture—will have a suggestive significance not

[34] Shuichi Kato, Ibid., p.5

only in relation to Japanese culture but also in understanding the problems related to tradition and modernity more broadly.

Now that questions such as "multiple cultures," "hybrid cultures," and "mixed races" are being actively discussed in various fields, I believe that we must have a new diachronic composition and perspective that embodies the system constructed by postwar intellectual Shuichi Kato, that is, the correlation between "personal" and "whole," "special" and "universal," and "tradition" and "modern."

Thomas Kuhn (1922–1996), who once provoked a "paradigm controversy" with his book *The Structure of Scientific Revolutions* (1962), argued that in times of "crisis," trust in "normal science" as common-sense routine work of the traditional paradigm[35] collapses. He also said that after multiple alternative paradigms compete with each other during the "crisis" period, one new paradigm eventually takes hold and creates a new "normal science." This view of Kuhn is sometimes criticized as relativist for bringing up multiple paradigms rather than a single scientific truth; however, Kuhn continued to argue against it, asserting that "being a relativist does not mean you lose anything necessary to explain the nature and development of science."[36] If the viewpoint of a "relativist" in the field of science, such as Kuhn, is also applicable to the field of thought, we may recall the existence of Shuichi Kato, who called himself a relativist. Shuichi Kato's thought is the fruit of "postwar" thought that teaches us to aim for "universal exceptions," and this "postwar" has a universal meaning that can also be shared today. We, the people of today, living in a new era, will have to face a variety of difficult challenges. By sharing the perspective of Shuichi Kato's "exception" (*reigai*) thought, which gives us the new vectors and hints that we need to achieve this, we will surely be able to see this vast world and future we find ourselves in. We are all "exceptional" individuals, yet we are all universal. The "indigenous worldview," as something without shape, changes over time. Multiple individual worldviews, including "exceptions," constitute the "indigenous worldviews" as an aggregate and are not simply dominated by it. Shuichi Kato's thought on the expression "exception" (*reigai*) showed us the ambiguity of such a concept and the possibility of an "indigenous worldview."

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[35] Paradigm means "example" or "model" in Greek, but Kuhn defines it as "a generally accepted scientific achievement that provides a model problem or solution to a community of researchers for a period of time." He also uses words such as "specialized matrix," "hermeneutic base," "dictionary," "way of looking at things," and "framework of thinking" in the same sense, in response to criticism of Kuhn's proliferation of meanings identical to his own "worldview."

[36] Thomas Kuhn, *The Structure of Scientific Revolutions*, translated by Shigeru Nakayama, Misuzu Shobo, 1971, p. 238.

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THE ONTOLOGICAL STATUS OF SCIENTIFIC AXIOMS IN COVID-19 PANDEMIC MANAGEMENT: THE CULTURE CLASH BETWEEN GREECE AND JAPAN ASTHE COMPARATIVE WORKING HYPOTHESIS

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1. INTRODUCTION: AIM AND ISSUES

The aim of the hereby study is to approach the ontological status of scientific axioms, springing from the epistemological teachings of Poincare and Castoriadis[1], in order to elucidate as a working hypothesis the striking differences on public crisis management of Covid-19 pandemic when comparing the solutions applied by Greece and Japan.

The triggering questions lie with the following topics: firstly, what is the ontological status of scientific axioms; secondly, what is the role of these axioms to the development of scientific praxis and to the structuring of scientific theories; thirdly, what is the source of axioms and how they are especially demonstrated in terms of public crisis management; and, lastly, how the different axioms adopted by Greece and Japan led to entirely other solutions concerning the management of the Covid-19 outbreak, despite based on the same scientific data.

Tending towards a possible answer, this paper adheres to the following ontological milestones: primarily, that scientific axioms constitute the metaphysical part of a scientific theory and are created imaginarily, yet non-arbitrarily; that axioms constitute the ontological presuppositions that act as the metaphysical basis which conveniently merges itself with its physical counterpart, thus sharing a dyadic ontology; furthermore, that scientific axioms are not purely scientific, since they are born into a specific social historical world and are fused with its respective social significations and institutions; and, lastly, that the difference between Greece and Japan in terms of Covid-19 pandemic response are grounded on the different social principles that dominate each respective social field.

2. THE ESSENCE OF NATURAL REALITY: GRASPING THE FIELD OF SCIENTIFIC PRAXIS

As the prerequisite to the analysis herein, it is essential to roughly elucidate the essence of what we call natural reality, the concept of which science and its axioms strive to grasp. It is on this field where the dipole of Order and Chaos is already revealed and, thus, implies the dyadic ontology of scientific axioms.

2.1. Ensidizable order as the scientific object: The first natural stratum

On the one hand, Castoriadis adopts as a primary ontological standpoint that the Being is

[1] The contents of the hereby study partially embody the ninth chapter of my submitted doctoral dissertation for the completion of the doctoral course in Graduate School of Humanities of Kobe University. Sincere gratitude is owed to my supervising professor, Dr. Matsuda Tsuyoshi, for his constant support and encouragement during my adventure in Japan.

ensidizable, meaning organizable via the identitary-ensemblist logic – in short, ensidic logic[2].

Fundamentally, Castoriadis associates this topic with the strata of the living being, since "*the organization of the living being presupposes and entails the* organizability *of (at least) certain parts of the world*"; and, whereas this organizability is manifested both in its inside and outside world, it is supposed that "*the living being cannot function (that is to say, it simply cannot live, cannot be what it is) without "classifying," without "categorizing," therefore also without "distinguishing", "separating" and even "enumerating", but also without bringing into relation the elements it distinguishes – and, finally, it must also be able to form and "inform" a part of the world*"[3]. However, "*this would be impossible if there were no form*able *and "inform*able*" parts of the world—in other words, separable, enumerable, classifiable, categorizable—and if their "elements" and their "classes" could not, in certain respects, be brought into relation*"[4].

As a result, it is deduced that, for the organization by the living being to be possible, is essentially presupposed that "*there exists a stratum of natural being [*l' étant naturel*] that is organiz*able*, sufficiently so for the living being to exist therein; and the essential part of the organization that the living being imposes (or constructs) upon this stratum is ensemblistic-identitary*"[5]. It is precisely this stratum that Castoriadis names first natural stratum, therein including the living along with the non-living being. In addition, the living being "*nourishes itself upon it, one can say, ontologically and logically, inasmuch as this stratum allows the living being, each time, to construct its own living world, inasmuch as it finds there not "information" […] but rather the formable*"[6]. Therefore, given that the first natural stratum is organizable and formable, it is concluded that "*there is some* immanent universal*, or something immanently ensemblistic-identitary – and this, independent of the existence of the living being itself*"[7] and "*not limited to the "needs of the living being*"[8].

Under the light of these syllogisms, the discovery of this seemingly universal, yet surely

[2] Identitary-ensemblist logic is regarded as the methodological 'core' of traditional western ontological philosophy, originating from Plato and Aristotle, becoming universal by Hegel and systemically termed as physicalism, functionalism, logicism or structuralism. The alternative term that is commonly used is 'logic of identity' and is occasionally referred to as 'Leibniz's law' (see inter alia P. Bricker, 1996, in *Encyclopedia of Philosophy*, edited by. D. M. Borchert, 2nd edition, vol. 4, Thomson Gale, p. 568; see also C. Castoriadis, The Logic of Magmas and the Question of Autonomy (1983), in *The Castoriadis reader*, 1997, translated and edited by D. A. Curtis, Blackwell Publishers Ltd, Oxford, p. 294, where the definition of identity in mathematics is indeed attributed to Leibniz). In terms of ontological analysis, identitary-ensemblist logic approaches the being through natural or causal identities. In other words, as it is based namely on mathematics, rationalism and causality, "*identitary logic is the logic of determination, which particularizes itself, depending on the case, as a cause and effect relation, as means and end or as the logic of implication*" (C. Castoriadis, *The Imaginary Institution of Society*, Cambridge: Polity Press, 1987, p. 175); as such, arises an operational equivalence, according to which "*a set defines a property of its elements (belonging to this set)*" and "*a predicate defines a set (formed by the elements for which it is valid*" (C. Castoriadis, *The Imaginary Institution of Society*, p. 223; see also C. Castoriadis, The Logic of magmas, p. 292, where the definition of the set by the founder of set-theory, Georg Cantor, is discussed). Given these dimensions, "*the 'categories' or logico-ontological operators that necessarily are put to work […] by ensemblistic-identitary logic*" are, among others "*the principles of identity, noncontradiction, and the excluded third; the property == class equivalence; the existence, strongly stated, of relations of equivalence; the existence, strongly stated, of well-ordered relations; determinacy*" (C. Castoriadis, The Logic of magmas, p. 293).

[3] C. Castoriadis, The Ontological Import of the History of Science, The Ontological Import of the History of Science (1985), in *World in Fragments-Writings on Politics, Society, Psychoanalysis and the Imagination*, p. 349. After all, it is only through this ensiding capacity that the living being formulates the laws for its own proper world, its *Eigenwelt*.

[4] C. Castoriadis, The Ontological Import of the History of Science, p. 349

[5] C. Castoriadis, The Ontological Import of the History of Science, p. 350

[6] C. Castoriadis, The Ontological Import of the History of Science, p. 350

[7] C. Castoriadis, The Ontological Import of the History of Science, p. 350

[8] C. Castoriadis, The Ontological Import of the History of Science, p. 349

ensidizable, natural order becomes the object which scientific praxis strives to elucidate. It is thusly revealed that, despite the chaotic elements of the Cosmos, still scientific knowledge is possible to be attained.

2.2. Chaos as disruption of regularity: The heterogeneity of ontological strata

Nonetheless, while being possible to strive for scientific knowledge according to ensidizable order, this remains possible only some extent; for chaos[9] retains its ontological significance and complicates the problematic, intervening with that endeavor and disrupting irregularly the ensidization of natural reality[10].

On the one hand, indeed "*the mere existence of the living being implies the effective existence [*effectivité*] of an immense ensidizable stratum of what is*"[11]. On the other hand, Castoriadis explicitly indicates that "*that admission certainly does not signify that this "stability," this "organizability," this "separability' – "formability" in general – exhausts the world*"; on the contrary, "*these characteristics concern only one (or some) of its parts*"[12], since "*the physical world has to be "locally" ensidic*"[13], but never transregionally. In that sense, the ensidizable natural order of our world "*does not form an ensidic "system"*", for the Being "*is stratified, and this stratification is irregular, heterogeneous*"[14]. Under this heterogeneity is signified that, despite that "*each of these strata includes an ensidic dimension – or lends itself, indefinitely, to an ensidic elaboration, to an ensidization*", it is still the case that "*their relationship does not so lend itself*"[15]. In other words, "*we're constantly discovering that the organization and ultimate order of this cosmos escapes us […] precisely because the various strata of what presents itself*

[9] The entity of *chaos* was firstly introduced during the Archaic period of Greek antiquity by the epic poet Hesiod as the arche his Cosmogony. As stated in the text, "*in the beginning, Chaos came to be and afterwards Gaia the broad-breasted, the everlasting seat for all beings*", while "*from Chaos Erebus and the dark Night came to be*" (Hesiod, *Theogony*, 116-7 and 123.The translations from the original ancient Greek text are my own, while seeking counsel by Hesiod, *Theogony & Works and Days*, 1988, translated with introduction and comments by M. L. West, Oxford University Press, and Hesiod, *Theogony, Works and Days, Testimonia*, 2006, translated and edited by G. W. Most, Harvard University Press). That said, Chaos was neither born or derived by some other being, nor existed; it *came to be* on itself, autogenously and *ex nihilo*, (C. Castoriadis, *What Makes Greece, vol. 1, From Homer to Heraclitus, Seminars 1982-1983* [in Greek], 2007, Kritiki Publications, Athens, p. 265) and, as such, is posited as the primary ontological essence. In terms of meaning, it does not signify disorder or a confused mixture, but more importantly the void which contains nothing but the non-existing (C. Castoriadis, False and True Chaos [1993], in *Figures of the Thinkable*, 2005, Electro-Samizdat edition, p. 387. See also C. Castoriadis, The Greek Polis and the Creation of Democracy [1983], in *The Castoriadis Reader*, 1997, translated and edited by David Ames Curtis, Blackwell Publishers Ltd, Oxford, p. 273, and C. Castoriadis, *Seminars 1982-1983*, p. 262). What is more, Hesiod never wonders, what had been existing before Chaos came to be (Hesiod, *Theogony, Works and Days, Shield of Heracles, Catalogue of Women* [in Greek], 1941, introduction, translation and comments by P. Lekatsas, Zacharopoulos Publications, Athens, n. 46, p. 104-6), thus acknowledging Chaos as the cosmological arche of the Being. On the contrary, Gaia – meaning Earth – came into existence *afterwards*, while Chaos had already came to be. If understood as the opposite ontological status compared to Chaos, Earth signifies the existing reality[9] that provides living beings with the required for survival stable environment – spatially and temporally (C. Castoriadis, False Chaos, Chaos and Cosmos [1993, in Greek], in *Anthropology, Politics, Philosophy*, 1993, Ypsilon Books, Athens, p. 100).

[10] Of course, apart from that aspect of the chaotic element, parallel remains also the fact that natural reality is divided into its observable and its non-observable aspects. However, since this discussion unfortunately exceeds the aims of the hereby study, for further elaboration see F. Rodis, The ontological aspects of non-observable natural reality: Grasping the limits of scientific knowledge, *AICHI - Φιλοσοφία*, vol. 32, 2021, Kobe University, Japan, pp. 132-165 (http://www.lib.kobe-u.ac.jp/repository/81013385.pdf), where a distinction is drawn between the observable and non-observable natural reality, the former being associated with order and the latter with chaos.

[11] C. Castoriadis, The Ontological Import of the History of Science, p. 353

[12] C. Castoriadis, The Ontological Import of the History of Science, p. 350

[13] C. Castoriadis, The Ontological Import of the History of Science, p. 372

[14] C. Castoriadis, The Ontological Import of the History of Science, p. 372

[15] C. Castoriadis, The Ontological Import of the History of Science, p. 366

as being are irreducible to other supposedly more fundamental or more elementary strata"[16].

Consequently, the world is not ensidizable in the same manner, but "*it is so* in other ways, *and thus* according to *which* stratum *of this world one considers (or one "discovers' – one "constructs" – one "creates")*"[17]. After all, "*the history of science shows that the world is not ensidizable in its totality, but that it is so almost indefinitely in fragments and that, in the decisive cases, the linkup [*raccord*] between these fragments is simply de facto*"[18].

2.3. Concluding remarks: On the cusp of the order and chaos dipole

In conclusion, despite the acknowledgment of some kind of order in the world, the chaotic element of Being sustains its impact, thus rendering the ontological problematic inexhaustible by the identitary-ensemblist logic. As such, given that Order makes still possible "*a surging forth, within Being/being [*être/étant*], of new and irreducible forms*", Chaos is introduced again as "*an essential* ontological heterogeneity*: either an irregular stratification of what is, or else a radical incompleteness of every determination* between *strata of Being/being*"[19].

That being said, on the one hand, the strata of Being may indeed be susceptible to partial organization and understanding; on the other hand, since "*heterogeneous strata of physical Being/being*"[20] are unavoidable, the relationships among strata themselves reside beyond the capacity of any ensidizable order, thus being non-reducible to any common logic as "*not itself ensidizable*", nor "*constructible*"[21]. In that sense, any scientific knowledge remains fragmented, since its assets apply only to a specific stratum, whereas the rest are organized differently[22].

3. THE DYADIC ONTOLOGY OF SCIENTIFIC AXIOMS: HARMONIZING THE IMAGINARY WITH THE ENSIDIC ELEMENT

In the attempt to decipher the ensidizable order in spite of the chaotic element, scientific praxis introduces scientific axioms as ontological presuppositions that are prerequired for any scientific inquiry[23]. In terms of its role, a scientific axiom bears the burden to bridge the distance between the parts of strata that are indeed organizable with their intrinsic heterogeneity that

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[16] C. Castoriadis, False and True Chaos, p. 389. At the same point, concerning the association among heterogeneous strata, Castoriadis admits that "*there's no possible way of reducing the social historical to the psychical, nor both of them to something else, and that there is no possible way of reducing the biological to the physicochemical, for the very simple reason that what emerges for example already with the biological is a meaning that doesn't exist in the physical world – that is to say, a meaning for-itself, a meaning whose aim, for example, is self-preservation, self-reproduction*".

[17] C. Castoriadis, The Ontological Import of the History of Science, p. 369

[18] C. Castoriadis, The Ontological Import of the History of Science, p. 372

[19] C. Castoriadis, The Ontological Import of the History of Science, p. 353

[20] C. Castoriadis, The Ontological Import of the History of Science, p. 372

[21] C. Castoriadis, The Ontological Import of the History of Science, p. 369

[22] After all, while "*this is already true of the strictly "physical" world*", distinctive are "*the gaps of another nature that separate the physical from the biological and both of them from the psychical and from the social-historical*" (C. Castoriadis, The Ontological Import of the History of Science, p. 372).

[23] Specifically put, prior to establishing the cosmological context and historical background upon which a scientific theory is suggested, arise the principal ontological questions, answers to which are demanded to provide the fundamentals for the development of scientific knowledge. To that end, scientific praxis itself introduces axioms as possible answers to inevitably unanswerable questions. In that sense, chaos is fused in the philosophy of science with the problematic of the principal ontological questions, since due to their essence these questions are never answered logically or empirically, but primarily imaginarily. That is the reason why the fundamental scientific questions are not actually scientific but are transcended to "*philosophic interrogation from the heart of scientific activity*" (C. Castoriadis, Preface [1977, in French)], *Les Carrefours du Labyrinth*, 1978, Editions du Seuil, Paris, p. 11). For example, principal entities, such as matter, energy, space and time, are presupposed in scientific praxis, but are never defined by it; for they constitute philosophic categories, not scientifically verifiable ensembles, that can only be embodied by scientific axioms.

renders them irregular and irreducible among themselves. As such, the properties of scientific axioms obtain a dyadic ontology, being simultaneously posited, but still non-arbitrary; and it is precisely due to this combination that science and its entities can surge forth and develop their logical structure.

This project was thoroughly articulated in philosophy of science by H. Poincare and received acclaim for Castoriadis through the concept of the radically creative imagination under the main argument, that the axiomatic-imaginary-metaphysical part of a scientific statement is connected non-rationally, yet non-arbitrarily, with its logical-empirical-ensidic counterpart.

3.1. Poincare: 'Conventions' as a groundbreaking approach

Towards elucidating the nature of scientific axioms and parallel to his relationism, Poincare through his conventionalism contributed a notably groundbreaking approach. Generally put, it is suggested that every scientific principle, as well as every theoretical claim, expresses simultaneously two entangled dimensions, an empirical and a conventional – non-empirical. In Poincare's own words, in terms of mechanics, it is stated that its principles are "*presented to us under two different aspects*"; "*on the one hand, there are truths founded on experiment, and verified approximately as far as almost isolated systems are concerned*"*;* "*on the other hand, there are postulates applicable to the whole of the universe and regarded as rigorously true*"; therefore "*if these postulates possess a generality and a certainty which falsify the experimental truths from which they were deduced, it is because they reduce in final analysis to a simple convention that we have a right to make, because we are certain beforehand that no experiment can contradict it*"[24].

Following this general viewpoint, for the needs of the hereby thesis we shall focus on the nature of conventions and their connection with their empirical counterpart.

3.1.1. Non-empirically proven and freely chosen presuppositions

On the one hand, conventions by Poincare "*constitute the objects of science and constrain from above proper empirical scientific inquiry*" and, as such, "*are neither verifiable, nor falsifiable*"[25]. That being said, conventions embody the dimension of the scientific statements which itself is not subject to empirical justification but is still presupposed as the basis for making any scientific development possible and, as such, is adopted as truth-like. Generally concerning mathematics, Poincare claimed that "*when I have laid down the definitions, and the postulates which are conventions,* a theorem henceforth can only be true or false"; however, whether that theorem is true or false, "*it is no longer to the witness of my senses that I shall have recourse, but to reasoning*[26]. As such, conventions themselves are not the object of experimental proof, which focuses only on the theorems that logically originate from the presupposed conventions[27]. In addition, conventions are methodically preceding empirical justification since they incorporate the presuppositions for every experiment and direct its findings to a specific goal[28].

In that sense, a convention in a scientific theory is not a mere hypothesis, awaiting to be

[24] H. Poincaré, Science and Hypothesis, 1905, The Walter Scott Publishing CO., New York, p. 152

[25] Psillos, Conventions and Relations in Poincare's Philosophy of Science, in *Methode-Analytic Perspectives,* 2014, Issue 4, p. 117

[26] H. Poincare, The Value of Science, in *The Foundations of Science*, 1921, The Science Press, New York, p. 328

[27] For the examples drawn by Poincare from geometry and mechanics, see Psillos, Conventions and Relations, p. 101-116.

[28] For that topic, see Poincare, The Value of Science, p. 317-19.

regarded as true or false depending on experimental confirmation or disconfirmation[29]; on the contrary, it is an axiomatic presupposition, based on which scientific hypotheses are articulated and empirical experimentations are insightfully carried out[30].

In addition, what is indeed groundbreaking lies with the argument that, since conventions are presupposed without being empirically testable, then they are freely chosen – perhaps, implicitly created[31] – by the human mind among competing, but correspondingly equivalent, frameworks[32]. Poincare explicitly argues that "*from them [conventions], the sciences derive their rigour; such conventions are the result of the unrestricted activity of the mind, which in this domain recognises no obstacle*"; that is because the human mind "*lays down its own laws*" which indeed "*are imposed on our science*" – even though "*are not imposed on Nature*"[33]. After all, whereas some freedom, though limited, is acknowledged regarding the enunciation of crude facts as scientific phenomena[34], it becomes principally clear that "*if from facts we pass to laws, it is clear that the part of the free activity of the scientist will become much greater*"[35].

3.1.2. Non-arbitrary as convenient to the empirical reality

However, on the other hand, questions arise concerning the constraints of this free activity of the scientist, which causes the danger of rendering scientific sequences arbitrary. To that end, since empirical justification is out of the question, Poincare introduces the concept of convenience as the criterion for favoring or condemning a respective convention, thus becoming non-arbitrary[36].

Specifically put, when wondering on that suspicion of arbitrariness, Poincare argues that "*experience leaves us our freedom of choice, but it guides us by helping us to discern the most convenient path to follow*"[37]. In other words, the conventional dimension of a theory "*is not absolutely arbitrary*", nor "*the child of our caprice*"; on the contrary, "*we admit it because certain experiments have shown us that it will be convenient, and thus is explained how experiment has built up the principles of mechanics, and why, moreover, it cannot reverse them*"[38]. Therefore, non-arbitrariness of conventions is founded on two levels: firstly, their empirical origin and, secondly, their convenience for serving as ontological presuppositions of a

[29] Concerning the role of hypotheses and their distinction, see H. Poincaré, Science and Hypothesis, pp. 167-177. For a summary, see Psillos, Conventions and Relations, p. 114.

[30] These assertions considered, conventions rise as a distinct epistemological category that breaches and furthers the traditional Kantian system. That is because, according to Psillos (Conventions and Relations, p. 101), it is argued as follows: "*Given the Kantian trichotomy between analytic judgements, synthetic a priori judgements and experimental facts (empirical propositions), the 'hypotheses' that lie at the basis of geometry fit in none of them. They are not analytic truths like the principle 'two quantities which are equal to a third one, they are equal to each other'. They are not synthetic a priori judgements since we can conceive their negation; that is, they are not necessarily true. Finally, they are not experimental facts, because if they were considered such, geometry would no longer be an exact science; it would be subject to constant empirical revision.*"

[31] This implication is given by Psillos in Conventions and Relations, p. 133

[32] Psillos, Conventions and Relations, p. 115

[33] H. Poincaré, Science and Hypothesis, p. xvii-xviii

[34] Concerning the distinction between crude and scientific facts, see Poincare, The Value of Science, pp. 325-333, where is stated that the free activity of the scientist on the observed facts is limited only to "*choosing the facts worth observing*" (p. 332); that is because, the scientist "*does not create it [the scientific fact] from nothing, since he makes it with the fact in the rough*" and, consequently "*he does not make it freely and as he* chooses", his freedom thusly remaining "*always limited by the properties of the raw material on which he works*" (p. 331).

[35] H. Poincare, The Value of Science, p. 333

[36] H. Poincaré, Science and Hypothesis, p. xx

[37] H. Poincaré, Science and Hypothesis, p. xviii

[38] H. Poincaré, Science and Hypothesis, p. 152

scientific structure.

In the attempt to elucidate these parameters, we can claim that conventions, albeit non-subject to empirical understanding, still retain 'some' relation with the empirical dimension of the theory, for the latter "suggests" or "serves the basis for" or "gives birth to" the former[39]. Moreover, since guided by experience, conventions bridge the world of mathematics with the world of experience and, as such, are chosen freely but still not arbitrarily[40]. Given that deep, yet not dictating, connection with scientific reality, conventions are "*deduced from experimental laws*", which have been "*erected into principles to which our mind attributes an absolute value*" [41]. After all, this relation with experience explains the reason why conventions, though primarily detached from direct experience, are still applicable to reality[42].

Of course, being associated with and guided by experience, the conventional part must be compatible with the same laws that apply to the empirical part of the same scientific theory. This compatibility is provided through the need for convenience, meaning that, even if empirically non-verifiable, a convention should still be consistent with the empirical data. According to Poincare, when a convention serves as a hypothetical, non-empirically grounded presupposition, "*what is essential for us is, that everything happens as if it existed, and that this hypothesis is found to be suitable for the explanation of phenomena*"; after all, for Poincare even believing in the existence of material objects "*is only a convenient hypothesis*"[43]. That being said, a convention cannot be proved factually true, since it is neither an empirical generalization, nor a priori justifiable; still, it can be conveniently true as a constitutive presupposition for a theoretical framework[44].

In that sense, in any scientific theory the conventional dimension is thoroughly bridged with the empirical dimension; however, their link is not forged via strict formal or identitary logic, but fulfills the non-strict need for convenience, meaning that the conventional must remain consistent with the empirical.

As a result, convenience emerges as the criterion for favoring or abandoning the adoption of a convention. In other words, newer contrary empirical proof may not empirically nullify a formerly adopted convention; however, it may provoke its condemnation, because the convention would be incompatible with the observed reality and thusly no longer convenient as a theoretical presupposition. That is, "*when it ceases to be useful to us—i.e., when we can no longer use it to predict correctly new phenomena*", a principle "*has been extended as far as is legitimate*"; and, even if the experiment does not directly contradict it, still it would have it condemned, because "*the relation affirmed is no longer real*"[45]. In that sense, the relation of a convention with its respective experimental reality – else, the relation between the two dimensions of a scientific theory – bears such significance that may render the former

[39] Psillos, Conventions and Relations, p. 109. This rhetoric is rather common in H. Poincaré, Science and Hypothesis.

[40] Psillos, Conventions and Relations, p. 128

[41] H. Poincaré, Science and Hypothesis, p. 155

[42] Psillos, Conventions and Relations, p. 109

[43] H. Poincaré, Science and Hypothesis, p. 235

[44] Psillos, Conventions and Relations, p. 110. See also H. Poincaré, Science and Hypothesis, p. 152, where the following example is stated: "*The fundamental propositions of geometry, for instance, Euclid's postulate, are only conventions, and it is quite as unreasonable to ask if they are true or false as to ask if the metric system is true or false*"; nonetheless, "*these conventions are convenient, and there are certain experiments which prove it to us*" (H. Poincaré, Science and Hypothesis, p. 152).

[45] H. Poincaré, Science and Hypothesis, p. 185

inconvenient to the latter and, as such, impose its abandonment[46]. The opposite state is also possible: a convention previously abandoned and empirically condemned may regain favor, because its presuppositions have been convenient with present experimental findings[47].

Given these standpoints, Poincare claims that through the concept of convenience conventions are revealed as neither finite, nor a priori eternal ontological principles that should be immune to revision; on the contrary, since not devoid of empirical content, albeit empirically non-justifiable, conventions are constantly brought under discussion and are susceptible to change and substitution. And even if an experiment may not empirically refute a convention, still it may condemn it to abandonment as non-convenient to account for new scientific facts[48].

Therefore, whereas the evaluation for the empirical dimension is based on their justification by scientific facts, the evaluation for the conventional dimension lies with providing convenient ontological presuppositions for relating the observed scientific facts with the respective theoretical framework. What is more, the adoption of a convention is essential to interpret the empirical data in a consistent theoretical framework; under the condition that a convention is given, only then we may answer whether a fact is true or false[49]. This is precisely the meaning of the entanglement between the conventional and the empirical dimensions in scientific praxis.

Following the abovementioned assertions, Psillos concludes that "*conventions are not arbitrary since they are suggested by various empirical considerations, without in any way dictated by, or made probable on the basis of, experience*", whereas "*though they can never be contradicted by experience, they can be condemned by it and be abandoned as being no longer convenient*"[50]. In the end, non-arbitrariness leads metaphorically to the statement that, when it comes to foreseeing natural phenomena, "*always the scientist is less often mistaken than a prophet who should predict at random*"; for "*science foresees, and it is because it foresees that it can be useful and serve as rule of action*" and, by that means, achieve knowledge as its goal[51].

Therefore, despite being chosen by the human mind, conventions emerge as convenient, thus non-arbitrary ontological presuppositions, capable of supporting the theoretical framework, under the scope of which empirical data is interpreted and scientific knowledge is farther expanded. That being the case, we can ascertain that every scientific theory embodies consistently that dyadic ontology: a conventional-axiomatic dimension and an empirical-logical dimension.

3.2. Castoriadis: Axioms as imaginary, yet non-arbitrary, creations

3.2.1. Imaginary creations by scientific praxis

Concerning imagination in a scientific framework, Castoriadis fundamentally presupposes

[46] This topic is discussed in H. Poincaré, Science and Hypothesis, p. 168-171. For a commentary, see Psillos, Conventions and Relations, p. 110.

[47] H. Poincaré, Science and Hypothesis, p. 182-3. Under these viewpoints, theory-change can be partially explained.

[48] Psillos, Conventions and Relations, p. 110

[49] H. Poincare, The Value of Science, p. 328

[50] Psillos, Conventions and Relations, p. 135. That is the reason why the adoption of non-empirically proven conventions cannot pose the danger of pseudoscience, since they are drawn from experiments and can indeed be overturned by them. As an example on this state of non-arbitrariness, Poincare provides the laws of acceleration and of the composition of forces: these are conventions with experimental origin, yet not arbitrary; for "*they would be so if we lost sight of the experiments which led the founders of the science to adopt them, and which, imperfect as they were, were sufficient to justify their adoption*" (H. Poincaré, Science and Hypothesis, p. 124).

[51] H. Poincare, The Value of Science, p. 324-5

that "*under the theories exist, of course, a metaphysical thesis*"[52], which is formulated by creative imagination as the distinct human trait[53].

The topic is firstly approached through the development of mathematics. Primarily it is claimed that, initiating from "*a proliferating elaboration or working out of ensemblistic-identitary logic*", mathematics "*would long ago have reached the limits of triviality and insignificance, had it not been for the creative imagination of mathematicians (which expresses itself first and foremost in the positing of* new axioms*), who are founders of branches (arborescences of theorems) other than those that already exist*" [54]. In that sense, "*the freedom of the mathematician's imagination […] is fully comparable in this respect to the freedom of the imagination of the creator of a work of art*"[55], meaning that it creates forms, without being preceded by identitary relation to preexisting figures. What is more, this imaginary capacity "*yields of itself to exigencies that we may formulate – though, in themselves, such requirements provide no* rule*, not only for "inventing" axioms but even for judging immediately and with certainty their* importance"; thus, "*a system of axioms can be anything whatsoever (i.e., arbitrary),* provided that *the axioms are independent and noncontradictory*" [56].

Drawing from mathematics, the same process is adopted also for the axioms in physics. According to Castoriadis, even if "*a mathematical theory is developed and improved indefinitely without there being any "real world" correlate*"[57], still "*the fascinating, really significant fact […] is the strange interrelationship between the deployment of mathematics and the history of modern physics*". That is because "*sometimes mathematics would seem to be "preparing" in advance the forms physics "will have need of," sometimes physics "forces" the invention of hitherto nonexistent mathematical forms, sometimes both of these occur together, and sometimes, finally, physics remains at an impasse because no one has succeeded in creating the required*

[52] C. Castoriadis, False Chaos, Chaos and Cosmos p. 96.

[53] Castoriadis' notion on imagination is deeply embedded with its radically creative nature. Radical imaginary or radical imagination is "*the originary faculty (of human being) of positing or presenting oneself with things and relations that do not exist, in the form of representation (things and relations that are not or have never been given in perception)*" and "*the elementary and irreducible capacity of evoking images*" even of something which does not exist and never existed in the natural world (C. Castoriadis, *The Imaginary Institution of Society*, p. 127). Its radical character is based on the supposition that "*this imagination is* before *the distinction between 'real' and 'fictitious'*", as "*it is because radical imagination exists that 'reality' exists* for us – *exists* tout court – *and exists* as *it exists*" (C. Castoriadis, Radical Imagination and the Social Instituting Imaginary, in *The Castoriadis Reader*, p. 321). In that sense, radical is the primary imagination and is distinguished from merely reproductive or simply combinatory representation of reality, which is named secondary imagination. This latter mechanism resides within the human psyche, where it "*pre-exists and presides over every organization of drives, even the most primitive one*" (C. Castoriadis, *The Imaginary Institution of Society*, p. 286-7). In that sense, following that radical imagination "*makes a 'first' representation arise out of a nothingness of representation, that is to say,* out of nothing" (C. Castoriadis, *The Imaginary Institution of Society*, p. 283), it assumes the role of creative imagination – else, 'kreative Einbildungskraft' – and, thus, constitutes the founding milestone not only for the notion of creation ex nihilo, but also for social imaginary. Under the light of these viewpoints, creative imagination assumes the role of an a-causal *vis formandi*. On the one hand, it is clarified by Castoriadis that "*a-causal does not mean 'unconditioned' or absolute,* ab-solutus*, separated, detached, without relations*" (C. Castoriadis, Radical Imagination and the Social Instituting, p. 322). On the other hand, radical imaginary does not create matter, but only formulates images and figures based on the experience received via perception. Especially beyond the scope of individual human psyche, "*the seat of this* vis *as instituting social imaginary is the anonymous collective and, more generally, the social-historical field*" (C. Castoriadis, Radical Imagination and the Social Instituting, p. 322), which bears the capacity to create social imaginary significations as meaning and institutions as figures. That being said, in terms of biological issues, it is not that radical imaginary modifies the biological structure of human beings, nonetheless it can indeed affect their biological behavior and formulate new patterns of interaction with the environment.

[54] C. Castoriadis, The Ontological Import of the History of Science, p. 367

[55] C. Castoriadis, The Ontological Import of the History of Science, p. 367

[56] C. Castoriadis, The Ontological Import of the History of Science, p. 367

[57] C. Castoriadis, The Ontological Import of the History of Science, p. 368

mathematical tools"[58]. Consequently, "*this type of relationship between mathematics and physical reality*", along with "*their intertwining and the history of this intertwining*" demands a metaphysical basis that would "*raise a new question and radically displace the space in which this question has been posed as well as the possible responses*"[59].

Under the light of these suppositions, insofar as projecting metaphysical theses, scientific axioms are emerging as creations of the radical imaginary. Whereas chaos "burdens" natural reality with unanswerable questions, an open space is provided for radical imaginary to posit answers under the form of the scientific axioms. Following the intervention by creative imagination, we can deduce that for every scientific theory a metaphysical thesis as arche is presupposed that is embodied by a scientific axiom and provides the answers that allow the development of its logical structure[60]. However, what is rather intriguing is the fact that this metaphysical thesis is itself neither self-evident[61], nor subject to empirical or experimental reasoning and, as such, cannot be evaluated by rational laws, but still serves as an 'arbitrary' – that is, non-logically founded – answer to the principal questions arising in scientific praxis. Correspondently, albeit fundamental, scientific axioms do not apply to any logical founding, but still become irreplaceable for any scientific development.

Nonetheless, imaginary does not explicitly mean arbitrary or indeterminate, for the limitations of creation apply herein as well.

3.2.2. Non-arbitrariness as an ensidic characteristic

Nonetheless, imaginary does not explicitly mean arbitrary or indeterminate, for the limitations of creation apply herein as well.

Fundamentally, "*the mode of being of the indeterminate itself is not purely and simply indeterminate*"[62]. That being said, despite that chaos in science projects again unanswerable principal questions, still the axioms by the radical imaginary are not arbitrarily taming the indeterminable, but must be compatible with the self-determining and self-determined capacity of the natural and living Being.

In general, that same problematic is projected upon "*the relation between new and old forms*" and "*the relations among strata of Being/being, and among the beings [*étants*] within each stratum*"[63]. Albeit not answering directly, Castoriadis non-systematically and non-exhaustively gleans some possible indicators for reference, based on which the succession of

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[58] C. Castoriadis, The Ontological Import of the History of Science, p. 367. As specific examples of axioms for this casuistry, for the first case general relativity is provided, because "*Riemannian geometry and the absolute differential calculus of Ricci and Levi-Civita were already there at Einstein's "disposal" for fifty and twenty years, respectively*"; for the second case the requirements of quantum physics are provided, since "*Dirac had to invent (1926) what Laurent Schwartz was going to make into distribution theory*"; for the third case, an iconic example "*is to be found in Newton, with the invention of analysis and its application to physics*"; finally, the fourth case "*may be illustrated by the obstacles the hydrodynamics of turbulent flows encounters for lack of adequate mathematical tools*" (C. Castoriadis, The Ontological Import of the History of Science, p. 368).

[59] See C. Castoriadis, The Ontological Import of the History of Science, p. 368-9, where is claimed as follows: "*Inherited philosophy […] appears totally devoid of interest, for it lacks an object. It is not just that empiricism or rationalism, critical idealism or absolute idealism appear desperately naive; they are irrelevant, beside the point. They exist in a dream world in which the presuppositions of knowledge are not social-historical and where this knowledge has no genuine history: this is so either because history has been reduced to a cumulation (Kant) or because it is made to depend on a "dialectic" (Hegel) which is in truth its very negation […]*."

[60] C. Castoriadis, Preface (in French), p. 11

[61] C. Castoriadis, Preface (in French), p. 11

[62] C. Castoriadis, Done and To Be Done (1989), in *The Castoriadis Reader*, p. 369

[63] C. Castoriadis, Done and To Be Done, p. 369

emerging figures may be elucidated according to some ensidizable order. Such are "*the necessary and sufficient condition (as it is encountered in mathematics)*", "*the simply sufficient condition, what is usually meant by causality*", "*the necessary external condition (the existence of the Milky Way for the composition of* Tristan und Isolde*)*", "*the necessary internal condition (the previous history of Western music for this same piece)*", "*the leaning on psychoanalytic meaning*", "*the leaning on social-historical meaning*" and "*the influence of one thought upon another thought (Plato/Aristotle , Hume/Kant, etc.)*"[64].

Drawing on these viewpoints, we should bear in mind that "*social-historical creation (as well as, moreover, creation in any other domain), if it is unmotivated* – ex nihilo – *always takes place* under constraints *(it does not occur* in nihilo *or* cum nihilo*)*"[65]. Among these constraints, the *intrinsic* ones are associated with the *coherence* and *completeness* of imaginary creations and their alignment with the ensidic logic. And since the first natural stratum is essentially ensidizable, it resists intrinsically its formulation by the radical imaginary – at least, to a broad extent. Hence, inasmuch as scientific axioms tend towards taming the chaotic element, their content is constraint by the intrinsic nature of the ensidic logic itself; in that sense, albeit imaginary creations, scientific axioms must be coherent with the existing ensidizable order and, as such, are regarded non-arbitrary.

It is due to these presuppositions that Castoriadis asserts that the physical world is ensidizable – else, mathematizable –, but "*not so "in various ways" (supposedly arbitrary ones, so that "anything goes")*"[66]. In that sense, even if the strata of physical Being/being are heterogeneous, still locally "*each of these strata includes an ensidic dimension – or lends itself, indefinitely, to an ensidic elaboration, to an ensidization*"[67]. Therefore, when a scientific axiom is created by radical imaginary, then it is instantly subject to the ensidic dimension of the strata it belongs and is made logically compatible with the world; thus, it becomes *coherently* connected – positively or negatively – with the rest of the scientific structure and, albeit an imaginary creation, it arises as non-arbitrary.

3.3. Concluding remarks: The scientific Arche as imaginary axiomatic presupposition

In conclusion, following this chapter, it is herein acknowledged that both reality as the scientific object and axioms as the presuppositions for scientific theories share a dyadic ontology: firstly, natural reality bears an ensidizable order that is disrupted chaotically due to the heterogeneity among its ontological strata; secondly, in the attempt to harmonize the opposing elements through the scientific process, this combination of order and chaos renders scientific axioms simultaneously imaginary, but still non-arbitrary.

Given the abovementioned assertions by Poincare and Castoriadis, the thesis hereto adopts the claim that scientific axioms bear a dyadic ontology that embodies simultaneously and entangled a metaphysical and a physical dimension.

Specifically put, we argue that conventions by Poincare are taking on the systemic position of axioms. In other words, the conventional dimension of a scientific theory is actually systemic,

[64] C. Castoriadis, Done and To Be Done, p. 370

[65] C. Castoriadis, Done and To Be Done, p. 370, where also "*the presence and importance of causality in social-historical life*" is explicitly pointed out.

[66] C. Castoriadis, The Ontological Import of the History of Science, p. 369, where as an example is stated that "*there are not two gravitational theories for ordinary phenomena, from the molecule to the galaxy, there is one and only one*". This supposition opposes conveniently the viewpoints drawn by P. Feyerabend and his theory of methodological anarchism.

[67] C. Castoriadis, The Ontological Import of the History of Science, p. 366

freely chosen by the human mind among other equivalent statements and, most importantly, guided by and consistent with its empirical counterpart. However, since strictly empirically neither justifiable, nor revocable, they are associated with empirical reality only through means of convenience and, as such, remain non-empirically grounded. In that sense, following the standpoints already addressed above, conventions are primarily classified to the metaphysical realm as logically inferred, though non-empirically proven, ontological presuppositions; that being the case, they may formulate the *arche* for the development of scientific praxis and the acquisition of scientific knowledge.

In spite of finding none concrete reference to Poincare in his texts, Castoriadis radicalizes this concept of conventions through his ontological theory. In the attempt of scientific praxis to tame the chaotic element existing in natural reality, the principal ontological questions posited cannot be answered definitely, but only non-logically grounded. That is the reason why Castoriadis explicitly suggests that there is a metaphysical basis embodied in every scientific theory that acts as a quasi-definite answer to these unanswerable questions. Nevertheless, following his theory on creative imagination, this answer is not just chosen by human mind, as Poincare claimed, but is created by human imagination; for axioms that serve as metaphysical answers are neither a priori given, nor logically founded, but are firstly formulated as the arche for scientific praxis and then posited as imaginary creations, elevated to a separate, yet still ontological, level of reality.

It is worth to underline that common grounds for both thinkers are the dyadic ontology of the arche and its resultant non-arbitrariness. The empirical dimension for Poincare and the ensidic dimension for Castoriadis are entangled with the corresponding conventional and imaginary dimensions, because the former are guided and constraint by the latter. And whereas for Poincare this entanglement is grounded on convenience of convention to experience, for Castoriadis rises as an intrinsic limitation by ensidic logic on imaginary creation. Despite the differences, we can argue that from either side the philosophical project points to the concept of non-arbitrariness, meaning that scientific axioms may be empirically non-justifiable, though still presenting ontological significance. That being said, the metaphysical and the physical dimensions do not merely coexist and certainly not in an antithesis; they are simultaneously intersecting as a functioning dipole and, therefore, should be addressed as multiple dimensions of the same one framework. This conclusion wraps up the meaning of the dyadic ontology of scientific axioms[68].

4. SOCIAL IMAGINARY ARCHE IN SCIENTIFIC PRAXIS: AN ALTERNATIVE VIEWPOINT IN PHILOSOPHY OF SCIENCE

Following the deductions abovementioned, we have roughly elucidated the essential contribution of imagination to scientific praxis and knowledge. Nonetheless, the questions concerning *who* creates the scientific axioms and *how* they are formulated have henceforth multiplied, as we are driven to wonder on the relation between scientific praxis and social imaginary.

That is the case, insofar as "*every society defines and develops an image of the natural world, of the universe in which it lives, attempting in every instance to make of it a signifying*

[68] Parenthetically, in terms of strict definition, scientific axioms are distinguished from scientific theories. The former signifies the metaphysical theses about the understanding of the world as a scientific object, drawn by scientific praxis but still non-subject to direct empirical – and sometimes even mathematical – justification; the latter stand for the whole scientific statement that embodies the empirical observation and its inductive calculations, rationally connected with the presupposed metaphysical thesis, adopted beforehand.

whole, in which a place has to be made not only for the natural objects and beings important for the life of the collectivity, but also for the collectivity itself, establishing, finally, a certain 'world-order'"[69]. Correspondingly, when Castoriadis claims that scientific axioms are imaginary, non-arbitrary creations, this endeavor can only be made possible when viewed under the scope of social instituting imaginary[70] and its social imaginary significations[71].

In this chapter, it is fundamentally suggested that scientific answers are not purely scientific, but also share a social imaginary dimension. However, the assumption that the social-historical solves cosmological riddles and universal mysteries raises more questions than would answer.

4.1. The social-historical dimension of scientific praxis in general

Going back to the properties of first natural stratum, Castoriadis is claiming that first natural stratum consists of facts that are given in nature and result "*neither from the legislation of transcendental consciousness nor from the institution of society*"[72], yet the institution of society is always obliged – "*under penalty of death*"[73] – to take into account the natural facts, because nature constitutes a given organization that "*puts stops or limits*" on the instituting society[74]. Therefore, social institutions are regarded as *leaning on* the first natural stratum, because "*a*

[69] C. Castoriadis, *The Imaginary Institution of Society*, p. 149. The term 'world-order' is often substituted by the German term 'Eigenwelt'.

[70] In order to associate radical imagination with the emergence of social structure as the surviving circumstance for human kind, imagination ought to be conceptualized in the manner that goes beyond the narrow subjective field of the single individual. To that end, Castoriadis was one of the first thinkers of western philosophy to expressively introduce the concept of social imaginary. Under that term is roughly meant the system of significations, the function of which constitutes and articulates the social world (C. Castoriadis, *The Imaginary Institution of Society*, p. 146). In other words, this system "*is operative in the practice and in the doing of the society considered as a meaning that organizes human behavior and social relations, independently of its existence 'for the consciousness' of that society*" (C. Castoriadis, *The Imaginary Institution of Society*, p. 141). Bearer of this faculty is the social-historical, which stands for "*the anonymous collective whole, the impersonal-human element that fills every given social formation but which also engulfs it, setting each society in the midst of others, inscribing them all within a continuity in which those who are no longer, those who are elsewhere and even those yet to be born are in certain sense present*" (C. Castoriadis, *The Imaginary Institution of Society*, p. 108). Therefore, while being a collective entity, "*the social-historical field is irreducible to the traditional types of being*" (C. Castoriadis, The Imaginary: Creation in the Social-Historical Domain, The Imaginary: Creation in the Social-Historical Domain (1984), in *World in Fragments-Writings on Politics, Society, Psychoanalysis and the Imagination*, p. 8) and "creates *a new ontological type of order*" (C. Castoriadis, The Imaginary: Creation in the Social-Historical Domain, p. 13) that is capable of instituting itself.

[71] Social imaginary significations are regarded as "*like the final articulations the society in question has imposed on the world, on itself and on its needs*" (C. Castoriadis, *The Imaginary Institution of Society*, p. 143). More descriptively, they can be grasped "*as the invisible cement holding together this endless collection of real, rational and symbolic odds and ends that constitute every society, and as the principle that selects and shapes the bits and pieces that will be accepted there*" (C. Castoriadis, *The Imaginary Institution of Society*, p. 143). These significations are, on the one hand, imaginary "*because they do not correspond to, or are not exhausted by, references to "rational" or "real" elements and because it is through a creation that they are posited*"; on the other hand, they are social "*because they are and they exist only if they are instituted and shared by an impersonal, anonymous collective*" (C. Castoriadis, The Imaginary: Creation in the Social-Historical Domain, p. 8). Hence, social imaginary significations provide the essential order that organizes the preexisting chaotic situation and allows the emergence of the social structure and, thus, of the human world (C. Castoriadis, *The Imaginary Institution of Society*, p. 147). And it is only through social significations that this order allows the Being to be perceivable by humans, as it must be firstly organized and, thus, bounded (C. Castoriadis, *The Imaginary Institution of Society*, p. 145, 146, 149).

[72] C. Castoriadis, *The Imaginary Institution of Society*, p. 229

[73] C. Castoriadis, *The Imaginary Institution of Society*, p. 202. See also C. Castoriadis, The Ontological Import of the History of Science, p. 355

[74] C. Castoriadis, *The Imaginary Institution of Society*, p. 121, 229, 233

natural fact can provide support or stimulus for a particular institution or signification"[75], as a point of reference for the social imaginary significations; hence, society is never absolutely free due to the invariant of natural reality, which resists and cannot be arbitrarily manipulated[76].

Nonetheless, in order for first natural stratum to be taken into account, its content is transformed into social imaginary significations and, as such, cannot be deduced or derived on the basis of the natural fact; for, despite natural facts being always and everywhere the same[77], the claim that through mathematics and physics we "*have created or produced a structure as neutral, as indifferent—once it is* hypothesized*—to the particularities of our society and of every society*" seems rather doubtful[78]. That is because "*society has to create* de novo *and at new expense something that* resembles *the basic natural data (those of life) but in no way is the copy or the replica thereof*"[79]. Thus considered, passages from the natural to the social and vice versa from the social to the natural are deduced, for natural reality "*not only resists*", but also "*lends itself to transformation*"[80] by the social imaginary.

Correspondently, as every human activity, science can be developed only in and through the social-historical field, whose existence precedes and is presupposed for any notion of scientific knowledge. In general, following that scientific knowledge "*(in what is certain for it* as well as *in what is uncertain for it) changes [*s' alteére*] over the course of time*", "*it is not a matter of a state, of a sum or completed system of truths, but rather of a process*", which emerges as "*essentially social-historical*"[81].

Specifically put, science is characterized as social, because "*the human individual, be that individual scientific (or philosophic) […] exists only as the product of a perpetual process of socialization; it is first and foremost a walking fragment of the institution of society in general and of particular society*"[82]. In addition, it is termed as historical "*in the sense that it itself alters itself [*elle saltére elle-méme*], that it is not only self-creation once and for all but continued self-creation, manifested both as incessant imperceptible self-alteration* and *as possibility, and actuality, of ruptures that posit new forms of society*"[83].

Science's social-historical character is exemplary projected through the use of scientific language. Without language, "*there is no process of knowing […] (this being true even of mathematicians)*"; consequently, there is "no *thought without language, no language that is pure* code *(pure formal system), no knowledge reducible to the handling of algorithms*"[84]. That being

[75] C. Castoriadis, *The Imaginary Institution of Society*, p. 230

[76] C. Castoriadis, *The Imaginary Institution of Society*, p. 234, 353-4

[77] C. Castoriadis, *The Imaginary Institution of Society*, p. 205, 229, 234, 353

[78] C. Castoriadis, The Ontological Import of the History of Science, p. 356. After all, Castoriadis explicitly pointed out that "*even in this case, the ensidic logic created by society is* not the same *as the one involved in the operations carried out by the living being—whereas there exist other strata of nature in which they coincide completely (everything in nature, for example, that pertains to rational mechanics)*".

[79] C. Castoriadis, The Ontological Import of the History of Science, p. 356-7

[80] C. Castoriadis, *The Imaginary Institution of Society*, p. 354

[81] C. Castoriadis, The Ontological Import of the History of Science, p. 342-3

[82] C. Castoriadis, The Ontological Import of the History of Science, p. 343

[83] C. Castoriadis, The Ontological Import of the History of Science, p. 343-4. As an example especially concerning the historical succession of scientific systems, "*to understand the historical sphere [*l' historique*] requires that we contemplate (without stopping at some "explanation," beyond "explanations") the abyss that opens when we ask ourselves […] of quantum physics with the physics of the eighteenth century*".

[84] C. Castoriadis, The Ontological Import of the History of Science, p. 343

said, as already elaborated above, inasmuch as language "*is, each time, "total part" of the social-historical world in question*", there can be "*no language whose organization and tenor would not be consubstantial with the imaginary significations of the society under consideration, with its grasp on and organization of the world, with its own manner of* making sense *of what is given—and, to begin with, to the roughest and most decisive of degrees, of* making *"the given"* be *for it, doing so already through its language operations*"; after all, "*there certainly are no gatherings of any sort of "information," binary or otherwise, that would be scattered throughout nature as if it had been waiting there merely for the first humans to come along to harvest and store it*"[85].

Consequently, it is deduced that we come across again a dyadic, yet irreducible multiplicity. On the one hand, "*the institution of society, of every society, has to, under penalty of death, establish a "functional" relationship with the first natural stratum*"; for "*inasmuch as, on Earth, this first natural stratum is everywhere "the same," there will be, due to this very fact, some "common elements" in at least certain articulations […] across diverse societies (in time and in space)*" [86]. This ascertainment of common elements regardless of the social-historical secures the existence of "*a virtual universality of human history*" in the form of "*the signitive relation*" [87]. On the other hand, this signitive relation, being the core of ensidic logic, does not emerge solely from the first natural stratum; "*for, as instituted by each society, this ensidic dimension is totally immersed in the magma of imaginary significations of that society*" [88] and, hence, "*as it is reconstituted and instituted by society seems quite different from the ensidic as we encounter it in nature*"[89]. Therefore, despite the seemingly universality of the first natural stratum, its common understanding is obstructed by the diversity of the respective social-historical worlds. Especially under the scope of language, as abovementioned, "*"one" signifies* one *(and yet,* what *does* one *signify?) throughout different languages only in its usage as an element of a code*"[90]; beyond this very primitive ensidic dimension, these common elements produce a respectively "*genuine comprehension and elucidation*" and are "*never "naturally"* given", but "*always to be conquered*"[91].

In all fairness, we do claim that from its essence the first natural stratum implies common elements that are indeed ensidizable at the broadest humanly possible manner and are rendered less dependent from social instituting. That being said, whereas in general social institutions emerge regardless any rational origins, specifically the instituting of scientific laws faces immense and prevailing external constraints and intrinsic necessities, due to which their formulation follows strict scientific deontology and depends decisively on – though, not

[85] C. Castoriadis, The Ontological Import of the History of Science, p. 343

[86] C. Castoriadis, The Ontological Import of the History of Science, p. 355. The example provided is that "*whatever its religion […] a pastoral society can* never *kid itself into believing that cows, sheep, and goats are impregnated solely by the action of spirits, etc*".

[87] See C. Castoriadis, The Ontological Import of the History of Science, p. 355, where is also stated that, given the essential presence of the signitive relation, "there are, *everywhere, words for the primary elements at least of the set [*ensemble*] of natural integers, or for the sky and the stars, or for hot and cold, and so on*".

[88] C. Castoriadis, The Ontological Import of the History of Science, p. 355

[89] C. Castoriadis, The Ontological Import of the History of Science, p. 356

[90] C. Castoriadis, The Ontological Import of the History of Science, p. 355. To that end, Castoriadis provides the following example: "*The pious Christian shopkeeper would never accept one dollar instead of three – whereas he confesses the equality of one= three at least every Sunday, and he does so with no "split" in his psyche. And of course, these imaginary significations, in which the ensidic in its instituted form itself takes part, are in no way superimposable, congruent, or mutually reducible between different societies (for example, Brahma, Shiva, and Vishnu have no relation at all to the Christian Trinity)*".

[91] C. Castoriadis, The Ontological Import of the History of Science, p. 355-6

determined by – the empirical data. In that sense, insofar as the creative capacity of the scientific community is constraint, the organization of the first natural stratum originates more from scientific data and less from imaginary parameters; as such, in contradistinction to other social institutions, the scientific theories that organize the first natural stratum are the least affected from the social imaginary of their respective society. Consequently, the image of the Cosmos depicted by instituted theories still retains the closest possible approach to natural reality humans may hope to accomplish during that respective historical period[92]. Besides, even though scientific deductions change according to new contradicting observations[93], instituted scientific laws still hold the most reliable method for understanding natural reality.

Under the light of these presuppositions, the social-historical dimension of science indicates its dependence to the human social world. And whereas this human world is developed upon its respective social imaginary significations, scientific praxis shares that same imaginary arche through the instituting of scientific axioms.

4.2. Scientific axioms as socially instituted imaginary significations: Delving into the dyadic ontology

Inasmuch as principal ontological questions concerning the essence of the natural world arise, they can only be posited by the social-historical; and inasmuch as scientific axioms provide answers to these questions, they consist of instituted imaginary significations, born by the imaginary capacity of their social-historical and bound to its constraints.

Thus seen, the primary source of scientific praxis originates from a social imaginary arche that resides in the beginning of every logical syllogism. That same arche forges the axioms that are presupposed for any scientific attempt to logically relate the human social world with the pre-social world of the first natural stratum; and since the former is always leaning on – yet not determined by – the latter, the type of this relation depends on the instituting manner of every social historical. For "*the "logical/physical" operations through which every society relates itself to the first natural stratum, organizes it, and makes use of it are always under the sway of its social imaginary significations, which are at once "arbitrary" and radically different in different societies*"; what is more, even "*the constraints that the physical world imposes on the organization of the living being supply an essential part of our understanding of this organization*", whereas "*that which the natural world as such insuperably dictates that society – and thereby, all societies – do or forbids society from doing is utterly trivial and teaches us nothing*"[94].

That being the case, the natural reality as a socially instituted object becomes susceptible to "*a sui generis organization*"[95]. This is because, given the diversity and plurality of societies, the first natural stratum "*has to be such that it is able to support (and lend itself to) an indefinite multitude of organizations that, each time, correspond to an* other *institution of society, each with an ensidic dimension particular to it*"[96]. Therefore, concerning the emergence of scientific

[92] After all, even though scientific deductions change according to new contradicting observations, instituted scientific laws still hold the most reliable method for understanding natural reality. As such, the progressiveness of scientific deductions is in harmony with the self-alteration of social institutions, rejecting thusly any intention for absoluteness by all means.

[93] After all, the progressiveness of scientific deductions is in harmony with the self-alteration of social institutions, rejecting thusly any intention for absoluteness by all means.

[94] C. Castoriadis, The Imaginary: Creation in the Social-Historical Domain, p. 10

[95] C. Castoriadis, The Ontological Import of the History of Science, p. 357

[96] C. Castoriadis, The Ontological Import of the History of Science, p. 357.

axioms, social imaginary elucidates natural order through "*re-creation and construction, by society, of an ensidic dimension that actually reaches [*atteint*] the first natural stratum without in any way being a "copy" thereof*"[97].

Under the light of these statements, Castoriadis deduces – again – the dyadic ontology that is incorporated in the history of science. On the one hand, scientific knowledge is historically developed through "*the deployment, the elaboration of ensidic logic*", the progression of which "*has in truth been a re-creation and reconquest of the organization of the first natural stratum*" [98]. On the other hand, scientific knowledge "*has been dependent, each time, on the magma of imaginary significations of the society being considered*"; as such, its advances "*occur, in the great cases, through* ruptures*, or by the emergence/creation of new schemata or imaginary matrices that refer to the "real world" (or not, as in the case of mathematics)*"[99]. These ruptures arise as the key concept concerning the instituting of new, other scientific axioms that serve as the metaphysical basis for the subsequent theories.

4.3. Concluding remarks: Non-purely scientific answers to scientific questions

In conclusion, following this chapter, it is herein acknowledged, firstly, that scientific praxis, being a human endeavor, shares a social historical origin; and, secondly, that the social imaginary arche is fused with scientific praxis, hence the dyadic ontology of scientific axioms is expressed embodying a recreational aspect on the first natural stratum and a social imaginary source from the respective social historical field.

Given these deductions, since scientific axioms are actually instituted under the specific manner of each respective social-historical, it is concluded that the answers to scientific questions are not purely scientific, but also share a social-historical origin. In other words, being created by the social imaginary, axioms on natural reality share a common social-historical origin, entangled with and analogous to the general social institutions that reside within each respective society. After all, the manner according to which scientists understand the cosmological background of their theories is – either wholly or at least partially – dependent on the manner, through which their own social-historical understands its external natural environment[100]. Hence, given that every society is obliged to and indeed posits an answer to such a principal ontological question, that same answer cannot be ignored by scientific praxis

[97] C. Castoriadis, The Ontological Import of the History of Science, p. 370, where is also stated that this same understanding is supplementary attained through "*first questioning of this ensidic dimension's permeation by the inherited/instituted imaginary, and creation of* logos *and of* logon didonai" – that is, to provide logical grounding for every theoretical statement.

[98] C. Castoriadis, The Ontological Import of the History of Science, p. 370. The problem is that this aspect, when reflected separately, "*has nourished the illusions associated with ideas of progress, the fiction of an asymptotic approach, the naivetés (still found in Kant) about the cumulativeness and additivity of science*", often viewed "*from a "pragmatic" standpoint as growth of an instrumental rationality*".

[99] C. Castoriadis, The Ontological Import of the History of Science, p. 370. Castoriadis also comments that the vain attempt "*to detach the ensidic from all else*" is a consequence of the current Western imaginary magma, under the scope of which "*the simply logical, the simply instrumental, the simply formalizable have become dominant imaginary significations*"; however, even during this period, "*advances do not and cannot occur by simple elaboration of the ensidic – still less, of course, by accumulation of experimental results and observations*".

[100] For instance, regarding the social-historical structure on Christian notion of God that preceded the fundamental concept of 'absolute space' in Newtonian mechanics, see L. Smolin, *Time Reborn – From the Crisis in Physics to the Future of the Universe*, 2013, Houghton Mifflin Harcourt Publishing Company, New York, p. 44, where it is stated that, despite the fact that absolute space along with its referring equations "*cannot be connected to experiment*", nonetheless "*Newton knew this and it didn't bother him", for "he was a deeply religious thinker, and absolute space had a theological meaning for him*"; that being said, since "*God saw the world in terms of absolute space and that was enough for Newton*", "*he would put it even more strongly: Space was one of God's senses. Things exist in space because they exist in the mind of God*".

and is incorporated – not only positively, but perhaps also negatively – to the scientific axioms that establish the Cosmos, within which the respective theories are applicable.

Ultimately, we claim that to scientific questions axioms provide of course answers that nonetheless are non-purely scientific, because they are founded on specific social-historical grounds; and, accordingly, is explained the reason, why different societies, albeit confronted with the same empirical data, provide wholly other answers to the same scientific problems. Such is the impact of the dominating social imaginary arche on the cosmological scope and the means of the respective scientific praxis, along with the ruptures that manifest the history of science and allow the emergence of new scientific axioms.

5. COVID-19 PANDEMIC AS THE WORKING HYPOTHESIS: THE CULTURE CLASH ON PUBLIC CRISIS MANAGEMENT BETWEEN GREECE AND JAPAN

5.1. Cultural deviations between West and Japan: The general problematic

Gradually guided towards our working hypothesis herein, public crisis management, especially when facing public health hazards, constitute a scientific endeavor, bound to the aforementioned problematic in respect of its driving axioms. That is because the solutions provided to each specific circumstance are grounded on empirical data that are drawn based on the respective cosmological context. That being the case, public crisis policy aims to provide applicable answers to current scientific and social problems; as such, these answers are guided according not only to the axioms related to the scientific inquiry at hand, but also to institutions residing with the respective social-historical field. Thus considered, intriguing arises the concrete otherness in regard to public crisis management between the Western and the Japanese culture from the historical perspective.

5.1.1. On the rudiments of Western rationalistic culture: The birth of scientific inquiry

Concerning Western scientific culture, Castoriadis elucidates this problematic by turning to two historical examples grounded by other social imaginary significations: the birth of science in ancient Greece based on the infinite (‘*apeiron*’) and the developments of the modern Western science based on artificiality.

Firstly, the birth of science historically occurred in ancient Greece, when “*something becomes detached from “common knowledge”—*or *from the “secret knowledge” of priests and magicians – and tries to become human* epistémé*, and* public epistémé*, open to all those who are willing and able to work at it*”; and this detachment came with “*two exigencies, along with the exploration of the possibility of satisfying them, which characterize what we understand by rational thought: unlimited interrogation, on the one hand; proof, whatever its means maybe, on the other*”[101].

However, the presupposition for that historical rupture was the emergence of infinite as the dominating social imaginary signification in the social-historical of Greek antiquity[102]. As introduced by Anaximander[103], the infinite – else, *apeiron* – encapsulates “*that which has no*

[101] C. Castoriadis, The Ontological Import of the History of Science, p. 358-9, where is also stated that “thus was formed the concept of *logon didonai*, meaning “*giving an account of and a reason for*”.

[102] C. Castoriadis, The Ontological Import of the History of Science, p. 359

[103] During the Presocratic era of ancient Greek philosophy, Anaximander was the first who acknowledged that the World that we can know and sense originates from the non-knowable and non-sensible ‘apeiron’. Following the mythological ‘Chaos’ by the epic poet Hesiod and, thus, introducing the next historical stage of Greek ontology, Anaximander identified ‘apeiron’, literally meaning ‘the indefinite’, as “*including everything and everything governing*” (Aristotle, *Physics*, Book III, 203b, 11); for the principal material arche “*is neither water nor any other of the so-called elements, but some other*

peras, *term, limit, determination, both contravenes the central interpretation of being as determinacy and, in Greek,* says on its own *that it is unknowable*"[104]. Drawing from the mathematical developments of Eudoxus, as illustrated by Euclid, Castoriadis concludes that "*in mathematics the Greeks never accepted proofs other than those that today would be called* finitist *or* constructivist"; on the contrary, precisely based on the *apeiron* as the social imaginary arche, Castoriadis roughly observes that ancient Greeks were adopting a distinct "*lack of interest in the "artificial"*" and especially for "*the* theoretically artificial"[105].

Secondly, during the rise of European civilization "*modern science appears as the subjectively and objectively unlimited (and, without any doubt, interminable) elaboration of ensidic logic and of the strata the latter discovers/constructs within the "real"*"; that is because this "unlimitedness *of modern enquiry no doubt itself depends on an imaginary schema of the* thoroughgoing rationality *of physical Being/being – a schema foreign to the Greeks (in any case, up to and including Aristotle)*"[106]. Consequently, artificiality as the leading scientific axiom emerges and "*leads to a transformation of the very essence of the mathematical "object," culminating in the "free positing" of axioms – unthinkable for the Greeks, for whom (as again for Kant) these axioms express intrinsic or "natural" (be they "subjective") properties of space, not arbitrary positions subject [*soumises*] simply to the constraints of independence, noncontradiction, and, possibly, completeness*" [107]. Besides, in addition to artificiality, contemporary societies adopt arithmetic as their primary scientific project. Even if "*there is not and cannot be a "rational" basis" for its domination*", still "*quantification is merely the expression of one of its dominant imaginary significations: whatever cannot be counted does not exist*"[108].

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apeiron *nature, from which come into being all the heavens and the worlds in them; and the source of coming-to-be for existing things is that into which destruction, too, happens according to necessity; for they pay penalty and retribution to each other for any injustice according to the assessment of Time*" (Simplicius, *On Aristotle's Physics (In Aristotelis Physicorum)*, 1882, Priores Commentaria, Edited by Hermannus Diels, Berolini, Typis et Impensis G. Reimeri, Book IV, 24, p. 13; else, DK 12, A9 and B1). In that sense, inasmuch as 'apeiron' signifies the cosmological arche, for 'apeiron' itself an arche is neither existing, nor needed; that is because, from a spatial, temporal and qualitative aspect, 'apeiron' remains "*immortal and unchanging*", else "*eternal and ageless*", and, as such, is set beyond humanly understandable planes, cast in endless time and unconfined in space (G.S. Kirk and J.E.Raven, *The Presocratic Philosophers*, 1971, Cambridge University Press, p. 108-110; Th. Veikos, *The Presocratics* (in Greek), 1988, Zacharopoulos Publications, Athens, p.53-4).

[104] C. Castoriadis, The Ontological Import of the History of Science, p. 359-60. From the etymological aspect, the term Apeiron is a synthesis of a-privative and *peras* (I. Stamatakos, *Lexicon of the Ancient Greek Language* (in Greek), 1972, Phoenix Publications, Athens, p. 148), which means the finite bound in any spatial or temporal context (E. Theodosiou, P. Mantarakis, M.S. Dimitrijevic, V.N. Manimanis, E. Danezis, 'From the infinity (apeiron) of Anaximander in ancient Greece to the theory of infinite Universes in modern cosmology', in *Astronomical and Astrophysical Transactions* (AApTr), 2010/2011, Vol. 27, Issue 1, p. 163). That being said, Apeiron signifies the boundless Being, which does not entail any finite limits and, as such, is non-definable. What is more, while not being constrainable to neither any determined, nor at least determinable, frame, Apeiron cannot be conceptualized positively, but only negatively. In addition, it not without significance that the word 'peras' is inherent also in the word 'empeiria', which means experience, and the word 'apeiria', which means lack of experience (I. Stamatakos, p. 148 and 332). Specifically put, 'empeiria' is a synthesis which consists of the preposition 'en' – which means 'with' – and the word 'peras'; on the contrary, 'apeiria' consists of a-privative and 'peras'. We can thusly argue that for the ancient Greeks experience is possible only for the part of Being that can be defined in specifiable limits; beyond these, any empirical perception is meaningless (C. Castoriadis, *Seminars 1982-1983*, p. 266-7, 284).

[105] C. Castoriadis, The Ontological Import of the History of Science, p. 362, with the ironic exemption of "*the extraordinary machinery of war*", being "*a rather easily understood exception*".

[106] C. Castoriadis, The Ontological Import of the History of Science, p. 363

[107] C. Castoriadis, The Ontological Import of the History of Science, p. 363

[108] C. Castoriadis, The Imaginary: Creation in the Social-Historical Domain, p. 11

Quite intriguing is, subsequently, the association of this unlimitedness of modern science with "*the unlimited expansion of "rational" mastery (instrumented, to begin with, in the unlimited expansion of productive forces)*" as the central imaginary signification of western capitalism[109]. That is to say, "*a deployment of science of the kind displayed by Western science, since, let us say, Galileo, would not be possible* either *"in any universe whatsoever"* or *for "no matter what society" formed by the accidental and inessential incarnations of a consciousness in general*" – thusly disclosed "*both in the being of its object and in the being of its subject*"[110]. Therefore, artificiality as a central scientific axiom is preceded and founded by the social-historical as formulated by the imaginary significations of capitalism; it was only in this Western social framework that Western rationalism, along with its groundbreaking scientific inquiry, could have been surging forth.

Ultimately, given that the fundamental western axioms point to rationality, we may conclude in terms of public crisis management that a western society will strive to tame the hazard based on its – self claimed – 'rational mastery' and the tools it could provide. That said, a rational approach to a crisis would probably suggest a head-on collision with the public danger, capable of imposing directly any suppressive measure or restricting strategy possible until the threat is diminished and the common cause is secured – even in spite of any appendant striking consequences. As such, in terms of the Covid-19 pandemic Greece projected a characteristic instance of western management and suited for our working hypothesis.

5.1.2. On the tradition of Japanese Buddhism: Accepting reality "as it is"

In terms of scientific development, the history of Japanese culture does not provide any significant findings. However, dwelling on a region with extreme danger by natural disasters, which are generally faced successfully, it is fruitful to understand the social principles that lead the Japanese people to their impactful public crisis management.

Starting from the observations and remarks by Lafcadio Hearn, the most prominent Western representative of Japan, it is in primarily presupposed that "*all the societies of the Far East are founded, like that of Japan, upon ancestor-worship*"[111], meaning that far Eastern civilizations are in one word religiously conservative to their tradition. Especially concerning the case of Japan, "*religion is still, as it has ever been, the very life of the people, – the motive and the directing power of their every action: a religion of doing and suffering, a religion without cant and hypocrisy*"[112]; and thus is already grounded on "*those ethical conditions prefigured by the ideals of Old Japan: instinctive unselfishness, a common desire to find the joy of life in making happiness for others, a universal sense of moral beauty*"[113]. Besides, even if these thoughts would have been valid for the earlier stage of modern Japan, still intriguing is the claim that "*even the industrial history of a people cannot be understood without some knowledge of those religious traditions and customs which regulate industrial life during the earlier stages of its development*"[114].

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[109] C. Castoriadis, The Imaginary: Creation in the Social-Historical Domain, p. 15. See also C. Castoriadis, The Ontological Import of the History of Science, p. 363

[110] C. Castoriadis, The Ontological Import of the History of Science, p. 363

[111] L. Hearn, *Japan: An Attempt At Interpretation*, 1904, Macmillan & Co., London, p. 517

[112] L. Hearn, p. 507-8

[113] L. Hearn, p. 504-5, where is also stated that "*whenever men shall have so far gained upon the present as to need no other code than the teaching of their own hearts, then indeed the ancient ideal of Shinto will find its supreme realization*".

[114] L. Hearn, p. 4. See also p. 503, where it is exclaimed "*what a universe of romance in that Buddhist art which has left its impress upon almost every product of industry*".

That being the case, L. Hearn suggested that "*Japan can be understood only through the study of her religious and social evolution*"[115], whereas "*certainly her power to accomplish what she has accomplished was derived from her old religious and social training: she was able to keep strong because, under the new forms of rule and the new conditions of social activity, she could still maintain a great deal of the ancient discipline*"[116]. As such, even though Japan's openness to the Western culture was imposed by external forces, still "*she affords us the amazing spectacle of an Eastern society maintaining all the outward forms of Western civilization; using, with unquestionable efficiency, the applied science of the Occident; accomplishing, by prodigious effort, the work of centuries within the time of three decades*" [117].

More specifically on the social institutions of modern Japan, Sueki Fumihiko aims to elucidate the current religious tradition and, to that end, "*focuses on the real representative of Japanese Buddhism – the much denigrated "funeral Buddhism" – with its confusing mix of Buddhist, Shintoist, and even western modernist ideas*"[118]. Being unique to Japan as a religious phenomenon, nowadays funeral Buddhism currently embodies "*the most common relationship most average Japanese have with Buddhist temples*", being "*usually something related to funerals and memorial services*" [119].

Furthermore, concerning the core of the Japanese Buddhism, characterized with a particularly distinct lack of ethicality, S. Fumihiko regards as uniquely representative "*the doctrine of innate enlightenment (*hongaku shisō*)*"[120]. That is because the tradition of *hongaku* constitutes "*not just an issue of a narrow portion of Buddhism but as a keyword to recapture the entirety of Japanese culture*"[121], since it "*lies in the depths of Japanese culture and continues to shape the way Japanese people think*"[122]. In terms of definition, *hongaku* theory affirms the present reality as it is: "*this impermanent world, as impermanent, realizes eternal enlightenment*"; "*there is no need to search anew for enlightenment outside of it*"; "*sentient beings are fine as they are; they do not need to become buddhas*"; "*hell is fine remaining as hell, and human beings are fine remaining as human beings*"[123].

Consequently, S. Fumihiko criticizes the *hongaku* doctrine as instituted by the current Japanese society under the accusation that "*from the point of view of religious practice, this is problematic – it tends to fall into an "as-it-ism" that has no need for praxis*" and "*seen ethically,*

[115] L. Hearn, p. 501

[116] L. Hearn, p. 511

[117] L. Hearn, p. 501. Of course, it is not ignored that "*Old beliefs have been rudely shaken by the introduction of larger knowledge: a new generation is being taught, in twenty-seven thousand primary schools, the rudiments of science and the modern conception of the universe*" (p. 512).

[118] A. Sevilla, Translator's Introduction, in S. Fumihiko, *Religion and Ethics At Odds – A Buddhist Counter-Position*, 2016, Chosokudo Publications, Nagoya, p. 5.

[119] S. Fumihiko, p. 70

[120] S. Fumihiko, p. 25. It must be underlined that "hongaku *theory was something that developed during the Japanese Middle Ages, and is therefore thought to be unique to Japan*"; thus considered, "*the lack of ethics that stems from this theory is not part of the essence of Buddhism, but would seem to be a problem peculiar to Japan as a region*", whereas it is also claimed that "*it is a problem inherent in the essence of the Buddhist religion*" (p. 29).

[121] S. Fumihiko, p. 25-6

[122] S. Fumihiko, p. 12. Deriving primarily from medieval Japan and having a distinct impact on the culture of its period, through *hongaku* was projected the idea that "*natural vegetation as itself already contains the world of the Buddha*", which is being actualized "*in things like medieval entertainment and arts, the art of the tea ceremony, and the way of flower arrangement*" (p. 27).

[123] S. Fumihiko, p. 26

it can never give rise to a concrete theory of praxis"[124]; what is more, "*on the flipside of the philosophy of "nature as it is" is the irresponsible attitude that belittles human effort and just accepts things as they are and becoming as they become*"[125].

Given these cultural axioms, we can assert that the public crisis management of Japan is grounded on the acceptance of the imminent danger as the currently existing reality, faced through the religiously disciplined resilience of the Japanese people. That said, managing a social hazard is seen as conservative act, meaning that any approach would be indirect, avoiding intense impact and following the public danger, while simultaneously limiting the negative consequences provoked by any exemption to the usual rhythm of social life. Thus considered, when dealing with the Covid-19 pandemic, Japan arises as the opposing counterpart in contrary to the western solutions.

5.2. Facing the Covid-19 pandemic: Comparative timeline of public measures in Greece and Japan

Fruitful to our working hypothesis stands the chronological order of the public measures adopted by Greece and Japan aiming to limit the spread of the pandemic outbreaks and to secure the so-called normativity of social life.

5.2.1. Greece

Concerning the Greek management[126] during the year 2020, on 10th of March the Greek government issued the first state of emergency and decided to suspend the operation of educational institutions of all levels and on 13th of March to close down all cafes, sports leagues bars, museums, shopping centres, sports facilities and restaurants in the country. Furthermore, on 16th of March all retail shops were also closed and all services in all areas of religious worship of any religion or dogma were suspended. On 22nd of March, we were officially brought to the first lockdown, during the period of which any movement outside the house was permitted only for specific reasons, whereas non-essential movement was strictly prohibited and punished with hefty penalties. That first lockdown, initially issued only for two weeks, was extended until the 4th of May, thus lasting 42 days, during which the number of cases and deaths slightly increased, but never yet skyrocketed.

However, the real threatening face of the pandemic on 7th of November, when the second total lockdown was issued and became even fiercer than the previous one. This time, apart from the restrictions on movement and business activity, it was accompanied with curfew concerning even mildly essential movement after 21.00 – at some point even after 18.00. Indeed disheartening was the fact that, despite the pressure on the population and the constant violation of the social life, cases and deaths were escalating week per week, without any drastic containment. In the end, public measures eased on 3rd of May 2021, after almost six months of movement surveillance and social stability, in spite of which the pandemic imprint never actually was kept under control or faded away.

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[124] S. Fumihiko, p. 61. Herein also lies the explanation why "*from* hongaku *theory's way of thinking, practice is not necessary, and the unenlightened person (*bonbu*) is fine the way he is*" (p.27).

[125] S. Fumihiko, p. 152

[126] Regarding all the referred facts and measures put in action, see among others the entry under the title 'COVID-19 pandemic in Greece' in *Wikipedia-The Free Encyclopedia*, https://en.wikipedia.org/wiki/COVID-19_pandemic_in_Greece#March_2020. It is important to underline that from the start of the pandemic outbreak the scientific findings concerning the epidemiological supervision, except for the number of cases and deaths per region, were never revealed to public or academic inspection and were kept hidden by the Greek authorities and the state-founded scientific committees.

During these lockdown periods, travel restrictions were strict, but under specific circumstance it was possible for Greek nationals to exit and enter the country. Nonetheless, for obvious economical reason the measures were changing during the tourist period in summer, when tourists could enter Greek territory even without being previously tested for Covid-19.

Lastly, regarding vaccination mandates, the Greek state initially denied any such intent, afterwards however the situation drastically changed. At first, from April 2021 the health care staff were obliged to be vaccinated under the threat of immediate suspension. Furthermore, from November 2021 until April 2021 a vaccination certificate or a rapid antigen test was needed for access to any retail shop, public service, working area or entertainment activity, whereas to some closed areas non-vaccinated people were prohibited. In January 2022, a vaccine mandate was issued for the elderly over 60 years old under the threat of a monthly penalty, which was suspended after a few months.

5.2.2. Japan

Japanese authorities confirmed the first cases of Covid-19 in January 2020, however without implementing any restricting public measure, apart from inspecting people visiting or returning from China. Following the postponement of the Tokyo Olympics announced on 24th of February, the government after a while declared a state of emergency on 7th of April 2020 in seven prefectures (Tokyo, Chiba, Saitama, Kanagawa, Osaka, Hyogo, and Fukuoka), which was expanded to the whole country on 16th of April[127]. When put under control, this state of emergency was cancelled on 25th of May. After a second peak of positive cases was observed in August 2021 and henceforth – presumably due to the summer Olympics –, a second state of emergence was declared on 7th of January 2022 until 7th February only for Tokyo and the prefectures of Chiba, Saitama and Kanagawa.

Regarding international transportation, on 3rd of April 2020 until recently Japan had issued a travel ban for all foreign nationals and tourists, only with some limited exceptions that were allowed entry only after medical inspection and undergoing quarantine period.

Nevertheless, it is indicative to underline that both for Japanese goverment and society the state of emergence was understood as a call for great caution to dangerously closed areas – not an absolute prohibition of public movement. In that sense, apart from the international travel restrictions, lockdowns were never implemented, nor any movement prohibition or curfew; thus the population was never threatened with state punishment, since direct regulations that could be actually violated were never introduced. Specifically put, "*the Japanese government decided to use the epidemic cluster-based approach because of the limited availability of testing, the impractical information of the technology-based tracing approach, and the economic system*", meaning that "*communities and individuals followed the government's request to adopt telework, flexible work schedules, and school closure and to reduce eating out",* whereas "*these restrictions during the stay home period under the state of emergency were not accompanied by penalties, as in other countries*"[128]. To that end, the policy of Three C's was suggested as the guiding behavioral pattern, expressing "*that people need to eschew situations where the following three conditions overlap: (1) Closed spaces with poor ventilation [換気の悪い密閉空間], (2) Many people in crowded areas [多くの人が密集], (3) Short-distance conversations*

[127] Anawat Suppasri,Miwako Kitamura, Haruka Tsukuda, Sebastien P. Boret, Gianluca Pescaroli, Yasuaki Onoda, Fumihiko Imamura, David Alexander, Natt Leelawat, Syamsidik, Perception of the COVID-19 pandemic in Japan with respect to cultural, information, disaster and social issues, in *Progress in Disaster Science*, 2021, vol. 10, Elsevier Ltd, p. 1

[128] Anawat Suppasri et. al, p.2

and short-distance utterances (close-contact) [近距離での会話や発話(密接)] (Japan Broadcasting Corporation, n.d.a)"[129]. In addition, "*a series of "Go-To" campaigns were launched, such as "Go-To Travel," which started in July 2020 and provided discounts and subsidies of up to 50% on travel within Japan for Japanese citizens and foreign residents, and "Go To Eat," which began in October 2020 and provided a discount at restaurants*"[130], under the hope to support the industry in accommodation, entertainment and transportation[131].

Lastly, in terms of vaccination policy, mandates were never imposed in Japanese territory. Of course, vaccine certificates are issued, but never demanded for any activity and are mostly used as medical passports for overseas travelling.

5.3. Concluding remarks: The culture clash as the source of institutionally other management models

If we attempt even an indicative comparative review of the facts taken place, it is obvious that the Covid-19 pandemic revealed the culture clash between West and Japan; and that became the cause that led Greece and Japan to adopt wholly other institutions and, consequently, to apply entirely other public crisis management models – despite the fact that concerning the mortality rates and the transmission level of the virus the empirical data were common and non-doubtable[132]. Therefore, the instituted scientific axioms that formed the respective management models are elucidated, when we subsume the public measures imposed to the specific cultural tradition.

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[129] Sasha Allgayer, Emi Kanemoto, The <Three Cs> of Japan's Pandemic Response as an Ideograph, in *Frontiers in Communication*, 2021, vol. 6, p. 3

[130] Anawat Suppasri et. al, p.2

[131] Of course, due to the strict restrictions on international travel, this support was not enough to face the huge impact on small or family companies, some of which declared bankruptcy.

[132] Concerning the mortality rates, see Ioannidis JPA, Axfors C, Contopoulos-Ioannidis DG. Population-level COVID-19 mortality risk for non-elderly individuals overall and for non-elderly individuals without underlying diseases in pandemic epicenters. *Environ Res*. 2020 Sep;188:109890. doi: 10.1016/j.envres.2020.109890. Epub 2020 Jul 1. PMID: 32846654; PMCID: PMC7327471, where it is concluded as follows: "*For the whole COVID-19 fatality season to-date (starting with the date the first death was documented in each location), the average daily risk of dying from coronavirus for a person <65 years old is equivalent to the risk of dying driving a distance of 4–82 miles by car per day during that COVID-19 fatality season in 18 of the 27 hotbeds and 106–483 miles per day in the other 9 hotbeds (UK and 8 USA locations). For many hotbeds, the risk of death is in the same level roughly as dying from a car accident during daily commute, although it can be higher in the locations that are most hit.*"
Concerning the transmission levels and the role of cluster infections, see Tao Liu, Dexin Gong, Jianpeng Xiao, Jianxiong Hu, Guanhao He, Zuhua Rong και Wenjun Ma, Cluster infections play important roles in the rapid evolution of COVID-19 transmission: A systematic review, in *International Journal of Infectious Diseases* 99 (2020), p. 374–380, where it is concluded as follows: "*Of the many driving factors of this strong transmissibility, cluster infections play critical roles in the rapid evolution of COVID-19 transmission, which exponentially increases the number of cases and drives the new emerging disease to spread worldwide through modern transportation. […] Governments are advised to track COVID-19 cases and conduct extensive epidemiological investigations as early as possible. Additionally, proper and effective risk communication is essential when taking social restrictions to minimise people's gatherings (meals, religious gatherings, etc.) and journeys outside the home. Preventing and controlling cluster infections of SARS-CoV-2 is an important strategy to contain the spread and flatten the curve of COVID-19.*"
Concerning the effectivity of strict restrictive measures, see Eran Bendavid, Christopher Oh, Jay Bhattacharya, John P. A. Ioannidis, Assessing mandatory stay-at-home and business closure effects on the spread of COVID-19, in *Eur J Clin Invest*,2020;00:e13484. https://doi.org/10.1111/eci.13484, 2021, p. 7, where it is deduced as following: "*We fail to find strong evidence supporting a role for more restrictive NPIs [non-pharmaceutical interventions] in the control of COVID in early 2020. We do not question the role of all public health interventions, or of coordinated communications about the epidemic, but we fail to find an additional benefit of stay-at-home orders and business closures. The data cannot fully exclude the possibility of some benefits. However, even if they exist, these benefits may not match the numerous harms of these aggressive measures. More targeted public health interventions that more effectively reduce transmissions may be important for future epidemic control without the harms of highly restrictive measures.*"

On the one hand, the Greek state adhered fully to the axioms that guided the Western world – especially in Europe and Northern America – to an extreme reaction against the pandemic outbreak, thus imposing lockdowns, curfews, intense movement restrictions and even vaccine mandates. That being said, it is herein deduced that the deeper reasoning to the Western managerial strategy was to wholly extinguish the threat that exposed the public health through suppressive measures; whereas these measures were thought of as weapons directly and purposefully projected against the very existence of the virus itself – a goal that formulated from the beginning the ultimate axiom of this public crisis management model. To that end, under the fear an immediate threat and without any concern of the appendant consequences, lockdowns and vaccines were regarded as head-on solutions that would immediately force down the health crisis, without allowing any future or permanent impact on common social life. To that approach characteristic were the rhetoric concerning "the return to the former normativity"[133] or "the vanquish of coronavirus by the vaccines" [134], bearing thusly the meaning that the pandemic period would be short enough for our proper lives to be sustained and that some kind of scientific breakthrough would eventually tame the hazard and save the community; of course, in the end such intentions stood more as a theological teleology than a realistic action plan.

This being the case, it is hereby claimed that the western cultural tradition, rationalistic as it is, spawned the scientific axioms that drove the West and its social-historical field to apply such an extreme managerial model against the pandemic crisis. That is because artificiality, along with the striving for rational mastery, point to the intention for dominion over natural reality and its structures; and this dominion is founded upon the axioms of causality, which suggest that the Cosmos is a mechanism fully understandable according to its causal sequences. Thusly considered, the Covid-19 pandemic was anticipated as a part of reality that could be fully understood based on causal laws or an abnormality that did not belong to the current causal normativity; as such, it was aimed to be directly tamed and unilaterally fought against through either extremely suppressive measures, such as lockdowns, or only scientific products, such as vaccines. Therefore, a head-on act to exterminate the virus as soon as possible with all the possible means at hand constituted the fruit of rationalist culture and dictated the axioms upon which the western managerial model faced the public health crisis.

On the other hand, Japan, trusting its own unique tradition, chose correspondently to follow its own path according to the ethical principles that spring from its religious culture; hence, the battle again the pandemic outbreak was fought indirectly in the community, but never in the extremes of an all-out conflict. In that sense, it is asserted hereby that the strategy of the Japanese crisis management was not to directly eradicate the root of the public hazard, but to indirectly contain the symptoms until it weakens itself enough. That end led to adopt the axiom that the Japanese community must sustain itself along with the existence of the virus, treated as an endemic – not pandemic – threat, even perhaps tolerate a temporary co-existence as its newly founded normality; in exchange, however, Japan may suffer the least possible violations to the usual rhythm of its social life – hence why never any lockdown, curfew or vaccine mandate was

[133] See, among others, Prime Minister of Greece Kyriakos Mitsotakis' address to the people regarding the pandemic and the protection of public health, February 9 2021, par. 4, available at https://primeminister.gr/en/2021/02/09/25852, where was stated that "w*e chose targeted measures with fast reflexes, while also considering the accumulated pressure brought about by the constraints and the need we all have to return to normality*".

[134] See, among others, Prime Minister Kyriakos Mitsotakis' remarks following his vaccination against Covid-19 at Attikon Hospital, 27 December 2020, par. 5, available at https://primeminister.gr/en/2020/12/27/25543, where was stated that "*the vaccine offers the only way to definitively put an end to this adventure caused by Covid, the only way for us to regain control of our lives*".

ever implemented. After all, this supposition was in the beginning expressed by the former prime minister, Shinzo Abe, when he explicitly declared that "*our goal is to create a new normal for our everyday lives*" and "*from now on, let us change our mode of thinking*"[135], thusly pointing to public measures that "*can be understood as present-day ideology formation*"[136] – not as attempts to return to the previous normality. Exemplary to these crisis management axioms was the abovementioned policy of Three C's, which "*began the conditioning for what norms one must follow in order to belong in this 'new' culture of pandemic Japan*", whereas "*this cultural shift was observed through specific political campaigns that promoted new ways of enacting lifestyles*"[137]; most importantly, along with the Go To campaigns, it became possible to "*infuse the avoidance of the <Three Cs> into a new lifestyle within the Japanese cultural system*"[138], whereas these policies not only avoided the compounding impact of a long-term lockdown[139], but also "*served as a form of collective governance without the authorities having to create any specific laws or regulations punishable by fines that have been implemented in some other nations*"[140] – nations like Greece. Therefore, the axioms of the managerial model followed by Japan aimed "*to halt the spread of the virus, which becomes culture-bound given the breath and spread of campaigns to protect not just one's own health, but also that of protecting others, and by extension, protecting the economy*"[141].

Given these remarks, this *ab initio* strategic intention to co-exist with the public crisis as an endemic health hazard is precisely what successfully differentiated Japan from the western world; and this public crisis model is grounded on what differentiates the Japanese tradition from the western culture. For, inasmuch as the *hongaku* doctrine of Japanese Buddhism represents the acceptance of nature and reality "as-it-is", any change of the previously usual way of life is anticipated not as an exceptional abnormality, but as a new constituent of newly emerging normality, as an imminently nascent element that, albeit threatening public health, must be incorporated to the already known rhythm of social life – and thus, without direct struggle or extreme violations against the community itself. Thus being the case, the axioms of this management model were instituted on the Buddhistic origins of Japan which necessitated that the public crisis is to be resiliently accepted, but never forcibly confronted.

6. EPILOGUE: DIFFERENT SOCIAL INSTITUTIONS ON COMMON EMPIRICAL REALITY

Ultimately, it is hoped that this study elucidated the ontological impact that social institutions project on the status of scientific axioms, which is comparatively elaborated by the reasons, according to which public crisis management on the Covid-19 outbreak were different between the West and Japan. In addition, mostly intriguing is the assertion that this institutional part of scientific praxis is partially independent of its strictly physical counterpart; for the

[135] Prime Minister of Japan and His Cabinet, *COVID-19 - Press Conference by the Prime minister regarding the Novel Coronavirus*, May 25 2020, Cabinet Public Relations Office, Cabinet Secretariat, par. 8, available at https://japan.kantei.go.jp/98_abe/statement/202005/_00003.html.

[136] Sasha Allgayer, Emi Kanemoto, p. 5

[137] Sasha Allgayer, Emi Kanemoto, p. 6

[138] Sasha Allgayer, Emi Kanemoto, p. 6

[139] S. Feder, Japan avoided a lockdown by telling everyone to steer clear of the 3 C's. Here's what that means, in *Business Insider*, May 28 2020, available at https://www.businessinsider.in/science/news/japan-avoided-a-lockdown-by-telling-everyoneto- steer-clear-of-the-3-cs-heres-what-that-means-/articleshow/76071178.cms.

[140] Sasha Allgayer, Emi Kanemoto, p. 9

[141] Sasha Allgayer, Emi Kanemoto, p. 6

empirical reality itself, albeit providing "objective" and quantifiable scientific facts, still became entangled with the living culture in each respective social-historical field and thusly gave rise to wholly other instituted axioms that formulated entirely different models of crisis management.

In the end, we may conclude that the managerial model of the pandemic crisis emerged partially grounded on the axiomatic parameter of the applied sciences – 'convention' by Poincare, else 'social imaginary significations' by Castoriadis; as such, it provided partially scientific and partially cultural answers to the arising scientific questions. Thus considered, our working hypothesis verifies the claim that scientific praxis, as any other institution, bears a distinct dyadic ontology: it is indeed guided by empirical reality, but its fruits are only harvested in accordance with the cosmological context that is adopted by the social-historical field it resides.

Nonetheless, the question how exactly culture interacts with reality reveals the next shadowy path to the vast cave of human thought; however, since worthy to be answered in spite of the darkness confronted, this question is to be straddled in the future.

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PART 1

PHILOSOPHY, PHENOMENOLOGY AND POLITICAL SCIENCE

THE POSSIBILITY OF EVIL AND STUPIDITY IN POSTWAR JAPAN DEMOCRACY: INSIGHT FROM TAKAAKI YOSHIMOTO'S THOUGHT OF "MASS"

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Abstract

This paper is to explore the possibility of "evil" and "stupidity" in term of Postwar Japan democracy. In this paper, I will focus on Takaaki Yoshimoto(1924-2012)'s key concept of "Mass *(taishū*大衆*)*" and put it into the debate of postwar Japan democracy, compared with the citizenship democracy.

As we all know, the prevailing view towards Japan's defeat after WW Ⅱ is concluded by the expression of "Community of Repentance", which is used by Masao Maruyama(1914-1996) as a self-characterization of his generation of intellectuals who had a hard time during the war. Maruyama(1914-1996) is the leading figure advocating citizenship democracy in postwar Japan. And his main aim is to search for autonomy after the defeat of Japan. For Maruyama, citizenship is regarded as an independent, decision-making agent to overcome the "system of irresponsibility", which accounts for the Japan's military emperor-centered fascism during the wartime. The same as Maruyama, Yoshimoto is also considered as one of the most important thinker and holds a great impact on lots of core issues, such as the war responsibility debate, the problem of Marxism in postwar Japan. He criticized both the modernist democracy and the party-led Marxists as they are separated from the "original image of the masses" as a touchstone for the relationship between intellectuals and the masses. And Yoshimoto is also well known for his critical attitude towards Maruyama, especially the citizenship democracy in postwar Japan. Because of his negative view on the citizenship, Yoshimoto's idea of "mass" have invoked an argument about whether his thought is a grass-roots populist approach or not. In this paper, I'd like to propose a new way to understand Yoshimoto's original thought of "mass" from the perspective of "evil" and "stupidity" and explore its contribution to postwar Japan democracy discussion.

1. THE DEFEAT OF JAPAN AND THE ENTITY OF "MASS"

Yoshimoto's works cover a huge range from literature critic to political thought and philosophy. Yoshimoto's thought touched people deeply and he was also engaged in the US-Japan security treaty crisis of 1960 and had a decisive influences on the New left movement. The term "original image of the masses", created by Yoshimoto in the 1960s, represents a basic idea of reference in judging the character of a problem. But, there is a remaining problem that the distinction between the real masses and the original image of the masses, which nobody has lived and it is not clarified in Yoshimoto's writing. Thus, it's necessary to rethink Yoshimoto's interpretation of the real masses so that the relationship between the real and the image can be elucidated.

Yoshimoto grown up as a passionate militarist boy during the wartime, who was firmly

convinced that Japan's victory would come true finally. But, to his great disappointment, the result of the war is the unconditional surrender of Japan.

It's indisputable that the Army Headquarters and congressmen had received considerable support and enthusiastic backing from the masses. It's not a faked history as Okamoto insists, but the truth of history. The masses' disregard towards the oppressor might exist inward under a chaotic state. The ideological belief inside the masses functioned indeed to support the Army Headquarters and the congressmen. I think it's not a prejudice but natural to take the ideology of the populace into consideration while talking about the consciousness of the masses. Okamoto's idea is surrounded by the narrative from the democratic literature writers of preceding generation. Kenzo Nakajima and Shigeharu Nakano's speech in the journal's July issue of The New Japanese Literature Association, titled "Intellectuals' war experiences and Failure", made an assertion to justify their behavior that the problem of inner world tended to be washed away and the expression itself was impossible if they refused to wear a mask. If such kind of assertion is unraveled, the huge dark side which is shared by the intellectuals and the masses would be exposed clearly[1].

For Yoshimoto, it is the explanation of "pretended to obey the imperial order but resisted inwardly（面従腹背）" that leads Postwar Japan democratic revolution down the rocky road to failure. The "evil" that causes the masses vulnerable to the dominant ideology, should be defined; such weakness inside the masses and the strategy to deal with the "evil" are the core of democratic revolution. However, the problem goes unrecognized among the intellectuals like Okamoto.

And another term of "trends of the masses(*tashū no dōkō*大衆の動向)" frequently used by Yoshimoto, was born during the "Discussion on Ideological Conversion*(Tenkō Ron)*" which means ideological conversion of the Japanese socialists and communists during the war. The typical example of the ideological conversion is the conversion of Manabu Sano and Sadachika Nabeyama, two leaders of the Japan communist party, surrendered themselves to the pressure of the Emperor System and gave a declaration in prison, saying that they had recanted their faith towards communism. Unlike the ideological conversion of the Sano and Nabeyama, Takiji Kobayashi and Kenji Miyamoto, as well as Korehito Kurahara didn't surrender to the dominant power during the wartime and they are given the position of unchallenging authority after Japan's defeat.

But, Yoshimoto puts forward another way to rethink the "Ideological Conversion" in which the judgment standard is based on the problem of intellectuals' "isolation from the masses" rather than their faith towards communist principles. Yoshimoto argues as follows:

> Among the external conditions of ideological conversion, the external compulsion and oppression of power was not the most emphatic element. Instead, the isolation from the masses, which is the central idea in my discussion on "Ideological Conversion", played a crucial role indeed. Under the overwhelming control of militarism ideology, nameless people chose death rather than being a captive. This fact reveals that people would probably have such strong determination under the sense of solidarity; or on the contrary,

[1] Takaaki Yoshimoto, "Preface: The war responsibility of intellectuals"(Bungakusha no senso sekininn ron) (Takaaki Yoshimoto/Teruo Takei "The war responsibility of intellectuals", Awaji shobo, 1956

they become incapable when they're isolated[2].

From the viewpoint of Yoshimoto, the reality of the whole Japanese society is that people(or the masses) were unafraid of death and supported the war inward. As Yoshimoto stresses, the masses, who were stirred by Manchurian Incident and Shanghai Incident, as well as the successive right wing terrorist attacks inside Japan, inclined toward the war and the whole Japanese society was filled with an atmosphere of war-supporting[3]. Despite this reality of the masses in the society, the avant-garde communist intellectuals, including both ideological conversion group and anti-ideological conversion group, consistently focused on the ideology of anti-war Internationalism from Comintern Thesis. Such antiwar ideology, which was rooted in the modern forms, failed to conquer the elements of feudalism, then triggered the ideological conversion in Japan. For these reasons, it's not proper to jump at conclusion that the anti-ideological conversion group is superior to the ideological conversion group since the former yielded to the power and the latter didn't from the perspective of moral integrity. As Yoshimoto states at the beginning of his "Tenkō ron", the ideological conversion is ought to be regarded as a mental change, which occurred inevitably when the structure of modern Japan society was impossible for Japanese intellectuals to grasp from an overall perspective[4]. Given that the essential factor is the problem of the isolation from the masses, we shouldn't make a judgment merely based on whether they had an ideological conversion or not. The two groups hold a totally opposite attitude towards the political power, yet they share same characteristics. This unique explanation of Yoshimoto is as follows:

> It is generally accepted that the ideological conversion of Sano and Nabeyama is their submission to the oppression of the Japanese Emperor(feudal) System. But, I think it should be reevaluated from the perspective of the "trend of the masses". Concretely speaking, besides the submission to the pressure from the Japanese Emperor System, the important fact is that the isolation of the masses shattered Japanese intellectuals beyond endurance. It's clear that the ideological conversion of intellectuals shown the introspection of being isolated from the masses. And in fact, their introspection couldn't get a significant meaning of thoughts, since it was misdirected and interpreted politically, concentrating on the harmonization or rebellion between the nationality and the class. In spite of that, two or three revolutionaries, who held strong conviction of the principal of Comintern Thesis, are in no way superior to Sano and Nabeyama in terms of introspection. Actually, both are just two different types of intellectuals in appearance but same-rooted essentially[5].

Inside the trends of the masses is the popular nationalism of Japan. As Yoshimoto points out, nationalism has always been synonymous with totalitarianism of Emperor System, ultra-nationalism and aggression of imperialist in a negative sense. Especially for liberal intellectuals and Marxists, the term "nationalism has two meanings, refer to "guilt complex" of war-supporting and "victimized feeling" of being oppression. Hence, nationalism of Japan is tend to be recognized as a symbol of "absolute evil" in these discourses. But Yoshimoto is of the opinion that the crime and appropriate punishment of Japan's nationalism is indefinite. For example, the confrontation between the liberal intellectuals, who are not able to oppose their own crime and punishment to those who died during the war, and right-wing intellectuals who

[2] "Ideological Conversion"(Tenkō Ron)originally published in "Modern Critic", No.1,1958,Nov, Complete Collection of Takaaki Yoshimoto,13vols, Keiso shobo.1969, pp.9,10

[3] Ibid,p.15

[4] Ibid,p.6

[5] Ibid,p.16

holds affirmative attitude toward the war even after Japan's defeat, demonstrates that the problem of crime and punishment hasn't been settled yet in postwar Japan. To deal with this situation, Yoshimoto puts forward an idea of reevaluating the concept of Japan's nationalism. The masses' "nationalism" of Japan deserves much more consideration than being oversimplified just as an "evil". Instead, it also exists in the process of life in which people's consciousness become aware and the opportunity of being independent from the ideologies and the pressure of the power comes along.

As Yoshimoto states, into the Showa-era, the very problem was that people's passion of nationalism lost its actuality of life and all aspects of life were conceptualized and integrated into the ideology for aggression and expansion to other countries. In terms of economic impact, the oppression of capitalism brought about extreme poverty in countryside and anxiety of urban life. This situation stimulated the Mukden Incident which was politically supported by intellectuals-oriented ideological ultra-nationalism. However, the modernist intellectuals such as communists of Japan, ignored the reality of Japanese society and the origin of nationalism; they were convinced that the imperial fascism and feudal elements would be restrained as long as they stuck to modern theories and anti-war models. To Yoshimoto, this idea is exactly the major reason that protest movements led by the intellectuals, failed to defeat the imperial fascism's oppression. And the well-known terms, such as "independence" and "the foundation of the masses" were created and applied by Yoshimoto in the relationship with the nationalism and war responsibility debate.

The content of Yoshimoto's debate of the masses became more explicit in his critic "On Maruyama Masao", calling Maruyama's analysis of imperial fascism into question. Before pointing out the problem of Maruyama, Yoshimoto highly acclaimed Maruyama's emphasis of "the lack of an independent agent conscious" as a brilliant analysis. Maruyama is famous for defining the structure of Emperor System of Japan as a "system of irresponsibility(無責任の体系)" which was at the core of the militarist society during the war. Maruyama argues:

> The entire national order is constructed like a chain, with the Emperor as the absolute value entity; and at each link in the chain the intensity of vertical political control varies in proportion to the distance from the Emperor. One might expect this to be ideal soil for the concept of dictatorship, but in fact it was hard for this concept to take root in Japan. For the essential premise of a dictatorship is the existence of a free, decision-making agent, and this is precisely what was lacking in our country: from the apex of the hierarchy to the very bottom it was virtually impossible for a truly free, unregulated individual to exist[6].

Surprisingly, in the governance of the Emperor System, even the emperor was not an independent agent. It turns out that the huge evil of the system is to blame for the war responsibility. At this sense, no matter Maruyama intended or not, the responsibility of the intellectuals who conveying the war-ideologies is somehow diminished. Discredited past is in the past, and Maruyama holds a strong will of "staking his hope on the illusion of postwar democracy" in response to the Japanese economist Nobuyuki Ookuma's opposite idea which regards the postwar democracy as an illusion created by the foreign occupiers. For all years, this dilemma that Japan's democracy is not achieved with its own autonomy but compelled by the American occupiers, has haunted the discussion of postwar democracy and the Japanese society as well. And another question is that the decision-making agent is not always the responsibility

[6] Masao Maruyama, *"Thought and Behaviour in Modern Japanese Politic",* 1956,trans.Ivan Morris, Oxford University Press,1963,p.16

agent. Thus, as Masatoshi Mori said, the relationship of the two is confused in Maruyama's debate and his theory reveals the influence of the decisionism of Carl Schmitt[7].

Yoshimoto holds a different opinion about the war responsibility and shifts the perspective back to the evil of the those who were supportive for the war. People become cruel not just for the reason of external ideologies or principles of the dominant system. People are not only victims but also the supporters for the war in some cases. Yoshimoto explores the "evil" which is part of people's nature under the condition of imperial regime. However, the "evil" element becomes ambiguous because it is explained that people pretended to obey the imperial order but resisted inwardly. Thus, Yoshimoto thinks that Maruyama's analysis of "system of irresponsibility" is not adequate to answer the question of the war responsibility. Yoshimoto concentrates on the character of the masses which is far from the ideologies:

> The masses live a life as it is. It's not based on the Emperor System or a certain ideology. If it is not based on this premise, whatever image of the masses is described, it must be a facade. The masses' state of being and existence(大衆の存在様式) of Japan is supposed to be set as a specific problem. However, the masses discussion is limited to a misleading problem of advocacy and establishment of democracy, focusing on the transformation of dominating hierarchy from an Emperor System to a bourgeois democracy. This mistake corresponds with that of Maruyama School as well as similar citizenship democratic intellectuals[8].

As we can see in Yoshimoto, the masses of the original image of the masses are not moved by the ideologies. Then comes a question why people do evil? The relationship between the masses' state of being and the Emperor System is the key point for the answer. Yoshimoto continues:

> It' incredible that barbaric behaviors of Japanese army in China and Philippines had been done for the reason that they were guaranteed by the absolute transcendental value of the imperial army which was reflective of Truth, Good and Beauty. On the contrary, the brutality of ordinary soldiers was closely related to the folk-custom of Japan which determines the state of imperial system. Japanese intellectuals who ignore this important aspect, are still under a horrible impression on the imperial system, although the imperial system itself is ended and its ideology is only kept in the historical museum as a memory. The most basic part of imperial ideology still remains and continues to change in the strain of the masses' state of being, no matter the imperial system and its ideology as a reality-dominating system vanish or not[9].

The masses' state of being is not determined by the imperial system. Instead, the opposite idea is proposed that the Emperor System is determined and characterized by the masses. The "evil" aspect in the masses is not supposed to reduce to the imperial fascism of Japan and it is actually existing in the masses' state of being. This idea of Yoshimoto provides a new vision for the war responsibility. On the one hand, in contrast to the western model relied on by modernist intellectuals, the masses' state of being is proposed by Yoshimoto as a backwardness of non-western society. On the other hand, a breakthrough of resistance to the power and being

[7] Masatoshi Mori, "The Thought of Social Science in postwar Japan: From Masao Maruyama to Neoconservatism", NHK Press, 2020, p.70

[8] "On Maruyama Masao"(Maruyama masao ron) Yoshimoto Takaaki zenshu, Keisoshobo,vol.12, originally published in the Journal of Hitotsubashi shinbun,1962.1~1963.2,p.26

[9] Ibid,p.29

independent derives from a sensation of folklore at the bottom of Japanese thought. This positive possibility has been fully demonstrated in the context of Yoshimoto's criticism towards citizenship democracy.

2. THE MASS AND POSTWAR CITIZENSHIP DEMOCRACY

The turning point that brought Yoshimoto's idea of the masses into the spotlight as a strong evocative one is his criticism towards citizenship-democratic intellectuals. The confrontation between Yoshimoto and the citizenship-democratic intellectuals has been always considered as a binary oppositions of “citizens and the masses”. Yoshimoto captured the anti-authoritarian sentiments of the youths and his works have attracted lots of readers even today. As far as I know, lots of Japanese professors majoring philosophy, literature and other academic fields are a big fan of Yoshimoto and keep reading his works and following the recent research trends of Yoshimoto. At the same time, in order to support the idea of citizenship especially from the Maruyama’s proponents, there have been a number of criticisms towards Yoshimoto considering his idea of the masses as a sanctification of masses. As discussed in the chapter1, Yoshimoto don’t regard the masses as a morally good value; this kind of criticism towards Yoshimoto is only one part of the purposes of Yoshimoto and it limits the possibilities of Yoshimoto’s idea of the masses in this respect.

Furthermore, a widely-accepted idea that the original image of the masses had a critical influence in the 1960s but Yoshimoto's affirmation of consumer society from the 1970s to the 1980s is seen as a lapse of his idea of the masses. In order to provide a definitive answer, I will trace back to the key points of the " independence of the masses" and criticism towards citizenship democracy. Just as he pronounces the invalidation of the model of thought accepted by the modern intellectuals in his work "Ideological Conversion", Yoshimoto puts forward his warning that the postwar democracy may fall into cliché unless it goes through the democratic process to make it rooted in Japanese society radically.

> If we take up such issues as an thought based on experiences, for example, postwar democracy can be understood as a double experiences of accepting the war itself while maintaining the idea of democracy as an inner belief. Compared with Japan, the best part of western democrats is that they went through the war as militant democrats defending democracy at the peril of their lives, whereas Japanese democrats participated in the war while thinking of democracy inwardly.(omission)
>
> Moreover, the democratic experiences of Japan, such as the experiences of Masao Maruyama during the war, what is problematic is that democracy is only experienced as a universality of idea. As long as it is regarded as universal named bourgeois democracy, proletarian democracy or people's democracy, the substantive structure which is indispensable for democracy can't be attached. It has been a problem that we have to solve as a matter of empirical thinking in postwar Japan.[10]

The gap Yoshimoto emphasizes between Japan's democracy and the radical democracy is best symbolized by the intellectuals who rationalized the war during the wartime but began to advocate citizenship and democracy as soon as the war ended. Yoshimoto couldn't help but feel annoyed at the contradiction of intellectuals: "the case of Japan, people who said that the war was great are the people who said that let's keep and defend democracy!". This problem actually inspired Yoshimoto with distrust of "democracy" and "citizenship" in postwar Japan.

[10] Takaaki Yoshimoto, “The image of nation and mass nationalism”(originally published in the lectures in Kyoto University,1965,Nov,21) Complete Collection of Takaaki Yoshimoto,14vols, Keisō shobō.1972,p.79

Yoshimoto also states that "in retrospect, one of the most important kernels of my experience of Japan's defeat is merely the fact that Japan's ultra-nationalist ideology formulated by the nationalism of the intellectuals bore a harsh reality behind its beautiful slogans[11]. The intellectuals have played a role of mediators who transform the nationalism of the masses into the "evil" of ultra-nationalism. In other words, intellectuals should be held accountable for their complicity and guilt in pulling the masses away from pure thinking of daily lives with their intellectual and empty ideologies.

As a reflection on the evil of the masses during the war, Yoshimoto's anger is replaced by his hatred toward distrust of "intellectualism" and bystander intellectuals who failed to resist the war. According to Yoshimoto, this is not a problem that can be solved by transplanting advanced international level of thought to this particular situation of thinking. The task of Japan is rather to "capture the nucleus of the masses' consciousness under the sovereignty[12]". Such a nucleus of the masses' consciousness refers to the soil of Japan's historical and political thought traditions, such as the "separation of political and ritual power" in the political governance of shogunate[13]. The other issue is intellectuals' task of absorbing and developing the original image of the masses.

> The question remains, then, what thought means for the masses? The reverse process is a process where the major concern of the masses is only related to daily lives and far from the State Power since they haven't been intellectually advanced. (omission) When the masses pay no heed to the unreal ideologies which incite the war or advocate a simplistic idea of peace, the masses are no longer restricted by the transformation of dominator of a certain era. The task of masses' thought is to deepen the consciousness of the masses downward. If the task is successful, they will be decidedly at odds with intellectuals. The masses will no longer be enlightened about the importance of the war by the intellectuals' assertion of pacifism. Instead, it is deepened by the realities of their lives; the opposite images of thinking pattern is available in this way.[14]

Here, paying no heed doesn't mean indifference or being apolitical, but a form of deepening the thought of masses in response to or in opposition to the ideologies that come up to them. In Yoshimoto's view, the basis of the self-independence is nothing other than "the original image of the masses", which is a way of thinking only about the problems that arise in the repetition of life. Then in 1960s, Yoshimoto began to position the foundation of the masses as a "Topic of Thought(思想的課題)". The idea of the masses means the natural process of life and de-ideology, de-enlightenment as well. The topic of thought is to descend and deepen the consciousness of the masses that only matters related to the process of life. Since then, Yoshimoto discusses the masses as an absolute symbol of thought.

However, there are several remaining problems in such discussion of the masses. First of all, Yoshimoto has investigated the responsibility of the previous generation of intellectuals, but the responsibility of Yoshimoto himself should be called into question, too, especially in comparison with the masses. In this regard, as Itsuo Kohama points out, there is a problem of idealism in Yoshimoto's personal war experience that he relies on. As mentioned above, Yoshimoto exposes the evil of the masses to reprove the intellectuals who are regarded ethically

[11] Takaaki Yoshimoto, "Nationalism of Japan"(Nihon no nashonarizumu)(originally published in "The collection of Modern Japanese Thought" Vols4) "Complete Collection of Takaaki Yoshimoto,13vols, Keiso shobo,1969,p.227

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[13] Ibid,p.78

[14] Ibid, pp.80,81

responsible for the war. He focuses on the evils and sins of the previous generation of intellectuals who cover up their support towards war and are much more accountable in this sense. But, his own war responsibility(although he didn't participate in the war) are not explored seriously as a question of the first importance. As a young generation, Yoshimoto is capable to criticize the old generation engaged in the war responsibility and form a "Community of Resentment" against Maruyama's "Community of Repentance"[15]. In this sense, Yoshimoto who didn't actually experience the war as a soldier, may have seen himself coinciding with "ignorant" masses. In Yoshimoto's idea, intellectuals are considered much more guilty than the masses as intellectuals didn't resist even they know the truth of the war. Eiji Oguma is skeptical about Yoshimoto's war experience and he puts forward a hypothesis that Yoshimoto evaded military service under the guise of entering college majoring a science subject. Oguma's doubt indicates that while Yoshimoto himself can claim his innocence against the previous generation of intellectuals who supported the war, he can never claim innocence against the "masses" as an high-educated pre-intellectual during the war. But Yoshimoto's fierce criticism and scientism towards intellectuals exposing the deception of them received lots of support from the young people who abominate the power and authorities.

Needless to say, war supporting is not the only theme in Yoshimoto's discussion on the war responsibility in the past. The problem concerning the uncertain future is the democratization process in postwar Japan. During the war, Japanese society was surrounded by the enthusiasm for the ideology of the Emperor System. But, intellectuals trumpeted the value of peace and democracy enthusiastically as soon as the war ended. To Yoshimoto, the passion for democracy in postwar Japan is quiet similar to that of imperial ideology.

The important question for Yoshimoto is to what extent the significant meaning of war experiences are intellectually expanded in postwar Japan. Another question is the discussion on the role that the original image of the masses can play. Some stresses that Yoshimoto's original image of the masses implies a negative aspect of the masses as "life-oriented conservatism" which is supported to be avoided. But, as discussed above, there is not a value judgment of right and wrong in Yoshimoto's idea of the masses. The divergences between Yoshimoto and his opponents is whether to recognize the authenticity of the masses; in other words, the masses are just as they are. Actually the image of the passive masses depicted by the "original image of the masses" is quiet similar to the attributes of the "subaltern", as postcolonial claims. That is to say, they are repressed, but they are unable and sometimes not allowed to express their position of oppression literally. For example, the image of "writing masses" advocated by Tsurumi Shunsuke in the mass communication movement is exactly what Yoshimoto tries to criticize. As Yoshimoto argues, "the original image of the masses is the masses as they are, which never appears under such a mass communication. The masses cease to be the masses as long as they enter the process of intellectual advancement through the act of "writing".

CONCLUSION

The masses are sometimes infiltrated by the empty ideologies and they are stupid in this sense. In some political ideologies, the word "masses" or "people" is abused as a political concept for the legitimacy of governance; then the masses must be interpreted as a justice. Actually, "citizenship" (shimin) is also advocated as a justice in political movement in postwar Japan. However, there is a concern that it bears too much political justice and is pulled away from the original purpose.

[15] WANG Xiaomei, *"Reflection on the Advocates of Postwar Citizen Democracy and Yoshimoto Takaaki: From the Perspective of "Community of Repentance"* .The Journal of Japanese Language and Literature, No.59,2022, March

Yoshimoto's idea of "the original image of the masses" preserves an attitude of neutrality on the masses who have an inherent nature of being "stupid and evil". At the same time, their main concern is ordinary lives.

Maruyama's search for autonomy and expectation for the liberal decision-making agent and the citizenship are his main concerns for postwar democracy as other citizenship democrats do. But Yoshimoto is skeptical about Maruyama's ideal of "autonomous agent" and thinks it's impossible to achieve it for ordinary people—the masses. Both M. and Y. are criticized because of their one-sided and inadequate characterization of citizens and the masses. Yoshimoto's viewpoint of the masses lacks the ability of rational decision-making and won't grow into a strong political force for democracy. On the other hand, Maruyama's notion of "citizenship" is too idealistic to achieve for ordinary people. And the idea of citizenship is a modern idea based on western thinking.

The recognition that the establishment of autonomous agents was a failure in the intellectual tradition of Japan, is shared by both. Maruyama doesn't abandon the idea of the autonomous and responsible agent. The poverty of personal autonomy in wartime motivated him to search for autonomy and democracy in postwar Japan. Yoshimoto disagrees with Maruyama's methodology of political thoughts. And he holds that the reality of the masses cannot be grasped in an intellectually ordered way as Maruyama wanted. However, Maruyama is not the only one who has to bear the criticism as representing Western-minded modernization. Yoshimoto's concern behind his notion of "collective illusion" is linked with the questioning of modernity. As Mita points out, tense and conflicting relationships between collective illusion and its counterpart, the self-illusion, can be seen as struggles between the individual and community[16]. Like autonomous citizens, the masses in Yoshimoto's thought is also a strong agent. His expectations of the masses are rooted in the realities of daily life and feelings.

Unlike the citizen as the morally "good," independent agents for democracy, Yoshimoto sees "evil" aspects in the nature of the masses. Yoshimoto's perspective of the people(the masses) suggests that people will not be cruel just for external ideologies or principles. There is an inevitable "evil" lying in the human's nature, which can't be get rid of or educated into the "good". This "evil" or "stupidity" in the masses is also stubborn in this respect.

The "evil" and "stupid" are usually underestimated in rational thinking. For Yoshimoto, the "evil" and "stupid" are inevitable for human-beings. As recent philosophical arguments highlight, stupidity and evil are the inherent problem in our thinking[17]. It shouldn't be neglected or removed from thinking. When the "evil" in the masses is strong enough, it can probably reject empty ideologies that are far from their real lives. This is one positive potential of the masses indicated by Yoshimoto.

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PAPER REGISTERED TO INTERNATIONAL CONFERENCE INNOVATIVE PHILOSOPHY AND LAW (IPL 2022) SOCIAL GOVERNANCE IN THE UNCERTAINTY – CASE OF COVID-19 PANDEMIC

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Abstract

According to the system approach, social governance is a sub-system that performs the function of orienting sustainable development for the whole society. Social governance operates on the principle of openness, goal orientation, dominance, and multi-dimensionality in an ever-changing environment. Social theorists argue that every social system must fulfill at least four functional requirements in order to survive and develop in an ever-changing environment. They believe that social governance must establish an "open, transparent, accountable" communication system between elements within the system and of the whole system with other systems in the environment around. The Covid-19 pandemic has changed the mode of operation of societies around the world into a state of uncertainty from economy, politics, culture, education, to psychology and human spirit. Countries have implemented a variety of strategies and measures to govern society in the uncertain state caused by the Covid-19 pandemic. The successes and limitations from these social governance strategies and measures need to be analyzed and generalized from the perspective of social governance theory.

1. INTRODUCTION

The current COVID-19 pandemic highlights something that was already known for decades: modern governments need to master the art of equilibristics – they need to offer public value in all governance arenas while battling increasing levels of uncertainty and change. The COVID-19 is not merely a public health crisis but also raises questions about the management of uncertainty during novel crises and, more profoundly, public trust in expertise and governance under such circumstances. The fight against COVID-19 thus entailed actions by a range of government agencies, departments, and ministries, at multiple levels, especially those responsible for health, economy, education, and social issues and brought to the fore the central role that the government plays in many areas, including public health governance. The COVID-19 pandemic reveals that the public sector is not only facing simple and complex problem, but also turbulent problems characterized by the surprising emergence of inconsistent, unpredictable, and uncertain events. Turbulent problems call for robust governance solutions that are sufficiently adaptable, agile and pragmatic to upheld a particular goal or function in the face of continuous disruptions.

The point of this paper is not to discuss the nature of the COVID-19 pandemic, but rather to raise an important question: how should governments (and society as a whole) react and adapt to such an uncertainty? Are the current institutional structures and patterns of governing able to deal with these disruptive changes?

2. COVID-19 RESPONSE IN SOME COUNTRIES

The COVID-19 crisis has made clear that turbulent problems—characterized by surprising, inconsistent, unpredictable, and uncertain events—persistently disrupt our society and challenge the public sector. The public sector is being tested to its limits by the COVID-19 pandemic, which hass wept away the standard repertoire of foresight, protection, and resilience strategies and brought society and the economy to a near halt. In the face of the social and economic disruption caused by turbulent problems, it is not enough for the public sector to activate a predefined emergency management plan, call in the bureaucratic troops to deal with the crisis, and let them do their professional work supervised by policy experts and a handful of executive political and administrative decision-makers united in some form of adhocracy. Turbulent problems call for cross-boundary collaboration, public innovation, and, perhaps most importantly, the development of robust governance strategies that facilitate and support adaptive and flexible adjustment.

Today, in the face of COVID-19 and other disruptive problems such as climate chaos, globalized terrorism, the Russia-Ukraine war, it has becoming increasingly clear that the public sector is ill-equipped to address such issues. In addition to being complex, some problems are also characterized by being turbulent—that is, surprising, inconsistent, unpredictable, and uncertain. Such problems preclude the existence of ready-made solutions. When wicked problems were first 'discovered' and conceptualized in social science research, it was generally assumed that the context for solving these problems was relatively stable, or at least developed in predictable ways, thus allowing time for public authorities to mobilize and involve relevant and affected actors in governance processes. By contrast, the new research on turbulence asserts that globalization, new disruptive technologies, mediatized communication, processes of political disalignment, and planetary limits to growth create an increasingly turbulent world in which events, demands, and support interact and change in highly variable, inconsistent, unexpected, and unpredictable ways.

The turbulence concept originally developed in physics to describe chaotic fluid dynamics, such as stormy weather or complex river currents. In the social sciences, the idea began to appear in the mid-1960s, to describe the dynamic complexity of the conditions for governance at the organizational, national and international levels. However, while this work has been fruitful, it has remained a distinctly marginal tradition of scholarship, mirroring the relative emphasis scholars have given to understanding routine over turbulent management. Although unfortunate and trying, turbulent events have been understood as limited in scope and scale and hence relegated to minor analytical importance. Yet the balance between the routine and the turbulent has shifted and we have been slow to catch up. The elaborate interdependence and speed of global digital society means that the task of managing surprising, inconsistent, unpredictable, and uncertain events is a far more central task for the public sector.

The global COVID-19 crisis offers a case in point. We now know that national health experts denied the risk of a pandemic up to a few days before the virus spread across the globe. The virus was a mutated SARS virus that proved to be more contagious but less lethal than previous iterations. It was always expected to mutate again. It apparently affected those it infected very differently, but the pattern and reasons were unknown, and those who got seriously ill could not be offered effective treatment. The conventional government response to the pandemic was a near-total lockdown of society that disrupted the economy and forced poor people without welfare support to choose between hunger and infection. Other solutions, such as social distancing, were more experimental and there was little evidence that wearing a facemask

would reduce the risk of infection. However, it was clear that public, private, and third-sector actors, including the citizens themselves, must mobilize in the effort to curb the health crisis and the resulting social and economic crisis. Finally, the massive public debt incurred during the COVID-19 crisis is likely to come at the cost of future health standards and lead to more deaths. While there is abundant research on how public governance can cope with complex problems, there has been scant focus on the pressing issue of turbulence and the impact of turbulent problems on public governance.

As noted above, social science appreciation for turbulence is hardly new. What is new is that the traditional strategies for dealing with turbulence are no longer effective. Foresight is undermined by changing social, economic, and political dynamics and the constant emergence of new, disruptive technologies. Nor can we cannot protect ourselves against turbulent problems in a global world in which streams of people, information, and commodities cross borders at an increasing pace. Building resilience to enable communities to bounce back is also problematic, because a restoration of the old equilibrium may be neither feasible nor attractive. To put it bluntly, we cannot deal with turbulent problems simply by having dedicated, well-trained staff and warehouses full of emergency equipment ready when the next unknown, unpredictable, and uncertain problem hits the public sector. In turbulent situations, foresight, protection and resilience are not enough. Instead, the public sector must meet turbulence with robust strategies where creative and agile public organizations adapt to the emergence new disruptive problems by building networks and partnerships with the private sector and civil society. The disruptive challenges may either be external or internal to the system, and they prompt adaptive processes and/or proactive actions that deal with the challenges in ways that uphold a certain agenda, function, or value. According to Christopher Ansell, Eva Sørensen, and Jacob Torfing; '*governance robustness is a property of political institutions, political and administrative processes, and policy instruments. As such, robust governance strategies are defined as the ability of one or more decision-makers to uphold or realize a public agenda, function, or value in the face of the challenge and stress from turbulent events and processes through the flexible adaptation, agile modification, and pragmatic redirection of governance solutions*' *(p. 4).* Robust governance relies on adaptation and may change political and administrative institutions, regulatory processes, and policy instruments to meet new and emerging conditions. Hence, whereas a stable system can resist change, remain the same, or recover in the face of perturbations, a robust system aims to transform itself to achieve an agenda, function, or value.

The COVID-19 pandemic as an example of turbulence. We focus on highlighting the turbulent nature of the current COVID-19 pandemic and how most of the conceptual elements that describe turbulence are present in this case. Furthermore, despite the best efforts made by governments across the globe – from the high-speed race to develop a viable vaccine (which in itself is a positive sign of mobilization and flexibility in finding solutions) to the highly diverse approach in dealing with the 'shock' – proves that there is much to be done to develop a robust response to future adversities such as this. It is not our purpose to dig into the specific country or even international response to the pandemic but rather to highlight that this is a real world example of turbulence that governments need to be able to deal with.

The above description of the effects of the COVID-19 pandemic (seen through the lens of turbulence) is by no means exhaustive – such an effort would definitively need separate extensive research in each of the areas that are impacted – social life, economic, political, health, education, and the list could go on – but the mere fact that the effects are so extensive and profound is an argument in itself of the nature of the world we are currently operating – highly complex, interdependent and overlapping, which in itself is a challenge in finding the adequate

solutions. Ansell, Sorensen and Torfing (2020) express this eloquently: *'The COVID-19 crisis is a game changer for public administration and leadership, as it reveals the demand for robust governance strategies to deal with turbulent problems and demonstrates the need for public sector transformations to support the robust governance of turbulence' (p. 1). (...) 'The crisis has demonstrated the need to perceive of challenges to the public sector in a new way and is revealing the necessity, willingness, and capacity for changing the modus operandi of the public sector in the pursuit of robust solutions to turbu-lent problems' (p. 8*).

Management of turbulence begins with taking decisions about the measures needed to deal with turbulences evaluated as tolerable. It involves designing, selecting and implementing strategies to reduce the adverse consequences associated with the turbulence. The decisions taken after appropriate evaluation are instrumental in determining how much harm a turbulence will ultimately cause. In the context of the current outbreak, the pace of the infection's spread has been a key constraint in the decision-making process, forcing policy-makers to decide on unprecedented mass restrictions at great speed, under ongoing uncertainty and in the knowledge that the cost of failure could be very high numbers of deaths. Despite the complexity and uncertainty of the epidemiology, strong scientific consensus has resulted in a high degree of agreement among policy-makers on the kind of measures needed to suppress it. This emerging policy consensus was strengthened as increasing data became available from the earliest-affected countries, notably China and Italy. Timing has therefore emerged as a key differentiator between responses in different countries. Thus far, two delays in particular have played an important role in determining the trajectory and scale of the global outbreak: an initial three-week delay in China after the first cases were seen, and a later delay in suppressing the virus in the United States. A further source of variation in the way countries have managed COVID-19 has been the healthcare capacity constraints mentioned earlier. For example, a lack of key materials in some Western countries has hampered their adoption of large-scale testing strategies that appear to have been successful when deployed elsewhere, notably in South Korea. Furthermore, there is an ongoing debate about the extent to which civil rights can be compromised in order to reduce the health risks. While South Korea reported to have success with a tracing app that would warn people if a positive tested person would come near to them, most European countries felt that such an app would not be compatible with the existing civil rights legislation unless it could be entirely anonymized. Hence, policy-makers are forced to decide on further measures to manage risk-risk trade-offs—the additional risks created or exacerbated by the measures taken to manage COVID-19.

In particular, huge financial commitments have been made to mitigate the potential economic harm caused by the steps taken to suppress the outbreak. It is too early to judge either the cost or the effectiveness of the management strategies that policymakers are pursuing. It is also too early to judge what unintended consequences these strategies might lead to. In light of the scientific evidence about COVID-19, policymakers have had little choice but to intervene rapidly and forcefully in multiple interconnected complex systems (healthcare, economy, society, global transport, etc). It should not come as a surprise if these interventions trigger further spill-overs, including potential nonlinear effects.

During COVID-19 pandemic, because of lessons learned from prior experience of SARS and H1N1, which compelled affected countries to reconfigure their welfare systems and expand their capacity to counter pandemics, and partly because their governments are able to enforce severe restrictions. Confucianism in Asian countries encourages individual compliance to group values and social conformity, generating a form of consensualism underpinned by a culture of volunteerism. Thus, institutional weaknesses can be compensated for by a combination of

powerful, centralized control, with government policies enacted through strong local bureaucracies supported by community activism. These observations deliver a powerful message that an exclusively top-down approach to overcoming the pandemic and its aftermath will not be effective. Some countries have been more successful in controlling infection and death rates than others. Certain key factors, such as contact tracing and tracking, the closer involvement of local communities and prior experience of similar pandemics, appear to have been significant in helping these countries to contain the spread of the disease.

However, we note a tendency for certain sections of the public, in some countries, to rebel against government regulations and public health advice. Many citizens are reluctant to accept the restrictions on their social and working lives, and are suspicious or fearful of life-saving vaccines. These issues, which need to be dealt with sensitively, represent a complex and multi-faceted enigma that social science must strive to deconstruct. Nevertheless, given the institutional and cultural differences of countries around the world, it would be overly simplistic to assume that a one-size-fits-all approach would optimize all national responses to the crisis. Rather, a systematic, in-depth investigation must specify the refinements essential for engineering flexible strategies capable of adaptation to the needs of individual nations.The research priority will therefore be to comprehend the cultural mores and attitudinal barriers that make people from varied societies resistant to public health measures, thus giving governments, founded in a diversity of institutional and political traditions, the evidential insights and understanding they need to engage in effective dialogue with their citizens, facilitating public health campaigns and increasing health literacy at all social levels. This combination of measures will ultimately optimize public health preparedness and inculcate the safe practices essential for protecting us all against this and other existential threats that scientists warn us will inevitably ensue.

Scholars have cataloged Vietnam's policy response, with success attributed to a variety of factors, including mass mobilization of the health care system, public employees, and the security forces, combined with an energetic and creative public education campaign; swift policy action, prioritization of public health above economic considerations, and the deployment of government and civil society organizations in a "whole of society" approach; mobilization of the political system and a "proactive and comprehensive" response by the healthcare system; and preparation, mass testing, and isolation. Some researches show the factors of Vietnam's policy response, those are: (i) command-and-control governance, (ii) extensive preparation, (iii) fostering cooperative sentiment and solidarity, (iv) political readiness and communication, (v) policy coordination, and (vi) adaptation.

3. IMPLICATIONS FOR SOCIAL GOVERNANCE

The COVID-19 pandemic reveals that the public sector is not only facing more or less complex problems that it must solve but also that it is confronting an increasingly turbulent societal environment in which public problems are themselves penetrated by turbulence. Enhancing the future capacity to respond to turbulent problems by means of designing, combining, and executing robust governance strategies requires administrative reform.

It is imperative that we make public institutions and programs more flexible and agile so that they can transform and adapt themselves in response to turbulence and scale their problem-solving efforts up and down. Flatter, modularized, and easily integrated organizations will tend to adapt to new and emerging demands than large, compartmentalized, and insulated hierarchies. In addition to new organizational designs, we need a new organizational vocabulary, mindset, and set of routines allowing managers and employees to shift from standardized service

production to the creation of innovative, scalable solutions that provide robustness. The zero-error culture that pervades social governance from top to bottom must be held at bay so that mistakes and errors resulting from experimentation with prototypes in turbulent environments are not seen as the end of the world and evidence of incompetence or lack of motivation, but instead as the first step toward learning and as the results of strategic miscalculations based on insufficient knowledge, inherent dilemmas, and unacknowledged conditions. The import of ideas associated with the new-design thinking may help transform the culture of social governance in ways that support robustness by encouraging teams to eempathize with users and target groups, explore and redefine problems, challenge assumptions, imagine and critically scrutinize new solutions, develop and test prototypes through experimentation and repeat the sequence over and over again to improve the solution in the face of persistent changes and disruptions. Control-fixated administrative steering systems must give way to trust-based systems that allow more room for decentralized flexibility, innovation, and adaptation, thereby preparing public organizations to deal with turbulence.

Social governance must build, cultivate, and strengthen their collaborative relations with relevant and affected actors. The development and application of robust governance strategies are conditioned by multi-actor collaboration that can help to flexibly mobilize relevant resources, enhance knowledge-sharing and coordination, stimulate innovation, and build common ownership to joint solutions and their subsequent adaptations. While collaboration must be purpose-built and established ad hoc, building relational trust and mutual understanding requires long-term investments. Hence, if public and private actors collaborate on everyday governance, it becomes considerably easier to collaborate during turbulent crises when stakes are high. Finally, social governance must rethink its relationships with citizens. The citizens' trust in government, compliance with rules and regulations, and acceptance of new norms and values are critical to the creation and implementation of robust governance solutions, especially since government recommendations will often be subject to frequent reformulations that test the populations' understanding and patience. To build broad-based, popular support, governments must get in closer proximity to citizens by inviting them to participate in the co-creation of public governance as often as possible so that they better understand the complex challenges to public governance and see that government, for the most part, is populated with dedicated professionals who are doing their best to create public value for the citizens and society at large.

Public leaders must also reinvent themselves on several dimensions to enhance the capacity for designing robust solutions to turbulent problems. First of all, when dealing robustly with turbulence, public leaders can neither rely on transactional leadership aimed at ensuring compliance with predefined task descriptions nor on transformational leadership that seeks to formulate, communicate, and maintain a particular vision for how to solve public tasks and provide a detailed account of the mission. When confronting turbulent problems in a turbulent world, public leaders will know neither precisely what the problem is, what the goals are, what it takes to achieve them, nor how to describe the various tasks. In the midst of turbulence, public leaders must engage in a dialogue with employees and stakeholders to elicit their inputs and persuade them to test new strategies in practice and help accelerate the learning process; hence, leaders should act as stewards rather than principals.

Public leaders at all levels will have to learn to operate in uncertain and unpredictable circumstances and attempt to solve problems under pressure and without sufficient knowledge about cause and effect. Leadership in turbulent times is not for control freaks or those with a strong preference for rational decision-making based on deep analyses and protracted studies. Leaders will have to trust their instincts, consult real-time data, seek expert advice, accept

cognitive dissonance and imperfect solutions, build alliances, learn from experience, adapt to new circumstances, and look for next practice rather than being seen to apply a non-existing best practice.

Public leaders must step up their communication skills. People look to public authorities for credible advice in turbulent times. The communication of robust governance strategies requires clear communication about societal risks and what people can do to reduce them, careful explanation of changing public goals and efforts, openness about reasons for taking a particular action, the inherent dilemmas and the risk of failure, and celebration of the many actors who have helped to achieve successful outcomes.

4. CONCLUSION

The COVID-19 crisis has demonstrated the need to perceive of challenges to the public sector in a new way and is revealing the necessity, willingness, and capacity for changing the modus operandi of the public sector in the pursuit of robust solutions to turbulent problems. We need a deeper understanding of the concepts of turbulence and robustness and how they challenge the traditional thinking about social governance. We must expand, describe, and assess a broad range of robustness strategies and we need to better understand the role of collaborative governance for crafting robust problem-solving strategies. Finally, we must think carefully about the types of institutional designs, platforms, and arenas that may help to spur robust governance in the face of turbulence and which forms of leadership are conducive to this.

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CONTINUITY AND DISCONTINUITY IN SUBJECTIVITY AND INTERSUBJECTIVITY: THE PHENOMENOLOGY OF THE SELF THROUGH THE COVID-19 PANDEMIC'S FOURTH WAVE IN VIETNAM

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Abstract

The Self forms when a subject realizes it exists as an entity different from others and external circumstances. However, the Self does not exist outside of relationships and interactions with others and the environment. Intersubjectivity, as an extension of the Self, forms as the continuity of the subject. The phenomenological commentaries of Dan Zahavi and the psychological analysis of Kym Maclaren demonstrate that the Self can only exist as an experiential self. Not just a mere sensory experience but also an experience in language. Richard Rorty emphasizes the community of language when the individual's linguistic creativity cannot be separated from interaction with others and the context. The Self cannot be perceived as a metaphysical entity existing as an inherent nature. It must be perceived in interaction with the external environment based on adaptation. Nevertheless, Tran Duc Thao's analysis proves that language is not a randomly generated vocal range but combined with a bow gesture to expand the range of interactions in the Self's space management. The Self expansion in intersubjectivity creates a unique space for the subject. That is when the subject integrates the objects around it, including others and the external context, into the subject's space, then the context and others become part of the Self. This process creates a pleasant space for the subject as it forms a familiar and stable space. The Self does not form itself in subjectivity or a subject's mind-body limitation. When the subject's space management extends beyond "eye reach and arm length," the subject does not limit its Self in subjectivity but has become intersubjectivity. This is the continuity of the Self. However, the continuity in this process will be broken immediately when the context presents serious situations on the social level. Then, not only the subject's familiar space is broken, but the subject's Self will also be questioned for existence. Our research will focus on explaining the forming and breakdown in the continuity of the Self, from a phenomenological approach, with reference to the fourth wave of COVID-19 epidemics in Vietnam in 2021.

Keywords: *phenomenology, community of language, the self, Dan Zahavi, Richard Rorty, Wittgenstein, Tran Duc Thao, COVID-19 pandemic in Vietnam*

1. THE SELF AS THE EXPERIENTIAL SELF – THE CONTINUITY

Awareness of the Self comes from an approach to the Self as an independent entity. The Self must exist as both a perceiving subject and a perceived object. But does the Self exist before the perception of the Self or, in the end, the Self can only be formed in the perception and interaction of the subject?

The metaphysical foundation of modern philosophy admits the separation between pure perception and particular circumstances. That is, entities such as self, nature, and essence are independent forms of existence. It is a style of the Cartesian tendency to approach and interpret the Self as the self-thinking ego, a mental state in which the subject is self-perceiving separate

from external or material conditions; it is an Archimedean approach asserts that self-knowledge provides knowledge of the whole. An ahistorical individuality is a tradition that Richard Rorty vehemently denies. He asserts that no individual or Self exists as it is and is separate from the context.[1]

Wittgenstein's interpretations of self focus on concepts associated with the sense of self, such as "self," "I," and the way private experiences of the self manifest in interaction through language. That is, how the subject (first-person) interacts with others (third-person) through the use of language. Wittgenstein was inspired by how words express human life

> [Wittgenstein] is trying to get his reader to think of how the words are tied up with human life […] His description of the human forms of life on which our concepts are based make us aware of the kind of creature we are (Malcome, 1970, as cited in Goodman, 2002, pp. 90).

William James focuses on "the empirical self" as comprised of three core elements: "the material self," "the social self," and "the spiritual self." He explained that the underlying problem of the awareness of the self is that an individual first perceives himself/herself as an entity that exists with biological conditions (his/her body), which is the sources of the subject's feelings and reasonings about himself/herself and surrounding objects.

James's introspective point of view directs attention and interpretation to the particular experiences of each individual rather than explaining conceptual foundations that separate the direct impact of the external environment on the individual's perception and experience.

Therefore, the experience of an individual is not just a topic of debate among philosophers; it is the subject's questions about himself/herself in everyday life – a form of "inner life" in which the subject questions himself/herself as a living entity.

Affirming human cognitive and practical behaviors as well as an approach to the self that cannot be explained by pure rational cognitive foundations, both Lakoff and Johnson want to offer an approach to obtaining unconscious cognition in which every human being is a metaphysician not in an academic sense but in our ability to make our experiences meaningful. By using conceptual premises, we have the ability to "make sense of everyday life."[2] They also assert that the self cannot be understood as the inner experience of human cognitive processes but as "everything about us – our bodies, our social roles, our histories, and so on."[3]

When we ask the question "Who am I?" the first step is to admit there is an "I" (which already exists) that we ask questions about. However, the "I" cannot answer the question of its existence without the cause of "I." Therefore, we proceed to the second question: "Where does the 'I' come from?" So, if we replace "I" with "human nature," we must admit that the interpretation of the nature of reality is the quest to answer to the first question.

In other words, we can understand that the "I" as an "object" (second-person) does not exist outside of our justification of the "I." When we say that the "I" is an available presupposition, it is thought to be available "before" our justifications of the "I." However, the "I" is completely meaningless outside its monologue. The "I" is both independent and depends on subjective explanations. Thus, it would be more convincing if we focus on the notions of "self" instead of "I." The self is understood as the place of its own concentration of will, emotion, and

[1] See Nielsen, Kai (2009). Richard Rorty. In Shook, John R. & Joseph Margolis (Ed.), pp. 133

[2] See Lakoff, George & Mark Johnson (1999), pp. 10

[3] Ibid., pp. 268.

self-evaluation. The "I-self" is the self-concept of the knowing subject.

However, the "I-self" does not exist independently if it lacks the sense of self-concept. This sense comes from two sources; first, the "I-self" perceives its value system through a "mirror image", the "Me-self." Second, the "I-self" separates itself and observes and evaluates itself as an external object.

The process of the "I" separating itself to understand the self-concept concerning the "Me" results in subjectivity. Subjectivity can feel like a relatively independent object. It is the sum of the perceptions, evaluations, and characteristics of the "I" and its relationship with others. In a conversation, understood as a space for expression, subjectivity is defined as the characteristics of behaviors and interactions that are influenced by personal emotions, attitudes, and perceptions.

The approach of the self and subjectivity is meaningful and valid when we recognize them as objects existing momentarily.

We can explore this statement in more detail by returning to Jean Piaget's child psychology experiments. These experiments demonstrated that an infant aged 14 to 20 months has already formed a capacity for judging the absentee status. Tran Duc Thao argued this by suggesting the existence of a complex consisting of all positions (the whole unseen situation) in which the child is able to manage the space and objects around himself/herself.

In these experiments, for example, when an object (such as a watch) was hidden under two different cushions, the baby, Jacqueline, raised the right cushion to find the watch and ignored the other cushion. She only focused on the object that she wanted to find. In another experiment, a baby named Laurent was able to manage both visual and invisible space when he ignored all of the options that were shown by the experimenter (a shoe, a toy, a ribbon) to find the right object that he was searching for from the beginning (a little box). This means that a baby's eyes will search for the object, and he/she will point his/her fingers towards the space where his/her eye cannot see and find the object that it wants to have.[4]

These interactive actions create contact and connection between the subject and the object to which the actions are directed. Moreover, by managing the space around himself/herself and unseen situations, the subject can form his/her representation of the object. The next step in this interaction is the subject's ability to extend his/her own space beyond his/her physical and visible reach to assign his/her control to the object and simultaneously enclose the object into his/her own space.

In the early stage of the self's formation, as seen in Piaget's experiment, a child applies his/her own representation to the object he/she seeks. At that point, the object no longer exists as an external entity (i.e., outside the subject) but becomes the subject itself. In other words, it becomes part of the subject's space of management. The self, at the beginning of its formation, does not exist as "a pure self" separated from interaction but must be understood as the enlargement of itself in the object and the inclusion of the object in the self's space.

Dan Zahavi asserts that the self can only be the experiential-self, the self-consciousness. The experience cannot be interpreted as a process originating from the subject's private purpose and intention. The subject is not able to experience himself/herself but is only able to experience something in something else. Even the process of self-consciousness is the result of self-liberation as a means through which the subject recognizes himself/herself as an object that they aim to achieve.

[4] See Piaget, Jean, 1954. *The Construction of Reality in the Child*, pp. 66 – 78.

The self as self-awareness starts with the subject realizing himself/herself as the subject, that is, he/she is different from the object. Then the subject approaches the object as part of his/her managed space. The third step is to understand that the subject assigns his/her representativeness to the object and sees himself/herself in the object. Finally, the subject separates himself/herself from himself/herself in order to see himself/herself as an object to perceive.

The two core conclusions that Dan Zahavi gives us, that is "selves are not born, but arise in a process of social experience and interchange"[5] and "subjectivity, rather than being a given, something innate and fundamental, is a cultural and linguistic construction".[6]

However, Kym Maclaren has shown that phenomenologists like Dan Zahavi cannot explain how the subject can perceive itself as an independent entity. According to Maclaren, phenomenologists have assumed that the starting point of self-formation is fixed in that way, i.e., the subject is already aware of its difference in interaction with others.

The Self forms when a baby realizes that changes in the external environment, precisely eye vision, depending on the baby's perspective. It is a process that begins with the ability to see and interact with the external environment. Maclaren explains this trend by analyzing Gibson and Butterworth's psychological studies on the movement of the subject's vision and the "moving room" case study.[7] Whether accidentally or deliberately, the vision of the world from the subject's point of view will change depending on whether the moving head of the subject is the starting point for this interpretation. As we turn our heads, the image of the world moves in the direction of the head's rotation, i.e., the image of the world the subject receives is not fixed but instead depends on how the subject looks at it. Simultaneously, the subject's body does not move, and if we look down the tip of our nose at any time, it does not move. Put yourself in the shoes of a child who is beginning to become capable of managing things in the space he/she is trying to access, which is a primitive understanding of the distinction between the viewer and the viewed world.

In the study on the "moving room," the psychologists also pointed out that when a child is placed in a room with a movable wall, it will move forward if the wall recedes or fall backward if the wall approaches him/her.

That means that the child, in addition to being able to manage the surrounding space, can also use the information that the world brings to him/her to promote action as an active subject: "the infant as agent 'makes use of' this information to control her actions."[8] Thus, the sense of self is formed when the subject, using "an internal motor schema or 'motor plan,'" perceives himself/herself as a self and recognizes himself/herself as an active subject who can willfully manage space and promote action.

The consciousness of the Self as a unique entity is the most important premise in forming the distinction between the subject and the object; it is through this consciousness that the Self experiences the interaction between his/her body and the environment. That is, the perspective of the "first-person" as "I" and "mine" is already present in a complex set of possibilities that a baby has since birth, and the interaction with the object, as well as the possibility of space management, does not stem from social conditions or the will of others.

[5] See Dan Zahavi (2014), pp. 11
[6] Ibid., pp. 10
[7] See Kym Maclaren (2008), pp. 66
[8] See Kym Maclaren (2008), pp. 68

The identification of the Self and the definition of its action begins privately with a complex of subjective perception and imagination when perceiving an object. It plays an initial role in the forming of the Self, but it is not the Self. We must understand the Self as a process of experiencing itself from moment to moment, from situation to situation, in a social and moral relationship in which the subject recognizes the temporary nature of his/her characteristics. The self is defined by its ends, its interpersonal relationship, its cultural traditions, its institutional commitments, and its historical context. Within this evolving context it must work out its identity.[9]

The space of the Self expands to not only encompass the subject's inner experience when interacting with the environment but also the objects that the subject incorporates in his/her development of the Self. Essentially, when an individual expands his/her control of space beyond himself/herself, an individual experiences himself/herself in his/her interaction with the environment, i.e., the self does not involve introspection alone but also the self-experience of engaging with others. Accordingly, others are no longer objects outside the subject but become part of the subject himself/herself.

Tran Duc Thao explains the above questions using the reflection of the self's image in other persons. In the earliest forms of language, which used single syllables, a person would voice the syllable and point to the object he/she was referring to. The action of pointing in combination with the single syllable was performed as a gesture of communication with other members of the community. At the time, the speaker had to assume that the listeners understood what he/she meant, meaning that the listeners were a reflected image of himself/herself outside of himself/herself. If not, the listeners would not be able to understand the implications of that action.[10] Meanwhile, subjectivity is no longer an activity of self-awareness but has become the perception of subjectivity itself in others, i.e., inter-subjectivity.

Properly speaking, *a man has as many social selves as there are individuals who recognize him* and carry an image of him in their mind. To wound any one of these his images is to wound him. But as the individuals who carry the images fall naturally into classes, we may practically say that he has as many different social selves as there are distinct *groups* of persons about whose opinion he cares. He generally shows a different side of himself to each of these different groups.[11]

The Self is not only formed and expressed through a single image in a specific relationship but is also a panorama in which individuals recognize the diverse images of themselves in different objects and different relations. A series of images, where the subject identifies itself in different contexts and relationships, forms a set of group images in the subject and, conversely, images of the subject in the group. These different images form a set of perceptions (or collective consciousness) whereby individuals and groups recognize themselves in others.

This subjective image system evolves into a collective consciousness in which all individuals of this group identify themselves in the other, each giving themselves the sign that they also give each other, ultimately making themselves confused by performing the same movement:

> The *cognizance* [*prise de conscience:* grasp of consciousness] of the indicative gesture began *sporadically* in the lagging prehominid hunter who repeated to himself the call of the others and *recognized himself in them.* Cognizance now develops into a *collective*

[9] See Mark Johnson (1993), pp. 150.

[10] See Tran Duc Thao (1984), First investigation: The indicative gesture as the original form of consciousness, pp. 1–29.

[11] See William James (1890), e-version, pp. 656.

> *cognizance* where all the individuals of the group *recognize each other in the others* […] The sign, consequently, which thus appears to each individual *as experienced in himself* insofar as he is part of the action of the group and is identified with it, is somehow sustained by the social relation itself. In other words, *the sign has been internalized by the group*, in such a way that it becomes for the group *available experience* that subsequently can be used at will; in other words, it can be applied not only to particularly interesting objects, but also to any more or less interesting object *in general.* (Tran Duc Thao, 1984, pp. 12 – 13).

The cognitive process will progress to a stage in which the group's behaviors can be reduced to the long-term image of the group, within each individual. In this stage individuals will identify themselves by the social interactions with which they are familiar. The images, gestures, and words of familiar people in a group, of which an individual is a member, will form the personal experiences of the environment in which the individual realizes him/herself as a part of that context.

> It is a fact of common experience that we constantly feel around us the presence of our familiar social environment, and this image essentially implies the typical form of gestures and words of people we know. (Tran Duc Thao, 1984, pp. 13).

These are only personal experiences, obviously, but personal experiences of interacting with the common space.

2. THE DISRUPTION OF THE SELF – THE DISCONTINUITY: REFER TO THE 4TH COVID-19 OUTBREAK IN VIETNAM WHEN FAMILIARITY GOES AGAINST THE SELF

The disruption of the Self's image network is considered in the case of the disruption to community space that occurs in a community that otherwise enjoys peace and safety, which is easily recognizable in unusual circumstances such as war, pandemic or natural disasters. The prerequisites for establishing the Self come from "normal" (i.e., stable) interactions that create a free space for individuals to develop their networks of awareness. When an "abnormal" event occurs, the stable spaces and interactions of the self are entirely broken. Consequently, common emotions that arise from daily interactions are suddenly replaced by unexpected emotions, and images of the subject as reflected in others begin to change and break. Instead of the safe space of everyday work, there are scenes of devastation; instead of daily routines such as catching the bus, people are confronted with great destruction; instead of peaceful tree-lined streets, cities are filled with the corpses of people we once knew. Accordingly, replacing the default language and behavioral interactions between the subject and others is the loss of life and existential worries concerning food, medicine, drinking water etc. Essentially, the networks of images in the subject's self-experience are destroyed and replaced with irregular catastrophic images and emotions.

As a result, the self begins to question its existence, and if these abnormal circumstances are the new image network that the self must incorporate to build a new self, the old self (built on previous images and interactions) must be erased—that is, the previous self does not create real value in the current situation. Therefore, the premise that set out about the fundamental existence of the default self is brought into doubt.

When a widespread unusual situation occurs, instead of the safe space of everyday work, there are scenes of devastation; instead of daily routines such as catching the bus, people are confronted with great destruction; instead of peaceful tree-lined streets, cities are filled with the corpses of people we once knew. Accordingly, replacing the default language and behavioral

interactions between the subject and others is the loss of life and existential worries concerning food, medicine, drinking water etc. Essentially, the networks of images in the subject's self-experience are destroyed and replaced with irregular catastrophic images and emotions.

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Let us analyze this through a real case, four outbreaks of COVID-19 in Vietnam from 2020 to 2022. The 1st outbreak took place from January 22 to July 22, 2020 with 415 positive cases and zero death. The 2nd wave is from July 23, 2020 to January 27, 2021 with 1,136 positive cases and 35 deaths (all of death cases because of the underlying disease). The 3rd wave took place from January 28 to April 26, 2021 with zero death and 1,303 positive cases. The solutions Vietnam Government used in those outbreaks were "prevent - detect - isolate - localize - suppress the epidemic and treat effectively" based on the Directives No. 15, 16 and 19 of the Prime Minister. The successful results were Vietnam still achieves "dual goals": epidemic prevention and socio-economic development; and Vietnam was one of 16 countries with positive growth in 2020.

The features of those three outbreaks above were the COVID-19 pandemic in Vietnam at that time all recorded a low number of positives, each wave only took place for a short time in some localities, so the impact on socio-economics was not profound. The second reason was the old virus strain did not spread quickly and powerfully. The final reason was the ability to respond to medical care is still guaranteed, so the number of deaths was low.

However, the fourth wave (from July 21, 2021 to January 24, 2022), when Vietnam Government used the same solutions above, resulted in 36,849 deaths out of 2,149,095 positive cases. This is not only a story from the perspective of management science or the art of operating; it also has to be interpreted in terms of phenomenological psychology.

In one way or another, the success of Vietnam in the first three epidemics has created a "stable space" in the framework of managers and the people. A form of community consciousness, which Tran Duc Thao emphasized, has formed through the implementation and response of government solutions to deal with the pandemic. The initial fear and discomfort of people when implementing total isolation measures, tightening immigration, and closing socio-economic activities, has quickly become a "stable network in the community consciousness." The success in this overall picture of the "network of stability from uncertainty" has gradually become a psychological and cognitive certainty. That is, the solutions that have laid the foundation for this stability will continue to bear fruit in the ensuing contexts.

What we realize here is, from philosophical perspective, by embracing Darwin's theory of evolution, Richard Rorty always emphasized continuity and contingency based on adaptation to the context. But he needed to realize there would be a space-time slide where adaptation became discontinuity and certainty.

CONCLUSION

The Self is formed in continuity like a pearl chain of interaction and experience. The subject perceives itself as an independent entity and distinct from the external environment and others, but it does not form its Self within the confines of personal space. Community space is not an enemy of the individual but an extension of the individual's space of control and interaction. The discontinuity of the Self is not perceived only when the intersubjective space is

broken; we must realize that once intersubjectivity is established, that is where discontinuity comes in. In other words, intersubjectivity is how the Self forms as it expands the continuum in the interactive space, but intersubjectivity, itself, is a discontinuity when the subject framework that continuity is an invariant safe space.

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THE USE OF DIGITAL TECHNOLOGY – EFFICIENT MODERN EQUIPMENT TO IMPLEMENT PHILOSOPHY PATTERNS OF LIBERAL EDUCATION

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Abstract

The fourth industrial revolution (also known as the 4.0 revolution) with artificial intelligence, the digital age, and the rapid development of new technology has a substantial impact on all aspects of our socioeconomic lives, including university education. The effective use of digital technology in education will take advantage of its strengths and open our minds about humanities or social sciences in the spirit of liberal education, contributing significantly to educating people and enhancing leadership competencies in complex global contexts. The article overviews digital technology in the current trends of Vietnam's education and its influence on the philosophy paradigm of liberal education in recent social sciences and humanities branches in Vietnam.

Keywords: *Digital technology, Education, Paradigm, Liberality, Vietnam*

1. PHILOSOPHICAL MODELS OF LIBERAL EDUCATION

Regarding the concept of "paradigm," its original Greek meaning of "paradigm" is "paradeigma," which comes from the verb "para-deiknumi" – exhibiting, representing, exposing - used in the work "Timaeus" of Plato. Linguists call "paradigm" a conjugation system, and Ferdinand de Saussure describes groups of similar elements. The scientific paradigm "is simply a common belief shared by a group of scientists or professionals. That common belief dictates that they share the same basic theories, views, and methods that provide them with a common theoretical model and a way to solve problems, thereby forming a common scientific tradition, providing direction for their common development, common scope limitation of research". Any so-called "pattern" becomes a model when it meets three factors: determining the critical argument, the agreement between theory and reality, and the accuracy of the principles.

Liberal education models give people an extra opportunity to enjoy education for individuals with a more synthetic than analytic mindset. According to AAC&U: “Liberal education is an approach to learning that empowers individuals and prepares them to deal with complexity, diversity, and change. It provides students with broad knowledge of the wider world (e.g., science, culture, and society) and in-depth study in a specific area of interest. A liberal education helps students develop a sense of social responsibility, as well as strong and transferable intellectual and practical skills such as communication, analytical and problem-solving skills, and a demonstrated ability to apply knowledge and skills in real-world settings”. According to the educational philosophy of Wilhelm von Humboldt, a university is only a place of pure science, that is, an area not influenced by external goals and permissions. The author states that the most basic requirement in liberal educational philosophy is the unity of research

and teaching and the basic principles of the liberal arts philosophy, including scientific freedom (such as freedom of research, freedom of thought, freedom of teaching and learning) and autonomy for academic staff and teachers.

Humboldt wants to prevent science from being dominated and abused by political and state trends. Humboldt advocates building a "republic of scholars," through which students and teachers can learn and acquire knowledge through their research under the guidance of scholars and lecturers. The foundation of the Liberal education method is the Liberal Spirit - aiming to cultivate and develop the deepest, most important, most fundamental, most quintessential human values. These values all revolve around the three traditional values that humanity pursues: Truth-Goodness-Beauty. According to Victor Ferrall, the question is, why should we care about liberal education? The thesis is as follows: society needs citizens with general and complete education; the more liberally educated the citizens, the stronger the civic community; individuals benefit from general and thorough education. The author states that the more liberal education is received, the more solid citizens are in both family and career life as citizens in society. While not the only means of producing liberal-educated citizens, liberal arts universities are among the best.

The liberal arts are Latin-based Artes liberales, subjects for liberals. “Liberal education is the education of liberal arts subjects, distinguished from specialized vocational education”. Liberal people in this concept, in terms of the textological approach, can be understood as a person with full citizenship in the contemporary slave-owning society, different from the later liberal meaning. Wisdom is seen as the goal of liberal education. “The term “wisdom” has two meanings: intellectual and moral. There are two types of wisdom: practical wisdom, which means being able to judges situations correctly, knowing how to chooses the best suited to secure his objectives, and speculative or philosophical wisdom, which means understanding the essential principles or origins of things. Practical wisdom must be linked with moral virtue”.

The philosophy of liberal education appearing in the East in Chinese Confucian philosophy is the oldest illustration similar to modern liberal education. Traditional Confucianism emphasizes general education with a broad-based approach to knowledge acquisition. Confucius believes that human beings are innately good, so the purpose of education is to "nurture and develop human instincts to attain intellectual and moral perfection." Although very different in organizational structure, training programs, and goals, Confucian higher education and modern liberal education have one similarity: a commitment to developing learners' abilities to reflect a wide range of knowledge. The Pentateuch at that time covered many areas of expertise. At the same time, "Confucian higher education equips learners with the general knowledge necessary for official selection exams in the feudal academic system." The Chinese higher education tradition emphasizes the importance of general knowledge while respecting ethical traditions and Confucian philosophy.

In India, Nalanda University’s flourish for nearly a thousand years until 1197 (AD), is a typical reflection of traditional Hindu and Buddhist education... Nalanda School accepted students, members, and scholars from many traditional non-religious fields of knowledge. Buddhist philosophy defines "education as a means of "enlightenment" and a process of "reviving one's potential", a process of acquiring knowledge to free people from "ignorance and dependence". Like Confucianism, Nalanda exemplifies a focused educational philosophy - in this case, religious knowledge - while still believing that an adequate education requires a broader understanding of many areas.

The ancient Greeks and Romans still studied geometry and astronomy alongside rhetoric

and grammar. In the 1st century BC, this dualistic method of education was formalized "finally and definitively" into a system of "seven liberal arts". The curriculum separates science from humanities, theory from practice. Centuries later, it was divided into two subgroups: the Trivium, which includes grammar, logic, and rhetoric – taught first; followed by the Quadrivium, which included arithmetic, geometry, music, and astronomy. Of course, soldiers and politicians emphasized subjects they considered practical—what we now call the humanities. But even so, the idea of a broader education always persists.

Western liberal education can be generalized into three stages as follows:

The first stage - the early stage.

(a) Time: from BC; (b) Space: Ancient Greece; (c) Characteristics: education is identical with liberal arts education; (d) Causes: mainly political reasons, due to the need to train free people, in the sense that people with full citizenship in the context of a slave-owning society can act presentations and opinions in public places.

The second stage – the formation phase.

(a) Time: from the Early Middle Ages (V century) to the 19th century; (b) Space: Europe and America; (c) Characteristics: the formation of a system of liberal arts subjects and liberal education philosophy, in addition to theological education and specialized sciences; (d) Causes: both political and economic reasons, due to missionary needs and the development of the capitalist economy, when entering the first period of globalization, associated with the Christopher Columbus's arrival in America in the 15th century.

The third stage – the development stage.

(a) Time: from the twentieth century to the present; (b) Space: from Europe to the Americas and globally; (c) Characteristics: developing more broad-based liberal arts subject system and philosophy, aiming to create a living foundation and soft skills for global citizens; (d) Cause: the context of globalization, the strong development of science and technology and the media pose a need to train individuals with broad knowledge.

The philosophy of liberal education can be understood in the following four characteristics:

First, "perennialism" means that the nature of education is permanent, that people are the same everywhere, and that education will be the same for everyone.

Second, "essentialism" means that education must be based on a quintessence related to the heritage of humanity.

Third, "progressivism" has a more practical effect, the concept that students are the center, that students' interests determine the direction of education, and teachers are the guides of students. Advocates of progress argue that critical thinking is a lifelong skill while knowledge is constantly changing. John Dewey is the most famous progressive philosopher.

Fourth, "reconstructionism" accepts the view of educational progress but adds an element that pays attention to social restructuring.

Particularly in Vietnam, education in the South of Vietnam (1954-1975) had specific achievements from applying liberal education philosophy. After 40 years, since 1975, the philosophy of liberal education officially occurred in the University of Social Sciences and Humanities, Vietnam National University, Ho Chi Minh City (VNU-HCM), whose predecessor was the Saigon University of Literature, under the Saigon University Institute. VNU-HCM identified its educational philosophy as Comprehensive Education - Liberalization -

Multiculturalism for the first time at the end of 2015, in Resolution No. 04-NQ/DU of the University Party Committee issued on December 4, 2015. It can be said that this is the first university in Vietnam to incorporate liberal arts education into its official educational philosophy after 1975.

2. DIGITAL TECHNOLOGY IN LIBERAL EDUCATION

Since the 2000s, digital transformation has been applied to the education sector in the world and Vietnam to provide training programs that are entirely online or combined to exploit the benefits of digital transformation. "Before the Covid-19 pandemic, educational activities, especially for undergraduate and graduate programs, had certain developments through the activities of "distance learning". In this way, learners mainly learn through mass media such as radio, television, tape/magnetic disc, etc. or books and then attend face-to-face review sessions before taking the course completion assessment.

There have been many studies on "digital learning" and "digital university". "Digital teaching-learning" may still require experimentation and approval from education authorities as well as broader acceptance by society in general and the business community, in particular, to become an official trend in global education activities. Besides, many other operational activities of universities such as recruitment, enrollment, learner management, student services, academic/credit management, budget allocation,.etc have also been "embedded" in the digital platform.

In the era of industrial revolution 4.0, liberal arts education must be familiar with some innovative concepts and in line with development trends. Some concepts are introduced in Sabine Pfeiffer's literature, such as:

"E-Learning": learning through electronic learning devices; "mobile Learning": learning through mobile devices; "blended-learning": a learning model that combines classroom learning and online learning; "context-aware u-learning": learning by context, through navigation devices; "collaborative environments": learning in highly interactive environments; "cloud computing": using cloud computing technology. E-Learning, or "electronic-learning," a form of learning using advanced technology in education, can be self-study or combined with instructors.

"Context-aware learning": learning by context. When it comes to contextual learning, the commonly used term is U-learning - learning anytime, anywhere. U-learning provides learners with the most relevant content anywhere and anytime. Collaborative learning: learning in a highly interactive environment occurs when two or more people participate in learning or exploring the same problem. Thanks to information technology tools and social networks, interactive learning is growing day by day. The interactive learning environment provides supporting tools and activities, including Discussion forums, Investigation tools, Calendar, Wikis dictionary, Blog and Tag tools, and Podcasts.

Cloud computing technology: it's an advanced tool; as social networks develop, we can store and access data and programs over the internet instead of on a hard drive.

Technological conveniences and changes in society, such as changes in future labor market needs and demographics leading to an increased role of general skills and future competencies of current learners, strongly influence today's liberal arts higher education institutions.

Therefore, universities must update their teaching methods and apply other approaches such as teamwork, knowledge management, and lifelong learning. Thus, the trend of liberal arts education having to approach the high-tech background is an inevitable trend, and some trends in

educational technology can be pointed out as follows:

First, the trend is the digitized classes. Instead of just being information technology as a standalone tool and skill, the trend of digitization will emerge and cover all aspects of the modern classroom.

Second, intelligent tangible devices embed available programming into physical materials through smart devices, connecting things via the Internet and have a solid and profound impact on human learning and information receiving mechanisms.

Third, "gamification" applies learning principles to the design of games, which create excitement and stimulate players to participate in learning, which is addictive, and create an immediate positive feedback mechanism for gamers.

Fourth, a virtual digital multimedia room is the place that connects cyber information online and offline and provides a tool to present potential data in the future. Examples are smart glasses, virtual displays (HUDs), holographic devices, neuro medical data, simulated virtual reality.

Fifth, the mobile application becomes popular. Mobile is a popular technology device with broad coverage to all people, research fields, and applications are associated with specific products. Learning trend based on mobile applications has been happening. Mobile and tablet devices are widely available, providing easy access to valuable learning resources. Distributing courses on mobile phones allows students to study whenever and wherever they want; using the phones is simple and time-saving. All of the learning content is contained within a user-friendly and easily accessible phone.

With the above technology development trend, the training trend will gradually become unique and new. In Jessica Athey's point of view, some common trends are:

“Learning Society”: The development of society has created an open learning environment with many opportunities for exchange and cooperation. It is more convenient to access and exchange information in an integrated community and make the most of professional resources to share and exchange knowledge easily on a global scale. Social interaction makes it possible for learners to exploit understanding at different levels

“Split lessons”: This is an inevitable trend in the era of information technology development because learners always want to find information quickly in a concise, easy-to-understand, time-consuming, and easy way and easily record information. The trend of using smart devices such as mobile phones and tablets allows the distribution of courses with shortened content, divided into many parts, which create a flexible and dynamic learning environment and easy access for learners anytime, anywhere.

The final is “open educational resources and personal learning devices.” A learning society is formed, and open educational resources are teaching and learning resources that are not copyrighted to use or be released. Learners quickly access their resources and courses through email, Dropbox, Google Drive, Evernote, Blog, Facebook, Twitter. These things require changing educational methods that suit the modern learning-teaching technology devices. It is the development trends that education cannot ignore and prohibit.

3. SOLUTIONS TO APPLY DIGITAL TECHNOLOGY INTO LIBERAL ARTS EDUCATION

For liberal arts education building actual values suitable to the life's rhythm in the new era,

virtuous and talented people will devote themselves to the development of society. It is necessary to realize some following solutions.

Firstly, "the teaching approach is shifted from transmitting knowledge to developing the quality and competence as well as self-study ability. The transformation requires each teacher to spend more time and learners to have more choices about methods and knowledge that are suitable for their strength and passion". Liberal education in the digital era requires the development of basic skills for learners. The learning methods must be flexible in time and space, suitable for each particular learning condition.

Second, teachers and learners need to be equipped with the necessary skills to easily change careers and adapt to modern industry's challenges and demands in creative thinking, openness, and freedom of thought.

Third, education and training require more and more practicality and real skills and knowledge of the labor market that need to be closely linked to enterprises' activities. Hence, the horizontal linkage between universities and businesses has become extremely important in the modern training process. The competition for high-quality labor resources takes place on a transnational scale and the domestic labor market. The trend tends to sharply reduce the source of high-quality labor due to moving to more developed countries, so it is necessary to prevent the "brain drain" from occurring vigorously and continuously.

Fourth, the liberal and modern change of education in the digital age requires university lecturers also to change and catch up with the trend; otherwise, they will be left behind at risk of unemployment. Lecturers must become instructors, communicate more with learners, monitor and supervise them, and take responsibility for learners' progress in the self-study process. Teachers must pay attention to learners' fundamental knowledge needs and know how to motivate and support them in finding relevant knowledge for themselves.

Fifth, the solution is related to students' change. " Students have more rights to share personal information on social networks; they understand real-life faster, associate knowledge with real-life fast." Learners can easily access vast data; news and events will immediately appear on the screen through the internet. In a personalized learning way, students will learn to adapt learning aids to each individual's abilities.

Sixth, liberal arts education must prioritize enhancing the real-world experience. Besides, testing learners' ability to apply knowledge in practice is best done when they work on projects on a local, real-world basis; their competencies can be measurable in the learning process.

Seventh, convenient functions of digital technology enhance learners' freedom to choose subjects, strategies, and learning strategies. Although each subject is taught with the same purpose, the path to that goal can differ for each student. Each student can choose their learning strategy with the learning tools they feel are necessary and best suited for them.

Eighth, the solution is to give more empowering for learners through giving "small projects". Students should be ready to familiarize themselves with project-based skills in university, including time management, organizational management, and other skills which every student can use in their learning process.

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SOCIAL CONSENSUS WITH THE VIETNAMESE GOVERNMENT 'S POLICIES DURING THE PERIOD OF COVID-19

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Abstract

Social consensus is one of the fundamental reasons for Vietnam's success in responding to the Covid-19 epidemic. Social consensus in the response to the Covid-19 epidemic in Vietnam reflects the contemporary Vietnamese government's the ruling capacity and political legitimacy. This article focuses on analyzing the manifestations of social consensus in Vietnam during the Covid-19 epidemic, including (1) Social acceptance of government policies in response to the Covid-19 epidemic, (2) The contribution of the people in the implementation of the government's Covid-19 response policies, (3) The effectiveness and efficiency in the management and administration of the Covid-19 epidemic prevention and control of the Vietnamese government, and (4) International aid for the Vietnamese government's Covid-19 response policy.

Keywords: *Social consensus, political legitimacy, government, policy, Covid-19 epidemic.*

Social consensus is understood as the agreement of the majority of members in society on one or several certain issues, on which social members are closely linked with each other and unify awareness, will, and action to achieve a shared goal. Social consensus is a method of gathering social forces, a condition for the stable and sustainable existence of society. Social consensus represents "the unification of shared interests among members of society; the voluntary consensus and cohesion among social members; Respecting and acknowledging differences does not go against the common goals and interests of members of society" (Tran, 2010). In the context of a crisis, social consensus reflects the ability to respond to unexpected happpenings and the legitimacy of the ruler. A social consensus appears under the guidance and direction of political power actors.

Covid-19 is a major crisis worldwide in general and in Vietnam in particular. Covid-19 is an infectious disease pandemic, whose causative agent is the SARS-CoV-2 virus and its variants, originating in late December 2019, in Wuhan, China. Up to now (October 10, 2022), there have been more than 617 million infected people and 6.52 thousand deaths worldwide (WHO, 2022). In Vietnam, Covid-19 began to appear in January 2020, and up to October 10, 2022 Vietnam experienced 4 "outbreaks" of the Covid-19 epidemic, with more than 11.5 million infections, and more than 10,596 cases. Thousand people recovered, and more than 43,000 died (Vietnam Ministry of Health, 2022). Under the negative impact of the Covid-19 crisis, the Vietnamese government has practiced many response policies, achieving efficiency and effectiveness due to the high consensus from the people.

1. OVERVIEW OF STUDIES ON THE IMPACT OF THE GOVERNMENT 'S RESPONSE POLICY TO COVID 19 AND SOCIAL CONSENSUS IN VIETNAM

Vietnam is one of the countries with many successful policies to respond to the Covid-19 pandemic. Right from the early days of the pandemic, studies on Covid-19 response policies in Vietnam have received much attention from scientists and many countries. Studies show that Vietnam has a flexible policy system in each period during the Covid-19 pandemic. Accordingly, Vietnam has gone through four stages of the Covid-19 response with groups of policies such as (1) Communication Policy, (2) Health Policy, (3) School Blockade Policy, (4) Emergency Response Policy, (5) Policy on Border Control, (6) Social Distance Policy, (7) Financial Support Policy and (8) other policies (Vietnam Ministry of Health, 2021, 2022; Dat, 2021; Hanh, 2022; Le, Vodden, Wu, & Atiwesh, 2021; National Economics University & Japan International Cooperation Agency, 2020; Phong & Van, 2021; T.P.T. Tran, Le, & Nguyen, 2020). From another perspective, the approach responding to Covid-19 in Vietnam is seen as a process of using integrated management, command and control policies, which was carefully prepared, creating consensus, cooperation, solidarity and ready for political connection, flexibility, and adaptation (Hartley, Bales, & Bali, 2021). Studies showed that communication campaigns gain remarkable significance in Vietnam 's response to Covid-19 (Bucatariu, 2020; Duong, Nguyen, Julian McFarlane, Nguyen, & Nguyen, 2021), equipping Vietnamese people with sufficient information and knowledge about the Covid-19 pandemic to develop health protection behaviors and seek safety in the community (Tam, Ho, Nguyen, Elias, & Le, 2021). Other studies also indicated that quick and timely financial support policies, a reasonable combination of fiscal and monetary policies via direct and indirect methods of supporting the business community and workers who face difficulties in production, business, and life during the Covid-19 period contributes to Vietnam’s success in responding to the Covid-19 (Dat, 2021; Hanh, 2022; Ky, 2020; National Economics University & Japan International Cooperation Agency, 2020). Health policies such as (1) mobilizing human resources to participate in epidemic prevention and control, (2) funding for vaccination, testing, medical examination, and treatment with Covid-19 collection and treatment facilities, (3) remote medical examination and treatment for infected prople; actively using raw materials to make medicine to treat Covid-19, and (4) stabilizing the price of medical equipment (Ministry of Health of Vietnam, 2021) created medical strength for epidemic prevention and control activities. The policy of blockade and social distance restricts community mobility, contributing to reducing the rate of widespread infection (Nguyen & Tran, 2021). Quick response policies, clear leadership, mental health care, public health, and political system coordination are Vietnam 's valued experiences in defeating Covid-19 (Ha et al., 2020; L.T. Tran et al., 2021; T.P.T. Tran et al., 2020). Vietnamese socio-political organizations practiced social policy (i.e., supporting social welfare) for vulnerable people via mobilizing social resources, providing social welfare, supporting the consumption of agricultural products,…ensure that vulnerable people in the community are not left out (Tung, 2021). Through its capacity to respond to Covid-19, Vietnam further enhanced its international role and position, affirming its position as a new middle power with increasingly solid internal strength and national autonomy, and flexible, proactive, and creative diplomacy (Dinh Tinh & Thu Ngan, 2022).

Cooperation and solidarity are pointed out as an element of the policy to respond to Covid-19 in Vietnam. According to Kris Hartley et al. (2021), the Vietnamese government can rally the community together thanks to its nationalism and heroism in the resistance against Covid-19, a common enemy. The spirit of solidarity and social unity in Vietnam plays an important role in the victory over Covid-19. It involves self-sacrifice for the community, taking risks to keep

family, friends, and neighbors safe through social distancing, frontline volunteering, and other measures (Hartley et al., 2021). Owning high unity in the whole political system during the fight against Covid is also the reason for the success of this war in Vietnam (Phong & Van, 2021). The government 's systematic response through the establishment of a National Steering Committee for Covid-19 Prevention and Control, chaired by the Deputy Prime Minister with members from 23 ministries from central to local levels, is a gathered large force, creating resource availability, transparency in coordination and information, and good effects on people 's trust in the government (Ha et al., 2021). Effective communication and policy implementation leads to Vietnamese people 's trust in the government, which leads to support and adherence to government policies during the Covid-19 period (Vu., 2021).

The overview study shows that the response to Covid-19 in Vietnam is of great interest to the scientific community, especially in the areas of assessing the Vietnamese government 's Covid-19 response policies. However, a particularly important condition for the success of the government policies is social consensus. This is also an issue that has not received much attention from researchers and needs to be further comprehensively addressed.

2. RESEARCH METHODS

This study was carried out, using statistical data analysis methods, government and industry reports, and information on the official media with criteria evaluating the people's social consent to the policies of the Vietnamese government on four aspects including (1) social acceptance of the government's policies in response to the Covid-19 epidemic, (2) the contribution of the people in the implementation of the government's Covid-19 response policies, (3) the effectiveness and efficiency in the management and administration of the Covid-19 epidemic prevention and control of the Vietnamese government, and (4) international support for the Vietnamese government's Covid-19 response policy.

3. RESEARCH RESULTS

3.1. Social acceptance of the Vietnamese government 's policies in response to the Covid-19 epidemic

Social acceptance shown in the implementation of Covid-19 prevention policies in Vietnam is very clear. The principles of epidemic prevention and control through the stages as directed by the government are “prevent - detect - isolate - localize - stamp out and treat effectively”; motto “four on the spot” (National Steering Committee for Covid-19 epidemic prevention and control, 2022), directives 15/CT-TTg dated March 27, 2020 (Prime Minister, 2020a), 16/CT-TTg of March 31, 2020 (Prime Minister, 2020b) and March 19/CT-TTg of March 27, 2020 (Prime Minister, 2020c), 5K principles (Khau trang (facemask) - (Khu khuan) disinfection - (Khoang cach) distance - (Khong tu tap) no gathering - (Khai bao y te) health declaration); then redirected to “safe adaptation, flexibility, control of the consequences of the Covid-19 epidemic”, implementing the principle of 5K plus vaccines, information technology, and people's consciousness (National Steering Committee for Prevention and Control of Covid-19). Covid-19 pandemic, 2022). Vietnamese people through the media regularly update the government 's directives for implementation of the policies. During the pandemic period, the most outstanding recorded in Vietnam is the anti-epidemic spirit with “aspiration to defeat Covid-19”. It is manifested by the behavior of the entire people, from the frontline shock forces such as those in health care, army, and police, who put all human and material resources to fight against the epidemic, regardless of conditions, space and time. To scientists, intellectuals, artists, workers, or students, each citizen has a sense and responsibility of “fighting the epidemic like fighting the enemy” in each of their actions. The sense of compliance with the government 's

regulations and principles on anti-epidemic is seriously implemented by the Vietnamese people, creating a special community psychological atmosphere with the role of monitoring social behavior, and government operations. According to the survey results of Dalia Research, a German organization, from March 24 to March 26, 2020, measuring people's emotions related to the level of the government 's current policy in response to the Covid-19 epidemic. Out of 45 countries, the Vietnamese government has the highest level of trust from the people, whereby, 62% of respondents in Vietnam think that the measures being taken are "reasonable" (Nguyen Nga, 2021; Nguyen et al., 2020).

3.2. The contribution of the people in the implementation of the Government policies to cope with the Covid-19 epidemic

Not only strictly complying with regulations and policies on Covid-19 epidemic prevention and control, with high degree of consensus, Vietnamese people also make efforts to contribute their strength, wealth, and initiatives to anti-coronavirus activities. With the spirit of great national unity as the call of General Secretary of the Communist Party of Vietnam, Nguyen Phu Trong delivered to the entire Party, people, army, and Vietnamese compatriots abroad, "We have tried harder and harder; united more and more; determined to be even more determined. The whole nation and all people as one unites with the Party, the Government, all levels and branches to find all ways to prevent and repel the epidemic, to prevent the epidemic from spreading and breaking out in the community" (Nguyen Phu Trong, 2021). With the spirit of solidarity, and unanimous determination to win the Covid-19 epidemic, millions of Vietnamese people as one are willing to contribute their efforts and their assets to the fight against the epidemic. According to the report of the National Steering Committee for Covid-19 Prevention and Control, after the call for all people uniting, making every effort to prevent and control the Covid-19 epidemic of the Central Committee of the Vietnam Fatherland Front, the Agency mobilized funds and in-kinds equivalent to 20.46.4 billion VND; establishing a vaccine fund for Covid-19 prevention. By December 3, 2021, VND 8,797.5 billion has been mobilized; international organizations, business communities, domestic and foreign organizations, and individuals, overseas Vietnamese have contributed tens of thousands of billion VND to prevent and control the epidemic, etc. (National Steering Committee for Covid-19 Prevention and Control, 2022).

Besides economic contributions, Vietnamese people also have many other forms of contributions such as volunteering to join the frontline against Covid-19. During the fourth epidemic, the Vietnamese government mobilized a large force of human resources in the health sector, army, and police with nearly 300,000 turns of officials, soldiers, and employees (National Steering Committee for Covid-19 epidemic prevention and control, 2022). With "the readiness of medical students to volunteer in response to Covid-19" (VD Tran et al., 2022). Training institutions of the health sector have mobilized human resources to volunteer in Covid-19 prevention from 34 training institutions with 19,935 people to support Ho Chi Minh City, Southeast, and Southwest regions (National Steering Committee for Covid-19 Prevention and Control, 2022). In the community, there are many models, groups, voluntary organizations, and individuals participating in supporting food for people in areas where distance is implemented. Charitable initiatives such as "0-VND booth"; "free meals"; "go to the market instead" were established to show the community spirit of joining hands in preventing and controlling the epidemic.

Many anti-epidemic initiatives also appeared and solved difficulties in the reality of anti-epidemic work. In the medical field, 5K anti-epidemic formula plus vaccines, specific drugs, treatment measures, technology. In adition, people's consciousness is the valuable experience

Vietnam has accumulated and created in the process of fighting the epidemic; Measures such as pooled testing; the use of QR Code in the medical declaration; free application software PC-Covid; SSKĐT (Electronic Healthcare Manual) or treatment stratification (e.g., in 3-storey towers) and professional support through online consultation, mobile medical stations, remote F0 consultation via switchboard, community-based F0 care; converting passenger transport vehicles into ambulances (Le Cam, 2021). In social life, the initiative "Three on the spot", "One road, 2 destinations", the "Three green" model; Rice ATM; ATM Oxy; "safety bag"; use of contact containment materials (nylon; pulleys) in business came into being.

3.3. International support for the Vietnamese government's Covid-19 response policy

In addition to the efforts of the government, all levels, sectors, and all people, the fight against Covid-19 in Vietnam has also received great support from the international community. The policies to respond to the Covid-19 epidemic are concerned and analyzed by the scientific community, and the lessons learned from the fight against Covid-19 in Vietnam are recognized, appreciated, and spreaded out. The sharing of information, experience, scientific solutions, and resources between Vietnam and the world takes place in many fields, demonstrating the initiative, flexibility, and creativity in Vietnam's foreign policy. With the mindset that Covid-19 is a common problem of mankind, no country can unilaterally solve or be safe until all countries in the world are safe. While countries were facing many difficulties in fighting the epidemic, Vietnam has sought to support countries during the Covid-19 pandemic such as donating masks and medical supplies to Japan with a total value of USD 100,000, and 200,000 antibacterial cloth masks to the USA (Nguyen Hanh, 2020), enthusiastically treating and vaccinating foreigners living and studying and working in Vietnam with COVID-19, participating in the COVAX mechanism to ensure equal access globally to vaccines to prevent COVID-19 disease, and contribute $500,000 to the COVAX fund (Thanh Hai, 2021). The international spirit of Vietnam has been recognized and appreciated by the international community.

During the outbreak of the Covid-19 epidemic in Vietnam, the international community has made kind activities in supporting Vietnam in fighting the epidemic. At a time when there is a worldwide shortage of vaccines and medical equipment, Vietnam has received support for these medical items from many countries around the world through the COVAX mechanism such as the United States, Japan, China, Russia, Romania, Australia (Ha Van, 2021), Hungary, Slovakia, Germany, Poland, Czech, Portugal, England, and others (Nguyen Thi Thu Nga, 2022). By the end of 2021, there have been about 55 million doses of vaccine donated by COVAX and the Governments of other countries, with an estimated value of more than 325 million USD, equivalent to more than 7,000 billion VND of the state budget (National Steering Committee Covid-19 epidemic prevention and control, 2022); From March 2021 to April 23, 2022, Vietnam has received more than 239 million doses of Covid-19 vaccine from various sources, of which about 50% is from funding through the Covax mechanism and over 30 million doses of Covid-19 vaccine through bilateral diplomacy with different countries (Nguyen Thi Thu Nga, 2022). Organizations and governments have sponsored 2,055 devices of all kinds, including 135 ventilators, 85 deep-sound refrigerators, 300 refrigerators, 50 heart rate monitors, 17,785 oxygen generators, 43,438,000 syringes and needles, 1,600 cold boxes, 407,375 safe boxes for vaccination, 624,200 N95 and FFP masks, 1,350,000 medical gloves, 180,000 anti-epidemic costumes, 1,775,450 masks of all kinds, 1,254.95 rapid tests, 280,000 RT-PCR tests and thousands of primer sets (National Steering Committee for Covid-19 Prevention and Control, 2022). In addition, the international community is also promoting support for Vietnam through technology transfer and vaccine production to proactively respond to the complicated and prolonged pandemic.

3.4. The effectiveness and efficiency in the management and administration of the Covid-19 epidemic prevention and control of the Vietnamese government

With the best efforts of the Party and the State and the consensus of the people, so the fight against the Covid-19 epidemic in Vietnam after more than two years besides the inevitable losses, Vietnam is considered one of the countries with great successes in fighting against the global Covid-19 pandemic.

Results that Vietnam has achieved much in the field of health and people's health care. As of October 2022, Vietnam suffered 11.5 million infections, more than 10,596 thousand people have recovered from the infection, and more than 43 thousand people have passed away (Vietnam Ministry of Health, 2022), calculating per 1 million people, the number of infected people ranked 143/224, the number of deaths ranked 130/224 countries in the world. The mortality to morbidity rate is 1.8%, ranking 26 out of 224 countries in the world (National Steering Committee for Covid-19 Prevention and Control, 2022). Effectively organizing the largest vaccination campaign in the history of vaccination in Vietnam was very successful

By the beginning of 2022, Vietnam has reached over 70% of the population to receive the full basic dose; compared to WHO recommendations, Vietnam has reached the finish line before 6 months (National Steering Committee for Covid-19 Prevention and Control, 2022). The socio-economic situation in the first nine months of 2021 gained remarkable results. Macro-economics is stable, inflation is under control, and major balances of the economy continue to be ensured. The policy of “Leaving no one behind”, social security and people's lives are paid special attention, ensuring people's safety, security, order, and social safety in difficult contexts. National defense and security were maintained, and foreign affairs were effectively implemented (National Steering Committee for Covid-19 Prevention and Control, 2022). In the situation of Vietnam, a country with a large population, high population density, and many difficulties in epidemic prevention and control such as limited medical resources or lack of vaccines, the results Vietnam has achieved are commendable. These results, on the one hand, reflect the government 's effective anti-epidemic management capacity, the effectiveness of policies, and the consensus and support of the people, and on the other hand, ensuring the people's confidence in the leadership of the Party and management and administration of the State.

4. CONCLUSION AND DISCUSSION

The success of the fight against Covid-19 in Vietnam is the result of a combination of many factors and the efforts of many actors. In particular, a very important factor is the consensus of the people with the policies of the government from the central to local levels. Social consensus is both a condition, goal, and motivation for the successful implementation of State policies in fighting against the pandemic.

The Covid-19 context has posed major challenges to governments in their national governance efforts. The fact shows that while many countries around the world have been facing certain difficulties in their efforts to find social consensus from the people, Vietnam has been claimed to be a successful case in the perception and belief of the people towards the leadership of the Party and the State. It is that social consensus creates a solid basis for the implementation of the policies of the Vietnamese government, and that creates more creative power for the policies to be flexible and applied in different situations. The social consensus creates a social space with people 's willingness and efforts to contribute to society, creates attraction with the attention and support of the international community, and is a key factor for the success of the effectiveness of Covid-19 response policies in Vietnam.

From the case of Vietnam, it is possible to generalize a number of reasons for success in the attempt to find social consensus:

The basis of achieving social consensus is the common interest of the whole society. Facing the Covid-19 pandemic, the Vietnamese government has set out policies with the biggest goal of protecting people's health and life safety. Flexible policies in each period have helped Vietnam achieve "dual goals" of both successfully fighting the epidemic and ensuring normal socio-economic development, and "turning threats into opportunities". With those set goals, the policy of the Vietnamese government has really reflected and represented the legitimate interests of the entire Vietnamese people. The goal system of protecting the interests of the people is the core of the social consensus which has created a strong attraction with the participation, social acceptance, and contribution of the people to realize the interests of the people.

Ensuring democracy is essentially a means of achieving social consensus. In the process of implementing policies to respond to Covid-19 in Vietnam, the Party and the State have paid strategic attention to democracy implementation. The information is widely communicated, updated, and accurate through the media campaign. People know, discuss, work, and benefit from policies is a strong motivation for them to participate, contribute innovative solutions, and support the government in the process of formulating and making policies. Even when individual freedom is restricted by lockdown and social distancing policies, on the basis of ensuring democracy, Vietnamese people still voluntarily and voluntarily exercise this, which allows democracy as the basic way to achieve social consensus.

Systematic thinking is the implementation mechanism of social consensus: With the international spirit, Vietnam considers the Covid-19 epidemic as a problem for the whole world. Responding to Covid-19 that requires the cooperation of all countries in the world is the clearest manifestation of the Vietnamese government's systematic thinking. Domestically, systematic thinking is deeply reflected in policies that ensure the participation of the entire political system. The motto "Leave no one behind" not only achieves the goal of social security but also the goal of ensuring social safety and political stability, creating conditions for the successful implementation of the "dual goal" of the system. Systematic thinking establishes an open and flexible mechanism in policy administration and operation, which is an important mechanism for ensuring social consensus.

National culture and national aspirations are the foundation for implementing social consensus. Vietnam is a nation with a long history of political culture in the tradition of building and defending the country. The national aspiration for independence, freedom, and prosperity is the foundation of policies to encourage the strengthening of internal resources and mobilize the strength of people's solidarity in the fight against Covid-19. The Prime Minister's motto "fighting the epidemic like fighting the enemy" and the General Secretary 's call for the whole party, army, and people to unite together fighting against the Covid-19 epidemic are a traditional political culture that is cleverly applied in Covid-19 prevention policies in Vietnam. These have created soft power, cultural power to motivate Vietnamese people to join hands in the fight against Covid-19.

Social consensus reflects the political legitimacy of the ruler. Political legitimacy is a goal that the government always pursues, which ensures the rationality, reasonableness, legality, effectiveness, and efficiency of the ruling process. Social consensus is the most direct and profound expression of political legitimacy. Social consensus regarding Covid-19 prevention and control policies in Vietnam is a clear reflection of the political legitimacy of the Party and the State. This is evidenced by the people's belief in the leadership of the Party and the administration of the State in Vietnam.

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JOINING THE WORLD TRADE ORGANIZATION (WTO): ADJUSTMENT IN THE LAW ON SUBSIDIES IN VIETNAM AND RECOMMENDATIONS

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Abstract

In the context of increasingly fierce and complex competition, the subsidized needs of domestic manufacturing industries are huge. On January 11, 2017, Vietnam officially became the 150th member of the WTO; has the full rights and obligations of a member of the developing country group. Vietnam is obligated to comply with WTO rules on subsidies and is also entitled to special and differential treatment in its subsidy regulations for developing countries. Researching and developing policies and legislation on subsidies while ensuring the correct implementation of WTO rights and obligations; at the same time, ensuring national interests and creating a driving force for economic development is both a need and a challenge for Vietnam. From the perspective of approaching jurisprudence and political science, on the basis of an overview of the basic features of the WTO; overview of subsidy legislation for developing countries in accordance with WTO regulations; analyzing the current status of adjustment of the law on subsidies in Vietnam when joining the WTO; the article proposes a number of recommendations to improve the effectiveness of the law on subsidies for Vietnam as a member of the WTO in the near future. This article is part of the research results of the State-level Project coded KX.04.34/21-25.

Keywords: *WTO, regulation, legislation, subsidies, recommendations*

INTRODUCTION

On April 15, 1994, in Marrakesh (Morocco), countries signed an agreement to establish the World Trade Organization (WTO). WTO was established and put into operation on January 1, 1995 (Hanoi Law University, 2017, p. 79). It is the first and largest international institution in the world that governs most areas of global trade. The predecessor of the WTO was the General Agreement on Tariffs and Trade of 1947 (GATT 1947). GATT 1947 was the only plurilateral international agreement governing trade in goods on a global scale from 1948 until the creation of the WTO in 1995. GATT 1947 proved its special role in organizing and conducting rounds of multilateral trade negotiations on tariff reductions and non-tariff measures.

Although considered as the successor organization of GATT, the status of international law subject of WTO has also been confirmed in Article VIII of the Agreement establishing the World Trade Organization (Marrakesh Agreement, 1994); at the same time, WTO has some differences compared to GATT:

Table 1. Differences between WTO and GATT

Criteria	WTO	GATT
Organizational system	As an intergovernmental international organization with a system of agencies and strict operating principles	Consists of a number of multilateral international treaties with no institutional background
Subjects of application	Trade in goods; trade in services and trade-related aspects of intellectual property rights	Trade in goods
Mechanism of commercial dispute resolution	Fast, efficient	Slower

Source: Agreement Establishing the World Trade Organization (WTO, 1994), The General Agreement on Tariffs and Trade (GATT, 1947)

Currently, the WTO controls over 90% of the total international trade volume (Hanoi Law University, 2017, p. 80) and is continuing to draft international treaties within the WTO framework to regulate the system international trade relations. The basic issues in the field of trade in goods, trade in services, intellectual property rights, etc. according to the provisions of the WTO are stipulated in many international treaties.

Becoming a WTO member means that countries have opportunities, as well as challenges, especially for developing countries. Vietnam joined the WTO on 7/11/2006, and was recognized as an official member of this organization on 11/01/2007 (World Trade Organization, 2007). The process of preparing to become a WTO member and after becoming a WTO member of Vietnam so far (2022) has brought many opportunities, as well as posed many challenges for the Vietnamese legal system. Vietnam has had to adjust and commit to apply WTO principles in the development and implementation of legal regulations. In the framework of the article, the author focuses on studying the changes in Vietnam's law before and after being a member of WTO in the law on subsidies. It is expected that the research results of the article will be effective and feasible proposals to contribute to the adjustment of Vietnam's legislation on subsidies to improve the effectiveness of Vietnam when joining the WTO.

WTO overview

Purpose and function

WTO as a trade organization of all countries in the world, operating with 04 goals, 05 functions.

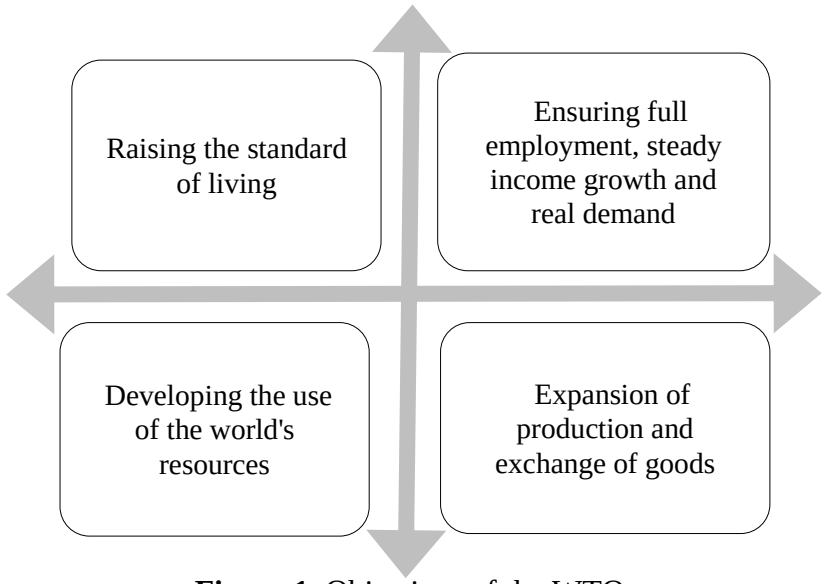
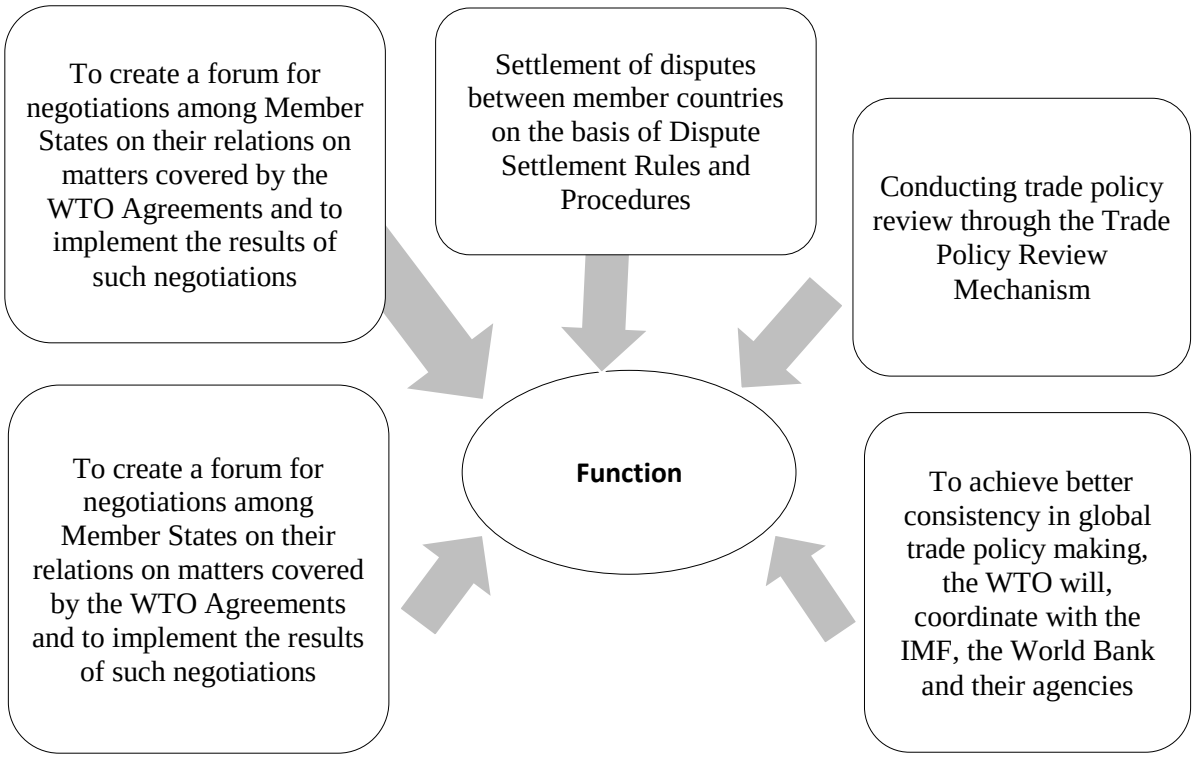


Figure 1. Objectives of the WTO

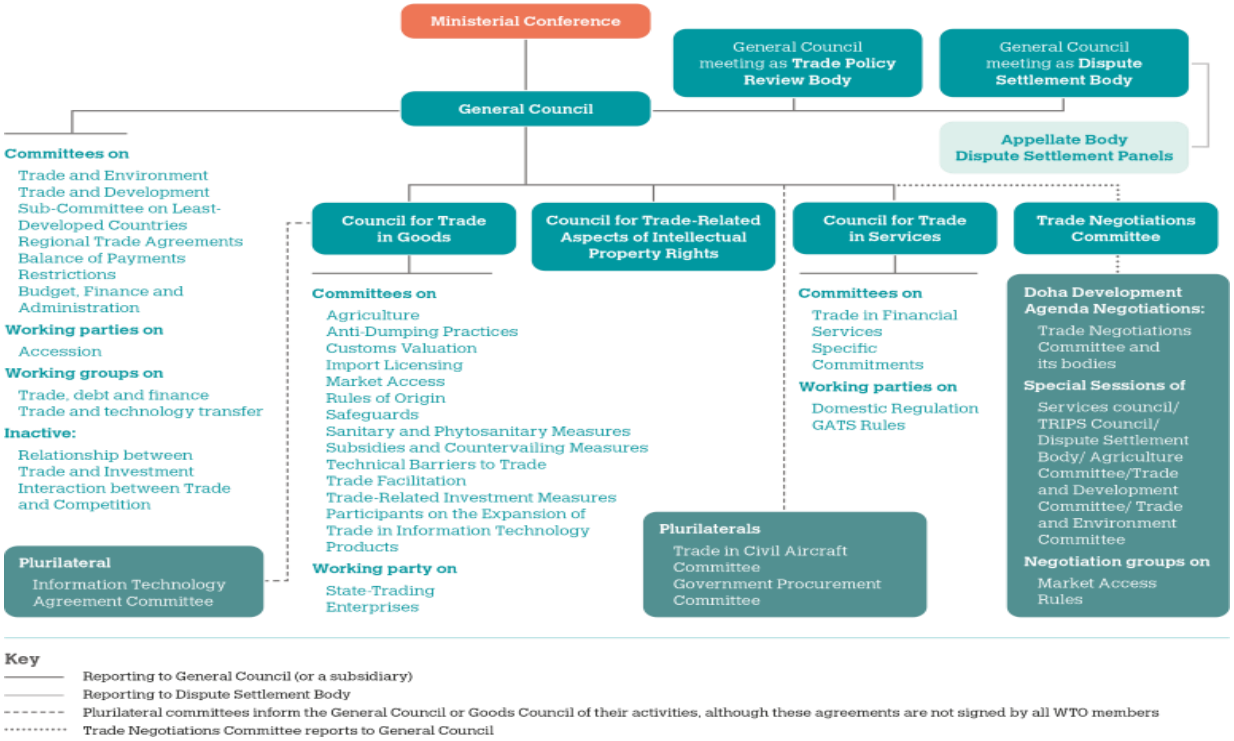
Source: Department of International Relations (VCCI, 2016, p. 4)



Organizational structure

The WTO has a three-tiered structure: 1. Political leadership and decision- making powers include the Ministerial Conference, General Council, Dispute Settlement Body (DSB), and Trade Policy Review Body (TPRB); 2. Agencies that enforce and monitor the implementation of multilateral trade agreements, including the GATT Council, the GATS Council and the TRIPS Council; 3. Finally, there are agencies performing administrative functions - the secretariat is the Director-General and the WTO Secretariat.

Figure 3. Organizational structure of the WTO



Source: WTO (WTO organization chart, 2022)

The Ministerial Conference is the highest body of the WTO, consisting of representatives of all member countries. The Ministerial Conference shall carry out the functions of the WTO and take the necessary actions to carry out these functions. The Ministerial Conference established three supporting committees: the Committee on Trade and Development, the Committee on International Balance of Payments Restrictions and the Committee on Budget, Finance and Governance.

The General Assembly is composed of representatives of all member states. During the period between sessions of the Ministerial Conference, the functions of the Ministerial Conference are assumed by the General Assembly. In addition, the General Assembly performs other functions as provided for in the Marrakesh Agreement. The General Assembly also directs the activities of three agencies operating in three different areas, namely the Council on Trade in Goods, the Councilon Trade in Services and the Council on Intellectual Property-related Issues.

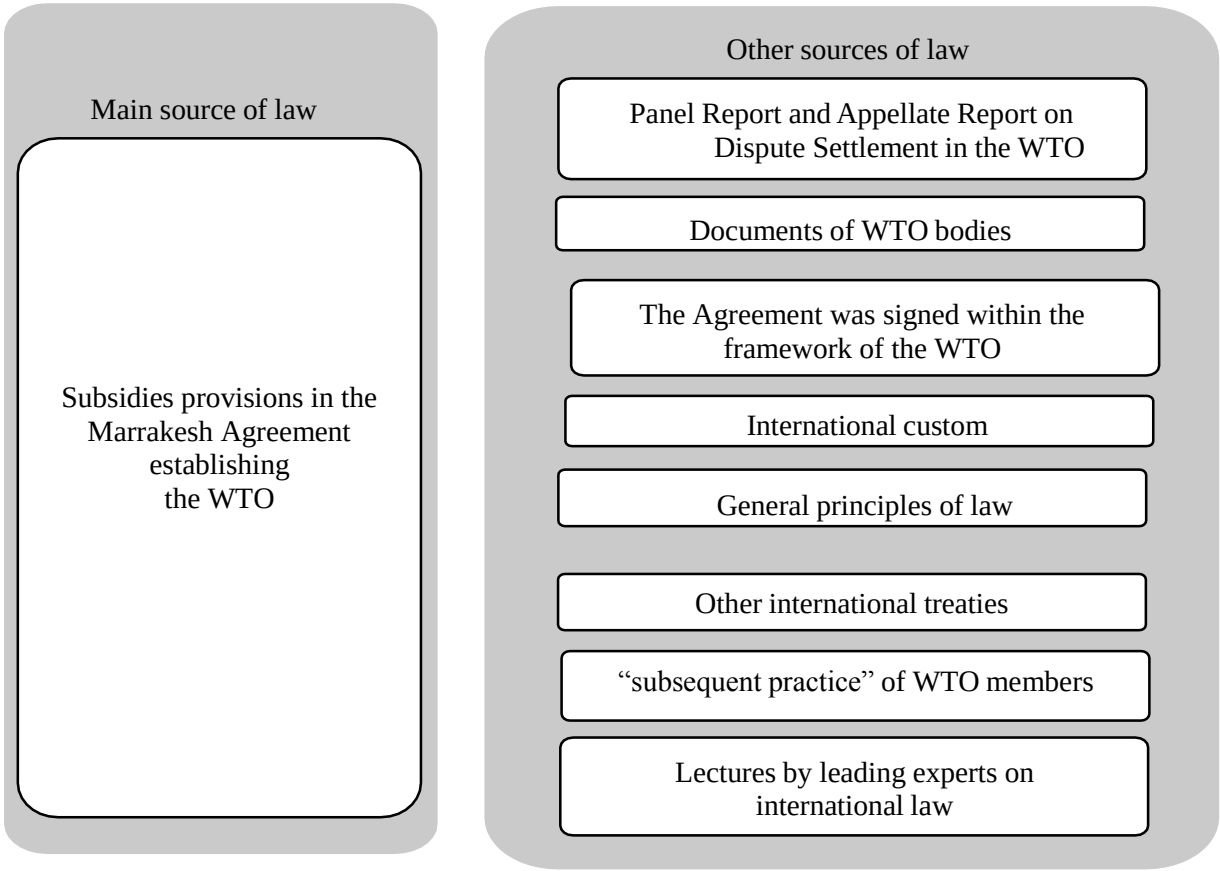
The Secretariat has about 450 people led by the Secretary-General. The Secretariat is tasked with serving the WTO authorities in relation to the negotiations and implementation of signed multilateral and multilateral agreements. The Secretariat also has the specific task of providing technical assistance to developing countries.

Overview of subsidy legislation for developing countries under WTO rules

Legal position: WTO law on subsidies as provided for in Article VI, Article XVI of GATT 1994, SCM Agreement and AOA is a relatively comprehensive subsidy regulation and is mandatory for all members.

According to Article 1.1 of the SCM Agreement, ***a subsidy*** is any financial support provided by the State or a public organization (central or local) in one of the forms to benefit an enterprise/manufacturer.

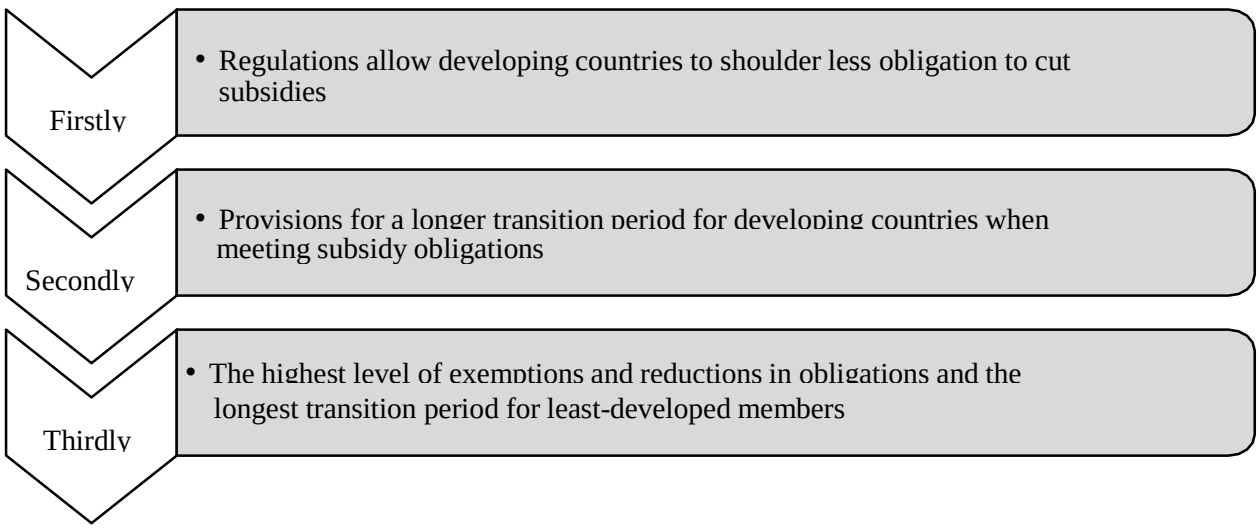
Figure 4. Sources of WTO Law on Subsidies



Source: WTO, 1994

In the Preamble to the Agreement Establishing the WTO, accordingly, WTO members: **"Recognizing** further that there is need for positive efforts designed to ensure that developing countries, and especially the least developed among them, secure a share in the growth in international trade commensurate with the needs of their economic development" (World Trade Organization, 1995, p. 9). Implementing that statement, the WTO has developed many preferential regulations for developing countries, including the WTO's principle of special and differential treatment onsubsidies. Whereby:

Figure 5. Special and Differential Treatment of Developing Country Members



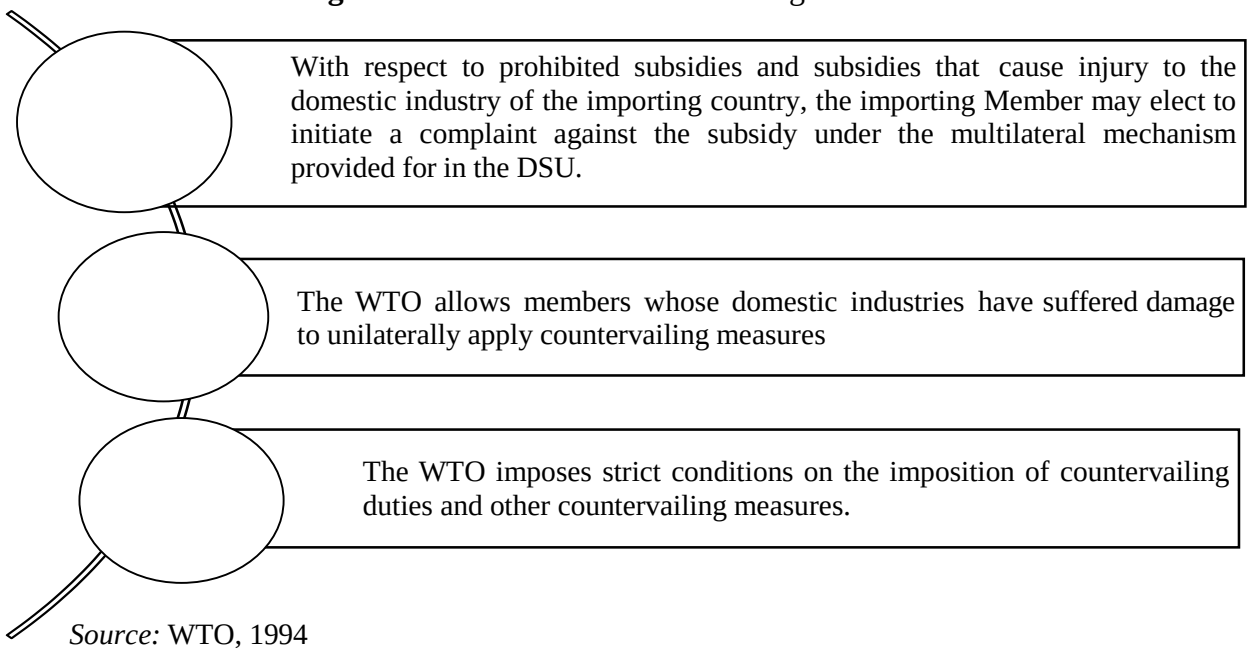
Source: WTO, 1994

Figure 6. Subsidy classification and application mechanism

Prohibited Subsidies(Red light subsidy)	Export subsidies Subsidies to prioritize the use of domestic goods
Subsidies are not appealed (Green light subsidy)	Non-specific allowance Grants for research activities, for disadvantaged areas, to assist in the adjustment of production conditions
Subsidies are not prohibited but can be sued (Yellow Light Subsidy)	All kinds of special allowances Except for green light subsidies

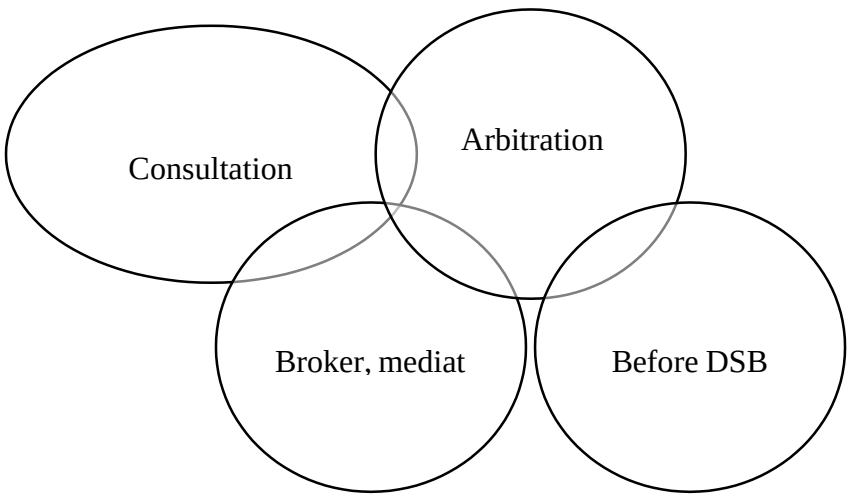
Source: WTO, 1994

Figure 7. WTO view on countervailing measures



Source: WTO, 1994

Figure 8. Ways for dispute settlement on subsidies



Source: WTO, 1994

In general, although the WTO recognizes the need for subsidies in developing and least developed countries for economic development, the WTO has expressed its opposition to subsidies and only accepts to apply and maintain subsidies for a short period of time, strict rules and order. The difference in WTO subsidies for developing countries is reflected in subsidies for export marketing, export transport, and domestic support for the agricultural sector. The subsidy legislation of each WTO member state must be compatible with the WTO's subsidy legislation without reservation in any respect. Recognizing that becoming a WTO member will involve both rights and obligations, Vietnam is committed to using WTO principles as the foundation for its trade policies. Vietnam has been reviewing and amending the subsidy law to gradually be in line with WTO rules and principles.

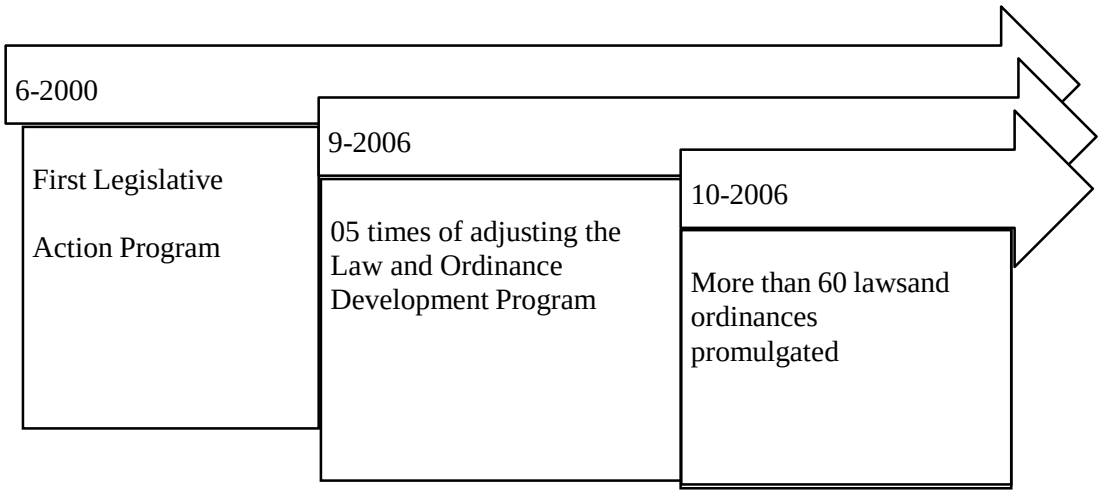
Status of adjusting the law on subsidies in Vietnam when joining WTO

1995-2006 period

In January 1995, the Government of the Socialist Republic of Vietnam applied to join the WTO. At its meeting on January 31, 1995, the General Assembly established a Working Committee to consider the application of the Government of the Socialist Republic of Vietnam to join the WTO. The Working Party met on July 30-31, 1998 and December 3, 1998; July 22-23, 1999; November 30, 2000; April 10, 2002;

12/5/2003; December 10, 2003; June 15, 2004; December 15, 2004 under the chairmanship of Mr. Seung Ho (Korea); on September 15, 2005; March 27, 2006; July 18, 2006; October 9, 2006 and October 26, 2006 under the chairmanship of Mr. Eirik Glenne (Norway) (Working Committee on Vietnam Men joined WTO, 2006, p.4).

Subsidies are one of the complicated issues in Vietnam's 11 years negotiation to join the WTO. In 11 years, Vietnam has adjusted and promulgated a large number of legal documents serving the process of joining WTO.



Vietnam is committed to completely eliminating prohibited subsidies and maintaining only domestic support for agricultural products. Joining the WTO, in principle, Vietnam must fully comply with the provisions of the SCM Agreement on subsidies. However, Vietnam has its own regulation in some of the following issues:

For the agricultural sector, Vietnam commits not to apply or maintain any export subsidies for agricultural products. Vietnam is entitled to apply domestic support to agricultural products that have no or negligible impact on trade in the green box and blue box. To support agriculture, Vietnam is still allowed to use non-prohibitedmeasures at no more than 10% of the output value.

For the industrial sector, Vietnam commits to abolishing all kinds of subsidies banned under WTO regulations (export subsidies and localization subsidies); does not establish new prohibited benefit programs and does not issue any prohibited benefits to new beneficiaries. Vietnam commits to completely abolish export subsidies and import substitution incentives from the time of accession. Particularly for investment incentives (tax incentives) based on the criteria of export performance and localization rate that the State agency has allowed enterprises to enjoy before the date of WTO accession, they will continue until the end of 5 years from the date of accession (exceptfor the textile industry).

Thus, domestic and FDI enterprises that have been established and enjoy tax incentives based on export criteria or localization rate will continue to enjoy incentives until the end of January 11, 2012. With this exception, all other forms of subsidies to which the enterprise benefits will comply with the provisions of the SCM Agreement.

In general, Vietnam's commitments on subsidies before the WTO are reasonable commitments at the time of Vietnam's accession to the WTO. Vietnam agrees to completely abolish subsidies banned under WTO regulations (export subsidies and localization subsidies). The commitment is fully consistent with WTO regulations on subsidies, demonstrating Vietnam's good will to carry out free trade.

The period 2007- the first 9 months of 2022

Looking back over 15 years of being admitted as a member of the World Trade Organization (WTO) up to now (November 7, 2006 - September 9, 2022), Vietnam has made a long step on the road of integration.

With 17 free trade agreements (FTAs) that have been negotiated; in which, 15 free trade agreements have been signed and come into force and 2 free trade agreements are being negotiated, which have turned Vietnam into an economy with an openness of up to 200% of gross domestic product (GDP). WTO is likened to a big door that is opened for Vietnam to confidently step out into the world. Vietnam has made certain adjustments in its subsidy law over the past 15 years as a member of the WTO.

First, domestic support for agriculture

Basically supporting Vietnam's domestic agriculture in compliance with WTO's regulations and Vietnam's commitments upon accession. After joining the WTO, Vietnam's agricultural sector still receives support from the Government through support measures approved by the WTO. If before, direct export subsidies for agricultural products were for exporters, but now with WTO rules, government financial support has been directed to farmers and producers.

After joining the WTO, domestic support for agricultural products is mainly implemented in three groups: (1) "green box" support; (2) support in the “blue box” and (3) other support subject to a reduction in excess of at least 10% of the product value.

(1) For support in the "green box", Vietnam maintains grants for general services, national reserves for the purposes of food security, domestic food aid, and food assistance structural adjustment support through investment aid, environmental programs, regional assistance programs and others.

(2) For subsidies and supports in the “blue box”, Vietnam maintains three groups of subsidies: investment subsidies, input subsidies for low-income or labor-less producers, and subsidies, supporting the eradication of opium poppy to plant other crops.

(3) For other support subject to a reduction in excess of at least 10% of the product value, Vietnam maintains support for rice, corn, green vegetables, coffee, pepper, cashew nuts, tea, cattle, pigs, poultry and other products.

Second, support with industry

According to Decision 55/2007/QD-TTg of the Prime Minister approving the list of priority industries and spearhead industries for the 2007-2010 period, with a vision to 2020 and a number of incentive policies for these industries, the Vietnam's priority industries include seven sectors: textiles, footwear, plastics, processing of agricultural, forestry and fishery products, steel, mining and aluminum bauxite processing, chemistry and three key industries including: manufacturing gas, electronic equipment, telecommunications and information technology, products from new technologies.

The development strategy of a number of priority industries is also outlined in many Prime Minister's Decisions, including subsidies for priority industries in different stages of development, such as Decision No. 1043/QD-TTg dated July 1, 2013 of the Prime Minister on "Vietnam's industrialization strategy within the framework of Vietnam-Japan cooperation towards 2020, with a vision to 2030" specifies six industries: industry is prioritized for outstanding development; Decision 1342/QD-TTg dated 12/8/2014 of the Prime Minister approving the plan of action to develop agricultural machinery industry in implementation of Vietnam's industrialization strategy within the framework of Vietnam – Japan cooperation through 2020, with a vision toward 2030; Decision 1168/QD-TTg dated July 16, 2014 of the Prime Minister approval for strategy to develop automotive industry in Vietnam by 2025, orientation towards 2035, etc.

However, the reality of subsidy programs shows that Vietnam has not properly identified priority industries and spearhead industries, and has not defined clear development goals for subsidized industries. Vietnam's priority and spearhead industries have not developed as expected, apart from the textile industry. Legislative policies have been unsuccessful, leading to subsidies and unable to achieve the purpose of helping industries improve their competitiveness in the early stages of integration.

Third, subsidies for trade promotion and transportation

Before joining the WTO, one of the subsidy measures at the Export Support Fund was a bonus for finding and expanding export markets, newly manufactured goods for the first time participating in export, and exporting products with high standards. After the Export Support Fund was abolished, Decision 279/2005/QD-TTg, amended by Decision 80/2008/QD-TTg, introduced a new Trade Promotion Program for the period of 2006-2010 on WTO compliance criteria, on November 15, 2010, the Prime Minister issued Decision 72/2010/QD-TTg on promulgating regulations on developing, managing and running national trade promotion program. The Ministry of Finance issued Circular 171/2014/TT-BTC guiding the financial support mechanism from the state budget to implement the National Trade Promotion Program and the Ministry of Industry and Trade issued Circular 10/2014/ The TT-BCT stipulates the implementation of mechanisms and policies for trade promotion, market development, and development of supporting industries for the development of national products.

Fourth, tax incentives

The preferential program on non-agricultural land use tax is specified in the Law on Non-

agricultural Land Use Tax 2010, the guiding documents and related documents. Non-agricultural land use tax exemption and reduction measures do not constitute an export subsidy, but they will have sufficient elements to constitute a subsidy and be specific if they are only targeted at a certain group of businesses, industries or sectors. Investment projects with a capital scale of VND 6,000 billion or more, disbursed at least VND 6,000 billion within 3 years from the date of issuance of the Investment Registration Certificate or from the date of issuance of a decision of investment policy; investment projects in industries and trades eligible for investment incentives specified in Section B of Appendix I to be implemented in areas with difficult socio-economic conditions specified in Appendix II of Decree No. 118/2015/ND- CP.

The corporate income tax incentive program includes tax exemption and tax reduction measures recognized in the Law on Corporate Income Tax No. 2008 and other related documents. In addition to the corporate income tax exemption and reduction measures for agricultural activities, which will be considered as domestic support, the tax exemption and reduction measures if creating benefits for subsidized enterprises; for activities in the fields of education - training, vocational training, health care, culture and environment, are entitled to tax exemption for a maximum of not more than 04 years, a 50% reduction of payable tax amounts for no more than nine subsequent years and a apply a tax rate of 10% for an indefinite period, etc. most of which constitutes a subsidy.

Preferential import tax programs: Since before joining the WTO, import tax incentive programs have been applied in Vietnam and these preferential programs continue to be recognized in the Law on Import and Export Taxes. Import and export tax was promulgated by the National Assembly in 2016 and Decree 134/2016/ND-CP detailing a number of articles and measures to implement the Law on Import and Export Tax promulgated by the Government on September 1, 2016. Whereby:

(1) The import tax relief program only applies to goods damaged during customs clearance, and therefore does not constitute a subsidy.

(2) Compared with the Law on Import Tax and Export Tax in 2005, the cases of exemption from import tax are more added. These exemptions are specific (which is an important factor in determining whether a subsidy is likely to be countervailing in the importing country) because they are only available to a single manufacturing industry or a priority group of industries such as goods imported for shipbuilding, oil and gas; plant varieties, livestock breeds, goods imported for environmental protection, etc.

Fifth, credit program

The latest investment credit program is applied under Decree 32/2017/ND-CP of the Government dated March 31, 2017 on investment credit of the State. The target audience of the Program includes priority sectors, spearheads of the country and sectors and regions that need protection and support for social benefits. Enterprises can borrow up to 70% of the total investment capital of the project with a term of no more than 15 years.

Credit program for traders conducting commercial activities in difficult areas is specified in the Prime Minister's Decision No. 92/2009/QD-TTg dated July 8, 2009 on credit for traders conducting commercial activities in difficult areas and the Prime Minister's Decision No. 1049/2009/QD-TTg dated June 26, 2014 on promulgating the List of administrative units in disadvantaged areas. The possibility that this Credit Program will have an adverse effect leading to being sued is very low. The lending interest rate is equal to the lending interest rate applicable to production and business households in disadvantaged areas. The interest rate of 9% of the

Credit Program cannot be considered as a preferential rate for traders operating in difficult areas.

Credit programs for households engaged in production or commercial activities in disadvantaged areas are specified in the Prime Minister's Decision No. 31/2007/QD-TTg dated March 5, 2007 on credit for households engaged in production or commercial activities in disadvantaged areas and the Prime Minister's Decision No. 1049/QD-TTg dated June 26, 2014 on promulgating the List of administrative units in disadvantaged areas. The loan interest rate is 0.9%/year, not a preferential interest rate. Households in this disadvantaged area mainly work in the agricultural sector, so this credit program is a measure of domestic support.

Sixth, credit guarantee program

Investment credit guarantee is specified in the Regulation on investment credit guarantee promulgated together with Decision No. 76/QD-HDQL dated December 20, 2007 of the Management Council of the Vietnam Development Bank. The subjects eligible for investment protection focus on a number of priority and spearhead industries and a number of industries towards social benefits. On the basis of a change in the subjects eligible for investment credit loans under Decree 32/2017/ND-CP, the subjects eligible for investment credit guarantees also narrowed and changed. To be accepted as a guarantee, the investor needs to meet the two most important conditions: have collateral (at least 15% of the total guaranteed capital or use the assets formed from the loan to secure it) and have investment projects appraised and approved for loans by credit institutions.

Credit guarantee program for small and medium enterprises: Aiming to support small and medium enterprises to improve their competitiveness, the Law on Supporting Small and Medium Enterprises was passed on June 12, 2017. In which, small and medium enterprises are granted credit guarantees at the Small and Medium Enterprises Credit Guarantee Fund. The guarantee for small and medium enterprises is also a rather risky activity. In the situation that most of the Fund's capital is from the state budget, the subject of risk will be the State. The possibility of subsidizing and possibly countervailing credit guarantees when SMEs engage in export activities is possible.

Recommendations to improve the effectiveness of the law on subsidies for Vietnam as a member of the WTO in the future

Developing legislation to ensure the implementation of Vietnam's commitments to WTO accession is an important task, both urgent and long-term, clearly defined in Resolution No. 48-NQ/TW dated May 24, 2005 of the Politburo on the Strategy for building and perfecting the Vietnamese legal system. It is "to bring into full play internal resources, actively participate in international integration, fully implement international commitments on the basis of maintaining independence, sovereignty, national security and socialist orientation." (Politburo, 2005).

In the context of the new situation, the Sub-Committee on thematic development "Strategy for building and perfecting the legal system and organizing law enforcement by 2030, with a vision to 2045 to meet the requirements of construction and perfection", socialist rule of law state of Vietnam" by National Assembly Chairman Vuong Dinh Hue directly under the Project "Strategy to build and perfect the socialist rule of law state in Vietnam to 2030, orientation to 2045" will be implemented from 2021. From that, it can be seen that building and perfecting the legal system and organizing law enforcement are issues that are always focused and concerned by the Party and State.

In that spirit, in order to perfect Vietnam's subsidy law, improve the efficiency of subsidy activities, and at the same time ensure compliance with Vietnam's commitments before the WTO

on subsidies, it is necessary to perform synchronously the following solutions:

The first, promote the propaganda and dissemination of the law on subsidies

The fact that the beneficiaries themselves have a full understanding of the criteria, the material benefits as well as the strategic purposes of the subsidy can help enterprises or industries be more proactive in meeting the criteria, standards, policy approaches, greatly contribute in determining the appropriate beneficiaries of subsidies. At the same time, a deep understanding of the policy and legislation on subsidies will help beneficiaries better understand the meaning of subsidies, thereby taking drastic improvement measures to achieve their goals.

To assume the prime responsibility for, and coordinate with ministries and branches in, promoting propaganda and dissemination of the law on subsidies to raise awareness and sense of observance of laws, regimes and policies, contributing to the introduction of guidelines, resolutions of the Party, policies and laws of the State related to subsidies on living.

Determining that the propaganda and dissemination of legal education on subsidies is one of the important tasks, it is necessary to organize training courses and direct propaganda for beneficiaries; integrating the content of legal education on subsidies into professional activities, on television, radio, etc.

It is necessary to develop and strengthen the organization of writing contests, learning about the WTO in general; legislation on subsidies in implementing Vietnam's WTO commitments in particular to see the level of awareness about the law on subsidies, thereby developing appropriate plans.

The second, finalize legal documents on subsidies

Completing the Law on Promulgation of Legal Documents in order to renew and improve the quality, ensuring publicity and transparency in legislative and regulation-making activities; ensuring the constitutionality, legitimacy, and uniformity of documents in the legal system and in the direction of specific provisions of laws and ordinances for immediate implementation, reducing the number of guiding documents.

Firstly, it is necessary to clearly define the beneficiaries of the subsidy: It is necessary to conduct research and develop a basic system of criteria for selecting beneficiaries; especially priority and spearhead industries. In addition, it is necessary to proactively conduct a review of the beneficiaries of the subsidy during the entire subsidy implementation process.

Secondly, it is necessary to develop specific objectives of each subsidy program for specific beneficiaries in each defined period; resolutely cut or end subsidies for priority industries or businesses that fail to achieve short-term as well as long-term goals. Must aim at building vulnerable groups to improve their competitiveness, export capacity and compete in the international market as well as the domestic market; prioritized and spearhead industries become the leading industries, creating a driving force for the development of other industries.

Thirdly, actively take advantage of the developing country's right to adopt and maintain authorized subsidies. Vietnam needs to focus on two groups: (1) Export subsidies for agricultural products under Article 9.4 – AOA agreement and (2) Domestic support for agriculture, which are financial support measures approved by the WTO accepted, does not constitute a subsidy. The level of support can be increased compared to the current level, support measures can also be expanded because Vietnam has not yet supported agriculture to reach 10% AMS and many supports are in the "green" box" or "blue box" are not applicable.

Fourthly, supplementing new regulations and changing some legal provisions on subsidies: It is necessary to supplement documents guiding the identification of imported raw materials for export production, including normal discounts for Scrap. Clearly identifying the source of imported and domestic raw materials, which allows for the exemption of import or export tax on a large scale for exports, otherwise it is very easy to constitute an export subsidy. Section 3 – Anti-subsidy for goods imported into Vietnam Chapter IV – Trade remedies, Law on Foreign Trade Management 2017 needs specific instructions on how to determine the value of subsidies, benefits, allowance margin, segregation and consultation procedures.

The third, strengthening the capacity of judicial and legal staff to draft, appraising, reviewing and examining legal documents

To step up the training of jurists, especially the contingent of lawyers, and judicial titles such as judges, prosecutors, enforcers, and notaries who have the capacity and qualifications to participate in the integration process.

Training human resources with professional capacity, ability to use foreign languages to participate in the formulation and implementation of policies and legislation on subsidies is extremely important. For example, human resources at state agencies participating in the development of policy and legislation on subsidies need to have expertise in international law, WTO law on subsidies, financial expertise, economy as well as the ability to use English well. To do that, first of all, it is necessary to renovate the curricula, curricula and teaching contents of a number of subjects in law universities related to international economic integration and implementation of WTO members' commitments.

It is necessary to gather a number of good lawyers and lawyers with foreign language qualifications for domestic training or to send abroad for training on international law and international commercial dispute settlement mechanisms in order to serve effectively, meeting the requirements of international economic integration.

The fourth, strengthening the review, assessment and consultation on the legal documents on subsidies

It is necessary to strengthen the review of practices, review and select financial support measures applied in each subsidy program in accordance with the subsidy objectives and the country's economic development strategy. The review and selection should be carried out in coordination between research institutions, relevant authorities, the selected industry and experts. In addition to the theoretical basis, the selection of financial support measures in the legal policy on subsidies should be based on the subsidy needs of the specific beneficiaries.

Evaluating the results and consulting on legal documents on subsidies clearly shows the impact of subsidies on improving the competitiveness of enterprises. On that basis, it is possible to make judgments about meeting the short-term and long-term goals of the beneficiaries set out in the legal policy on subsidies.

The synchronous and systematic implementation of the above solutions not only contributes to improving the efficiency of the law on subsidies in the implementation of Vietnam's commitments upon joining the WTO, but is also meaningful to Vietnam. When joining other Free Trade Agreements, and in any case, Vietnam needs to have a resolute attitude and convincing arguments so that international agreements on subsidies need to be towards the principle of fairness and adequacy.

CONCLUSION

Completing the legal policy on subsidies is an urgent need in the context of the new situation, when domestic products and enterprises face strong competitors and most of them receive subsidies. It is extremely important to develop and improve the legal policy on subsidies to ensure compliance with Vietnam's international commitments while still protecting and supporting domestic enterprises.

Through the article, it can be seen that WTO regulations on subsidies have been formed since GATT 1947 and developed through many different rounds of negotiations. After joining on 11/01/2017, Vietnam's subsidy law has had many changes on the basis of compliance with regulations and implementation of commitments to join WTO. In the coming time, the development and improvement of Vietnam's subsidy policy and legislation should continue in the direction that is consistent with WTO's subsidy regulations and towards the purpose of protecting national interests. To perfect the policy and legislation on subsidies requires the coordination of not only agencies involved in policy development and implementation, but also the beneficiaries themselves. The synchronous implementation of the proposed solutions of the article will contribute to improving and perfecting Vietnam's legal system on subsidies, contributing to the implementation of the Document of the 13th National Congress of the Socialist Republic of Vietnam. Communist Party of Vietnam: "Complete the legal system in accordance with international treaties and international commitments that Vietnam has signed" (Communist Party of Vietnam, 2021, p. 135).

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INFLUENCES ON THE VIETNAM SOCIAL STRUCTURE DURING THE COVID-19 PANDENMIC - IN TERM OF LARBOR ISSUE

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Abstract

The Covid-19 pandemic not only claimed the lives of millions of people but also caused socioeconomic losses, primarily social structural change. This impact causes a supply-demand crisis and contributes to an increase in prices from production to the cost of products. In 2022, the pandemic tends to decrease, and the economy shows signs of improvement. However, the war between Russia and Ukraine happens and may persist for a long time, exacerbating the disruption of the supply-demand chain and leading to cost-push inflation. These events have promoted rapid changes in social structure and formed new groups of laborers. Due to the impact of the economic crisis during the Covid-19 pandemic, there are new occupations, healthcare sector jobs, new types of businesses such as jobs related to digitization service, telecommuting, automation, e-commerce will become the trend and develop rapidly in the future. This is a new social structure shift during the Covid-19 pandemic, thereby forming new employment structures and labor groups and increasing inequalities and differences among social groups. This research will focus on explaining the core definitions of crisis and social structure in the first part, Analyzing the social structure transformation after the COVID-19 pandemic and explaining the formation of new occupational groups, as well as pointing out the increase in inequality in this change in the second part.

Keywords: *economic crisis, Covid-19 pandemic, social structure, labor, inequality.*

INTRODUCTION

The Covid-19 pandemic not only claimed the lives of tens of millions of people but also caused socioeconomic losses, significantly changing the social structure. In a report published based on data collected in 192 countries worldwide, IFRC (International Federation of Red Cross and Red Crescent Societies) emphasized that the Covid-19 epidemic has pushed many people to lose their jobs and income. According to IFRC Secretary-General Francesco Rocca: "Our research shows what we have suspected and been concerned about, which is that the destructive indirect effects of the pandemic have destroyed the social structures, and these effects will last for many years, even the next decades." (Phan An, 2021). To understand the impact of the economic crisis during the Covid-19 pandemic on the structure of society, we will analyze in this article some basic definitions of economic crisis, social structure, and especially the new social structure shift during the Covid-19 pandemic, thereby forming the employment structures and new labor groups, as well as increasing inequality and differences among social groups.

CONTENT

Currently, there are many different definitions of "crisis." In the English-speaking world, a crisis is a sudden change or cause of a process, leading to an urgent problem that needs to be solved immediately.

According to the Common Vietnamese Dictionary, a crisis is a severe disorder or

imbalance due to many unresolved conflicts. (Chu Bich Thu, 2008, pp. 247). A more specific view of this term, "crisis," is an abnormal state. It happens unusually, with unusual manifestations, and causes abnormalities. Crisis causes typical structures - states no longer adapt, instead to abnormal changes, even paralysis and disruption. Crisis anomalies appear in reality and also in forecasts. Even though appearing in the forecast, it still has the potential to lead to crises when it occurs. Crises often happen quickly (also called emergencies), unexpectedly, and uncertainly.

In most cases, the seeds of the crisis have "existed" for a long time, constantly changing scale, and speed, even beyond human prediction and control. It is unrealistic to remove the crisis from the world entirely. It is almost impossible to predict the crisis's time, place, a form of manifestation, and especially the consequences. (Nguyen Ngoc Ha, 2022)

In the opinion of this article's author, a ***crisis*** is a severe imbalance that has reached an acute stage that requires the intervention and control of experts to avoid or repair damages after the crisis occurs.

The second term, ***an economic crisis***, is a vast category. Recently, it has been mentioned by many scientists and economists, but there needs to be a unified definition.

An economic crisis is a state of overall imbalance or imbalance in each field and each component of the economy, leading to significant disturbances in socio-economic life, manufacturing business interruption, inability to pay, and unemployment. These factors adversely affect people's lives. (Pham Thi Tuong Van & Ngo Thi Phuong Thao, 2022).

It can be understood that an ***economic crisis*** is a phenomenon in which the economy of a country or a region, or even the whole world, has a sudden, severe, and prolonged recession. During times of crisis, gross domestic product (GDP) often declines, liquidity dries up, and the value of real estate and the stock market falls deeply. This caused a sell-off in the stock market. Although the economic crisis may be limited to a single country or region, the current situation has spread globally. In particular, the ***Covid-19 pandemic*** has caused a severe recession in the global economy in the early stages for most countries, with GDP down 4.4% compared to 2019. Some researchers even suggest that the decline may be over 5.2%. (Kieu Huu Thien, 2022)

With a highly open economy such as Vietnam, when the Covid-19 pandemic disrupted the global production chain, Vietnam suffered severe supply and demand shocks. The inevitable consequence is that the growth rate will drop sharply, reaching only 2.91% in 2020. (Kieu Huu Thien, 2022). These have directly affected the new social structure shift during the Covid-19 pandemic. Therefore, if we are aware of and have solutions to form a new structure of employment and labor groups, as well as reduce the increase in inequality and differences between social groups, the instability in society will be controlled and vice versa.

Social structure is a relatively stable and sustainable relationship between the essential components of the social system. Those basic components are social status, social roles, social networks, and social institutions. (Vietnam Encyclopedia, 2022).

Social structure is divided into the micro-social structure and macro-social structure. Based on the type of components or elements that make up the social system, it is possible to distinguish the micro-social structure, with the main component being individuals, the small groups that make up the small system. On the other hand, macro-social structure with the main components being organizations, the systems that make up the extensive system. (Vietnam Encyclopedia, 2022).

In Vietnam, sociological surveys and research show that the social structure known as "Social structure" has shifted from a "two-stage of one-level." The social structure consisting of the working class, the peasantry, and the intellectual elite transformed into a multi-sectoral social structure that is now officially known as social class (Ta Ngoc Tan, 2019). In changing the social structure, some prevalent factors were reduced to little talked about, and several new classes associated with new occupations emerged and developed. For instance, "collectivized peasants," "agricultural cooperative members," and "farmers" are no longer famous when the cooperative economy accounts for a tiny proportion of the total number of employees working in Vietnam today. Significantly, the "poor class" has decreased sharply, and new classes have appeared and developed, such as "businessmen," "middle class," "intellectual elite,"…

Individuals participate in social networking groups such as family, school, work, offices and associations, interest groups, friend groups, etc. This traditional form of interaction is often restricted to a specific social space due to the difficulty of geographical distance, mobility, and group norms. In the context of the Covid-19 Pandemic, intelligent technologies and engineering applications are increasingly popular; Digital media is connecting people in entirely new ways, indirect interactions through media, technology, and cyberspace. At any time, despite being far away geographically and spatially, people could join network groups to interact and not need to meet face-to-face. Devices such as smart cell phones and internet-connected computers allow people to build and participate in networks and conduct social interactions with little dependence on spatial distances and time differences. Modern technologies have created conditions for people to change forms and ways of interacting, expanding social networks on a considerable scale, overcoming cultural, social, economic, and religious barriers, etc. This has promoted rapid changes in social structure, forming new groups of laborers, which is something that countries and economic actors need to pay attention to today.

FORMING NEW WORK STRUCTURES AND HUMAN RESOURCES

The impact of the economic crisis during the Covid-19 pandemic is creating new occupations, jobs related to the healthcare sector, and new types of business such as digital jobs, digitization of services, remote working, automation, and e-commerce will become trends and develop rapidly in the future. In the financial sector, consumers began to widely use online payment services and e-banking to buy, sell and transact online. Fast delivery service, freight, and advertising model via live stream (live broadcast via social networks), developed in numerous countries. In the US, e-commerce company Amazon has actively increased labor in goods management, information infrastructure, and online entertainment. Retail stores and job groups such as management, customer care, and direct sales are greatly influenced by the trend of developing digital services. After the Covid-19 pandemic, many stores will be closed and replaced by online stores on e-commerce platforms. Major retailers like Macy's and Gap in the US plan to close hundreds of traditional stores. Jobs such as customer care will gradually be transferred through online communication channels. Other retailers such as Wal-Mart, Gap, and Kohl's faced a similar problem as inventories rose simultaneously. Target said it had to drastically cut prices to eliminate excess inventory, causing its quarterly profit to drop by 90% (Minh Trang, 2022).

The McKinsey Global Institute (MGI) believes that the Covid-19 pandemic has enormously accelerated the trends of service digitization, remote working, and automation. These trends may affect the mode of operation, growth potential, or decline of some industries after the pandemic. Workers worldwide have taken advantage of innovative technologies to transact further, collaborate and exchange ideas at work. The virtual platform allows doctors to

consult with patients, and teachers support students to continue the learning process. Virtual reality (VR) tools have helped professionals organize technical training or testing remotely during times of social distancing. Communication and customer support are already possible through information technology platforms for the postal, banking, and retail industries. (McKinsey & Company, 2011).

Social distancing policies during the pandemic have contributed to the global telecommuting trend among workers. Many people have to leave work and continue working from home. The unexpected transformation in operating methods has helped many agencies and organizations gain more experience managing and maintaining work through technology platforms. Moreover, the work-from-home process has helped businesses realize the advantages and disadvantages of this working model.

The remote working model brings high efficiency for skilled workers and people working on computers. Employees in the finance, administration, and professional consulting industries can fully apply this form of work as they can use online platforms to complete most of their assigned work. In advanced economies, remote working has more possible thanks to the development of the financial and commercial sectors, advanced information infrastructure, and highly qualified labor. According to MGI, 20-25% of the workforce of developed countries can work remotely 3-5 days/week and still be productive (McKinsey & Company, 2011). Although the number of people working remotely after the pandemic is only a tiny part of the workforce, the trend of working from home can impact many industries and sectors of the economy. Thanks to the virtual platform, many agencies and organizations can cut business costs while ensuring the working process and exchanging ideas with customers remotely. MGI predicts that activities that combine travel and work will decline after the pandemic. This will also affect related industries such as hotels, restaurants, and passenger transport. (McKinsey & Company, 2011).

Facing the impacts of the Covid-19 pandemic, many industries have stepped up the research and application of advanced technology platforms to ensure operations and continue to serve consumers. Automation technology and artificial intelligence (AI) were developed to meet high consumer demand during the epidemic. Automated production lines and machines are applied to reduce labor and increase productivity for food and consumer goods production facilities. Large retailers such as Amazon, Walmart, and Target (USA) have used machines and robots to arrange and manage the number of goods in the warehouse flexibly and accurately. Facing the risk of spreading disease in the working environment, the automatic line system also helps many businesses shorten the distance and reduce personnel. Many factories have automated some production stages after the outbreak of the Covid-19 pandemic. Some hospitals around the world have used robots to replace staff spraying disinfectants. Barcode scanning and automatic payment devices also help customers limit the loss of goods when shopping. While automation and artificial intelligence trends can offer a lot of growth potential for manufacturing industries, these technologies can also lead to declining services, tourism, and other manual labor jobs. Industrial machines can take on manual tasks quickly and efficiently in manufacturing or business establishments. At many airports and train stations, electronic devices have assisted security agencies in checking documents and collecting passenger information. Many hotels worldwide have started using robots to serve customers food and daily living supplies.

Post-pandemic developments have caused many fluctuations in the global job market. Although the health, science, and technology sectors will grow strongly, manual labor and service industries will decline significantly. These trends may affect the mode of operation, the potential for growth, or the decline of some industries after the pandemic. However, a lot of job loss means

that a part of workers will fall into unemployment because they cannot find jobs in fields that require high qualifications and technology, leading to the emergence of "workers with precarious living" - those who are part-timers minimum wage earners, unskilled workers, the elderly, etc. A class of workers who move from job to job for a living without the ability to negotiate and secure employment. The result is separation, isolation, and exclusion in society between those who can keep up with the flow of technology and those who are weaker. The Covid-19 pandemic may bring many "dark sides" to the future of employment. Due to the rapid rate of change in technology, it is required that employees have the capacity, skills, and experience to adapt to the development of that technology quickly. More complex problem-solving, social and systemic skills will be required than physical and technical skills. In other words, the career trend in the digital age is to boost the productivity of skills, especially those that promote and complement automation and digitization. Traditional abilities such as physical fitness and resource management that played an essential role in the past are being replaced by machines so that output will plummet.

In future, the government as well as businesses should apply many flexible and creative measures to improve and enhance the quality of labor. Coaching and training programs can equip workers with relevant and practical skills. In the recruitment process, businesses should also pay more attention to the candidate's skills instead of diplomas. Policymakers can support business operations and the workforce by expanding and upgrading digital infrastructure. In addition, the state needs to support those who have higher learning needs to adapt to the increasing skills of the job and ensure the welfare of freelancers.

For Vietnam, the biggest challenge is the uneven development gap between sectors, which is still quite far from the level of developed countries; as we are still a developing country, the technical infrastructure and production base are not yet developed, when the simple man-machine production form is common, the application of artificial intelligence is limited. The economic crisis after the Covid-19 pandemic in Vietnam will continue to create uneven development; some fields, such as agriculture and manufacturing, may fall further behind industries such as information technology or telecommunications. In that context, improving skills to help workers work in automatic lines and intelligent factories is mandatory. However, this requirement is a limitation of the Vietnamese labor force.

INCREASING INEQUALITY AND DIFFERENCES AMONG SOCIAL GROUPS

The Covid-19 pandemic will open up more labor opportunities to own and make good use of new technology. In particular, the young and highly qualified laborers will have more advantages than the middle and elderly groups, with low educational attainment and few opportunities to access new and digital technologies. This causes the gap between income and wealth accumulation among social groups to widen, between groups of human resources who are disadvantaged due to low skills, slow adaptation to technology, and are easily replaced by robots and automation and another group who make money through new ideas, creations, and mastering new technologies. The above changes inevitably cause the inequality gap between social groups, even between countries, to increase. Furthermore, income inequality in most countries is increasing, even in countries that have made significant progress in poverty reduction. This poses a development management problem for countries to effectively exploit new opportunities for scientific and technological achievements and reduce the gap between rich and poor among social groups in the developing process.

The Covid-19 pandemic may take away many jobs, but it will also create more jobs and new workforces to enter the global labor market. Employment in the energy, manufacturing,

services and agriculture sectors will fluctuate dramatically. Many fields and industries vigorously apply technology, such as education, health care, service business, etc., creating new human resources to adapt to the digital technology context. The electronics and textile industries, which have been Vietnam's strengths and created many jobs over the past few decades, may need to cut human resources and jobs in the production process. Advances in automation and digitization that reduce production costs combined with a developed industrial foundation could increase the likelihood that electronics and textile factories will return to developed countries to be closer to the large consumer market. The prospect of job cuts in the agricultural sector is also possible because most agricultural workers in our country still need to mechanize production and apply advanced technology, primarily digital technology, in modern agricultural production.

Over the years, Vietnam has had many support policies and programs to change the employment structure and reduce poverty for poor communities and households. However, the development gap between rural and urban areas, especially in remote areas, in terms of access to social services has continued to increase in recent years. The Covid-19 pandemic may increase opportunities for everyone, but only some have the skills and competencies needed to take full advantage of this opportunity. Poor people in rural, remote, and isolated areas are often disadvantaged in accessing information, skills, and new technologies, so they risk falling behind people in urban areas.

The Covid-19 pandemic may also leave women behind compared to men in terms of global growth opportunities. Men are increasingly outperforming women in careers related to computer science, mathematics, manufacturing engineering, and automation. Men are more likely to find jobs than women during the Covid-19 pandemic, and this may continue to push a part of female human resources into underemployment or unemployment, especially women working in sectors that are heavily affected by epidemic prevention and control measures such as services and tourism; especially they live in rural, remote and isolated areas. As a result, households with the sole source of income from women will face difficulties and may widen the gender inequality gap within the family and outside of society. It is worrisome that this situation may lead to difficulties for women in improving their opportunities for political participation and access to economic and social resources, significantly reducing the ability of women to contribute to economic growth and social development in each locality and country.

In Vietnam, gender inequality is still a burning issue in social development. Women are still referred to according to traditional social norms. In job selection orientation, women often turn to traditional low-paying jobs to spend time taking care of their families. This situation can lead to the loss of employment opportunities and advancement for women, falling into a high risk of unemployment, posing new challenges to gender equality, and requiring policies related to gender equality. The Covid-19 epidemic must aim to narrow the development gap between men and women in the development process.

CONCLUSION

The economic crisis during the Covid-19 pandemic is a "test" and a unique historical opportunity. Everyone equally shares this opportunity. Therefore, it is time to show what we have accumulated during the pandemic and have a more flexible view of industries. Adapting to all situations in life is not easy, but it is certainly something that every employer prioritizes in future candidates. The Covid-19 pandemic is spreading globally and affecting all aspects of social life. The economic crisis after the Covid-19 pandemic has promoted the presence of modern technologies such as automation, computing, and digitization, which are gradually dominating our lives. It affects production, business, and services of social life. This is the cause

that brings many breakthrough opportunities in the development of each country, improving the quality of growth, national income, and working life, but also negatively impacts many fields. The production and business industries are considered the strength of that country, leading to unemployment and economic crisis. The Covid-19 pandemic has had a substantial impact on the social structure, the restructuring of industries, occupations, and the formation of new human resources in each country and locality. The consequences of this process are widening income gaps, disparities, and inequalities among groups in society. The workforce group includes young, educated, highly specialized, the rich, people living in cities, and men who can benefit more from the results of digital technology when participating in the labor market.

Meanwhile, the poor, women, and people living in remote areas will face many disadvantages and multiply the difficulties in adapting to digital technology. The Covid-19 pandemic is also affecting the interaction and participation of individuals in social networks and the sharing of social values. Many online social networks, value systems, and standards are being adopted and practiced by individuals whose roles are consistent with society's expectations in the new context. However, there are many phenomena of individuals participating in virtual networks; misconducts affect individuals' physical, mental and intellectual health. Moreover, it harms the health of the general cultural environment and social cohesion. It can be said that, in addition to the positive effects, the Covid-19 pandemic is also having a significant impact on the lives of individuals and communities, from the smallest community, which is the family, to larger communities which are villages, locals, and countries. Interestingly, the Covid-19 pandemic is creating new dynamics that disrupt economic and political institutions, traditional value systems, and social norms, requiring each country to rapidly shape new institutions and practices to adapt to the new era.

Vietnam aims to be a developing country with modern industry and high middle income by 2030. The Covid-19 pandemic is creating many opportunities for Vietnam to realize these goals while narrowing the development gap between regions and social groups and solving complicated problems such as underemployment, poverty, and human development towards a prosperous and happy country. In order to realize these goals and aspirations, Vietnam needs an appropriate policy roadmap to continue solving pressing social problems while fully exploiting the opportunities and overcoming the challenges of the Covid-19 pandemic. Focusing on building a learning society so that each individual, family member, and community constantly learn and absorb new technologies; have appropriate forms of learning so that disadvantaged groups in society can participate in learning and adapt to society so that no one is left behind in the developing process.

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THE INCARNATION SPIRIT OF BUDDHISM IN THE CONTEXT OF THE CURRENT COVID-19 EPIDEMIC IN VIETNAM

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Abstract

The incarnation spirit of Buddhism was very early, right from the time of the Buddha. The incarnation of Buddhism is the act of being brought religion to life and always expecting people to have a good and happy life. For that reason, Buddhism is increasingly developing and present in many countries worldwide, including Vietnam. The incarnation spirit of Buddhism was shown as soon as it was introduced into Vietnam with deep harmony and closer to the Vietnamese culture. Nowadays, in the period of deep international integration, the positive incarnation philosophy of Buddhism not only contributes to the building of great national unity but also penetrates all fields of social life, from economic, political, cultural, and educational activities, etc to medicine perform the motto "Dharma - Nationality – Socialism."

Keywords: *The incarnation spirit, Buddhism, the COVID-19 pandemic, Vietnam*

1. THE INCARNATION SPIRIT OF VIETNAM BUDDHISM

The emergence and existence of religion are associated with human cognitive characteristics. Since its appearance, religion has permanently changed according to the ups and downs of history. However, in the end, any religion still exists and accompanies the nation and humanity, proving that religion is appropriate to the times. Buddhism is no exception to that rule. However, it was born thousands of years ago, and it still exists vividly and improved in many aspects precisely because the incarnation spirit of Buddhism is constantly expressed.

Conceptually, "incarnation" is the interrelationship relationship between religion and areas of social life. With the point of view "go to work in life, but do not stay away from life," "incarnation" is a specific action of religion when actively participating in and penetrating secular life to spreading ideas, dogma, life motto, and practice of that religion, in order to contribute to building a better personal and social life. *Incarnated Buddhism* is defined as a path of religion that "goes out into society to save the people and help the country, while at home, one can worship parents and fathers, and when alone, one can use it to perfect oneself" (Mr. Le Manh That, 1982, p. 292). Since its introduction into Vietnam by the peaceful path, Buddhism has determined that its role is not only limited to the temple premises, taking care of religion, and taking care of the spiritual and spiritual life of people but still has to contribute a lot to the construction of the country.

During Theravada Buddhism, the Buddha often taught the monks about cultivation methods, training the body and mind, especially finding quiet places such as forests to meditate. However, when the Sangha in the congregation was full, the Buddha taught his disciples in the

Mahavagga Sutra: "Go everywhere for the benefit and happiness of the many, out of compassion for life, for the sake of the benefit of heaven and man." Alternatively, in the Saμyuktāgama, volume 1, the Buddha expressed his views on the war: "Victory generates enmity; The defeat tasted suffering; Whoever gives up wins, loses; Tranquility, enjoying peace" (Thich Minh Chau, 1993, p. 190). The above verse is said in the context that King Ajatashatru of Magadha country was greedy and wanted to bring troops to conquer the Kosala country of King Pasenadi. The war took place, and King Pasenadi's army was victorious; Magadha army generals were all killed, military equipment was confiscated, and only King Ajatashatru was spared. Since then, King Ajatashatru has always held a grudge and wanted to take revenge. When he built his army again, he met the Buddha to ask for advice on conquering Vajji and received the Buddha's intervention three times. Through analyzing the political situation of the Vajji country, the Buddha explained to the king and Magadha why they should not go to war with that country. This is essentially an ingenious interpretation of the Vajji army and people to avoid the war killing good people and causing enmity between the two countries, at least preventing the war at that stage.

Buddhism's point of view about spreading the Dharma for profit is to come into life; compassion must be shown through actions, and entering the world is showing compassion to save sentient beings. A monk with a spirit of compassion, responsibility, and awareness will engage in social life and do many beneficial things for life but not let himself be attached or fall into the lifestream. That is Buddhism incarnate, integrating into social life and spreading the teachings, along with benefiting sentient beings. This incarnation spirit was formed from the Buddha's time with comprehensive action, going beyond the world and, from there, entering the worldly realm.

Since its introduction into our country, Buddhism has quickly been ingrained and rooted in the people's spiritual life, affecting many aspects of Vietnamese social life. By living a religious life, it is not only self-education for individuals, families, and society but also can be seen as a political doctrine to help the Vietnamese people fight the assimilation of the North, help preserve and promote national cultural identity, protect the right to independence and territorial integrity. That spirit of incarnation has transcended time and was once again popularized and developed in Vietnam during the country's independence and entered the context of extensive international integration. Buddhism always puts its survival and development together with the nation's destiny, the manifestation of the spirit of incarnation in each historical period, but always has a cheerful and typical nuance. That historical practice has proven that under the dynasties of Dinh, Tien Le, Ly, and Tran, Buddhist monks with virtue and prestige have always been trusted, taking on the role of military advisors and chief advisors. Governance and culture help the king rule the country and foreign affairs.

During the Dinh Dynasty, Zen master Ngo Chan Luu was ordained a monk by King Dinh Tien Hoang and given the title Khuong Viet Thai Su, the head of Buddhism then. Later, he was also ordained as High Priest by King Le Dai Hanh, given the position of National Master, and served as an advisor to the court. Thereby, the court has officially recognized the role of Buddhism as directly participating in politics, especially in the spiritual direction. In the Early Le Dynasty, King Le Dai Hanh invited two Zen masters, Do Phap Thuan and Van Hanh, to be political advisers. King Le Dai Hanh personally consulted Zen master Van Hanh about the resistance war against the Song army. Zen master Do Phap Thuan "represents the court to receive the ambassador of the Song Dynasty with Khuong Viet Quoc Su, making the envoy respect" (Ngo Duc Tho and Nguyen Thuy Nga)., 1990, p. 182). Zen master Van Hanh not only served as an advisor to the court of the Former Le Dynasty, but he was the one who brought Ly Cong Uan to the throne at the time of the extreme decline of the Former Le Dynasty. He also

advised King Ly Thai To to move the capital to Dai La, i.e., Thang Long - Hanoi today, turning this place into the political, cultural, and social center of Dai Co Viet at that time. In addition, many other Zen masters have contributed their efforts to the country's construction, such as Man Giac, Nguyen Minh Khong, Giac Hai, Vien Thong, Tu Dao Hai of the Ly dynasty, and Tue Trung Thuong Si, the national monk Truc. Lam, Dai Dang in the Tran dynasty.

The idea of "being in harmony with the mundane without being eccentric" was imbued with national wisdom and was developed by Tue Trung Thuong Thuong and later King Tran Nhan Tong, two Zen masters who actively disseminated the teachings of the Five Precepts and the Ten Commandments. The good precepts of Buddhism through "Living on the wrong path" and his teachings on the people create positive effects on the social environment, with compassion for sentient beings, for the sake of happiness and well-being. Majority happiness. "Ten Commandments" - "The basic incarnation teaching of Buddhism is based on three karmas: Thought - Word - Deed of man. From the above three karmas, creating an ideal and harmonious moral person, such people will form a good society, eliminating rampant evils" (Many authors, 2004, p. 49).

The positive spirit of incarnation in Tran Nhan Tong's thought was also reflected in two resistance wars against the Nguyen - Mong invaders. With the spirit of patriotism, the leadership of an army with the fulcrum of spiritual strength is that of Buddhism, "taking the will of the people as your will, make the hearts of the people be your heart." (National Center for Social Sciences and Humanities, Institute of Philosophy, 2004, p. 12), Tran Nhan Tong and Dai Viet army and people made resounding victories in history. In the spirit of the Buddhist philosophy, Tran Nhan Tong has built the unity of the whole people thanks to the strategy of "Drilling down the people's strength to make a deep and lasting successor." His plan reflects the spirit of tolerance and puts the National Socialist Republic first, which is also the spirit inherited from King Tran Thai Tong. He presented himself as a talented politician, a prominent Zen master, and a prestigious leader of Buddhism. Thereby, Tran Nhan Tong affirmed that "Politicians must practice Buddhism in society"; the active role of Buddhism incarnation will significantly contribute to the cause of national defense, construction, and development.

Thus, the incarnation is a fundamental attribute of Buddhism, a path that all Buddhists will go through on their learning path. Regarding inner self-realization for Zen Buddhism, meditation is always, anytime, anywhere. In the intimate relationship between the body, mind, and the outer world, the interactions of society will, at the same time, be the necessary material for the practice of inner transformation. Therefore, Buddhism's incarnation includes transforming the body, mind, and the outside world. In terms of society, incarnated Buddhism is expressed through many forms: festival activities, worshiping, building pagodas and towers, social charity activities, cultural objects (such as sutras, sutras, books, and art), and educational activities.

In general, the incarnation spirit of Buddhism is vividly expressed, diverse and rich and has different effects depending on the specific conditions and circumstances of the times. However, the Buddhist way of entering the world is always one of the material and spiritual resources in modern social life. With activities such as individual and group practice; spread of the teachings through various means; charity and relief activities of individuals and social organizations; activities of construction and embellishment of works and products bearing Buddhist images and meanings, the concept of "incarnation" shows the correlation with the existence and development of Buddhism itself to the times and society. For Buddhism to exist and develop, it is necessary to complete the process of entering the world. At the same time, the more Buddhism develops, the more profoundly the process of entering the world will be expressed and positively impacted, as

set forth by Buddhism's vow of "Buddhism brings happiness in life," demonstrating the active role of Buddhism in the world. Contemporary social life, creating genuine values, making practical contributions to society's interests, and preserving intact traditional values and the essence of Buddhism.

2. THE INCARNATION SPIRIT OF BUDDHISM IN THE CURRENT SITUATION OF COVID-19 IN VIETNAM

In the process of formation and development of Buddhism, with the successive spread from within India to the world, Buddhism always carries in itself the main ideas of Compassion, equality, and altruism. Currently, Buddhism is present in most Asian countries and many other countries around the world. Considered a profound philosophy about the universe and people and with a history of more than 2500 years, it has become a symbol of Compassion, charity, and traditional ethics of Asian peoples, including Vietnam. Today, under the development of increasingly powerful science, although some mystic, irrational and outdated ideas have been eliminated, the spiritual values brought, especially the Moral values in Buddhism, still exist and develop. It proves that Buddhism has radiated a strong vitality that originates from rich spiritual values, the spirit of Compassion, the morality of humanity, and a new and peaceful world without war, no terror, and no envy. Above all, Buddhism also has a massive and profound doctrinal system, with the highlight being the moral philosophy of life. They all direct people to a life of "Well behaved, high morality." Buddhism is considered a worldly religion, avoiding life, but from the perspective of philosophy, reincarnation always exists in the original Buddhist teachings. Therefore, in addition to Compassion and equanimity, incarnation Buddhism has applied Buddhism, that is, applying those spirits to the present life, solving practical problems that society poses to help the world by most profound insight.

With the development of society, the material and spiritual life of people is increasingly improved. However, in addition to the positive points, there are still many limiting issues such as moral degradation, insensitive lifestyle, negative evils in society, climate change, environmental disasters, and weapons. Facing these challenges, Vietnamese Buddhism accompanies the nation to show the spirit of the incarnation because Buddhism has always been a social cell and has effective methods to help society. Sustainable development society and solving "hot" issues at the global level.

Over the past years, Vietnam has taken advantage of opportunities, and overcome many difficulties and challenges, especially the impact of the global economic crisis and recession caused by the COVID-19 pandemic on the world and our country with the spirit of "the whole Party, the people, the whole army have united, united in their efforts" (Communist Party of Vietnam, 2020, p. 59) along with "promoting cultural values, good morals of religion" (Communist Party of Vietnam, 2020, p. 271), in other words, always promote positive and humane factors in religions and beliefs.

The COVID-19 pandemic has dramatically impacted all aspects of social life worldwide, including Vietnam. The effects of the pandemic will still linger even after the epidemic is over. After nearly two years of appearance, the pandemic has spread to 220 countries and territories. The whole world is struggling to cope with the epidemic; as of about 9:30 pm (Vietnam time) on August 22, 2021, the world has recorded "212,358,643 cases of COVID-19, including 4,441. 496 deaths" (Ministry of Health, Department of Preventive Medicine, 2022). Since the beginning of the epidemic, Vietnam has had "10,763,694 infections, ranking 12th out of 227 countries and territories, while with the ratio of infections per million people, Vietnam ranks 112th out of 227 countries and territories. Territories (on average, there are 108,584 infections for every 1 million

people" (Ministry of Health, 2022).

Buddhism accompanies the nation in the fight against the pandemic by promoting compassion and saving suffering. Currently, Buddhist charity organizations led by monks and nuns have actively participated in charity work and social security with the spirit that "every small contribution also shows patriotism." Buddhist monks and nuns of the Vietnam Buddhist Sangha have donated VND 150 billion to the COVID-19 vaccine fund to buy vaccines for all people, share love, and contribute resources to the Fund to procure supplies. , medical equipment to support hospitals, nearly 1,000 monks, nuns, laypeople, and Buddhists participated in the frontline of epidemic prevention and control with the spirit of "take off your robes and put on a white blouse to join the frontline of epidemic prevention and control." by the Vietnam Buddhist Church. In addition, monks, nuns, and Buddhists from temples and monasteries in localities and across the country have actively done many things toward the epidemic epicenter. Monasteries in all parts of the country have been turned into hospitals, and isolation places for infected people, showing the spirit of compassion not only in wartime, holding guns on the battlefield to protect the country but also when the country is in trouble. Moreover, like that, every time the nation or nation is in trouble, the Vietnamese people promote the beauty of the nation's traditional culture for thousands of generations based on inheriting the feelings and aspirations of Buddhism from time immemorial and enduring with time.

Every day in Vietnam, Buddhists participate in humanitarian blood donation, build a house of solidarity, and build a field hospital area on their land, towards the center of the epidemic with thousands of charity meals to help disadvantaged people, regardless of social class, from the poor in society to the white-shirted frontline fighting against the epidemic, the armed forces, volunteers. The noble gestures of Buddhism are spread and ensure safety and effectiveness in volunteering activities; the Buddhist people unite to join hands and firmly believe in the leadership of the authorities at all levels to contribute to the implementation of the economic development strategy goals. - The 10-year society from 2021 to 2030 set out by the 13th Party Congress, in which one of the six tasks and solutions is to "well implement the goal of religious solidarity and national unity" (Communist Party) Vietnamese products, 2020, p. 237). Recently, in the Southern region, with 19 provinces and cities implementing social distancing according to Directive 16 of the Prime Minister, all monks, nuns, and Buddhists nationwide and the South, in particular, have joined hands. Agreeing with sectors, levels, and local authorities in the fight against the COVID-19 epidemic by taking concrete actions such as absolutely implementing 5K regulations, strictly implementing Directive 16 of the Prime Minister, increasing the number of Buddhists at pagodas and monasteries throughout the country conduct detention, daily chanting prayers for national peace, national peace, and eradication of epidemics. Responding to the call of the Chairman of the Executive Council of the Vietnam Buddhist Sangha, "at 6:00 am on July 27, 2021, pagodas and monasteries across the country simultaneously sent three bells and drums to commemorate the heroic spirit. Heroes and Martyrs on the occasion of the 74th anniversary of Invalids and Martyrs' Day (July 27, 1947 - July 27, 2021), at the same time, reciting the Medicine Sutra to pray to repel the COVID-19 epidemic. Return to normal soon; all is well for the people and the country" (Thich Thien Nhon, 2021, p. 1).

More significantly, during the Vu Lan season of filial piety to the Buddha calendar 2565 - solar calendar in 2021 took place in the context of the COVID-19 epidemic happening extremely complicated, mainly "whoever stays where he is, his family is separated from family" has caused a lot of loss and pain in the southern provinces and cities, there are children who can't see their parents for the last time, can't go home to see their father and mother to their resting place because they have to do the mission the on the frontline of the Fatherland. As the second Vu Lan

season, the COVID-19 epidemic raged, the whole country was affected much more heavily than in the Vu Lan season last year. Vu Lan is the convergence of great joy in the souls of filial children; the spirit of filial piety and gratitude is considered a sacred duty of anyone who exists in life and carries significant meaning. Labor helps build happiness, connects people, and creates a basic moral foundation. Vu Lan's filial piety in the spirit of true Buddhism knows how to take care of the country, the nation, and altruism. For that reason, the Buddha taught that grace to the Fatherland is one of the four great graces we need to engrave and repay. We have a prosperous and happy life thanks to the protection of the State and the law. If you don't have the heart to do good deeds, and your mind is not pure, no matter how much the tray is full or how much gold and silver you burn, it will become meaningless, not filial piety. In 2021, another Vu Lan season will not have a rose lapel ceremony, and there will be no busy scenes with the scent of smoke, but that does not reduce the meaning of this important holiday. Moreover, more meaningfully, when many people choose to do volunteer work to show gratitude and gratitude to those who have contributed to the country, such as praying for heroes and martyrs, compatriots who died due to natural disasters and epidemics, contributing to support the frontline forces in the fight against the epidemic or join hands with the authorities and organizations to give gifts to the homeless, jobless, facing difficulties due to the impact of the COVID-19 epidemic, etc. the spirit of "The Four Fields of Grace" in Buddhism and this is the practical action, the way to do it following the actual situation, further promoting the compassionate tradition of Buddhism, sublimating the cultural values from thousands of generations of the Vietnamese people. This is also the harmonious combination between Buddhist culture and the tradition of "When drinking water, think of its source" of the Vietnamese people. Thus, it is very natural that where there is Buddhism, there is compassion, love, and hatred. That is why Buddhism is often called the Way of Compassion, the way to save suffering. Buddha is a founder of Buddhism and a shining example of compassion and love for sentient beings. The message of love, suffering and helping this world was proclaimed by the Buddha from the very beginning of the founding of the congregation: "Go forth, o bhikkhus, for the good of the many, for the happiness of the many, out of compassion for the world, for the benefit, for good, for the happiness of gods and men" (Venerable Thich Minh Chau, 1972, p. 336). Compassion is an indispensable material in Buddhism. Compassion does not only give pleasure but also saves from misfortune. That is the sacred responsibility Buddhism has carried for more than 2500 years, by all means, to do it anywhere.

Buddhism is the great religion of humanity; the influence of Buddhism on people and society has great significance in human progress and has created Asian culture over the past 2000 years. Not stopping in Asia, Buddhism has been conquering the West gently and emotionally. In "The World as I See It" Physicist Albert Einsteins also said: "The religion of the future will be a cosmic religion. It should transcend personal God and avoid dogma and theology. Covering both the natural and the spiritual, it should be based on a religious sense from the experience of all things natural and spiritual as a meaningful unity. Buddhism answers this description. If any religion could cope with modern scientific needs, it would be Buddhism". It has shown that Buddhism has radiated a strong vitality stemming from a rich spiritual value. With the spirit of incarnation that is the manifestation of the Dharma in every human life. Buddhism's teachings are not invented or created by the Buddha but are summed up by him from experience and have been realized. Therefore, the teachings of Buddhism are close to each person's life, teaching people to direct people to the truth - the good - the beauty.

CONCLUSION

In fact, Vietnamese Buddhism has been persistent, engaged in the task of building human moral values in the spirit of "incarnation" of monks, Buddhists follow Buddha's teachings. Emperor about the spirit of entering the world and the tradition of patriotism and love for the people, especially when the country is in trouble... committing to life to save lives shows the highest meaning that is religion and life always go hand in hand. In the process of integration, besides its own nuances, Vietnamese Buddhism also has common characteristics of the international community. The potential of Buddhism lies not only in the monastic world, but also shows the responsibility of each Buddhist to the family, community and society. Recognizing positive values, good moral values, thereby promoting those positive values in Buddhism will contribute to building an increasingly rich and beautiful Vietnam, a democratic, fair and civilized society. .

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PART 2

LAW

INTERNATIONAL COMMERCIAL LAW AND THE ISSUES OF NATION-STATE SOVEREIGNTY: A WAY FORWARD TO HARMONIZATION

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Abstract

Existing literature on international business and commercial laws shows us the inherent dilemma between the legal system and nation-state sovereignty. The process of globalization increased the role of non-state actors, regional organizations, Free trade arrangements, etc., creating a huge spec for international arbitration. International commercial laws are becoming a part of the new normal, where the nation-states find a sort of advantage when moving with such laws. On the other hand, national sovereignty, which played a powerful role in the last few decades, seems to be challenged greatly by the new developments in a new globalized world. However, the nation-state and its sovereignty continue to play an influential role in the power relations and trade relations among different nation-states. The paper examines this crucial confrontation of international commercial law and nation-state sovereignty with a special focus on the possibilities of harmonization. The paper also explores the dynamics and challenges of the harmonization process in this context.

Keywords: *Globalization, International Commerce, Commercial Law, nation-state, sovereignty, harmonization.*

1. INTRODUCTION

The Treaty of Westphalia, signed in 1648, laid the foundation for both national sovereignty and the modern global legal system by establishing the concepts of state sovereignty and non-interference. That is why most scholars often identify State sovereignty as Westphalian sovereignty. After 30 years of war ended, the Westphalia treaty was signed to maintain peace and balance of power. That was the first treaty to identify the international law that every nation-state has exclusive authority over its territory and internal affairs. These arrangements are based on the tenet of non-interference in the domestic affairs of other nations and the idea that every state, regardless of size, is treated equally under international law. Later these ideas of state sovereignty and non-interference got universalized as European values spread to all acorns of the globe (Lansford, 2000).

The notion of sovereignty supports the present international system of states. In academic and popular literature, the Peace of Westphalia, which was signed in 1648 to put an end to the thirty-year conflict, is frequently cited as the source of this system. The major goal of the Peace Treaty, when viewed in the light of history, does not appear to be the equality of sovereign states but rather the containment of the influence of the Roman Empire. The concept of sovereignty is clearly defined in the treaty as decolonization from the Empire rather than an international

system of sovereign equality and non-interference. The Montevideo Convention on the Rights and Duties of States of 1933 established the fundamental components of the sovereignty-based structure. Territory, populace, and an efficient government are all characteristics of statehood. Thus, sovereignty is the underlying concept of the current world order, as upheld by the International Court of Justice (ICJ) and outlined in Article 2 of the UN Charter. An external definition of sovereignty includes the state's ability to represent its people in international affairs as the only legal personality, its legal identity in international law, and its equality with all other states.

2. INTERNATIONAL LEGAL SYSTEM AND NATION-STATE SOVEREIGNTY

Existing literature on international business and commercial laws shows us the inherent dilemma between the legal system and nation-state sovereignty.

The nation-state is a uniquely Western idea that unites several socioeconomic entities into a single, geographically defined nation (Holsti, 1996). Therefore, Western governments' sovereign will is strongly reflected in international law. However, it falls short of accurately reflecting the intentions of governments outside of the West. International law still reflects global imbalances more than fifty years after decolonization, as argued in this essay by the colonial rhetoric and the Western-centric understanding of sovereignty. Post-colonial states' wishes aren't reflected in international law, but states' sovereign will is reflected largely.

Initially, the argument will focus on the concept of consent, reciprocity, and the United Nations Security Council (UNSC). State sovereignty must be the dominant force in the international legal order. The next part of the argument will focus on the differences in the creation of international law by different countries. The formation and application of international law are heavily influenced by the colonial legacy of Eurocentric administrations, rather than all states having an equal representation. The idea that the pursuit of universal sovereignty and international law is a colonial ambition shows how much international law represents Western hegemonic forces. Post-colonial states' domestic legal systems are profoundly rooted in colonial legal structures, as can be inferred from this historical reasoning from a legal standpoint. Therefore, while non-Western governments contribute significantly to the development of international law, they still have domestic sovereign structures geared toward the benefit of the colonial powers. In conclusion, international law largely reflects the political intent of Western states and obstructs post-colonial states' efforts to have a diverse legal system (Bishop, 1961).

The idea of unrestricted, total sovereignty did not hold sway for very long, either nationally or internationally. The rise of democracy placed significant restrictions on the authority of the monarchy and the ruling classes. The growing interdependence of states constrained the notion that might is right in international affairs. The widespread consensus among citizens and policymakers is that there cannot be peace without law and that there cannot be law without some restrictions on sovereign power. Thus, organizations like the North Atlantic Treaty Organization (NATO), the World Trade Organization (WTO), and the European Union (EU) began to pool their sovereignties to the extent necessary to maintain peace and prosperity. Sovereignty was increasingly exercised on behalf of the peoples of the world by regional and international organizations as well as national governments. As a result, the doctrine of divided sovereignty, first formulated in federal states, started to apply globally.

3. GLOBALIZATION AND ITS IMPACT ON INTERNATIONAL COMMERCIAL ACTIVITIES

The process of globalization increased the role of non-state actors, regional organizations, Free trade arrangements, etc., creating a huge spec for international arbitration. The world is changing, and with it, there have been significant changes in trade and business. While the roots of globalization are very recent, this aspect is relatively new. Goods and services from any nation are readily available all across the world. Globalization is the easy access to goods, the interconnectedness of nations, and the availability of trade rights in every nation. But as we've already mentioned, globalization has a long history (Sparke, 2012).

Among the finest examples is the well-known Silk Road, which linked China to Europe. There was a great deal of international trade and business, and new continents were discovered. Trade, on the other hand, was a difficult venture at the time. As a result of the arduous and pricey acquisition of precious stones, spices, and silks (Sanderson, 2011).

However, the phenomenon known as globalization wasn't completely realized until the industrial revolution, which dismantled antiquated manufacturing methods and ushered in an era of mass production of goods (Schultz & Mitchenson, 2016). Demand increased further due to increased factory production, better distribution, and the accessibility of goods across marketplaces. There have been an increasing number of establishments providing necessities such as processed food, medications, home goods, jewelry, and desirable products like posh vehicles and jewelry. Thus, globalization was born with a new face, and the birth process was greatly facilitated by notable improvements in communications, production, and distribution technology.

Globalization and Technology

What does McDonald's or fast food have to do with technology? Say hello to "McDonald's Next," a "modern and progressive" iteration of the restaurant that debuted in Hong Kong in 2017 and offers mobile-phone charging platforms, free Wi-Fi, and self-ordering kiosks—taking into account the company's presence in China, where there are nearly 1.3 billion mobile users. This new McDonald's is a response to rising consumer expectations for speed, service, value, and accessibility in both developed and emerging nations, mostly driven by consumers' expanding access to reasonably priced technology. Global firms must use technology to transfer people, goods, and supplies around the world profitably and effectively as they respond to the needs of technology.

Globalization's positive and negative aspects have different effects on the day-to-day operations of a business. Businesses that want to grow worldwide need to be ready for and willing to change their internal operating procedures so they can accommodate new markets and create an environment where their multinational workforce may feel accepted and welcome.

Many aspects of their operations change for businesses that enter the global market. For example, as the global economy grows, so does the variety of workers it attracts. This increase in cultural and linguistic diversity is a good thing, but it comes with its own sets of challenges, such as divergent language and cultural expectations. A wide range of issues, including international employee expectations, supporting global consumers and greater competition, marketing, and communication changes, etc., are some operational changes businesses may expect due to globalization. International commercial laws are becoming a part of the new normal, where the nation-states find a sort of advantage when moving with such laws (Rühl, 2016).

4. GLOBALIZATION VS. NATIONAL SOVEREIGNTY

On the other hand, national sovereignty, which played a powerful role in the last few decades, seems to be challenged to a great extent by the new developments in a new globalized world. However, the nation-state and its sovereignty continue to play an influential role in power relations and trade relations among different nation-states (Tierney, 2005).

Globalization, which involves increasing the volume, pace, and significance of movements of people, ideas, goods, money, and many other things both within and across boundaries, is challenging one of the fundamental foundations of sovereignty - the power to regulate what crosses borders in either direction. It is becoming more common for sovereign entities to measure their vulnerability to external influences rather than each other. When a government cannot meet its people's basic requirements, whether due to a lack of resources or deliberate policy, necessity may also result in a reduction in or even an elimination of sovereignty, this reflects the idea that state failure and genocide can destabilize refugee movements and open doors for terrorist organizations to flourish. It's common to talk about how globalization threatens national sovereignty. According to popular belief, nations' sovereignty has been eroded because of globalization, or that boundaries are no longer necessary. Neoliberal economic policies, such as privatization, deregulation, and cuts in public spending are argued to be necessary for a globalized economy. The nation-state is only marginally important to the clash between social democracy and neoliberal globalization. The key question is whether the policy will be guided by democratic voter preferences or be severely restrained by the "Golden Straitjacket" of global financial markets.

5. NATIONAL SOVEREIGNTY IN THE CONTEMPORARY WORLD

The most important characteristic of a state is typically defined as its total self-sufficiency within the confines of a given region, i.e., its dominance in internal policy and independence in international policy. The 19th century saw a rise in the popularity of this idea. However, it already had a rather clear interpretation in the writings of Machiavelli, Bodin, Hobbes, and others at the start of the Modern Age. The concepts of state sovereignty gradually gained acceptance throughout Europe and, eventually, the world within the Westphalian system of international relations, which was created following the Thirty-Year War and the Peace Treaties of Westphalia in 1648 (Nweze & Okeke, 2009).

It is essential to remember that international law's so-called "normative trajectory" was not fully formulated until the late 18th and early 19th centuries. That had a direct bearing on the Wars of the French Revolution, the Wars of Napoleon, and the construction of a new order in the wake of the Vienna Congress in 1815. Provisions that govern the sovereign equality of states and the right of countries to self-determination can now be found in the Charter of the United Nations and a few other international agreements. We consider that these provisions, in conjunction with the increasing level of external security in the majority of nations, have sufficiently contributed to the consolidation of the concept of national sovereignty in international affairs throughout the second half of the 20th century. In point of fact, there is a trend toward both the acknowledgment of sovereign rights and the voluntarily restrained exercise of those powers by the sovereigns themselves; These powers include the ability to declare war and peace.

One of the most challenging and ambiguous concepts is sovereignty, which has changed. It is still changing in response to changes in international relations and state characteristics, as well as in relation to the difficulty of defining the concept of state. The implied supreme sovereign may be a feudal monarch with the power to grant or split states when dividing the inheritance.

This enlightened absolute monarch represents the people's interests or the country itself. Additionally, the ultimate sovereignty that states purport to have has historically been severely and even fatally constrained by various causes. Different perspectives and forms of sovereignty can be considered.

6. CONFLICT AREAS AND ISSUES BETWEEN GLOBAL AND NATIONAL

The ability of national governments to control their political systems and steer and influence their economies (particularly regarding macroeconomic management) has decreased due to globalization. There is a shred of clear evidence that the level to which politics are now primarily market-driven globally is where the impact of globalization is most felt. Governments are no longer unable to govern their countries, but to remain in power, they increasingly need to "manage" national politics in order to conform them to the demands of global market forces. Political globalization is a result of the institutionalization of international political structures. Since the beginning of the nineteenth century, the European interstate system has created a set of international political frameworks that govern all contact forms and an increasing consensus international normative order. Craig Murphy has dubbed this phenomenon "global government." It alludes to the expansion of both general and specialized international organizations (Gopalan, 2004), (Chase-Dunn, 1999).

The United Nations came into existence to take the role of the League of Nations, which at the time was the most influential of the newly established general and international institutions. Examples of regional organizations include the Organization of American States, the Arab League, the African Union, and the European Union. These organizations have the potential to influence and dictate how member states are governed, which has the effect of fostering the development of institutions. The trend of political globalization is as stated. Non-member states are excluded from this collaboration and are viewed as outliers. In the future, more states will aspire to follow the standards established by these organizations. The effects are already being noticed in the human rights sector. A state is no longer free to treat its citizens and foreigners whatever it pleases due to the internationalization of human rights (Keerthiraj & Devaiah, 2022). It must adhere to the international norms outlined in the numerous human rights treaties, most of which are now recognized as part of customary law. A state of political sovereignty being subordinated to the institutions' rules will eventually result from a persistent concentration of sovereignty in international institutions.

7. HARMONIZATION OF INTERNATIONAL COMMERCIAL LAW AND NATIONAL SOVEREIGNTY

Harmonization is a process that can lead to the unification of law if certain conditions are satisfied, such as, for example, widespread or universal geographical acceptance of harmonizing instruments and a broad scope of harmonizing instruments that effectively replace all pre-existing law. If these conditions are met, harmonization is a process that could lead to the unification of law. Instruments that harmonize aim to achieve two different things. The second goal is to create a law reform when existing legislation cannot address changing commercial activities. The first goal is the unification of law (Fazio, 2007).

This section examines this crucial confrontation of international commercial law and nation-state sovereignty with a special focus on the possibilities of harmonization. The paper also explores the dynamics and challenges of the harmonization process in this context. Ziegel defines that "Harmonization in this field of law is a word with considerable elasticity. In its most complete sense, it means absolute uniformity of legislation among the adopting jurisdictions." (Ziegel, 1997).

Internationalism in law has never experienced such a boost in human history, thanks to the conclusion of the cold war and the ensuing growth in international trade. More than ever, people are interested in the diverse approaches taken by the many national laws to address the shared issues faced by global trade. ' The abundance of legal harmonization initiatives currently underway in domains as diverse as civil procedure, receivables financing, space asset financing, and insolvency law is a straightforward tribute to this intellectual curiosity and spirit of internationalism. The harmonizing framework is being used in a growing number of legal disciplines. It was unthinkable ten years ago that international accords on subjects covered by property law or civil procedure would ever be feasible (Levmore, 2012).

That resulted from the idea that these legal topics reflect elements of a country's sociopolitical history and culture and that any attempt at harmonization might be ineffective due to strong national sensibilities. Today, such a notion is no longer valid. Property law issues are being attacked with tremendous effort, and international tools are being developed quickly. One example was the Cape Town Convention in 2001. The most recent Hague Convention on conflict rules regarding securities owned by intermediaries is yet another.

The process of harmonization

The nature and traits of the harmonization of international commercial law are covered in this section. It is evident that efforts to harmonize varied significantly between those that took place after the cold war ended and those that did so during or before it. The attempts to harmonize during and before the Cold War are not heavily discussed in this essay, except for any lessons that might be learned for present initiatives. A thorough examination of efforts at harmonization during and before the Cold War is unnecessary for two reasons: The degree of globalization that defines the present world renders many issues from the cold war era obsolete.

Scholarly discourse at the time was organized along ideological lines that have no relevance in today's modern world. The idea that we live in a "global village" is possibly the most significant aspect of contemporary life. Despite his contention that "globalization" is an abstract phrase that has become a cliche rather than a thought with real reality, Professor Berger agrees that it has led to the "denationalization of the judicial process." The geopolitical and economic aspects of globalization at the dawn of the twenty-first century, associated with the diminishing significance of territoriality and the emergence of "global civil society," he claims, have made a decentralized approach to law-making acceptable and even open the door to the acceptance of the "lex mercatoria" as an autonomous legal order in international trade. According to E1 DiMatteo, "at the end of the twentieth century, globalization and the volume of international transactions have given rise to the idea of a new lex mercatoria, largely because the internationalization of commercial law is necessary for the continued growth of international trade."

Different levels of harmonization

According to the broad consensus, conventions serve as the foundation for logical laws and principles. Conventions, however, lack the effectiveness of harmonization because they do not ensure either universal implementation or harmonized application in various nations. At least six different approaches to harmonization exist, with varying degrees of intensity:

1. Law or legislation
2. Conventions
3. Standard Contract Clauses

4. International Customs
5. Uniform Acts
6. International Legal Principles
7. Regulations & Directives
8. Court Decisions and Arbitration Awards
9. Legal Principles and Guides.

Although the levels are comparable to common legal sources, their usage and content can be unexpected.

8. INSTITUTIONS FOR HARMONIZATION PROCESS

Various non-governmental and intergovernmental organizations work at different levels to harmonize international commercial laws and national sovereignty (Loshkarev, 2019).

United Nations Commission of International Trade Law (UNCITRAL)

UNCITRAL, an intergovernmental institution, publishes conventions, model laws, and other legal papers. Especially when the parties to the arbitration are located in different countries, it produces model legislation for international commercial arbitration.

International Institute for the Unification of Private Law (UNIDROIT)

In addition to basic private and company law, UNIDROIT is an international intergovernmental organization. In addition to research management and drafting standards, the goals of UNIDROIT include These treaties include international factoring, international finance leasing, and agency, which complement the Vienna Convention on Contracts for the International Sale of Goods.

International Chamber of Commerce (ICC)

The ICC, a non-governmental organization, encourages the flow of capital and opens markets to boost trade. The ICC uses soft law techniques to harmonize and integrate business law through a non-law generating authority (Nakagawa, 2011).

9. CONCLUSION

If nations and international organizations wish to gain from globalization, there must be worldwide standardization. Harmonization of international standards, requirements, and legislation is essential to international trade. International law and national sovereignty have been harmonized so businesses can better understand the bare necessities of global marketplaces regarding regulation and customer needs. As a result of this, enterprises can produce items for these markets. Numerous public, corporate, and government-to-government groups work on the harmonization of standards. These initiatives' main goal is to lower trade obstacles so that food goods can travel freely between nations.

Companies who take advantage of new markets and nations that gain from growth in their gross domestic product profit financially from these efforts. In some sense, the short- and long-term development of international commercial law is again at a crossroads. Other authors have articulated the same hope over the years. The development of the harmonization Principles, however, would be helpful to any decision-maker with the motivation and skills to settle a dispute involving an international contract in the appropriate international setting. It is impossible to argue that such a choice is not legal. The Principles are actually a step toward

comprehending the impact of the international component in contract law, even if they may not be widely adopted globally.

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PATENT VALUATION: THE LEGAL FRAMEWORK FROM A COMPARATIVE VIEW IN THE UNITED STATES AND THE PEOPLE'S REPUBLIC OF CHINA AND LESSONS FOR VIETNAM

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Abstract

Intellectual property ("**IP**") rights are now widely recognized as valuable assets and have become a significant part of the overall corporate value as well as a "driver of important market transactions."[1] Nevertheless, patent commercialization and claim for compensation for damages due to patent infringement are often obstructed by parties' different positions concerning the value that should be assigned to the patent. Whether the parties can settle at a reasonable middle ground depends primarily on whether the adopted valuation approach(es) are appropriately premised on any scientifically validated methodology perceived to be fair and reasonable by the parties concerned. To improve Vietnam's legal and practical environment for patent valuation, this paper takes reference from the regulatory systems of the United States and the People's Republic of China, constructing a comparison of the prevailing frameworks of the two jurisdictions with that of Vietnam to eventually draw recommendations meeting the stated purpose. An analysis of academic literature examining the same issue suggests that parties be allowed to choose their preferred valuation technique even when having engaged valuation professionals. Also, valuation service providers should be able to demonstrate the underlying rationale for selecting a particular valuation method, given the possibility of different methods, which can yield different valuation results, being more or less concurrently applicable. Other valuation techniques, such as the forward citation counting one under the United States legal regime, should also be intensively studied to provide private parties, patent valuators, and relevant state agencies in Vietnam with more options when facing the need to value a patent.

Key words: *Legal framework; patent valuation; comparison.*

[1] International Chamber of Commerce (2019), *Handbook on Valuation of Intellectual Property Assets – Main approaches, steps to follow, points to consider*, p. 5.

1. LITERATURE REVIEW

There have been research papers in the world at large discussing the three conventional valuation approaches (i.e., market, cost, and income) applying to intellectual property rights ("**IPR**"), some of which went further to elaborate on the implications that these approaches have for patent valuation. Andrew J. Maas[2] discovered the benefits and shortcomings of the protection granted to certain IPR subjects (i.e., patent, copyrights, trademarks, trade secrets), as well as the roles and purposes of intangible asset valuation in general and patent in specific. Dennis H. Locke[3] offered an objective and systematic approach to patent valuation that is expected to assist patent owners in negotiating royalty rates based on economic reality. Meeks and Eldering[4] suggested a valuation methodology for patent steeped in all three specialized disciplines (i.e., patent, technology, and finance), focusing on patent claim analysis. In the same vein, Maayan Perel[5] presented a new method for patent valuation for licensing purposes that is based on patent quality, suggesting that "the value of patents should correlate with their technological contribution for our patent system to adequately reward innovation." Said to be an extension of the market approach, forward citation counting has also been analyzed by Dietmar Harhoff *et al.*,[6] Bronwyn H. Hall *et al.*,[7] Manuel Trajtenberg,[8] etc., with one notable research from the University of Pennsylvania Law School opposing the use of this method and cited by counsels and judges in an American case law.[9] The issue of patent valuation has also been observed from the multinational enterprise lens by Prabuddha Sanya,[10] with tools to value patents (valuation processes and model elements) as well as relevant case studies and respective solutions (accounting, value oriented IP management, market investigation, arbitral award, and project transfer) introduced by Alexander J Wurzer *et al.*.[11] In Vietnam, this topic also caught the attention of academic scholars. Some authors, namely Tran Van Hai *et al.*,[12] Vu Anh Thu,[13]

[2] Andrew J. Maas (2012), "Valuation & Assessment of Intangible Assets, and How the America Invents Act Will Affect Patent Valuations," vol. 94, no. 4, *Journal of the Patent and Trademark Office Society*.

[3] Dennis H. Locke (1986), "A Systematic Approach to Patent Valuation," vol. 27, no. 1, *IDEA: The Journal of Law and Technology*.

[4] Malcolm T. Meeks & Charles Eldering (2010), "Patent Valuation: Aren't We Forgetting Something? Making the Case for Claims Analysis in Patent Valuation by Proposing a Patent Valuation Method and Patent-Specific Discount Rate Using CAPM," vol. 9, no. 3, *Northwestern Journal of Technology & Intellectual Property.*

[5] Maayan Perel (2014), "An Ex Ante Theory of Patent Valuation: Transforming Patent Quality into Patent Value," vol. 14, no. 2, *Journal of High Technology Law*.

[6] Dietmar Harhoff, Frederic M. Scherer, & Katrin Vopel (2003), *Citation, family size, opposition and the value of patent rights*, Research Policy.

[7] Bronwyn H. Hall, Adam Jaffe, & Manuel Trajtenberg (2005), "Market Value and Patent Citations," vol. 36, no. 1, *RAND Journal of Economics.*

[8] Manuel Trajtenberg (1990), "A Penny for Your Quotes: Patent Citations and the Value of Innovations," vol. 21, no. 1, *RAND Journal of Economics.*

[9] David S. Abrams, Ufuk Akeigit, & Jillian Popadak (2013), "Patent Value and Citations: Creative Destruction or Strategic Disruption?," *Research Paper No. 13-23*, University of Pennsylvania Law School: Institute for Law and Economics.

[10] Prabuddha Sanyal (2005), "Valuation of Patents from a Multinational Perspective," vol. 87, no. 7, *Journal of the Patent and Trademark Office Society*.

[11] Alexander J Wurzer, Theo Grunewald, and Dieter Reinhardt (2012), *Valuation of Patents*, Kluwer Law International, the Netherlands.

[12] Tran Van Hai *et al.* (2006), "Mot so diem can chu y khi dinh gia tai san tri tue cua doanh nghiep trong qua trinh co phan hoa" [Some points to be noted when valuing enterprises' intellectual property in the equitization process], *Report of International Workshop: Vietnam in the process of becoming a member of WTO – Transforming state enterprises in Vietnam*, Hanoi.

[13] Vu Anh Thu (2014), *Dinh gia tai san so huu tri tue trong cac giao dich dan su* [Valuation of intellectual property assets in civl transactions], number 15 (271); Legislative studies.

Doan Van Truong,[14] Nguyen Vo Linh Giang,[15] Tran Thi Bao Anh,[16] and Tran Van Nam,[17] elaborated the issue of intellectual asset valuation in different niche areas, i.e., in state-owned company equitization, in commercial business activities, in multinational corporates, in capital contribution during enterprise establishment, in M&A of commercial banks, and in startups, respectively. Analyzing the Vietnamese legal system on intellectual assets, Hoang Lan Phuong,[18] Duong Thi Thu Nga,[19] and Le Minh Thai[20] presented a fair few drawbacks of the prevailing regulations in specific realms (capital contribution, state-owned company equitization, and security interests), subsequently recommending solutions to better the laws. Research on intellectual asset valuation captures interest from not only intellectuals but state agencies as well. During the period of between 2006 and 2013, the Department of Technology Appraisal, Examination and Assessment,[21] the Vietnam Intellectual Property Research Institute,[22] and the National Agency for Technology Entrepreneurship and Commercialization Development,[23] all under the Minsitry of Science and Technology, undertook intensive studies on the theories, methods, and procedures in valuing intellectual assets in Vietnam.

The above studies offered an overview of different globally adopted techniques for valuing intellectual assets, which include patent, and, for Vietnamese research works, the current legal framework and practice of Vietnam in this valuation industry. Nevertheless, there is still a lack of discourse on comparisons in the legal and practical environments for patent valuation between

[14] Doan Van Truong (2011), *Tuyen tap phuong phap tham dinh gia tri cac loai tai san vo hinh, quyen so huu tri tue, dinh gia cong nghe va gia chuyen giao trong cac cong ty da quoc gia* [Compilation of methods for valuing intangible assets, intellectual property rights, technology valuation and transfer prices in multinational companies], Science and Technology Publishing House.

[15] Nguyen Vo Linh Giang (2015), "Quy dinh ve dinh gia tai san la quyen so huu tri tue khi gop von thanh lap doanh nghiep theo phap luat Viet Nam va phap luat Cong hoa Phap" [Regulations on the valuation of assets that are intellectual property rights when contributing capital to establish an enterprise in accordance with the law of Vietnam and the law of the French Republic], no. 17, *Journal of Legislative Research* (accessed at http://lapphap.vn/Pages/anpham/xemchitiet.aspx?ItemID=136).

[16] Tran Thi Bao Anh (2018), "Hoan thien quy đinh cua phap luat ve dinh gia tai san tri tue va su dung lao dong trong cac thuong vu mua lai và sap nhap ngan hang thuong mai" [Improving legal regulations on intellectual property valuation and employment in acquisition and merger of commercial banks], no. 22, *Journal of Legislative Research* (accessed at http://www.lapphap.vn/Pages/anpham/xemchitiet.aspx?ItemID=59).

[17] Tran Van Nam (2020), "Nhan dang mot so bat cap ve xac đinh gia tri tai san tri tue cua cac startup o Viet Nam hien nay" [Identifying shortcomings in determining the value of startups' intellectual property in Vietnam nowadays], no. 39, *Journal of Law and Practice.*

[18] Hoang Lan Phuong (2012), "Khac phuc nhung bat cap cua phap luat Viet Nam ve dinh gia tai san tri tue" [Overcoming the inadequacies of Vietnamese laws on intellectual property valuation], vol. 1, no. 2, *Journal of Policy and Management of Science and Technology*.

[19] Duong Thi Thu Nga (2014), *Dinh gia tai san tri tue theo phap luat Viet Nam* [Intellectual property valuation under Vietnamese laws], Master Thesis, Faculty of Law, Vietnam National University.

[20] Le Minh Thai (2017), "Hoan thien quy dinh ve dinh gia tai san tri tue trong dieu kien hoi nhap kinh te" [Improving regulations on intellectual property in the context of economic integration], *Journal of Finance* (accessed at https://tapchitaichinh.vn/nghien-cuu-trao-doi/hoan-thien-quy-dinh-ve-dinh-gia-tai-san-tri-tue-trong-dieu-kien-hoi-nhap-kinh-te-127276.html).

[21] Department of Technology Appraisal, Examination and Assessment – Ministry of Science and Technology (2006), *Nghien cuu phuong phap luan va mot so phuong phap dinh gia cong nghe* [Research on the methodology and some methods of technology valuation].

[22] Nguyen Huu Can *et al.* (2009), *Nghien cuu ly luan va thuc tien nham xay dung phuong phap dinh gia sang che ap dung cho Viet Nam* [Theoretical and practical research in order to develop a patent valuation method applicable to Vietnam], Vietnam Intellectual Property Research Institute – Ministry of Science and Technology.

[23] National Agency for Technology Entrepreneurship and Commercialization Development - The Ministry of Science and Technology (2013), *Nghien cuu co so ly luan, thuc tien de de xuat nguyen tac, cach tiep can và quy trinh dinh gia tai san tri tue ap dung cho Viet Nam* [Research on the theoritical and practical basis to suggest principles, approaches and processess for valuing intellectual property applicable to Vietnam].

different jurisdictions, eventually missing the opportunity to suggest recommendations to improve Vietnamese laws based on lessons from other nations.

2. INTRODUCTION TO PATENT VALUATION

The World Intellectual Property Organization ("**WIPO**") defines IP valuation as "a process to determine the monetary value of subject IP, which must be separately identifiable."[24] According to the International Chamber of Commerce, IP assets do not have an absolute value, and their valuation results are influenced by different variables, including, *inter alia*, the valuation context, the period during which the IP rights will be held, the existence of uncertainties, whether they are legal, technological, or market-wise, when estimating the future economic benefit of the IP asset, etc.[25] Patent valuation can become imperative in various circumstances: financing and investment due diligence process, M&A process, licensing and royalty negotiation, calculation of damages or enforcement of IP rights, taxation purposes,[26] etc.

3. COMMON PATENT VALUATION APPROACHES

The most popular approaches to patent valuation are market, cost, and income. Due to the nature of IP, it is recommended that multiple approaches be applied to understand the value of an IP asset.[27] It is also recommended that when and how different valuation methodologies are deployed be flexibly determined, although certain approaches may be more suggested for usage in some circumstances than others.[28]

The market approach estimates the market value of an asset by analyzing the known market values of comparable assets.[29] To put it simply, the value of a patent, as calculated using this method, is "*what a willing buyer would pay a willing seller for a similar property*," which is premised on four requisites: "*(i) the existence of an active market; (ii) past transactions of comparable property; (iii) [free and open] access to pricing information; and (iv) an arm's length transaction between [the buyer and seller]*."[30] According to Simensky's and Bryer's analysis, factors establishing comparability are: similar industry characteristics, similar profit histories, comparable market share or market share potential, equal responses to new technology, similar barriers to entry, and similar growth prospects.[31] Harald Wirtz opined that this approach can manifest into two forms, which more or less serve as a recapitulation of the above: (i) direct market value analysis which takes into account past transactions entered for the subject IP itself

[24] *Supra* note 1, p. 6.

[25] *Ibid.*

[26] *Supra* note 235, p. 323; Bruce Berman (2017), "BofA, JPMChase & Morgan Stanley are top banks for patent loans", *Relecura, Inc.*, https://ipcloseup.com/2017/07/24/bofa-jpmchase-morgan-stanley-are-top-banks-for-patent-loans/; Gideon Parchomovsky & R. Polk Wagner (2005), *Patent Portfolios*, University of Pennsylvania Law Review, p. 27; Martin B. Robins (2008), *Intellectual Property and Information Technology Due Diligence in Mergers and Acquisitions: A More Substantive Approach Needed*, Journal of Law, Technology and Policy, p. 326; Ashley J. Stevens, President, Focus IP Group LLC, AUTM 2012 Annual Meeting Valuation Course; Mohammad S. Rahman (1998), "Patent valuation: Impacts on damages," *Intellectual Property Law Journal*, vol. 6, no. 2, University of Baltimore, pp. 160-161; OECD (2006), *Annual Report on the OECD Guidelines for Multinational Enterprises: Conducting Business in Weak Governance Zones*, OECD, Paris.

[27] Gio Wiederhold (2014), *Valuing Intellectual Capital*, chapter 5, Springer, New York, pp. 85-150; Susan Chaplinsky (2002), *Methods of Intellectual Property Valuation*, University of Virginia Darden School Foundation, Charlottesville, VA.

[28] Smith, Gordon V. & Russell L. Parr (2005), *Intellectual Property Valuation, Exploitation, and Infringement Damages*, John Wiley & Sons, Inc., Hoboken.

[29] Jason Fernando (2020), "Market Approach," *Investopedia*, (accessed at https://www.investopedia.com/terms/m/ market-approach.asp).

[30] Melvin Simensky & Lanning G. Bryer (1994), *The New Role of Intellectual Property in Commercial Transactions*, p. 55.

[31] *Supra* note 30.

and (ii) analogous or comparable transaction analysis which evaluates prices paid for similar IP assets.[32]

The cost approach's idea is that the cost of creating or purchasing a new patent is proportionate to the economic value of the patent during its useful life.[33] This is calculated through historical cost trending (some of the costs accounting to which include research and development costs, work in process costs, manufacturing overhead costs, and finished goods costs)[34] or re-creation cost estimating.[35] This approach grounds on the notion that no reasonable buyer would willingly pay more for an asset than the cost he would incur by generating a similar asset on his own.[36]

The income approach is perceived by literature as a speculative method of patent valuation as it involves future assessment of economic benefits.[37] The supporting backbone for the income approach lies in the concept that the value of an IP asset is equivalent to the net present value of the economic benefits enjoyed by the owner over the asset's lifetime,[38] and that a reasonable average purchaser would pay up to the present value of the asset's anticipated benefits. The following factors shall be determined when adopting the income approach: the remaining effective life of the asset, the free cash flow-generating (or income-producing) prospects for each period of the asset's life, and the appropriate discount rate to bring expected returns back to the present value.[39]

4. LEGAL FRAMEWORK FOR PATENT VALUATION IN DIFFERENT JURISDICTIONS

4.1. Vietnam

Circular No. 06/2014/TT-BTC[40] provides for Valuation Standard No. 13 ("**Valuation Standard 13**") regulating and guiding the valuation of intangible properties, which shall include IP and IP rights.[41] The Standard is said to be the most comprehensive guidance for the valuation of intangibles in Vietnam that serves the purpose of sales, transfers, mortgaging, mergers, capital contribution, etc.

Consistent with international practice, Valuation Standard 13 starts with prescribing the list of information that needs to be obtained when valuing intangibles. The Standard goes on to stipulate three valuation approaches that are commonly used: market-based, cost-based, and income-based approach. These approaches are not only guided by Valuation Standard 13 but

[32] Harald Wirtz (2012), "Valuation of Intellectual Property: A Review of Approaches and Methods," vol. 7, no. 9, *International Journal of Business and Management*, pp. 40-48.

[33] *Supra* note 30, p. 19. *See also* Robert Goldscheider (2011), "The Classic 25% Rule and The Art of Intellectual Property Licensing," no. 6, *Duke Law & Technology Review*, p. 15; Mikael Collan & Heikkila Markku (2011), "Enhancing Patent Valuation with the Pay-Off Method," vol. 16, *Journal of Intellectual Property Rights*, p. 378.

[34] Mark E. Haskins *et al.* (1997), *Financial Accounting and Reporting*, 2nd ed., p. 407.

[35] *Supra* note 30, p. 52.

[36] *Supra* note 32.

[37] Mohammad S. Rahman (1998), *ibid*, p. 152.

[38] *Supra* note 32.

[39] Jan Hofmann (2005), "Value Intangibles," *Deutsche Bank Research*; Aswath Damodaran (2008), *Strategic Risk Taking: A Framework for Risk Management*, Upper Saddle River: Wharton School Publishing.

[40] Circular No. 06/2014/TT-BTC dated 7 January 2014 of the Ministry of Finance promulgating Valuation Standard No. 13.

[41] Section 4, Valuation Standard 13.

also detailed under Valuation Standards No. 08, 09, and 10,[42] Joint Circular No. 39/2014/TTLT-BKHCN-BTC, and Circular No. 10/2019/TT-BTC.[43]

In addition to Valuation Standard 13, the 2012 Law on Price ("**LoP**") dedicates one chapter[44] to prescribing valuation, which is categorized into different sub-chapters according to different types of appraisers: persons, enterprises, and the state. The qualifications of appraisers, as well as the conditions for the issuance and revocation of the certificate of eligibility to provide valuation services, among others, are regulated in detail by Decree No. 89/2013/ND-CP guiding the LoP.[45] The 2017 Law on Technology Transfer ("**LoTT**") and Decree No. 76/2018/ND-CP guiding the LoTT[46] specify instances when the valuation of technology is required (e.g., when technologies created/purchases using state budget are contributed as capital to investment projects)[47] as well as specific conditions for organizations providing technology valuation services.[48]

4.2. The People's Republic of China

The Asset Appraisal Law ("**AAL**") is the highest legislation governing asset appraisal in China. According to the AAL, any appraisal professional shall join an appraisal institution to conduct an appraisal and may only practice appraisal in one appraisal institution[49]. To regulate appraisers, the AAL requires these professionals to pass a qualification examination carried out by a relevant appraisal industry association.[50] Concerning the appraisal procedure, the Law prescribes that at least two appraisal professionals shall be appointed[51] and two appraisal methods shall be selected, except where only one method can be selected due to the appraisal practicing rules.[52]

To provide further guidance for the valuation practice, the Ministry of Finance issued Circular No. 43/2017 ("**Circular 43**") formulating basic guidelines for asset appraisal. Besides setting out the general principles for doing asset valuation businesses (regarding, e.g., the requirement of independence, objectivity, impartiality, possession of relevant professional knowledge), Circular 43 specifies the appraisal procedure for asset appraisal institutions and their appraisal professionals. Similar to international practices, Circular 43 lays down three basic valuation methods and their derivatives. The Circular also assigns the China Appraisal Society ("**CAS**") to formulate asset appraisal practice guidelines and professional ethics guidelines in accordance with the standards set thereunder.

Established in 1993, the CAS is a national self-regulatory organization in the asset

[42] These Valuation Standards are issued by Circular No. 126/2015/TT-BTC dated 20 August 2015 of the Ministry of Finance promulgating Valuation Standards No. 08, 09, and 10.

[43] While Joint Circular 39 and Circular 10 both address the three traditional valuation methods (market, cost, and income), the latter also supplements a distinctive method called "valuation based on the investment cost for the scientific and technological tasks."

[44] Chapter IV, LoP.

[45] Decree No. 89/2013/ND-CP dated 6 August 2013 of the Government detailing a number of articles of the Law on Price on valuation (amended in 2018 and 2021).

[46] Decree No. 76/2018/ND-CP dated 15 May 2018 of the Government implementing a number of articles of the Law on Technology Transfer ("**Decree 76**").

[47] Article 4.1(b), Decree 76.

[48] Article 48, LoTT; Article 32, Decree 76.

[49] Article 5, AAL.

[50] Articles 8 & 9, AAL.

[51] Article 24, AAL.

[52] Article 26, AAL.

appraisal industry, actively participating in both national and international appraisal affairs.[53] Acting pursuant to the assignment under Circular 43, the CAS has issued Guideline for Patent Valuation No. 49/2017 ("**Guideline 49**") setting forth detailed regulations affecting the execution of patent valuation as well as instructions on how different valuation methods should be implemented. Guideline 49 requires appraisers to include in their valuation report the reasons for the selection of a particular valuation method as well as the analysis leading to the final valuation result.

4.3. The United States

4.3.1. The Internal Revenue Manual ("IRM") of the Internal Revenue Service ("IRS")

The IRS is the United States tax collection agency and administering and supervising the execution and application of the internal revenue laws.[54] IRM is the official compilation of IRS policies, procedures and guidelines.[55] Concerning patent valuation, Section 4.48.5 of the IRM lays out guidelines for the valuation of IP applicable to all IRS personnel who are engaged in valuation practice relating to the development, resolution and reporting of issues involving IP valuations.

In terms of IP valuation approach, the IRM stipulates five fundamental methods, comprising the market-based method, the cost-based method, the income-based method, the Monte Carlo (or probabilistic) method, and the option valuation method.[56] The first three methods are the most common methods discussed earlier in this paper. The Monte Carlo method is similar to the discounted cash flow method except that it relies on probability analysis of estimated ranges to produce a statistical prediction of the expected value. The option valuation method applies to longer term and higher risk intangibles when early expenses are significant, and projected returns are in the distant future.

When a valuation method is chosen, the IRM requires appraisers to give reasons for their decision, as well as reasons why other methods were rejected. The final opinion of value should reflect the appropriateness of each method, and the veracity and reliability of the data supporting each method, leading the reader logically to the final opinion of intangible value. It should ensure applied methods' results yield similar levels of value, reconcile the results, and set forth all assumptions and limiting conditions affecting the analyses, opinions, and conclusions.

4.3.2. Case law

4.3.2.1. The Daubert standard as a ground for the determination of a valid methodology

Expert witnesses pave way for a more accurate judgement of the fact and are considered "*an integral part of the adjudication of complex scientific and technical disputes*."[57] In arriving at the conclusion of whether a particular patent valuation methodology offered by expert witnesses is admissible, courts in multiple cases have relied on the *Daubert* standard for their determination.

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[53] The CAS has joined the International Valuation Standards Council, the World Association of Valuation Organizations, the International Institute for Business Valuers, the International Property Tax Institute, and the International Valuation Conference.

[54] Section 7803, Internal Revenue Code.

[55] Section 1.11.6.1.6.1, IRM.

[56] Section 4.48.5.2.4.7, IRM.

[57] Susan M. Hassig (1994), "Daubert v. Merrell Dow Pharmaceuticals: The standard for admitting expert testimony," vol. 26, no. 1, *Arizona State Law Journal*, p. 267.

This standard comes from *Daubert v. Merrell Dow Pharmaceuticals, Inc*[58] in which the United States Supreme Court held that Rules 402[59] and 702[60] of the Federal Rules of Evidence ("**FRE**") required only that an expert witness's testimony be relevant and reliable.

In determining the fulfilment of the first requirement – "*reliability*" – of testimony, the Court held that it must pertain to scientific knowledge, in which the word "*scientific*" connotes a "g*rounding in science's methods and procedures*," while the "*knowledge*" part indicates "*a body of known facts or of ideas inferred from such facts or accepted as true on good grounds*."[61] The testimony under this prong must be more than unsupported speculation or subjective belief[62] and focus on methodology and principle instead of the conclusion it generates.[63] The Court has noted several considerations to adjudicate the scientific validity of the testimony in question, which includes whether the theory or method in question can (and has) been tested, whether it has undergone peer review and publication, its known or potential error rate, the existence and upkeep of standards governing its use, and whether it has gained widespread acceptance within a relevant scientific community.[64] Since, among other instances, there are cases when well-grounded but innovative theories may not have been published, the Court noted that publication does not "*necessarily correlate with reliability*."[65]

The other characteristic of an admissible testimony is relevancy. "*Relevant evidence*" is defined as that which has "*any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence*."[66] Citing *United States v. Downing,*[67] the Court explained that the "*relevancy*" requirement demanded an answer to the question of whether expert testimony proffered in the case was sufficiently tied to the facts of the case that it would aid the jury in resolving a factual dispute.

Subsequent courts have devised their judgements to give clarification to the *Daubert* standard. The Court of Appeal in *I4I Ltd. Partnership v. Microsoft Corp.* observed that "*Daubert and Rule 702 are safeguards against unreliable or irrelevant opinions, not guarantees of correctness*."[68] Another Court in the *Kumho Tire Co. v. Carmichael* clarified that the "basic gatekeeping obligation" under *Daubert* applies not only to scientific testimony but to all expert testimony.[69] Specifically regarding patent valuation, Court in *Better Mouse Co., LLC v. Steelseries ApS, et al.* has upheld the patent citation analysis performed by the Defendant's

[58] *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579, 113 S. Ct. 2786 (1993).

[59] Rule 402 of the FRE, providing the baseline, prescribes that: "All relevant evidence is admissible, except as otherwise provided by the Constitution of the United States, by Act of Congress, by these rules, or by other rules prescribed by the Supreme Court pursuant to statutory authority. Evidence which is not relevant is not admissible."

[60] Rule 702 of the FRE, governing expert testimony, stipulates that: "If scientific, technical, or other specialized knowledge will assist the trier of fact to understand the evidence or to determine a fact in issue, a witness qualified as an expert by knowledge, skill, experience, training, or education, may testify thereto in the form of an opinion or otherwise."

[61] *Supra* note 58.

[62] *Johnson v. Arkema, Inc.*, 685 F.3d 452 (5th Cir. 2012) (quoting *Curtis v. MS Petroleum*, 174 F.3d 661 (5th Cir. 1999)).

[63] *Supra* note 58.

[64] The Court made clear that these factors did not constitute a "definitive checklist or test." *See also Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167 (1999).

[65] *See e.g.*, as also cited by the Court, David F. Horrobin (1990), "The Philosophical Basis of Peer Review and the Suppression of Innovation," *JAMA*, pp. 1438-1441.

[66] Rule 401, FRE.

[67] *United States v. Downing*, 753 F.2d 1224 (3d Cir. 1985).

[68] *I4I Ltd. Partnership v. Microsoft Corp.*, 598 F.3d 831 (Fed. Cir. 2010).

[69] *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 119 S. Ct. 1167 (1999).

damages expert,[70] which will be further elaborated under Section 5.3.2.3 where the patent citation analysis is closely examined.

4.3.2.2. Application of the market-based approach

- ***Yufa v. TSI Incorporated*[71]**

Aleksandr L. Yufa is an inventor, who has applied for and acquired multiple U.S. patents. In 2009, Yufa filed an action alleging that TSI Incorporated's predecessor-in-interest infringed on Yufa's patent by manufacturing and selling products believed to be utilizing technologies covered by the Plaintiff's patent.

Among other issues, a proper valuation of Yufa's patents was required, and Greyhound IP was assigned to perform the task. In performing the valuation, Greyhound IP conducted a research on comparable transactions, completed a detailed analysis of the patents (including a litigation history) to determine how the market would likely view the patents, and estimated a value range for the patents based upon comparable transactions and an assessment of the analytical characteristics of each patent. The Court in this case was satisfied with the valuation which had employed the market-based approach.

- ***Kemlon Products Development Co. v. U.S.*[72]**

Kemlon Products Development Co. and Keystone Engineering Co. did business in the R&D, manufacturing, and sale of certain patented products in the oil and gas industry. In 1976, the IRS conducted a tax audit over Kemlon and Keystone, during which the IRS questioned the correctness of the valuation of several patents held by Kemlon; specifically, whether any value ascribed to the patents should have been allocated to assets other than the patents, such as goodwill; as well as inquiries as to the useful life of the patents. Although Kemlon did cooperate in providing the IRS with all the information requested concerning the patents and the patented product, it was the IRS's agent in charge of valuing the services who determined that contacting Kemlon's customers would be necessary. Questions wished to be asked were described by the agent in very general terms, e.g., whether the customer purchases a certain product from Kemlon owing to a particular fact or would the customer purchase this product in the absence of a certain feature; the customer's opinions on whether the patented product is superior to another type of Kemlon' product along with their justifications; etc.

Finding in favor of the IRS, the Court of Appeals established that the IRS's demand to determine the exact allocation of the patents' value and the patents' useful life would necessitate an interview with customers to understand why they dealt with Kemlon and used the product in question as well as their projected future use of the product. The Court also sided with the IRS in respect of the need for the IRS to independently obtain the above information from Kemlon's customer so that Kemlon would not have the chance to sway and undermine the integrity the customer's replies.

Although this case did not directly address the issue of the application of the market-based approach, it should be noted that such approach is carried out on the assumption that the comparables have been precisely valued in the first place. This is where *Kemlon v. U.S.* came into play by figuring out whether any portion of the value assigned to the patent should have been allocated to other properties (i.e., goodwill), thus allowing parties to arrive at a more

[70] *Better Mouse Co., LLC v. Steelseries ApS, et al.*, No. 2:14-CV-198-RSP (E.D. Tex. Jan. 9, 2016).

[71] *Yufa v. TSI Incorporated*, Case No. 4:09-cv-01315-KAW (N.D. Cal. Aug. 17, 2018).

[72] *Kemlon Products Development Co. v. U.S*, 638 F.2d 1315 (5th Cir. 1981).

precise valuation of the patent-in-suit.

4.3.2.3. Recognition of patent citation as a valuation technique

A patent's cover page includes references to other patented inventions that are considered relevant to the underlying patent;[73] and when a patent is cited by subsequently issuing patents, the cited patent is deemed to have received a forward citation.[74] Highlighted in academic literature is that patent citation information is facilitative only when used comparatively.[75] An estimate of the relative economic value of patents can be achieved by comparing citation counts across a pool of comparable patents[76] - patents identified on the basis of technology and age. Forward citation analysis, which is said to be an extension of the market approach, can also be used to extract or apportion out the relative value of a patent in a license agreement.[77]

On the one hand, courts in several cases, as well as a great quantity of academic literature, fully supported the recognition of patent citation as a proxy for patent value. In *Better Mouse Co., LLC v. Steelseries ApS, et al.,*[78] the Defendant's damages expert performed a patent citation analysis which was eventually upheld by the Court under the *Daubert* standard. Specifically, the Plaintiff contended that the Defendant's adoption of forward citation analysis as a means to determine the value of a patent should be struck as it "*ignores citations to related patents that disclose the same technology, thereby grossly undercounting the number of relevant forward citations.*"[79] In judging the reliability of the employed patent citation analysis, the Court observed that the Defendant had submitted publications showing citation numbers correlated with patent value in several fields, thus indicating that the case met the fundamental premises for a forward citation analysis to be applicable. Likewise, the court in the *Comcast Cable Commc'ns LLC v. Sprint Commc'ns Co. L.P.* noted that "*the forward citation method of analysis has been recognized in the academic literature as reliable since the 1990s. Indeed, one meta-analysis of published research on forward citation analysis … found 'forward citation intensity is, in fact, correlated with economic value.' In short, courts have not rejected forward citation analysis outright.*"[80] When considering the Plaintiff's reliance on *Finjan* to object the Defendant's expert's use of their patent citation analysis, the Court noted that *Finjan* did not reject forward citation analysis outright – rather, that case recognized that "*a qualitative analysis of asserted patents based upon forward citations may be probative of a reasonable royalty in some instances.*"[81] The Court made a distinction between *Finjan* and the case at hand by reasoning that in the former instance, the expert was excluded because he did not tie the methodology to the facts of the case as well as to consider potential problems with his analysis, i.e., many of the

[73] Manuel Trajtenberg (1990), "A Penny for Your Quotes: Patent Citations and the Value of Innovations," vol. 21, no. 1, *RAND Journal of Economics*, pp. 172-173.

[74] Malcolm T. Meeks & Charles A. Eldering (2010), *supra* note 4, p. 203. Accordingly, the patents cited on a patent's cover page are regarded as "backward citations."

[75] OECD (2009), "The Use and Analysis of Citations in Patens," in *OECD Patent Statistics Manual*, p. 111.

[76] Peter A. Malaspina (2019), "Patent Citation Analysis and Patent Damages," vol. 18, no. 1, *Chicago-Kent Journal of Intellectual Property*, p. 234.

[77] Richard J. Eichmann (2016), "Forward Citation Analysis as a Means to Apportion Relative Value in Patent Infringement Cases," *QuickRead* (accessed at http://quickreadbuzz.com/2016/02/17/forward-citation-analysis-as-a-means-to-apportion-relative-value-in-patent-infringement-cases/). This was the case of *Comcast*, when the value of the patent-in-suit (the '870 patent) was aportionated out of the Nokia-Comcast Agreement covering 36 patents in total (*Comcast Cable Commc'ns LLC v. Sprint Commc'ns Co. L.P.*, 218 F. Supp. 3d 375, 379 (E.D. Pa. 2016)).

[78] *Supra* note 70.

[79] *Supra* note 78.

[80] *Comcast Cable Commc'ns LLC v. Sprint Commc'ns Co. L.P.*, 218 F. Supp. 3d 375, 379 (E.D. Pa. 2016).

[81] *Finjan, Inc. v. Blue Coat Sys., Inc.*, No. 13-CV-03999-BLF (N.D. Cal. July 14, 2015).

patents referenced one another. This is, as observed by the Court, in contrast with how the Defendant's expert conducted his analysis through modifying the forward citation method to take into consideration the age and category of the patent-in-suit and the other patents covered by the patent purchase agreement which also included the patent-in-suit.

In addition to case law, there is a number of academic literature[82] supporting the view that the value of a patent and the number and quality of its forward citations are correlated. The rationale behind the use of citation counts as a proxy for economic values is that valuable patents will incentivize new yet related technology[83] due to the relatively high demand for the technology covered by such patents.[84] Down-the-line patents aimed at improving original innovations would likely cite the basic one, particularly due to the real motivation to have all relevant patents cited which stems from the involvement of the applicant, their attorney, and the examiner in the process of finalizing the list of references.[85] This, as a consequence, increases the citation counts of the prior patented technology, making those citations as first-hand evidence of the path-breaking nature of the original patent.[86] As a consequence, patents with relatively higher values tend to receive more forward citations than the relatively less valuable ones.

On the other hand, there are also commentators disagreeing with the adoption of forward citation as an indication of the patent's value. Pursuant to an article written by University of Pennsylvania academics, there can be instances when there exists a negative relationship between patent value and citations when inventors and corporates invest in a "strategic innovation" so as to "make it harder for the next outside entrepreneur to leapfrog" and "steal the high monopoly rents."[87] According to the research paper, a "strategic innovation" is the one that "decreases the likelihood that a prior productive patent will be improved upon, thereby increasing the value of the prior innovation and decreasing the expected number of citations it receives due to lack of entry."[88] This paper has been referred to by the Plaintiff in *Comcast*[89] when they attempted to discredit and exclude the Defendant's expert opinion that relied upon forward citation analysis which, nonetheless, was eventually ruled out by the court as, according to the court's determination, a single academic paper – the Penn Paper – was not sufficient to "rebut decades of literature supporting forward citation analysis."[90]

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[82] Dietmar Harhoff, Frederic M. Scherer, & Katrin Vopel (2003), *Citation, family size, opposition abônd the value of patent rights*, Research Policy; Bronwyn H. Hall, Adam Jaffe, & Manuel Trajtenberg (2005), "Market Value and Patent Citations," vol. 36, no. 1, *RAND Journal of Economics*; Manuel Trajtenberg (1990), "A Penny for Your Quotes: Patent Citations and the Value of Innovations," vol. 21, no. 1, *RAND Journal of Economics*; Adam B. Jaffe & Gaétan de Rassenfosse (2016), "Patent Citation Data in Social Science Research: Overview and Best Practices," Nat'l Bureau of Econ. Research Working Paper Series; Dietmar Harhoff, Francis Narin, Drederic M. Scherer, & Katrin Vopel (1999), "Citation Frequency and the Value of Patented Inventions," vol. 81, no. 3, *The MIT Press*; M. B. Albert, D. Avery, F. Narin, & P. McAllister (1991), "Direct validation of citation counts as indicators of industrially important patents," vol. 20, no. 3, *Research Policy*, pp. 251-259; F. Narin (1995), "Patents as indicators for the evaluation of industrial research output," vol. 34, no. 3, *Scientometrics*, pp. 489-496.

[83] *Supra* note 82.

[84] *Supra* note 77.

[85] *Supra* note 73, p. 174.

[86] *Supra* note 73, p. 184.

[87] David S. Abrams, Ufuk Akeigit, & Jillian Popadak (2013), *supra* note 9, p. 15.

[88] *Supra* note 87.

[89] *Supra* note 80.

[90] *Supra* note 80. To substantiate its argument, the court cited several academic literature that had recognized forward citation as a reliable source: Dietmar Harhoff, Frederic M. Scherer, & Katrin Vopel (2003), *Citation, family size, opposition and the value of patent rights*, Research Policy; Bronwyn H. Hall, Adam Jaffe, & Manuel Trajtenberg (2005), "Market Value and Patent Citations," vol. 36, no. 1, *RAND Journal of Economics*; Manuel Trajtenberg (1990), "A

In addition, it is also argued that the mere fact that a patent receives many citations may indicate its thorough disclosure, instead of its broad and well-supported claims.[91] Meeks and Eldering took an example of a patent that has a detail description of the invention but possess claims covering only a narrow portion of the described invention, constituting the classic case of "disclosed-but-not-claimed" error.[92]

5. DISCUSSION AND FINDINGS

5.1. Comparison between patent valuation legal frameworks of the United States, the People's Republic of China, and Vietnam

It can be observed that Vietnam and China have relatively detailed regulations on the valuation of intangible assets as prescribed under both statutes and their delegated legislation. This is undoubtedly a unique feature of a civil law country like Vietnam and China, the written law of which is typically characterized by its comprehensiveness[93] that anticipates all pertinent matters in certain areas of law as completely as possible.[94] In stark contrast, common law country like the United States recognizes judge-made law as a legitimate source and that codifications might not be as elaborate as those in the civil law counterparts. The IRM, concerning the mentioned IP valuation section, mainly provides general guidelines for IRS personnel to follow, compared to the nationwide-applicable and fairly all-inclusive regulations under different valuation standards of Vietnam as well as valuation guidances issued by the CAS.

Nonetheless, also due to the unique feature of how law is made through precedents in the United States, the regulatory framework in the United States is constantly elucidated with judges carrying out in-depth analysis to tackle the dispute brought before it on a case-by-case basis. It should be noted that, rather than merely stating the rule, courts in the United States also provide the theoretical rationale for making their decisions. This is proven to be particularly significant for appraisal experts and other parties to the case to understand how valuation works in reality, as well as the logical justification rationalizing the applied valuation technique. The deliberation by courts over the admissibility of forward citation in assigning value to a patent indeed illustrates how this issue has been delved into by the United States' courts with an extensive reference made to a great amount of academic literature offering diverse and conflicting viewpoints. Clearly, this can only be achieved with the court's active participation in dispute settlement. As can be told from the above analysis regarding Vietnam and China's legal framework regulating patent valuation, the market approach prescribed under the countries' legal documents, regardless of how comprehensive and elaborate it strives to be, can hardly foresee all possible valuation methods under its umbrella that can be later developed as a result of

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Penny for Your Quotes: Patent Citations and the Value of Innovations," vol. 21, no. 1, *RAND Journal of Economics*; Adam B. Jaffe & Gaétan de Rassenfosse (2016), *supra* note 82.

[91] *Supra* note 74, p. 204.

[92] *Supra* note 74, p. 204. Meeks and Eldering based their argument on § 112 I of the Patent Act stipulating that a patent must include a written description, which is a narrative portion, describing the "process of making and using" the invention in "full, clear, concise, and exact terms." 35 U.S.C. § 112 1(2006). According to the authors, it is the claim, instead of the written description, that defines the bounds of patent protection.

[93] Peter de Cruz (2007), *Comparative Law in a Changing World*, 3rd edn, p. 48; Helmut Coing (1977), "An Intellectual History of European Codification in the Eighteenth and Nineteenth Centuries," in: Samuel Jacob Stoljar (ed.), *Problems of Codification*, p. 16; Jean Louis Bergel (1988), "Principal Features and Methods of Codification," *Louisiana Law Review*, p. 1076; Shael Herman (1996), "The Fate and the Future of Codification in America," *American Journal of Legal History*, p. 411.

[94] Gunther A. Weiss (2000), "The Enchantment of Codification in the Common Law World," *Yale Journal of International Law*, pp. 505-506; Martin Vranken (2015), *Western Legal Traditions: A Comparison of Civil and Common Law*, Annandale: Federation Press, pp. 16-21.

knowledge emergence.

5.2. Shortcomings in the valuation regulations and practices in Vietnam

Several experts believe that Vietnam has a system of legal documents that cover quite comprehensively all aspects related to the valuation of IP, including (i) instances when it is necessary to conduct an appraisal; (ii) operations of valuation service providers; and (iii) valuation standards for intangible assets. Nonetheless, the legal regime for IP valuation in Vietnam has still been criticized by some for containing contradictions,[95] notable among which is the inconsistency in how the laws recognize certain IPR subjects during business valuation. Specifically, under Decree 126,[96] an enterprise's goodwills, including trademark and trade name, are counted in the value of the enterprise during equitization.[97] Meanwhile, Accounting Standard 04[98] does not recognize trademarks or goodwills formed within the enterprises as intangible fixed assets to be valued when determining the value of an enterprise. According to Tran Thi Bao Anh, such a lack of consistency and concentration of regulations has resulted in how commercial banks in Vietnam do not stay in line with their valuation of the same asset. [99]

Speaking of contradictions, under Accounting Standard 04, the value of intangible fixed assets in general (and patent in particular) is determined based on historical cost,[100] the approach to which is different than that under Valuation Standard 13. Such a difference results in the scenario that advantages created by the patent (e.g., profit increase) will not be counted in the patent's value should Accounting Standard 04 be applied. Although to date, there have yet to be any disputes regarding patent valuation in Vietnam stemming from this contradiction of laws, we note one case in which the Committee of Judges of the People's Supreme Court, in its trial of cassation review, recognized the value of trademark as contributed capital in an equitized State-owned enterprise.[101] Although this case only concerned trademark, it can be applied by analogy to other intellectual assets, including patent.[102]

In practice, it has been agreed among commentators that parties to a licensing agreement might hardly agree with each other's adoption of valuation method due to the big gap between the valuation results. A case of commercializing a Remote Waste Treatment ("**RWT**") Technology has shed light on an example of how the income-based approach applied by the technology's inventor and the cost-based approach preferred by the potential purchasers generated substantially different valuation estimates, making the negotiations between parties often came to a "*dead end.*"[103] The hurdle in technology commercialization, as maintained by

[95] Tran Thi Bao Anh (2018), *supra* note 16, p. 48; Le Minh Thai (2017), *supra* note 20.

[96] Decree No. 126/2017/ND-CP dated 16 November 2017 of the Government promulgating the conversion from state-owned enterprises and single-member limited liability companies with 100% of charter capital invested by state-owned enterprises into joint-stock companies (amended in 2020 and 2021) ("**Decree 126**").

[97] Article 31.2(a), Decree 126.

[98] Accounting Standard 04 is issued by Decision No. 149/2001/QD-BTC dated 31 December 2001 of the Ministry of Finance promulgating and announcing four accounting standards of Vietnam (Phase 1).

[99] Tran Thi Bao Anh (2018), *supra* note 16, p. 48.

[100] Section 44, Accounting Standard 04.

[101] Cassation Review Decision No. 10/2018/KDTM-GĐT dated 10 August 2018 of the Committee of Judges of the People's Supreme Court.

[102] Tran Van Nam & Do Minh Tuan (2022), *Vietnam's current legal framework on patent valuation and some recommendations for improvement*, Hanoi Law Review, number 7 (266).

[103] Tran Van Nam, Nguyen Quang Huy, Tao Minh Hung, & Richard Cahoon (2022), "The Role of Patent Valuation in new Technology Commercialization in Vietnam: A Case Study of Remote Waste Treatment Technology," vol. 11, no.1, *NTUT Journal of Intellectual Property Law and Management*, p. 102.

Tran Van Nam *et al.*, is the factor de-incentivizing Vietnamese entities from developing technologies and applying for patents,[104] which is further confirmed by statistics from the Ministry of Science and Technology revealing that the number of domestic patent applications and registrations during 2010 and 2019 is just equivalent to approximately 10% of the total number of applications and registrations of the foreign counterparts.[105]

In addition, it is reported that most companies when valuing intangible properties often adopt only one valuation method to arrive at their final conclusion of the properties' value without employing other approaches for comparison or rationalizing their use of that particular method only.[106] By relying on only one valuation method, appraisers might not be able to check for consistency in assumptions and human errors that may occur,[107] which can be of greater problem should there be no justification as to why only that particular method is chosen. When it comes to patent commercialization, licensors and licensee often stand on different spectrum of the negotiation table where one wishes to license the patent with a high price while the other wants the opposite. Hence, without examining different valuation approach, the final valuation outcome can be the result of radical internalized bias, eventually obstructing the initial objective of commercializing patent.

Last but not least, a lack of data that serves as an input for and facilitates the whole valuation process is reported to be present in Vietnam.[108] In other words, appraisers might not always have full access to information directly related to the value of a patent (information asymmetry), which is substantially attributed to the rather complex legal nature and uncertainties of this type of IP. This, thus, inevitably leads to the impracticality in valuing assets in general and patents in particular. For the market-based approach, for instance, to be chosen when valuing a patent, it is necessary that the appraiser has at least data of an active market involving comparable property, e.g., royalty rates in arms-length transactions. The same applies to the cost-based and income-based approach, in which the former requires information about the reproduction or replacement cost while the latter necessitates the understanding of the estimates of future earnings as well as an appropriate discounted rate to compute the net present value of the intangible by use of the discounted cash flow method. When it is not possible to ascertain all relevant legal issues materially affecting the commercialization of a patent (for example, whether multiple parties are having the prior use right over the patent, or whether there are any risks that the patent at issue can be invalidated), it might not even be reasonably feasible to choose an appropriate valuation approach, not to mention whether a fair and acceptable valuation outcome can be eventually arrived at. In addition, in certain areas, patents can be exploited in special ways, leading to significant valuation problems regarding transaction costs as well as bargaining power. For example, in the telecommunications sector, specifically concerning cellular technology such as 2G, 3G, 4G, 5G, or 6G, users (e.g., phone manufacturers) are required to use thousands of

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104 *Ibid.*

105 Ministry of Science and Technology of Vietnam (2020), *Proposal On Approving The Intellectual Property Development Program toward 2030*, Hanoi, p. 4.

106 Nguyen Thi Doan Trang (2020), "Hoat dong tham dinh gia doi voi tai san vo hinh tai Viet Nam va van de dat ra" [Valuation of intangible assets in Vietnam and issues arising therefrom], no. 1 of December 2020, *Journal of Finance* (accessed at https://tapchitaichinh.vn/tai-chinh-kinh-doanh/hoat-dong-tham-dinh-gia-doi-voi-tai-san-vo-hinh-tai-viet-nam-va-van-de-dat-ra-331364.html).

107 Susan Chaplinsky (2002), *supra* note 27, p. 8.

108 *Supra* note 106; Pham Thi Thanh Hoa (2018), "Cac phuong phap xac dinh gia tri tai san vo hinh và ap dung tai Viet Nam" [Methods of determining the value of intangible assets and their application in Vietnam], *Journal of Accounting and Auditing* (accessed at http://www.hoiketoanhcm.org.vn/vn/trao-doi/cac-phuong-phap-xac-dinh-gia-tri-tai-san-vo-hinh-va-ap-dung-tai-viet-nam/).

standard-essential patents ("**SEP**") and the calculation of license fee for each patent, when requested by the patent owner, is not always reasonably feasible. The bargaining power of the two parties also varies according to the applicable policies of the relevant jurisdiction (whether they tend to protect patent owners or favor potential users). Long story short, the key to the valuation of patents in technology transfer lies in the accessibility of essential information as well as the ability to appropriately assess the legal framework regulating the patent at issue.

6. RECOMMENDATIONS FOR VIETNAM

In addition to the cases where a standard valuation is required for state management purposes, for purely civil transactions on the transfer of the right to use (license) IP (including patent), valuation should be considered as price consulting, which means that the parties to the transaction should not be obliged to apply the price determined by the appraisal service. Parties shall have the freedom to agree on simple valuation methods, such as determining the license fee based on a certain percentage of the revenue generated through the exploitation of the patent by the licensee. Therefore, it might be impractical to wait for a legal system that can provide a "standard" value for civil transactions of the assignment or licensing of patent.

Noting that each valuation technique has its strengths and weaknesses and there is no definitive right or wrong approach,[109] when a valuation approach or method is chosen, Vietnam should, by studying the IRM as well as China's above-mentioned regulatory documents on patent valuation, require valuation service providers to give rationales for their decision, as well as reasons why other methods were rejected. This will indeed prompt them to examine different methodologies instead of arbitrarily picking one of their preference, consequently allowing them to get differing viewpoints on the value of the underlying asset. It should be stipulated that the final statement of value should reflect the appropriateness of each method, and the correctness and dependability of the evidence supporting each method, guiding the reader logically to the final opinion of intangible value. It should make sure that the outcomes of the applied methodologies provide similar levels of value, reconcile the findings, and outline the underlying assumptions and limiting factors that influence the analysis, opinions, and conclusions. In adjudicating whether a chosen valuation technique should be considered admissible, Vietnam can also study the *Daubert* standard laying out a two-layer test to adjudicate the admissibility of a witness testimony, which, in the above-stated cases, were experts' opinions on the applicable patent valuation techniques.

Another point to note is that patent valuation in the United States and China is relatively self-regulatory rather than closely monitored via legal documents by state authorities as in Vietnam. The enactment of the IRM in the United States as well as guiding documents issued by the CAS in China can evidence how these countries view patent valuation as an industry where private stakeholders, rather than the state, should play a more dominant role. To this end, Vietnam can consider establishing a valuation association actively engaging in the patent valuation practice through, among others, issuing guidelines for the industry when valuing a patent. Taking China and its AAL and Circular 43 analyzed above as an example, legal documents in Vietnam should stay updated with the ever-changing circumstances and may provide the general principle and procedure, instead of strictly detailed legal substance, that the market shall adhere to when doing valuation businesses.

Besides, other valuation methods that have widely been recognized and upheld by courts and scholars can also be useful references for Vietnam to develop its valuation regulatory

[109] *Ibid.*

framework. One of them, as discussed earlier in this paper, is the forward citation counting method, which is based on the common presumption that a valuable patent will likely pave the way for a technologically successful line of innovations, and hence will receive more citations than the relatively less valuable ones. When considering this valuation technique, it should be noted from the case law listed above that the United States courts in these instances did not approve the technique unconditionally and straight away; rather, they did account for whether or not the citation analysis had been tied to the case's factual background (e.g., whether the analysis has been adjusted to take into account the patent's age and category).

7. CONCLUSION

Intangible assets in general and patents in particular are increasingly seen as a source of economic returns, the prerequisite to achieve which is through valuation for their commercialization or defense in litigation. To derive a meaningful value on patents, a strong technical, legal, and business understanding is required for any professionals undertaking valuation practices. Different methods commonly applied to assign value to intangibles are expressly or impliedly recognized by countries' legislation and academic literature to offer both advantages and difficulties to the valuation work. Hence, as indicated above, the United States and China set down sensible prescriptions as to how appraisers should treat different valuation methods to arrive at the most appropriate techniques and outcomes. The United States courts also provide a catch-all standard that can be used in litigation to determine whether a specific valuation methodology employed by an expert witness is admissible in cases of contention. Practices in the States have also introduced a fairly special valuation technique that, despite being met with controversies, can be a useful source of reference for valuation professionals in other countries. All of the above are recommended to be taken into account by Vietnam legislators, scholars, and practitioners to actualize the country's attempt to ameliorate its regulatory and practical environment for the valuation of patent or intangibles at large.

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DISINFECTION CHAMBERS SYSTEMS, PRINCIPLES OF SCIENCE AND TECHNOLOGY POLICY RELATING TO HEALTH, AND PRECAUTIONARY PRINCIPLE: SOME REFLECTIONS FOR THE FUTURE

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Abstract

In response to COVID-19, from public funding, many academic institutions and organizations have developed the so-called disinfection chamber systems ('buồng phun khử khuẩn toàn thân') which spay disinfectants over individuals when entering such chambers. These chambers were then installed widely in both public and private premises. Later, the Vietnamese Ministry of Health warned against using such chambers due to their potential harm to human health. This raises interesting legal and ethical issues concerning principles of science and technology policy relating to health. This paper argues that (i) Vietnamese law has recognized the precautionary principle – the principle that has been prescribed in international treaties and documents, (ii) the precautionary principle provides some helpful suggestions to solve current issues, and (iii) a better-formulated version of the precautionary principle under Vietnamese law should be demanded.

Keywords: *disinfection chamber; buồng phun khử khuẩn toàn thân; science and technology policy; precautionary principles; The 2013 Law on Science and Technology; COVID-19*

1. INTRODUCTION

In response to COVID-19, from public funding, many academic institutions and organizations have developed the so-called disinfection chamber systems ('buồng phun khử khuẩn toàn thân') which spay disinfectants over individuals when entering such chambers. These chambers were then installed widely in both public and private premises. Later, the Vietnamese Ministry of Health warned against using such chambers as possibly harmful to human health. This raises interesting legal and ethical issues concerning science and technology policy. The precautionary principle as having been prescribed in international treaties, documents, and policies internationally may give some suggestions.

In section 2, this paper shall give a short description of what the disinfection chamber system is and offer relevant contextual information about the systems and controversies surrounding them. This section helps readers get a sense of the case and facilitates the discussion on legal and ethical issues provided in the next section.

In section 3, this paper shall first study the principles of science and technology policy articulated under the 2013 Law on Science and Technology and regulations. This serves as a legal basis for further explorations. The paper then shows what legal and ethical issues are presented in the case and the issues that the case poses to the 2013 Law on Science and Technology and regulations.

In section 4, this paper argues that Vietnamese law has already stipulated an incomplete version of the precautionary principle. It claims that the principle offers a perspective to solve existing issues. The paper calls for a better-framed version of the principle.

2. DESCRIPTION OF CASES

On March 18th 2020, the HoChiMinh Communist Youth Union of HoChiMinh City introduced the mobile full-body disinfection chamber (‘buồng phun khử khuẩn toàn thân’) as a solution to prevent COVID-19. It was reported that the chamber had been completed after 3 days of conceptualization and design (Q.Linh, 2020). The chemical used to spray is Anolyte (Q.Linh, 2020). The duration for spraying is 30 seconds (Q.Linh, 2020).

Then, in May 2020, Vietnamese People's Army’s News reported that a disinfection chamber to prevent Covid-19 in 30 seconds had been manufactured (Trình, 2020). What differentiates this model from the one manufactured by the HoChiMinh Communist Youth Union of HoChiMinh City is that the model sprays the misting which is a mixture of Ozone gas and 0.9% NaCl solution. According to the news, it was tested that the Ozone concentration was consistently <0.075ppm. It also reported that ‘the US FDA (Food and Drug Administration) and US OSHA (Occupational Health & Safety Standards) claimed that Ozone is completely safe for human’s health provided that the concentration threshold is not exceeded 0.05ppm at any given time and not exceeded 0.1ppm for 8-hour continuous exposure. Accordingly, the use of NaCl 0.9% and Ozone within the safe threshold should not irritate or affect the respiratory system (Trình, 2020).

Following these events, the Vietnamese Ministry of Health (hereinafter ‘MOH’) noticed that “The structure of disinfection chamber systems usually consists of 1 chamber (spraying the misting of active chlorine solution) or 2 consecutive chambers (Chamber 1 sprays Ozone with a concentration of 0.12ppm for 30 seconds, followed by chamber 2 which sprays the misting (5µm particles) of electrochemical water (anolyte solution or Javel, disinfected with active chlorine) for 30 seconds. Ozone is harmful to human health, especially to the elderly, children and people with respiratory diseases. According to recommendations from the US National Institutes of Occupational Safety and Health, ozone levels in the air should not exceed 0.10 ppm at any given time. There is no recommendation to use ozone to disinfect clothes and human skin under normal conditions. Currently, no studies have been published showing that active chlorine mist solution disinfects clothes and human skin within 30 seconds. The aerosol of active chlorine easily enters the respiratory tract and lungs causing harm to humans when inhaled. The World Health Organization does not recommend the application of misting in surface disinfection.”(D.Thu, 2020)

Notwithstanding the warning from the Ministry of Health, public and private premises continued to install and ‘re-invent’ the disinfection chamber(Hoàng Tùng, 2020; Trang, 2021). Most interestingly, a year after the warning from the MOH, the Newspaper of the Citizenry (Báo Nhân Dân), the primary voice of the Vietnamese Communist Party (hereinafter ‘VPC’), published an article which praised the invention and manufacturing of the disinfection chamber

“… the research team of the Faculty of Telecommunications and the Faculty of Radio of the Vietnamese People's Army’s Signal Officers Training College successfully manufactured the "Automatic disinfection chamber … The antiseptic spraying system using ultrasonic technology creates a sufficiently moist mist of solution to disinfect bacteria attached to surfaces, such as clothes, shoes, hair, face or carry-on items such as bags... The disinfection chamber frame is designed to be durable in a highly oxidized environment.” (Pha, 2021)

In the new article, it did not make clear what chemicals were used by the chamber and why the detail *'the chamber frame is designed to be durable in a highly oxidized environment'* was mentioned. It should be noted that it is a great privilege to be mentioned and praised by the Newspaper of the Citizenry.

Disinfection chambers were being installed and 'invented' continuously. Then in early August 2021, the MOH issued Official Letter No. 6212/BYT-MT warning again the use of disinfection chambers.

"…At some locations, agencies and organizations installed disinfection chambers to spray bactericidal chemicals on people standing in the chamber… The Ministry of Health called on People's Committees of provinces to command subordinated units not to … use disinfection chambers..." (Nhiên, 2021).

3. PRINCIPLES OF SCIENCE AND TECHNOLOGY POLICY RELATING TO HEALTH AND LEGAL AND ETHICAL ISSUES SURROUNDING DISINFECTION CHAMBER SYSTEMS

3.1. Principles of science and technology policy relating to health

3.1.1. Principles of science and technology policy

The development and installation of the disinfection chamber systems and funding for these activities are regulated under the 2013 Law on Science and Technology. Principles of scientific and technological activities are prescribed under Article 5 which read as follows

Principles of scientific and technological activities include

"1. Originate from practical needs for socio-economic development, national defence and security and scientific and technological development;

2. Construct and promote endogenous capacities of science and technology in combination with selective acquisition of global scientific and technological achievements in accordance with reality in Vietnam;

3. Ensure freedom in creation and promotion of democracy in scientific and technological activities for the development of the country;

4. Be honest and objective and heighten professional ethics, self-control and self-responsibility;

5. Ensure safety for lives, human health and environmental protection;"

Article 5 is not the only article setting overarching principles for scientific and technological activities. Article 4 of the law prescribes the mandates of scientific and technological activities which reads as follows

Mandates of scientific and technological activities include

"1. Construct arguments for socialism and the path toward socialism in Vietnam; construct scientific foundations for setting guidelines, policies and laws on socio-economic development, ensuring National defence and security; contribute toward the construction of advanced education and Vietnamese people; Inherit and promote values of traditional history, national culture, open to the essence of a humane culture and contribute to cultural and scientific treasures of the world;

2. Increase scientific and technological capability to master state-of-the-art technology,

high technology, and advanced management method; make appropriate use of natural resources, protect the environment and human health; make early forecasts, prevention, control, and remedy for natural disasters;

3. *Be open to global scientific and technological achievements to create and apply new technology effectively; create highly competitive products; develop science and technology in Vietnam to reach an advanced level in the region, and further to the world, serve as solid foundations for the development of modern industrial branches; strengthen dissemination and application of scientific and technological achievements to production and life;*

Articles 4 and 5 essentially link to each other which broadly form principles governing scientific and technological activities: Article 5 would be less meaningful if being read in the absence of Article 4. Along with principles relating to the conducting of scientific and technological activities, tenets concerning scientific and technological activities as means to address social goals are:

(i) scientific and technological activities originate from practical needs and aim to solve such needs;

(ii) Protect, ensure, and remedy safety for lives, human health, and the environment;

(iii) Create and apply new technology effectively; create highly competitive products.

The fact that principles concerning the protection and ensuring of 'safety for lives, human health and environmental protection' are prescribed in Article 4.(3) and Article 5.(4) does not mean that such principles are less important than other articles preceding them as what is normally believed by Vietnamese scholars (in Vietnamese jurisprudence, a general presumption of scholars in interpreting rules is that norms mentioned first are more important (and hence, having more weigh) than norms following). This evidence in the fact that 'safety for lives, human health and environmental protection' is also mentioned in both general and specific provisions.

Article 8.(1) on prohibited acts reads as follows '[Prohibited acts include] taking advantage of scientific and technological activities to invade interests of the State, lawful rights and interests of organizations, individuals; cause damage to natural resources and environment, human health.

Article 37 concerning the assessment (đánh giá) and acceptance (nghiệm thu) of outcomes from science and technology tasks which is a significantly important provision read as follows:

"1. State-funded science and technology tasks, upon completion, should be assessed for acceptance by relevant science and technology council objectively and accurately. Persons who assign science and technology tasks within competence (the assignor) shall make decisions on accepting the outcomes... In case of need, the assignor may collect more suggestions from independent consultants before making decisions on acceptance.

2. Science and technology tasks not using the State budget shall be assessed for acceptance by organizations and individuals themselves. Organizations and individuals may request state administration agencies in localities to consider assessing if they cannot do it themselves.

3. Outcomes from science and technology tasks not using the state budget that affects the interests of the country, national defence and security, environment, human lives and

health should be appraised by due diligence (thẩm định) *by competent state administration agencies for science and technology.*

4. Annually, the Ministry of Science and Technology shall make public announcements of the lists of state-funded science and technology tasks being accepted.

5. The Minister of Science and Technology shall define criteria, procedures on assessment and acceptance of outcomes from science and technology tasks."

3.1.2. Principles of science and technology policy relating to human health applicable to tasks without using the state budget

Decree 08/2014/ND-CP Detailing and Guiding the Implementation of a Number of Articles of The Law on Science and Technology (hereinafter 'Decree 08/2014/ND-CP') articulates an elaborating provision of Article 37.(3) of the 2013 Law on Science and Technology in a quite different manner. Article 37.(1) of Decree 08/2014/ND-CP concerning assessing the outcomes of scientific and technological tasks without using the state budget read as follows

"1. The outcomes of scientific and technological tasks without using the state budget that contain ***potential factors affecting*** the national interest, national defence, security, environment, life and human health must be appraised by due diligence by the state management agency for science and technology before their application in production and life." [emphasis added]

Article 37.(1) of Decree 08/2014/ND-CP is resonated by Article 11.(3).(c) of Circulars 02/2015/TT-BKHCN.

The difference between Article 37.(3) of the 2013 Law on Science and Technology and Article 37.(1) of Decree 08/2014/ND-CP is that under the 2013 Law on Science and Technology only '*outcomes from scientific and technological tasks not using state budget* ***that affect*** *interests of the country, national defence and security, environment, human lives and health'* are appraised, whereas under Decree 08/2014/ND-CP 'outcomes of scientific and technological tasks without using state budget that contain ***potential factors affecting*** the national interest, national defence, security, environment, life and human health must be appraised'. The term 'affect' can be interpreted literally as real or already-materialized damage, whereas the term 'potential factors' can be interpreted as risks or threats. Besides, it is unclear what Decree 08/2014/ND-CP refers to in mentioning '***potential factors',*** or in other words, "what are potential factors?"

Circulars 02/2015/TT-BKHCN of the Ministry of Science and Technology concerning Provisions on Assessment and Appraisal by Due Diligence of the Outcomes of Implementation of Scientific and Technological Tasks Without Using The State Budget (hereinafter 'Circulars 02/2015/TT-BKHCN') may offer an explanatory account for '***potential factors'***. Pursuant to Article 16 of Circulars 02/2015/TT-BKHCN', tasks that have outcomes containing potential factors affecting human life and health are (i) tasks related to disease examination, diagnosis and treatment, (ii) tasks related to the production of drugs and vaccines for humans; (iii) tasks related to genetic modification; (iv) tasks related to the production of crop protection agents; (v) task performance have potential factors affecting human life and health that are required by law to be appraised by due diligence before being applied to production and life. That indicates that Article 16 of Circulars 02/2015/TT-BKHCN makes a legal presumption that some activities are inherently risky for, inter alia, human health.

If a scientific and technological task is deemed as falling into the category of 'risky activities', it is subject to appraisal by due diligence (in addition to assessment). Pursuant to Article 17 of Circulars 02/2015/TT-BKHCN, the contents of the appraisal include

'1. Purpose of application of task's outcomes.

2. Legal basis, reliability of the information, data and documents used to propose and apply the task's outcomes.

3. Evidence on the necessity of applying the task's outcomes...

4. Analysis of surrounding conditions for the application of the task's outcomes (geographical location, topographical features, climatology and hydrology, estimated budget when deploying the application, human resources for implementation and other conditions); Evaluation of the application of outcomes of the previous period (if any); Comments on comparative advantages, difficulties and limitations; International experience (if any).

5. The suitability of application of outcomes with socio-economic conditions; forecasting impacts on national interests, national defence, security, environment, human life and health when being implemented; forecasting risks when applying and proposing remedial plans.

6. Some other contents if necessary...'

3.1.3. Principles of science and technology policy relating to human health applicable to tasks using state budget

Possibly, the development and installation of the disinfection chamber systems are regulated by rules regulating tasks using the state budget. There is no specific rule about assessment and appraisal by due diligence for acceptance of outcomes of this type. The reason for this is that, in theory, tasks using the state budget must go through several stages of assessments which are strictly regulated by the 2013 Law on Science and Technology.

First, under Article 26 of the 2013 Law on Science and Technology, scientific and technological tasks must be determined by an authority. In this stage, there are two paths for a science and technology task to be determined

(i) agencies, organizations, and individuals draft and send proposals for scientific and technological tasks to ministries, ministerial-level agencies, Governmental agencies, People's committees of provinces... to be compiled into a list. Ministries, ministerial-level agencies, Governmental agencies, People's committees of provinces… shall organize the collection of suggestions on the determination of scientific and technological tasks (carried out through consulting councils[1]) and make public announcements of order placement corresponding to their levels. In case the scientific and technological tasks at the national level are determined by such authorities, proposals for order placement shall be sent to the Ministry of Science and Technology. The Ministry of Science and Technology shall be responsible for

[1] Pursuant to Article 26.(1).(d), 'The Consulting Council and its powers are established and defined respectively by heads of competent agencies, organizations – that is, ministries, ministerial-level agencies, Governmental agencies, People's committees of provinces...) Components of the Consulting Council comprise reputable scientists, managers and entrepreneurs. In case of need, heads of competent agencies, organizations are entitled to collect suggestions from independent consultants before or after the Council meeting. Members of the Council and independent consultants shall be responsible for their consultancy.'

compiling proposals for order placement, organizing the collection of suggestions on scientific and technological tasks at the national level and making public announcements in this case.

(ii) The Minister of Science and Technology, on its own or at the request of the Government, the Prime Minister, shall propose order placement for urgent scientific and technological tasks at the national level having significant impacts on the socio-economic development of the country, national defence and security; organize the collection of suggestions on these tasks.

Proposals and contracts shall be approved by authorities prescribed under Article 27. This stage materializes the principle that scientific and technological activities must originate from practical needs. This stage also limits any possibilities that scientific and technological activities may pose risks to, inter alia, human health as, in theory, ministries, ministerial-level agencies, Governmental agencies, People's committees of provinces… and consulting councils should have to assess any risks.

Normally, at all levels, organizations and individuals carrying out scientific and technological tasks shall be selected competitively by councils established by heads of agencies for science and technology at the respective levels. Notwithstanding, agencies can directly assign organizations and individuals to carry on scientific and technological tasks in three cases (i) scientific and technological tasks of national secrets, having special characteristics for serving national defence and security; (ii) irregular science and technology tasks; (iii) scientific and technological tasks which only one scientific and technological organization is suitably qualified to perform (Article 28, 29, 30 of the 2013 Law on Science and Technology).

The 2013 Law on Science and Technology also provides a range of provisions regulating procedural aspects of the selection, assessment, and appraisal by due diligence. This demonstrates that policymakers do not intend to intervene in substantial scientific and technological issues. There can be several reasons for this. First, it is relating to the principle of freedom in scientific and technological activities. Second, it shows the deference to the expertise of the councils involved. Third, administrative bodies are reluctant and may avoid intervening as doing such can be controversial as there are potential controversies surrounding the scientific and technological activities' outcomes. Notwithstanding, taking the analogous reasoning method, it can argue that tasks using the state budget should be subject to equal (if not to say stricter) overseeing and appraisal than tasks without using the state budget (as tasks using the state budget use public resources).

3.2. Legal and ethical issues surrounding disinfection chamber systems

Drawing from the context surrounding the case and legal provisions, there are several legal and ethical issues with the development and installation of the disinfection chamber systems.

3.2.1. No clear evidence of sufficient analysis, assessment, or review:

Deducing from the fact that '… the [disinfection] chamber was completed after 3 days of conceptualization and design (Q.Linh, 2020)' and operated immediately, it is doubtful that cost-benefit analysis, appraisal, and critical review of efficiency and potential risks have been sufficiently carried out.

3.2.2. No clear legal requirement to conduct a cost-benefit analysis, assessment, or review:

From legal provisions, it seems that the development and installation of the disinfection

chamber systems are not presumed as activities having potential risk factors because they neither examine, diagnose, or treat disease, nor produce drugs, crop protection agents, nor modify genes: they are just spraying equipment. This allows the development and installation of the disinfection chamber systems not to be scrutinized strictly.

3.2.3. The purpose, benefits, and advantages of disinfection chamber systems are not clear

In theory, the development and installation of the disinfection chamber systems must be assessed in terms of efficiency, comparative advantage, and cost-benefit analysis… but the reality that the systems have been invented again and again (***without clear evidence of any significant improvements for specific purposes***) shows the lacunae that by invoking the pandemic, emergency, irregular events, rational analyses have been put aside altogether. The re-inventions and installation of the disinfection chamber systems are very doubtful in terms of rational analysis.

First, the act of reinventing something, occurring national wide, is not cost-effective. Let's imagine that the disinfection chamber systems are effective in terms of disinfecting and preventing COVID-19, then why don't we stop reinventing and start manufacturing at the industrial scale with improvements, if needed?

Second, the act of reinventing is not environmental-friendly. With the production at the industrial scale, there must have a uniform process of producing and precise calculations and formulas of materials and chemicals, whereas, in the case of reinvention, there is a real risk that materials and chemicals were used wastefully and extensively.

Third, even if the use of chemicals in the disinfection chamber systems has zero harm to human health (that is, let's suppose that the MOH rang a false alarm), the function and purpose of the disinfection chamber systems are very doubtful. *First,* let's suppose that somehow, human skin, eyes… are the reservoir of SARS-COV-2, in this case, is it not true that simply taking a shower can get rid of COVID-19? If the systems aim at disinfecting clothes, shoes, and so on, a different design targeting such objects can be more helpful. But it is still unclear if such a design may have more benefits than ordinary washing machines. *Second,* data concerning the disinfection chamber systems provided by manufacturers shows that the systems' effectiveness of disinfecting is around 95-97% if the spray lasts for 30 seconds (if the spray lasts for less, the effectiveness is only around 70%); even if we believe this data, it is not clear how effective the machine is concerning preventing the transmission of COVID-19. Meanwhile, considering that SARS-COV-2 is transmitted airborne (Chamary, 2021; Lewis, 2022), chamber systems - which create an indoor environment – are an ideal environment for virus transmission, except for the chemicals are endurance. Though manufacturers have claimed that chemicals dissolve quickly, it should be noted additionally that the endurance of chemicals is a red flag for their use (Hansen et al., 2008).

3.2.4. No clear criteria to assess risks for human health and no clear standard of proof

Though the 2013 Law on Science and Technology and regulations require potential impact factors to be appraised, there are neither clear criteria to assess risks nor standard of proof.

First, the fact that legal provisions treat some activities as full of risks and except for those, there seems to be zero risk is not satisfactory.

Second, legal provisions just endow scientific councils with unfettered discretion to decide and provide no assistance. This can be problematic. It should be noted that not every people

recognize risk in the same way, so without any legal standard for analyzing risks, councils are at risk of being responsible for deciding wrongly and there is a concern that risks have not been perceived sufficiently.

Third, as a corollary, another question beyond current rules is who is responsible to prove an outcome is risky or not: is it councils must conduct research, raise concern, and prove risk by themselves and on their own or those carrying scientific and technological tasks should have prima facie evidence that outcomes thereof are not risky.

In this case, MOH rang an alarm that the disinfection chamber systems could be harmful to human health by stating its data concerning chemicals' concentration and referring to the US National Institutes of Occupational Safety and Health, whereas 'inventors' claimed that such chambers should be safe, relying on a different data and different sets of standards. Questions are "Whom to be trusted?", "Which sets of standards gain more weight?", "Who has the final say over controversial matters", "Which principle shall govern and what position shall prevail? "How do various factors relating to the pandemic contribute to the consideration?"

Besides, in this case, the MOH rang an alarm, but let's imagine that instead of the MOH, some individuals or [non-governmental] organizations did so, how the case might turn out to be? This leads to another contested issue: "Who is legally capable of proving outcomes of scientific and technological activities are risky?" or "Who is credited by law to testify that outcomes of scientific and technological activities are risky". It should be noted that recognizing that someone is credited by law to testify means that on the one hand, such individuals should not be subject to legal punishments, fine, or retaliation for testifying honestly and accurately, on the other hand, their voices are taken into consideration. Currently, legal rules defined that only competent state agencies are capable of assessing and appraising by due diligence (with the contribution of independent experts selected by agencies) (Article 3.(3) and 3.(4) of Circulars 02/2015/TT-BKHCN). This is too narrow a circle. This would mean an independent expert who does not belong to councils or competence authorities, even if he or she has good reason to argue that outcomes of scientific and technological activities are risky, there is no channel for him or her to express concerns legally.

4. THE PRECAUTIONARY PRINCIPLE AND SOME REFLECTIONS FOR THE FUTURE

Though Vietnamese law and regulations do not spell out precisely the term 'precautionary principle', by referring to 'potential factors…' and listing various research areas that are supposed to contain risk factors, legal documents may indirectly refer to 'precautionary principle' (the 2013 Law on Science and Technology by using the word 'affect' (as opposed to 'potential factors') can be less clear in this regard; however, this can be read as a mere technical error in drafting the law because interpreting that the appraisal process only takes place after risks have materialized in disastrous damage is unreasonable). If we interpret that Vietnamese law has recognized the precautionary principle (hereinafter 'the PP') then the PP may give some useful suggestions for current issues surrounding science and technology policy.

The PP was first coined by the Federal Republic of Germany in the early 1980s as 'das Vorsorgeprinzip' (Meßerschmidt, 2020; A. Nollkaemper, 1991). Following this, Sweden and other European countries embraced the PP (Roeser et al., 2012; Sandin, 2004; Sunstein, 2005). The PP was then adopted by international declarations, treaties, and policies such as the Second North Sea Ministerial Conference in 1987, the Declaration of the Third International Conference on the Protection of the North Sea, the Wingspread Declaration, Agenda 21 of the United Nations, World Charter for Nature passed under the UNGA Resolution 37/7 (1982). The EU

adopted the PP under the Treaty on the Functioning of the European Union, and so does the WTO under the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS). Currently, the PP is incorporated in almost all bilateral and multilateral trade and investment agreements.

There is no single version of the PP as different documents and scholars define it differently. Some versions are more controversial than others. I do not intend to retell all versions but just give some relating to human health as demonstrations. For example, the Wingspread Declaration reads that "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause-and-effect relationships are not established scientifically. In this context, the proponent of the activity, rather than the public, should bear the burden of proof". The World Charter for Nature passed under the UNGA Resolution 37/7 (1982) articulates that "Where potential adverse effects are not fully understood, the activities should not proceed."

Notwithstanding versions, Kriebel and Tickner (Kriebel et al., 2001; Tickner et al., 2003) capture core features of the principle as follows

"1) taking preventive action in the face of uncertainty;

2) shifting the burden of proof onto proponents of potentially harmful activities;

3) exploring a wide range of alternatives to possibly harmful actions; and

4) increasing public participation in decision-making."

The European Commission made a standard for measures taken in light of the precautionary principle (precautionary measures) in the EC Commentary on 2 February 2000 as follows

"***Proportionality:*** "Measures ...must not be disproportionate to the desired level of protection and must not aim at zero risk

Nondiscrimination: comparable situations should not be treated differently and... different situations should not be treated in the same way, unless there are objective grounds for doing so.

Consistency: measures ... should be comparable in nature and scope with measures already taken in equivalent areas in which all the scientific data are available.

Examination of the benefits and costs of action or lack of action: This examination should include an economic cost/benefit analysis when this is appropriate and feasible. However, other analysis methods ... may also be relevant"

Examination of scientific developments: "The measures must be of a provisional nature pending the availability of more reliable scientific data"... "scientific research shall be continued with a view to obtaining more complete data.

The features of and requirements for precautionary measures have been deployed and are demonstrative in several judicial cases under the jurisdiction of several European states and the ECJ (European Court of Justice), for example, Case C-178/84, Commission v Germany (Reinheitsgebot) [1987] ECR 1227. 72 Case C-236/01, Case C-236/01 Monsanto Agricoltura Italia, Case C-192/01, Commission v Denmark, Case T-13/99 Pfizer (2002) ECR II-3305; Case T-70/99 Alpharma (2002) ECR II-3495. All these cases are complex and delicate; therefore, I cannot summarize or retell them here (due to the constraint of space). 'Complex' and 'delicate' are also the keywords here. To simultaneously prevent any risks that cause irreversible harms

arising out of science and technology but not to stifle the progression of science and technology (Foster et al., 2000; Holm & Harris, 1999), judicial branches – or even broadly defined public bodies – cannot avoid engaging with science and technology to determine merits on a case by case basis; this is about not to ban some fields (which are potentially beneficial to human) blanketly but allow activities (in some fields that are presumed not risky) harmful to human. There are several preconditions for this demand. *First,* there must be robust and equitable legal standards that judges and authorities can rely on when deliberating. *Second,* judges and authorities must be capable of deliberating and reasoning. To be so, they must be guided by, inter alia, rationality and fairness. Here comes the role of philosophy, legal theory, and jurisprudence: jurisprudence needs to be developed satisfactorily to deal with the demand. *Third,* not less importantly, judges or authorities must be literate in the language of science and technology to understand the merits of debates surrounding outcomes of scientific and technological activities, thereby being capable of deliberating and reasoning effectively.

Returning to the case concerning the development and installation of the disinfection chamber systems, from what this paper has presented since its beginning, it is clear that such an activity does not satisfy the precautionary principle: it is not only about direct risks to human health caused by chemicals but the indirect risk of waste of valuable resources (P. A. Nollkaemper, 1996; Whelan, 2000). The bigger issues that are worth hard thinking about are ”What will our science and policy look like in the future?”, “In what manner do authorities, courts included, balance freedom of science and technology on the one hand and risks on the other hand? and “How to make such bodies capable?”. A lot of things seem to have to be done for a better future! Anyway, a better-formulated version of the precautionary principle stipulated by Vietnamese law should be demanded first.

5. CONCLUSION

By investigating the case concerning the development and installation of the disinfection chamber systems, this paper raises interesting legal and ethical issues concerning principles of science and technology policy relating to health. It argues that Vietnamese law has recognized the precautionary principle which has been prescribed in international treaties and documents. The precautionary principle provides some helpful suggestions to solve current issues. It would follow from this that a better-formulated version of the precautionary principle under Vietnamese law should be demanded. Meanwhile, Vietnamese jurisprudence should think hard about how to develop to well balance freedom of science and technology on the one hand and risks on the other hand.

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RIGHT TO PRIVACY IN CYBERSPACE IN THE CONTEXT OF COVID-19

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Abstract

In the face of the recent Covid-19 epidemic, the spread of personal information of Covid-19 patients on social networks has raised the situation of protecting the right to privacy of natural person in general, of people with Covid-19 in particular in Vietnam. The article analyzes international documents and Vietnamese legal documents on the right to privacy in cyberspace in the context of Covid-19, thence propose the improvement of the current Vietnamese legal system on the right to privacy.

Keywords*: Covid-19, Cyberspace, International, Right to Privacy, Vietnam.*

1. INTRODUCTION

On November 19, 1997, Vietnam officially connected to the global internet network. After twenty five years, cyberspace in Vietnam has been continuously developing[1]. However, until 2018, Law on Cyber Security was enacted in Vietnam. According to the Clause 3 of the Article 2 of Law on Cyber Security in 2018, cyberspace means a network connecting information technology infrastructure facilities, including telecommunications networks, the Internet, computer networks, information systems, information processing and control systems and databases, where people socially interact without any space and time limitations. Thanks to cyberspace, individuals and social groups can express and connect their rights with each other without being hindered by space, time, domestic and global... Furthermore, the exchange and connection of people with each other all over the world has become an indispensable need, in line with the development of the modern world.

According to statistics, as of January 2021, the population of Vietnam reached 97.8 million people, with an urban population rate of 37.7%. In which, about 68.17 million people are using the Internet, accounting for 70.3% of the population, through different platforms and applications, with an average duration of 6 hours 47 minutes. This is considered a relatively large amount of time used in 1 day[2]. All activities in cyberspace are indeed increasingly promoted. In addition to the benefits that cyberspace brings, in recent times, especially in the face of the recent Covid-19 epidemic, unverified information about people infected and suspected of the SARS-CoV-2 virus such as: names, addresses, occupations, family and social relationships, photos of patients and related people… were widely spread on social networks[3]. Typically, on November 14, 2021, the Bac Lieu Quick News Fanpage posted the information that Dien Hai commune was

[1] Ngô Tấn Đạt (2022). *Hành trình 25 năm của Internet Việt Nam*, Zing New. Retrieved on September 02, 2022, from https://zingnews.vn/hanh-trinh-25-nam-cua-internet-viet-nam-post1351631.html.

[2] VNETWORK (2021). *Statistics on Vietnam's Internet situation in 2021*. Retrieved on September 05, 2022, from https://www.vnetwork.vn/en/news/thong-ke-tinh-hinh-internet-viet-nam-nam-2021.

[3] Minh Khánh (2021). *Phát tán thông tin cá nhân về bệnh nhân Covid-19 là vi phạm pháp luật!*, Báo Hà Tĩnh. Retrieved on September 05, 2022, from https://bvdkht.vn/news/view/Phat-tan-thong-tin-ca-nhan-ve-benh-nhan-Covid-19-la-vi-pham-phap-luat!/.

looking for someone who had visited the location and had contacted with twenty two Covid-19 patients at Kinh Tu market. Previously, this Fanpage also announced that Ward 5 in Bac Lieu City was looking for people related to three Covid-19 patients. This Fanpage publicized the full names and addresses of all patients. It is worth mentioning that this is not the only social network account that collects and distributes personal information of people with Covid-19 in the province[4].

Therefore, the article analyzes international documents and Vietnamese legal documents on the right to privacy in cyberspace in the context of Covid-19, thence propose the improvement of the current legal system on the right to privacy in Vietnam.

2. RIGHT TO PRIVACY IN CYBERSPACE IN INTERNATIONAL DOCUMENTS

The right to privacy has been considered one of the basic human rights and was officially recognized for the first time in the Universal Declaration of Human Rights in 1948. According to the Article 12 of this Declaration, "no one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honor and reputation. Everyone has the right to the protection of the law against such interference or attacks"[5].

By 1950, the Convention for the Protection of Human Rights and Fundamental Freedoms had determined in the Clause 2 of the Article 8 that: "There shall be no interference by a public authority with the exercise of this right except such as is in accordance with the law and is necessary in a democratic society in the interests of national security, public safety or the economic well-being of the country, for the prevention of disorder or crime, for the protection of health or morals, or for the protection of the rights and freedoms of others"[6].

The right to privacy is reaffirmed in the International Covenant on Civil and Political Rights (ICCPR) in 1966. Based on the Clause 1 of the Article 17 of this Covenant, "no one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation"[7].

In 1989, the United Nations General Assembly adopted Guidelines for the Regulation of Computerized Personal Data Files[8]. However, the most striking document on a global scale, adopted by the United Nations General Assembly in 2013, is the Resolution 68/167 on the right to privacy in the digital age. The Article 4 of this Resolution calls upon all States:

> "(a) To respect and protect the right to privacy, including in the context of digital communication;
>
> (b) To take measures to put an end to violations of those rights and to create the conditions to prevent such violations, including by ensuring that relevant national

[4] Mạnh Quân (2022). *Cần bảo vệ thông tin cá nhân bệnh nhân COVID-19*, Báo Bạc Liêu. Retrieved on September 05, 2022, from https://www.baobaclieu.vn/van-de-ban-doc-quan-tam/can-bao-ve-thong-tin-ca-nhan-benh-nhan-covid-19-74332.html.

[5] Law and Regulations (1948). *Universal Declaration of Human Rights in 1948*. Retrieved on September 10, 2022, from https://www.un.org/en/about-us/universal-declaration-of-human-rights.

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legislation complies with their obligations under international human rights law;

(c) To review their procedures, practices and legislation regarding the surveillance of communications, their interception and the collection of personal data, including mass surveillance, interception and collection, with a view to upholding the right to privacy by ensuring the full and effective implementation of all their obligations under international human rights law"[9];

The Report 27/37 of the Office of the United Nations High Commissioner for Human Rights on the right to privacy in the digital age in 2014[10] analyzed some issues such as: the right to protection against arbitrary or unlawful interference with privacy of correspondence (including email), scope of protection (within and beyond borders, for citizens and foreigners), etc. The Report 27/37 engage the Courts at the national and regional levels in examining the legality of electronic surveillance policies and measures[11]. In addition, the Report 27/37 confirm that: "Effectively addressing the challenges related to the right to privacy in the context of modern communications technology will require an ongoing, concerted multi-stakeholder engagement. This process should include a dialogue involving all interested stakeholders, including Member States, civil society, scientific and technical communities, the business sector, academics and human rights experts"[12].

In short, the right to privacy was firstly protected in 1948 in the Universal Declaration of Human Rights. The protection of the right to privacy is further affirmed in the Convention for the Protection of Human Rights and Fundamental Freedoms in 1950 and the International Covenant on Civil and Political Rights in 1966. With the current development of information technology, followed by the global integration of the Internet and the emergence and development of social networks..., the right to privacy in cyberspace continues to be concerned and protected in recent documents of the United Nations such as: Guidelines for the Regulation of Computerized Personal Data Files in 1989, Resolution 68/167 on the right to privacy in the digital age in 2013 and Report 27/37 of the Office of the United Nations High Commissioner for Human Rights on the right to privacy in the digital age in 2014…

3. RIGHT TO PRIVACY IN CYBERSPACE IN THE CONTEXT OF COVID-19 IN VIETNAM

3.1. Vietnamese legal regulations on the right to privacy in cyberspace of Covid-19 patients

The right to privacy appeared quite early in the Constitution and the laws of Vietnam. Indeed, in 1959, the Article 28 of the Constitution provided the protection of the privacy of citizens' house and correspondence. The right to privacy is reaffirmed in the Constitution in 2013. Based on the Article 21 of the Constitution in 2013, everyone has the right to inviolability of private life, personal secrets and family secrets; and has the right to protect his or her honor and reputation. The security of information about private life, personal secrets or family secrets shall be guaranteed by law.

[9] Law and Regulations (2013). *Resolution 68/167 on the right to privacy in the digital age adopted by the United Nations General Assembly on 18 December 2013, A/RES/68/167*. Retrieved on September 12, 2022, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://documents-dds-ny.un.org/doc/UNDOC/GEN/N13/449/47/PDF/N1344947.pdf?OpenElement.

[10] Law and Regulations (2014). *The Report 27/37 of the Office of the United Nations High Commissioner for Human Rights on the right to privacy in the digital age on 30 June 2014, A/HRC/27/37*. Retrieved on September 13, 2022, from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.ohchr.org/sites/default/files/HRBodies/HRC/RegularSessions/Session27/Documents/A.HRC.27.37_en.pdf.

[11] *Ibid*, paragraph 48.

[12] *Ibid*, paragraph 49.

Everyone also has the right to privacy of correspondence, telephone conversations, telegrams and other forms of private communication. No one may illegally break into, control or seize another's correspondence, telephone conversations, telegrams or other forms of private communication.

In Vietnam, the right to privacy of individuals is also mentioned in civil law. According to the Article 38 of the Civil Code in 2015, the private life and personal and family secrets are inviolable and shall be protected by law. The collection, storage, use and publication of information relating to the private life and personal secrets of an individual must be consented by that person, and the collection, storage, use and publication of information relating to family secrets must be consented by all family members, unless otherwise prescribed by a law. Letters, telephones, telegrams, electronic database and other forms of exchanging personal information of individuals shall be safely and confidentially guaranteed. The opening, control and seizure of letters, telephones, telegrams, electronic database and other forms of exchanging personal information of individuals may be performed only in cases prescribed by a law.

For the assurance of information confidentiality in telecommunications, based on the Clause 3 and 4 of the Article 6 of the Law on Telecommunications in 2009, private information transmitted through public telecommunications networks of all organizations and individuals shall be kept confidential. The control of information on telecommunications networks shall be performed by competent state agencies under law. Telecommunications businesses may not disclose private information on telecommunications service users, including name, address, caller number, call number, position of caller, position of call recipient, call duration and other private information provided by users upon entry into contracts with telecommunications businesses, except for the following cases:

a/ Telecommunications service users agree to provide information;

b/ Telecommunications businesses agree in writing on exchange of provided information on telecommunications service users for calculation of charges, billing of invoices and prevention of acts of shirking contractual obligations;

c/ The information disclosure is requested by competent state agencies under law.

Besides, the Article 4 of the Law on Cyber Information Security in 2015, amended and supplemented in 2018, defines some principles to ensure network information security, according to which principles, the response to cyber information security incidents must guarantee lawful rights and interests of organizations and individuals and may not infringe upon privacy, personal and family secrets of individuals and private information of organizations. In addition, the Clause 5 of Article 7 of the Law on Cyber Information Security in 2015, amended and supplemented in 2018 provides the prohibited acts including: illegally collecting, utilizing, spreading or trading in personal information of others; abusing weaknesses of information systems to collect or exploit personal information.

Before and after the Covid-19 epidemic, the protection of patients' information has been implemented in accordance with the following legal provisions:

Firstly, based on the Clause 1 of the Article 8 of the Law on Medical Examination and Treatment in 2009, the patients have their health status and private information given in their case history dossiers kept confidential. The information referred to in Clause 1 of this Article may be disclosed only when so agreed by patients or for exchange of information and experience between practitioners directly treating the patients to improve the quality of diagnosis, care and treatment of patients or in other cases provided by law.

Secondly, the Article 33 of the Law on Prevention and Control of Infectious Diseases in 2007 defines the following responsibilities of medical practitioners and health workers in the prevention of transmission of infectious diseases within medical examination and treatment establishments:

1. To take measures for preventing transmission of infectious diseases specified in Article 31 of this Law.

2. To give counseling on measures for preventing transmission of infectious diseases for patients and their relatives.

3. To keep secret information relating to patients.

From the above analysis, it can be seen that, in Vietnam, the right to privacy in general, in cyberspace in particular, is not stipulated in an independent legal document, but next to the Constitution in 2013, the right to privacy of natural person in general, of people with Covid-19 in particular is scattered in specialized legal documents such as: Civil Code in 2015, Law on Telecommunications in 2009, Law on Cyber Information Security in 2015, amended and supplemented in 2018, Law on Medical Examination and Treatment in 2009, Law on Prevention and Control of Infectious Diseases in 2007…

3.2. Practices in Vietnam on the right to privacy in cyberspace of Covid-19 patients

In the first phase of the Covide-19 epidemic, the Vietnamese State publishes patient's information in the form of publishing the full name or the first letter of the name of the Covid-19 patient, but accompanied by the address of the patient's house. The press reports the images of the patient's house[13], work office of the patient[14]. This makes it easy to guess the patient's name, which is then passed on to messaging apps and social media. Next, the publication of patient's information has a small but significant improvement, which is numbering by patient. The Covid-19 patient's identity is abbreviated and denoted by numbers such as: BN1, BN2… This makes the right to privacy of the patient better protected. However, whatever the sign, in reality, the transmission of detailed information, including the name, address, and travel schedule of the Covid-19 patient and suspected infected person, including the patient's relatives, is also shared widely in group chats and private messages, then the Covid-19 patient's information is spread at an uncontrolled rate. It is worth mentioning that this information is tied to a specific name and address, not a patient sign as announced by the health authorities in Vietnam[15]. Furthermore, in practice of Vietnam, the medical history of the Covid-19 patients is sometimes published. Moreover, the authorities also provide in detail the Covid-19 patients who died carried underlying diseases[16].

The personal information and relationships of the Covid-19 patient and suspected infected person has been reported a lot in recent times. Many cases have been hunted by the online community as the criminals with many inferences, comments, attacks... Many individuals taking

[13] Tất Định - Hoàng Táo - Viết Tuân - Võ Thạnh - Đắc Thành (2020). *Khách cùng chuyến bay 'bệnh nhân 17' tỏa đi 10 tỉnh, thành*, VnExpress. Retrieved on September 10, 2022, from https://vnexpress.net/khach-cung-chuyen-bay-benh-nhan-17-toa-di-10-tinh-thanh-4065969.html.

[14] Yến Anh (2020). *Tạm đóng cửa Viện Hàn lâm Khoa học Xã hội để khử khuẩn sau ca Covid-19 thứ 21*, Người lao động. Retrieved on September 12, 2022, from https://nld.com.vn/giao-duc-khoa-hoc/tam-dong-cua-vien-han-lam-khoa-hoc-xa-hoi-de-khu-khuan-sau-ca-covid-19-thu-21-20200310235026449.htm.

[15] Nguyễn Quang Đồng (2020). *Bảo vệ dữ liệu và quyền riêng tư*, Báo điện tử Đại biểu nhân dân. Retrieved on September 12, 2022, from https://daibieunhandan.vn/Chinh-sach-va-cuoc-song/Bao-ve-du-lieu-va-quyen-rieng-tu-i249793/.

[16] Lan Anh (2020). *Nữ bệnh nhân COVID-19 ở Đà Nẵng tử vong, ca thứ 21*, Tuổi trẻ Online. Retrieved on September 13, 2022, from https://tuoitre.vn/nu-benh-nhan-covid-19-o-da-nang-tu-vong-ca-thu-21-20200806165116613.htm.

advantage of the interest of the online community have created hundreds of fake social media accounts in order to post the information of the Covid-19 for the purpose of gaining view. When the Covid-19 patient's private information is illegally pried and publicized, it will create many negative consequences, not only for the person infected with Covid-19, but also for the society. For people infected with Covid-19 themselves, when private information is illegally disclosed, it not only affects the treatment process due to panic, fear, even stress, but also seriously affects their lives and families. For society, when private information about the health and life of a person infected with Covid-19 is illegally disclosed, it will lead to attacks, discrimination, stigmatization of the infected person, since then, certain influence on the psychology of people who are suspected of being infected with Covid-19 and other disease carriers, etc.[17]. Therefore, it is necessary to have a solution to harmonize this issue in order to effectively protect the legitimate rights of people infected with Covid-19 and protect public health.

4. CONCLUSION

The right to privacy is one of the basic human rights that should be protected by law. However, in Vietnam, regulations on the right to privacy of individuals in general and patients in particular are mostly generalized and refer to other "relevant regulations", for example, the Article 38 of the Civil Code in 2105, the Article 8 of the Law on Medical Examination and Treatment in 2009... Through some of the above analysis, compared with the recommendations of the United Nations, especially in the report of the Office of the United Nations High Commissioner for Human Rights on Privacy in the Digital Age (2014). Vietnamese law needs to be improved in the following directions:

Firstly, Vietnam needs to develop and promulgate an independent legal document on personal data, basically, a subordinate law document, then a law document, clearly stipulating the content, conditions, authorities and procedures for applying measures to monitor and track personal correspondence and Internet communications, as well as a mechanism for monitoring, complaints and lawsuits in case of violations. The process of developing this document should be open to the public, with the participation of research institutions, civil society organizations and the press.

In parallel with the promulgation of legal documents, Vietnam should early build a specialized agency to protect the right to privacy and personal data with the authority to review complaints, exercise the right to inspect and supervise, as well as to conduct researches to improve policies and laws in order to promote the protection of the right to privacy in Vietnam.

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PROTECTION WORKS FROM AI – A NEW TREND INVIETNAM IN THE TECHNOLOGICAL PERIOD

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Abstract

Artificial Intelligence (AI) plays an essential role in technology and business. It is used in many industries and impacts almost every aspect of creativity. AI is developed powerfully with many databases and advances at a cheap fee. Therefore, AI is considered a global driving force for economic development, especially in Vietnam. However, besides the advantages, AI also brings some legal and social challenges when most of the current legal principles only revolve around the subject of the "*natural person*". This paper will focus on analysing the intersection between AI and intellectual property (IP) law based on international experience and the current situation in Vietnam. In addition, it clarifies the need to build a legal system to protect products made from these machines. Through *doctrinal research* on the current IP policies of the Vietnam Government as well as the development policies stated in documents issued by some nations and international organisations, including WIPO, the author will analyse new trends about protecting the works made by AI. Besides, the *comparative legal analysis method* is used to compare the regulations related to protecting works from AI in different countries and areas, such as between the UK, the EU and Vietnam. All serve the purpose of finding the most suitable model for legal aspects of AIshortly.

Keywords: *Protection; IP rights; Intellectual Property – IP Law; Author; Work; Artificial Intelligence – AI*

1. INTRODUCTION

Nowadays, the term "AI" (Artificial Intelligence) is becoming increasingly popular in many fields, from business, finance, banking, education, and the healthcare system to legal. Accordingly, AI is mentioned more often, and "thinking computer programs" coverage is getting wider. Now, machines are no longer seen as heavy iron blocks but appear as creators (André Guadamuz, 2017). In Vietnam, the government has determined that AI will be a breakthrough technology in the next ten years. At the same time, this will be a "spike" that needs to be researched to take advantage of the opportunities brought by the Industrial Revolution 4.0. (High-tech Department, 2019).

For the above reasons, AI has received more attention from scientists and investors. Besides that, AI also creates more economic value for programmers or owners. As a result, when an object generates much monetary value, the legal disputes surrounding that object also appear more. For example, AI could bring a plethora of harmful actions to humans, such as: giving advice on how to cure a disease, how to write a letter of a legal dispute, or giving a decision to make a loan which sometimes could be not suitable with the programmers or the owners' benefits.

So, what artificial intelligence (AI) is? Is the protection of works created by AI following international and Vietnamese law? As well, what is the future of works created by AI?

2. OVERVIEW OF AI AND WORKS CREATED BY AI

2.1 Definition of AI

There is no commonly shared definition of AI. However, generally speaking, AI is very widely used in the IT sector; following that, AI is considered a computer science subject that focuses on developing machines and systems requiring human intelligence. This term is often referred to as programmed mechanical entities that can stimulate *thinking and acting like a human*. The time is applied to any machine that can simulate the behaviour, review, and decision-making like a human mind or simply as an intelligence created by humans to apply to electronic devices. (Ho Tu Bao, 2019).

Some AI's basic features could be:

Firstly, AI is just a computer program. When focusing on AI, many people often imagine a robot or some kind of automatic machine. On the contrary, in reality, AI is just a computer program designed and operating according to one or many different algorithms. In other words, AI could be the software in a robot or machine shape intended for humans' purposes. For example, *(i) self- driving cars* (an app that could help cars move rightly and prevent them from crashing); or *(ii) Siri software* of iPhone (Siri is considered a personal virtual assistant for Apple users).

Secondly, AI can analyse large amounts of data, self-learn from that data, and give specific actions for each pre-programmed goal, described as *"machine learning".* With the explosion of data science and the internet, AI tends to be faster and *more intelligent* when it could be able to make decisions like humans.

Thirdly, AI is a program developed *by humans.* This feature emphasises that AI is still considered the result of human creativity, even how smart and independent it is. Programmers have used programming languages and built algorithms to develop these AI entities to reach their ultimate goals. From the list of copyrighted works, *AI entities could be seen as protected work* because AI is a computer program developed by people using specific codes and programming languages (Ho Tu Bao, 2019). Therefore, AI is also a product of creativity; in other words, AI is an intellectual property owned by programmers or business owners.

2.2. AI has created works:

A work is defined as *the creative work of the author's mind*. Currently, IP laws around the world (including Vietnam, of course) have just recognised the author that is an *individual (natural person)* (Article 12a.1 of Vietnam's 2022 IP Law). Since other entities, such as machines or animals, do not have intellect, they are not considered the authors of the works protected by IP laws.

In modern society, AI has created innovative products. Creating AI products is "reading" and "understanding" the available data works. After that, the AI synthesises, analyses, and makes decisions about language, melody, colour, and characters to compose (read/draw/write/sing) new works. For example, *(i) Dr Donnachie and Dr Simionato's reading machine* – displayed at the Melbourne Art Book Show in Australia – uses computer vision and optical character recognition to "read" books and create their works (Micheal Quin – Hoang Minh Ngoc, 2020). Alternatively, *(ii)* Microsoft's 4th generation AI, Xiaoice, has studied 10,000 times thousands of poems by 519 modern and contemporary poets after 1920 and created hundreds of poetic works (CRI, 2018).

Humans have developed AI to recognise data (AI can read and understand like humans). With this way of working, the method by which AI thinks and works is a simulation of human

learning and creative process. In essence, AI can "think" and "make decisions" because humans have pre- programmed its capabilities. Then there is the ability to analyse data and create works based on the synthesising data given by humans, according to what has been programmed. Besides, AI's learning from these available data also depends on the original content that humans input. In other words, the range of these AI-generated works also depends on the initial data that users have provided to AI to perform the analysis and synthesis process. (Ho Tu Bao, 2019).

2.3. International experience in the protection of works created by AI

AI is the future development trend, so legal issues surrounding AI always have become new and controversial topics, especially copyright stories. Currently, there is no worldwide view about protecting these AI products. However, there are two ways for the modern intellectual property legal system to deal with issues related to works that humans have not created.

(i) First, do not recognise copyright for AI when creating these kinds of works

(ii) Second, admitting copyright belongs to the person who created the AI (computer program).

2.3.1. World Intellectual Property Organization's view

Up to now, World Intellectual Property Organization (WIPO) has not given a specific position on protecting works created from AI. However, with efforts to develop the IP system in the new era, when AI technologies have increasingly appeared and widely applied to life, which leads to new challenges for the legal system on IP, WIPO has conducted many dialogues and discussions among its members, to come up with the most effective solutions to these problems. Some of the issues raised by WIPO could be: *(i)* Is the content of AI-generated artworks eligible for protection?; *(ii)* Should AI's recognition of authorship be accepted or excluded for works created by the computer program itself?; *(iii)* Who should be the author and owner of an AI-generated work? (WIPO, 2020)

Since June 2021, WIPO has held three consultation sessions (November 2019, July 2020, and November 2020) (WIPO, 2020) and received significant attention from scholars worldwide. According to information from WIPO, during the first three sessions, they received more than 138 papers from many countries worldwide (WIPO, 2020). It can be seen as a timely action of the WIPO when AI and the IP system become vital issues that need to discuss to find standard solutions.

2.3.2. "Refusing to admit copyright for AI" view:

The recognition of the copyright for AI in its creative work has never been expressly prohibited. However, as discussed above, many countries' legal systems still do not recognise copyright in *non-man-made works*, and most of the reasons are related to AI's legal status.

The United States Copyright Office has declared that a work is copyrighted as long as *the work was created by a person* (§313.2 The Compendium of US Copyright Office Practices). This sentence means that the condition for work protection must be naturally human-created. The United States Copyright Office does not permit the registration of any work created automatically by machines without human intervention. With the view that copyright law is used to protect human creativity, the United States Copyright Office has stated that they will only allow copyright registration for works resulting from human activity. As a result, the US Copyright Office rejectedall copyright applications when these works were not man-made.

Case Feist Publications v Rural Telephone Service Company, Inc. 499 US 340 (1991)

stipulated that: *"copyright law only protects the achievement of intellectual labour formed by the power of the mind".* Accordingly, in the decision to refuse to protect the Device and method of attracting attention sent to Flash Point IP Ltd. of the USPTO (United States Patent and Trademark Office) in2020, *the author could only be understood as a natural person* (USPTO, 2020).

Following this approach, any work created by AI would not be recognised by US law, which means that the works could be used as "public assets". Therefore, the authors and owners of these subjects, who should be worthy of having the exclusive right to exploit the interests, are not adequately protected. As a result, they could have no more motivation to invest or develop their creative activities as the IP Law aims.

Similarly, in Australia, at least three cases in which the Federal Court showed their views about works created from computer programs: they could not be considered protected by copyright. Specifically:

(i) Case Law *Acohs Pty Ltd v Ucorp Pty Ltd [2010] FCA 577* or *Telstra Corporation Limited v Phone Directories Company Pty Ltd [2010] FCAFC 149*, the Federal Court declared that computer programs created work could not be protected by copyright law because it is not a person. (AcohsPty Ltd v Ucorp Pty Ltd, 2010)

(ii) Or in the case of *IceTV Pty Limited v Nine Network Australia Pty Limited [2009] HCA 14*, the High Court (Supreme) declared not to recognise the copyright for the weekly television programswhich were relevant to the computer programs.

In Europe, the Court of Justice of the European Union (CJEU) has also stated that *copyright could be applied only to original and creative works and must reflect "the author's intellectual creativity"* (André Guadamuz, 2017). That means the actual results must reflect the author's unique originality, and therefore the author must be a *natural person*. Typically, the European Union Patent Office, on January 27, 2020, refused to admit an artificial intelligence program named DABUS as an author. (European Patent Office, 2020).

2.3.3. "Admitting copyright for programmers" view:

In some countries, such as India, Hong Kong, New Zealand or the UK, the IP system grants copyright to *programmers*. (André Guadamuz, 2017)

Regarding the UK, the definition of protecting the works created by AI was mentioned too early; this definition was initially recognised in the Copyright, Design and Patent Act 1988 (CDPA). Accordingly, Article 9 (3) of the CDPA 1988 claims clearly: *"In the case of literary, dramatic, musical or artistic works that are created from a computer, the author shall be the arranger necessary for the creation of works done"*, this approach was geared towards attributing copyrightto the people who made these computer programs (namely *programmers*).

In addition, a computer-generated work is defined as *a work "created by a computer in the absence of a human author"* (article 178, the CDPA 1988). The CDPA 1988 gave proper recognition and protection to this kind of work in the high-tech period when intelligent machines could create many works independently. The clarification of this concept could help claim copyright protection for the works created by AI.

It can be seen that the approach to copyright in the UK is pretty open when including an exception for *"non-human author"*. However, this method also brings many questions to IP experts. With the view that the Copyright Law is a tool to protect humans' creative values, the recognition of the copyright for the products created by these intelligent machines shall be fair to other authors or not?

3. LEGAL CHALLENGES FOR THE PROTECTION OF WORKS FROM AI IN VIETNAM RECENTLY:

3.1. Gradually significant influences of AI on human life:

Since 1970, computer programs have been able to create *raw works of art*, and these efforts have been continued until now (André Guadamuz, 2017). Most computer-generated results closely depend on the input data they receive and the developers' ability in programming. Initially, machines just played an assistant role in this creative process.

However, recently, since the world is in the era of the industrial revolution 4.0, people must rethink the role of super-smart computer programs or AI in the creative process. This trend does rise in developed and other developing and underdeveloped countries and has become the primary long- term national development strategy. Some outstanding (and successful) projects in the past time are clear examples of this trend:

(i) Google-funded Association magazine €706,000 (£621,000) for using an AI program to generate *30,000 local articles per month* in partnership with Urbs Media. (Julia Gregory, 2017).

(ii) In 2016, a group of museums and researchers in the Netherlands published a portrait titled *"The Next Rembrandt"* (Mark Brown, 2016). This portrait is a work of art created by an AI that analysed thousands of jobs by 17th-century Dutch artist Rembrandt Harmenszoon van Rijn.

(iii) In the same year, 2016, a short novel called "The Day A Computer Writes A Novel" entered the second round of the national literary prize. Interestingly, this work was written by AI – a program developed by Hitoshi Matsubara and colleagues at Japan's Hakodate Future University. (Chloe Olewwitz, 2016)

(iv) Google-owned artificial intelligence company Deep Mind has created software called WaveNet, which can generate music by listening to recordings at 16,000 copies per second. (DevinColdewey, 2016)

(v) Many other projects on computer writing poetry and photo editing (André Guadamuz, 2017).

From a research perspective, the main areas of AI are *expert systems, robotics, machine vision systems, natural language processing systems, learning systems, and neural networks* (Nguyen Thanh Thuy, Ha). Quang Thuy, Phan Xuan Hieu, Nguyen Tri Thanh, 2018). AI is developed as a *software package* (virtual platform, chatbot, program) or *programming* (robot, drone...) as a tool for specific goals set out within the framework of legal relations formed by legal entities(Atabekov, O. Yastrebov, 2018).

AI has been used in various fields, such as healthcare, education, business, legal, finance - banking, transportation, manufacturing, and services. (Luu Minh Sang, Tran Duc Thanh, 2020). These applications from AI could bring miracles in science and technology, supporting human life. However, AI interferes in many different areas of life, creating challenges for humans in resolving conflicts and disputes arising around this object. Thus, it can be seen that AI is deployed in the form of a data system (AI system) and then applied in the form of invisible software entities or material, tangible entities.

3.2. Legal challenges in protecting works created by AI in the case of Vietnamese IP law

Besides the positive effects, AI also affects human lives in negative ways. The reason

could be *that AI is not a natural human, even though AI also has "thoughts" according to pre-programmed parameters, and they can* update data continuously and quickly. Accordingly, there are also legal challenges for researchers and legislators to protect works created by AI because of potential social and legal difficulties, which should be very hard to control in case of AI's outbreaking related to IP concerns.

3.2.1. Determining the legal status of AI and AI entities

In order to propose optimal legal solutions for AI, first of all, it is necessary to determine the legal status of AI. However, *the term AI is defined as a field*, so the legal determination must be based on the following:

(i) ***AI technology exists in invisible forms****:* data systems, computer programs, chatbots, orsoftware.

Or

(ii) ***Entities are carrying AI.*** They are expressed in *tangible forms* (also known as *intelligent agents*, such as robots or self-driving cars.

Currently, in the world, there are two approaches to the legal status of AI as follows:

(i) *AI is a subject of the modern legal system*; some AI-attached tangible entities, such as robots, can be considered to have *the same rights as humans*; however, the quantity of these countries following this approach is tiny, not standard in the world. The reason is that, by nature, these AI- bearing entities are not natural humans, so the process of thinking, developing and processing information could be different from humans.

Two countries with high-tech technology are pioneers in admitting AI has the same rights ashumans. For example,

- In 2017, Saudi Arabia was the first country in the world to recognise and grant citizenship to*robot Sofia* (woman) based on their Nationality Law (Truong Son, KN, 2017);
- In Japan, in 2017, the Shibuya ward (Tokyo, Japan) issued a particular citizenship identity to *thechatbot Shibuya Mirai* (regarded as a 7-year-old boy). (Truc Pham, 2017)

(ii) AI has become a separate object in the law system and should be controlled by special regulations, which means that ***AI entities might not be recognised as having the same rights as a human. In essence, AI is just a kind of asset, a tool, or a product; however, because of its mechanical characteristics, information processing speed, and high economic value of AI, many countries only consider AI as a particular object and set up some special regulations to deal with issues related to AI entities. Based on operational capabilities, AI has been considered in the United States on the following three levels. At each level, there would be different recognition, evaluation,and authorisation:***

- self-operated AI: finishing tasks without human interaction (autonomous system)
- AI could handle the same thing as the human brain and pass the *Turing test* (Alan Turing, 1950).
- AI is capable of operating through the arrangement of the operator (Atabekov, O. Yastrebov, 2018)

Although the IT and IoT industries have increased fast in Vietnam, the legal system still does not have a suitable approach for AI or AI entities, which has become a real challenge in introducing and applying laws to regulate these subjects. Vietnamese civil law has admitted that *the subject must be an individual or an organisation* (Vietnamese Code of Civil Law 2015). Still, it has not been identified as a machine or computer program. As a result, *it could be impossible to determine the legal status of AI and AI entities as subjects in the law, having rights like a human (Luu Minh Sang, Tran* Thanh, 2020). Therefore, when building a legal system related to AI, the appropriate option for Vietnam should be the second approach: *not trying to determine the status of AI but instead focusing on clarifying the definition of AI and AI entities. Governments could identify precisely the suitably legal policies for each object group*.

3.2.2. AI and copyright protection

Works created by AI will undoubtedly significantly impact IP law because the protection philosophy promotes specific individuals' creativity and intelligence. Therefore, since 2019, the WIPO has begun discussing AI's effects on the modern IP law system at the international level. Accordingly, each member makes a suitable strategy for their practical situation.

Usually, there is no controversy about the ownership of works created from computer programs. A computer program is merely a tool to assist in the creative process, such as a pen, paper, or drawing tool. Moreover, the condition for copyright protection is originality and creativity, with the most significant requirement could be *the author must be a human*. Some countries like Spain and Germany insist that *only works created by people are protected by copyright*. (AndréGuadamuz, 2017).

For example, Microsoft Word software on computers has only been a support tool for writers and poets to create literary works. This program *could not become the author of these works* because writers have just used words as a convenient means of arranging sentences and shaping outcomes. The Word could not know how to think or choose the order to set penalties. As a result, Word makes sense for computer programs that could not add the *"thinking" label.*

On the other hand, since the significant development of AI technology, computer programs have become no longer merely tools and means to support human creativity. As a result, AI has been directly involved in the creative process without human intervention. This has put pressure on thecountries' legal systems (including Vietnam) to consider and recognise AI's legal status.

Many high aesthetic, artistic, and commercial value works have been created from AI, For example: (i) an artwork generated by a computer in the Netherlands in 2016, titled *"The Next Rembrandt"*; (ii) the song *"The AI love song"* was developed by Nguyen Hoang Bao Dai - a Vietnamese IT engineer, AI wrote this song at the speed of 10 melodies/1 seconds (Khuong Nha, 2021). These are clear evidence for the statement that *"machines are completely capable of thinking and making decisions on their own".*

Besides, when using AI to create works has become more common, the issue of copyright must be considered and discussed. With a piece made by AI, who will be the subject of copyright? The programmer (a person creating the AI), the user of the program (the person who "taught" the AI how to learn), or the AI itself (the subject who directly created the works)?

In the case of Microsoft Word software, the author only uses it as a tool to arrange sentences to compose work; however, with the software *"AI composing music",* AI becomes an entity that can create works independently, and the user's contribution to the creative process might just be pressing a button for this machine. The user would be responsible for providing input, filtering, and processing the output of the product, but the AI itself has done the most

creative part. Similar to "AI composing music", *Recurrent Neural Networks (RNNs - AI programs capable of reading texts and composing sentences in the same style)* developed by Andrej Karpathy (NCS Stanford University) have made a big surprise. As an AI program capable of writing text, it has written several Wikipedia articles with the voice of the great poet Shakespeare. (André Guadamuz, 2017). So, with artists and creators using AI becoming increasingly popular, the distinction between biological and computer-generated works is generally blurred, which could challenge the basic principles of traditional copyright, which often only protects works created by humans.

Therefore, there were three arguments about whom to assign copyright to works created by AI:

(i) *the programmer* shall have the copyright to the computer program,

(ii) *AI users* have copyright on works created by AI (because the author must be human), or

(iii) *AI itself is the author* of these works (because of AI's intelligence, which is the result of AI'smachine learning process)

Moreover, the way AI works is machine learning from other human knowledge, so copyright infringement problems are entirely possible. Although the programmer has programmed a random algorithm in AI to allow the creation of different products (it is the AI that controls the copyright) (Khuong Nha, 2021), the role of the IP law is to predict legal situations which might occur in the future. This has created a challenge for law enforcement agencies in controlling and handling violations. How can authorities determine the level of a breach? What sanctions might apply to these authors? Is it possible to deal with the current IP system based on the current IP system, or are there different regulations for this group of subjects?

4. RECOMMENDATIONS FOR THE PROTECTION OF WORKS CREATED BY AI

In order to effectively use AI's advantages for the development of the economy, it is imperative to forecast legal challenges and propose solutions to solve them. This paper presents some recommendations as follows:

Firstly, the current Vietnamese IP law has only protected works in traditional standards, such as the *"natural human" author*. However, most works created by AI could not adapt to these copyright conditions, which leads to *the need to introduce exceptional regulations to protect these AI-generated works*, as the UK's position in the *Copyright Act, Design and Patent 1988 (**CDPA**)*. ***Secondly**, determine the legal status of AI*. First of all, since the legal status of AI and humans are independent and different, it is impossible to define the equal legal group of AI and humans. Regarding the social perspective, it is difficult for AI to learn and behave according to the same moral qualities as humans. Furthermore, applying human principles or liability to AI subjects is impossible. For example, how would governments and other issues react in cases of AI's infringing copyright law and criminal law? Therefore, the author proposes establishing general criteria for evaluating and classifying AI; specific regulations applied to each group of objects would be introduced.

***Thirdly**, identifying the author and copyright owner for works created by AI.* Currently, AI has just been considered a human assistant tool (users) in composing assignments. However, most AI is autonomous and more innovative. In addition, there are other essential subjects, such as *programmers* (who have set up the algorithms that create AI) and *investors* (individuals and businesses who have invested money in AI projects).

In terms of the IP law's aims to protect the worthy rights of authors and owners and encourage creativity in science and technology, the investors deserve to be admitted as the owner of AI programs. The reason could be that AI itself is considered a type of property (intangible or tangible asset). Therefore, the owner is an authorised person with the right to use and benefit from it (Article 189 of the Vietnamese Civil Code 2015). As a result, they should have the exclusive right to exploit these intellectual properties. Such an approach would ensure companies' continuous investment in R&D on technology.

About identifying the author: because of the AI's unlimited development, based on the *"thinking ability",* AI has been divided into many distinguished levels. That leads to the need to establish regulations that apply to AI on many levels. Specifically:

(i) If *AI works independently*, without any human intervention or support: it can be considered that *AI is the author of these works*. Not all AI products are perfect and achieve high commercial value; AI's creative process is sometimes as good and evil as humans. However, the most significant standard to admit copyright through the current IP system is just originality and creativity.

(ii) If *AI operates based on human support and operation*: acknowledging the operator, creator, or user as the author of products created by AI may be the most reasonable approach. This regulation will ensure that AI operators, creators, or users are responsible for works they "conceive" or co- compose.

Fourthly, *establish mechanisms to resolve disputes about copyright for works created by AI.* Besides the specific legal system for protecting copyrights for AI, it is beneficial to introduce dispute regulations related to IP rights. It could be challenging to determine whether a literary work infringes the copyright. It is impossible to regulate a specific number or percentage of plagiarism in a particular law or any other document because the issue of plagiarism could be considered a *"reasonable citation".* This action will be more complicated in the case of applying to works created by AI when most of AI's mainly creative process must be depended on operator input data. The more data, the more influential the AI's machine learning capabilities.

Fifthly*, an essential requirement is establishing a legal system for compensation for damages caused by AI.* Although (i) AI is not a natural person; (ii) programmers always argue that they write random algorithms to limit copyright infringement; (iii) almost of users argue that the purpose of running computer programs is only for personal use, the damage of illegal acts is still possible. Typically, copyright infringement acts by other authors (because AI's working mechanism is *machine learning* from input data, the less data there is, the greater the chance of plagiarism). Besides, since AI is a *computer program* (or other tangible entities), AI's products can completely violate human social and ethical standards (such as sentences and words which could offend the dignity of others).

Therefore, besides applying the current regulations on compensation (in and out of the contract), legislators need to establish rules on determining who could be responsible for this compensation.Specifically:

(i) When damage occurs, who would be responsible for compensating for such damages? The harm caused by AI? The AI owner, user, programmer, legal or unauthorised possessor of the AI system,or the AI entities?

(ii) In addition, clearly defining which cases many subjects must be jointly responsible for and which are not?

(iii) Determination of compensation for damage caused by the above illegal acts

(iv) Identifying measures to execute judgments, especially with AI (non-human) subjects.

CONCLUSION

Although AI has been interested in Vietnam in recent years, AI will develop quickly worldwide with the available potential. In addition, since AI has entered more and more into human life, this will become a significant legal challenge for national and international legal systems.

Regarding the copyright perspective, it could become more complicated when artists use AI in creativity more often. It is always true that machines could be more innovative, faster, and better at assembling up-to-date information. Especially when programmers give computers many input data, they can imitate humans better. As a result, it could be impossible to distinguish whether any creation is man-made or computer-generated. Finally, with too much available machine support, human creativity could be halted, even stifled.

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Vietnamese Law on Intellectual Property 2005, amendments and supplements 2009 and 2019 *RNNs* are AI programs capable of reading text and composing sentences in the same style.

The Compendium of US Copyright Office Practices, §313.2: "*To qualify as a work of "authorship" a human being must create a work… the Office will not register works produced by a machine or mere mechanical process that operates randomly or automatically without any creative input or intervention from a human author"*

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The Copyright, Designs and Patents Act (CDPA), section 9 (3): *"is generated by computer in circumstances such that there is no human author of the work."*

The Next Rembrandt is a computer-generated 3-D printed painting developed using a facial recognition algorithm that scanned data from 346 images of the 17th-century Dutch artist Rembrandt Harmenszoon van Rijn in an 18-month process. The portrait comprises 148 million pixels and is based on 168,263 fragments from Rembrandt's works stored in a purpose-built database. The project is funded by Dutch banking group ING, in collaboration with Microsoft, marketing consultant J.Walter Thompson, and consultants from TU. Delft, The Mauritshuis, and the Rembrandt House Museum.

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conversations between a human and a machine designed to generate human-like responses. The evaluator would know that one of the two partners in conversation was a machine, and all participants would be separated. The conversation would be limited to a text-only channel, such as a computer keyboard and screen, so the result would not depend on the machine's ability to render words as speech. If the evaluator could not reliably tell the machine from the human, the machine would be said to have passed the test. The test results would not depend on the machine's ability to answer questions correctly, only on how closely its solutions resembled those a human would give.

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REGULATION OF UNFAIR CONTRACT TERMS: A COMPARISON BETWEEN VIETNAM ANDAUSTRALIA

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Abstract

State interventions aimed at regulating contractual matters, including the unfair contract term regime, are based on the traditional contract theory combined with liberal political thought. One of the concrete manifestations of liberal political thought in the development of consumer protection law is the requirement to disclose information to balance the bargaining position between buyers and sellers. A request for disclosure of information, along with the hypothesis of minority information, is the basis for the institutionalization of the standard form contract. As such, the standard form contract, a familiar form of commercial practice commonly modified by contracting jurisdictions around the world, is one of the responses to the trend of information disclosure of traditional consumer protection. The regulation of unfair contract terms derives from the need to regulate the fairness of the contract term rooted as the consequence of the information asymmetry between the seller and the buyer. This article analyses the unfair contract term regime in Vietnamese consumer law compared to the corresponding regulations in Australia to identify weaknesses and inadequacies in the Vietnamese regime and propose solutions to improve this regulatory framework.

Key words: *consumer protection, consumer's right to information, unfair contract term.*

1. LEGAL THEORY ON UNFAIR CONTRACT TERMS

The standard form contract is promoted under the lens of economic theory by its contribution as an influential factor of resource allocation in the market.[1] The doctrinal development in the regime of the unfair contract term, in line with the development of economic science, has been argued in light of cost-benefit analysis. The rational choice of consumers in the view of the cost–benefit study has led economists to believe in the effectiveness of the standard contract.[2] They insist that the standard form contract saves on drafting and negotiating costs while still ensuring that consumers can choose which provider offers them the best contract as long as the competition remains in the market.[3]

However, it is argued that standard form contract needs to be reviewed in light of behavioral theories and empirical research on consumers' reading the fine print. The strongest argument against a standard form contract is that the explanations are based on overconfidence and self-serving bias, which are expressed in the phase of accessing contract terms. This argument

[1] Stephen A Smith, 2012. *Unfair Contract Terms in Australia*: Thomson Reuters, 5.

[2] Laurence Coffman and Elizabeth Macdonald, 2010. The Law of Contract: Oxford University Press, 159.

[3] ACCC (2014), "Advertising and Selling Guide" <https://www.accc.gov.au/system/files/722_Advertising%20and%20selling_FA_Nov%202017.pdf> 151.

holds that consumers, who are confident in their knowledge[4], often misinterpret clauses in the sense that they are more beneficial to them than disadvantageous.[5] Also, consumers suffer from cognitive limitations and frequently face a large amount of complex information on products, resulting in them underestimating potentially damaging terms in the standard form contract.[6] Bar-Gill, Gabaix, and Laibson (2014) argue that the ability of sellers to manipulate consumers is entirely possible even in the context of a standard form contract as consumers' psychological biases and limitations are significant barriers to their reading and understanding contract terms.[7] Thaler and Sunstein (1999) note that consumers spent a lot of time and money on product selection, so they do not want to spend more on considering the contract.[8] Many empirical studies also provide evidence that consumers ignore the reading of a standard formcontract.[9]

These ground-breaking theoretical and practical premises cause policymakers to rethink the standard form contract application and respond to the need for more effective protection. This requirement forces regulators to intervene more strictly in freedom of contract by designing a substantive unfair test. Accordingly, standard form contracts do not automatically take effect regardless of whether the terms are unfair if contracting parties agree to enter into the contract. Terms of these contracts must pass a substantive unfair test once they are impugned for voiding. Control of the nature of the provisions is considered a measure of limiting the loss of benefits; due to the use of a contract favoring a party due to disclosure, it may not solve the problem of adverse choice, and low-quality terms continue to exist. [10] It is believed to be a way to promote a fairer and more efficient market by creating a balance between the interests of consumers and businesses in the marketplace.[11]

The application of a substantive unfair test has faced a number of criticisms. From the perspective of the balance of benefits and costs, economists state that interference through such a test unnecessarily increases the cost of contracting while not improving the interests of consumers. This argument holds that imbalance between parties resulting from the standard form contract will be determined by consumers seeking a replacement or appropriate compensation.[12] Therefore, in this view, interventions aimed at ensuring a substantive fairness test do not seem to bring optimal efficiency. Meanwhile, some lawyers are skeptical of such interference as a form

[4] Lawrence Solan, Terri Rosenblatt, and Daniel Osherson, 2008. False Consensus Bias in Contract Interpretation. *Colum. L.Rev*. 108, 1268

[5] M G Faure and H A Luth, 2011. Behavioural Economics in Unfair Contract Terms. *Journal of Consumer Policy* 34(3) 348.

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[8] Richard H Thaler and Cass R Sunstein, 1999. Nudge: Improving Decisions about Health, Wealth, and Happiness. *HeinOnline*, 348.

[9] Yannis Bakos et al (2014), s*upra* note 7, p. 35. The authors cite some empirical researcher that shows the small number of consumers who read a standard form contract before entering into a contract. These statistics report that only three of every 100 purchasers of HP inkjet printers reported that they were informed about replacement cartridge ink costs at the time of purchase of the printer (Hall, 1997). Only four per cent of 92 contracts students at Cornell Law School who purchased products online claimed to read standard form contracts 'as a general matter' (Hillman, 2006). Sixty per cent of 147 students in law and other areas claimed they skim or read parts of a standard form contract before entering a transaction (Becher and Unger-Aviram, 2009). About 80 per cent of 182 undergraduate students did not to read standard form contracts and much of the remainder claimed to skim them (Bartlett and Plaut, 2009).

[10] M G Faure and H A Luth (2011), s*upra* note 5, p. 352.

[11] *Supra* note 3, p. 422.

[12] Michael J Trebilcock, 1976. The Doctrine of Inequality of Bargaining Power: Post-Benthamite Economics in the House ofLord. *The University of Toronto Law Journal.* (1976) 26(4) 359, p.376.

of nudge, a hard interference in a contractual relationship that traditionally respects freedoms.[13]

These objections were denied sharply by arguing that contract freedom would only produce efficient results if the seller and buyer had the same level of information,[14] which does not happen in market practice. Despite the objections of cost and benefit analysis and the demand for respect for freedom of contract, unfair contract term regimes are increasingly being adopted by many countries in the direction of applying the substantive test of an unfair term. Consequently, initially adjusted to be open and flexible, consumer contracts were voluntarily entered into the contract as a basis, but there is an ongoing adjustment to the regime. This approach has become more stringent because of the terms. Although the development of this regime seems to be in stark contrast to other consumer protection regulations, lawmakers also aim to maximise the effectiveness of consumer protection and effective competition.

2. REGULATION ON UNFAIR CONTRACT TERMS IN VIETNAM AND AUSTRALIA

2.1 Vietnam

In Vietnam, before the enactment of the Law on Consumer Protection ("LCP") in 2010, control of standard form contract was quite vague in both legislative regulation and empirical research. For a long time, study of the legal issues of adjustment of standard contract terms did not appear in Vietnam. The law on unfair contract terms in this period was mainly the regulations on standard form contract in the Civil Code 1995 and the later Civil Code 2005. However, these two laws did not provide sufficient legal mechanism to protect consumers in the standard contract form.

The issue of unfair contract terms in Vietnam is centered on two mainstreaming legal texts, the Civil Code 2015 and the LCP (and supplementary legislation). The legal validity of the provisions of the Civil Code 2015, in accordance with the hierarchy of the legal system, are of a higher legal level than those of the LCP and, therefore, priority is given to the Civil Code 2015 in case of inconsistency with the spirit of the provisions of the LCP.

In addition to these two major legal documents, some other specialized laws also regulate standard form contracts and common contractual terms and conditions, but these focus only on the registration procedure of standard form contracts in specific areas managed by state agencies in the respective industry. In regard to the underlying content, all other specialized legal documents regulating standard form contract and common contracting terms and conditions are governed by the Civil Code 2015 and the LCP.

The Civil Code 2015 sets out two clauses regulating consumer contracts in the term of fairness. These two clauses are designed in the same four-part structure: 1) the definition of standard form contract and common contractual terms and conditions, 2) mandatory disclosure to inform consumers about the existence of standard form contract/common contractual terms and conditions, 3) the principle of interpretation in case a contract containing ambiguous terms in favor of the consumer, and 4) regulation voiding contract terms allowing sellers to be exempt from or increase the liability or removing the legitimate interests of the other party unless the contracting parties agree about this.

This structure is similar to the regulations of this regime in the LCP. The LCP has seven articles regulating issues related to unfair contract terms. Although the regulations in the LCP do

[13] Hugh Collins, 2008. Standard Contract Terms in Europe: A Basis for and a Challenge to European Contract Law. *Kluwer Law International* vol 15, p.43–56.

[14] John Vickers, 2005. Economics for Consumer Policy. *Proceedings of the British Academy* 287, p. 295.

not follow the four-part structure of those in the Civil Code, the elements articulated (e.g., definitions of the standard form contract and general trading conditions) are essentially the same albeit separated by explanatory sections.[15] The requirement of public disclosure of standard form contracts and general transaction conditions is conveyed in the form of regulations stating that enterprises dealing in goods and services subject to regulations must carry out procedures for registration of standard form contracts and general transaction conditions with competent state agencies.[16] The principle of interpretation of the contract when it is possible to understand the terms in different ways is provided in a spirit similar to that of the Civil Code in a separate clause (LCP art 15). Similar content also includes a blacklist of terms automatically considered null and void in the consumer contract.[17]

Basically, the LCP does not have any rules except for the four basic contents that emphasize procedural fairness as regulated in the Civil Code, but some of these provisions still contain clearer contents than the Civil Code. More specific content in the LCP is the definition of standard form contract and general transaction conditions. While the Civil Code provides the definition of contract according to the pattern and conditions of dealing with entities at the broadest level, including all individuals and organizations performing contract transactions, the LCP restricts the scope of contracting subjects to businesses and individuals, and the recipients of standard form contracts are consumers. Accordingly, the standard form contract is defined as 'a contract unilaterally drafted by a business individual, organization for making transactions with his/her consumers'. Article 3.5 also introduces the concept of 'general transaction condition' to 'include rules and regulations relating to the sale of goods or supply of services which are unilaterally announced and applied by a business individual, an organization to their customers'.[18] General transaction conditions of the LCP are explained in an informal manner[19], and the definition expresses three basic characteristics: 1) general transaction conditions are rules and conditions drafted by unilateral traders, 2) these are applicable primarily to consumers, and 3) these apply to multiple consumers and multiple uses. A standard form contract is also considered one of the types of general transaction conditions. However, the difference is that general transaction conditions may be contained within the standard form contract or may be specified in a separate document provided that they are publicly disclosed by the supplier.[20]

The second specifiable point lies in the provision that supports the transparency of a standard form contract under the designation 'control of standard form contract and general transaction conditions. Accordingly, the disclosure of terms in the standard form contract should be made for consumers to access and know about these terms (as required by the Civil Code). Further, the LCP also regulates those enterprises dealing in goods and services in the specific list[21] must register their standard form consumer contract and general transaction conditions with

[15] *The Law on Consumer Protection, 2010* arts 3.5, 3.6.

[16] *Ibid*. art 19.

[17] *Ibid.* art 16.

[18] *Ibid*, arts 3.5, 3.6.

[19] These characteristics are expressed only in the subjective opinion of the members of the drafting committee and do not exist in a formal regulation of the law.

[20] Do Giang Nam (2015), "Comments on Regulations Relating to Standard Form Contract and General Transaction Conditions in the draft of Civil Code (amended)" (Binh luan hop dong theo mau va dieu kien giao dich chung trong du thao Bo luat dan su (sua doi)) <http://lapphap.vn/Pages/tintuc/tinchitiet.aspx?tintucid=208330>.

[21] *Decision for Amending a Number of Articles of the Decision No. 02/2012/QD-TTg on Promulgation of Essential Goods and Services for which Contract Forms and General Transaction Conditions must be Registered. (Quyet dinh Sua doi mot so Dieu khoan cua Quyet dinh so 02/2012/QD-TTg ve Danh muc Hang hoa, Dich vu Thiet yeu phai Dang ky Hop dong theo mau, Dieu kien giao dich chung*) The list includes: 1) supply of electricity for residential consumption; 2) supply of tap

the relevant state agencies. This regulation aims to publicize the contents of the standard form contract that may bring consumers to disadvantageous liability, expressing the state's efforts to protect the interests of consumers in some important areas where their interests are most at risk. The final highlight, the focus of regulating the unfair contract term of law, could be to specify the blacklist of terms that are of no legal validity when they belong to the corresponding set of cases listed.[22]

The provisions in the above two legal documents show that lawmakers have paid attention to the design of consumer protection regulations through standard form contracts and general transaction conditions. Lawmakers in Vietnam shows more regard to standard form consumer contracts which always tends to be a potential danger to consumers due to this type of contract being unilaterally drafted without negotiation in the transaction.[23] Consumer protection through regulating the standard form contract is consistent with the development of consumer protection policies through the unfair contract term, which is increasingly being considered by many legal systems around the world. The presence of these regulations in the LCP and the Civil Code 2015 proves that this regime is recognized as fundamental in the legal system of Vietnam.

2.2 Australia

The unfair contract term regime in Australia derives from the *Consumer Contracts Regulations 1994* (UK) made pursuant to the *European Communities Act 1972* (UK).[24] It is also based in conjunction with the unfair contract term provisions of the former *Fair Trading Act 1999* (Vic) pt 2 and the *Contract Review Act 1980* (NSW) which deals with unjust consequences or unjust contracts meaning unconscionable, harsh or oppressive.[25] Although separate legal texts in this area appeared in the states, an unfair contract term regime at the national level in Australia did not originally constitute since the courts in common law countries tend not to intervene in contract freedom for the reason that the consumer contract is voluntarily entered into by the parties.[26]

2.2.1 A mechanism for Modifying Unfair Contract Terms in the ACL

The ACL regulates unfair contract terms through the five sections (ss 23–28); however, the whole structure of a complete design requiring a high abstraction in Australia's regulatory design has been clearly demonstrated. The center of the regime is the definition of the unfair contract term, which outlines the factors that go along with its substantive fairness test of terms with specific criteria. This central institution is supported by three more straightforward tools, like the three-legged combination of central institution implementation, which include provisions on transparency of the provisions, and a blacklist of unfair terms, and regulations about examining the contract and its terms as a whole.

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water; 3) pay television; 4) terrestrial fixed telephone services (form of payment: prepay service); 5) terrestrial mobile information services (form of payment: postpaid service); 6) internet access services; 7) air transport of passengers; 8) rail transport of passengers, 9) Purchase and sale of apartments, daily-life services provided by apartment-managing units; 10) issue of inland debit cards, open and use payment account service (applicable to individual customers), individual borrow service (for consumption purpose); and 11) life insurance.

[22] *Supra* note 15, art 16.

[23] The development of the Civil Code 2015 from the Civil Code 2005.

[24] Australia and Russell Victor Miller, 2017. *Miller's Australian Competition and Consumer Law Annotated*. Thomson Reuters.1569.

[25] *Ibid.*

[26] Stephen S Corones and Philip H Clarke, 2002. *Consumer Protection and Product Liability Law: Commentary and Materials:* Lawbook Co.153, p.192.

2.2.1.1 A Test of the Unfairness of Contract Terms—A Principal Tool of Adjustment

The primary content of the ACL's unfair contract term regulation is in s 24(1), providing conditions that help the court determine whether a term is unfair. Under s 23(1) of the ACL, three conditions must be met when considering unfair terms in a contract: 1) the contract must be a consumer contract, 2) the contract must be a standard form contract, and 3) the contract term must contain a term that is unfair.[27] Accordingly, the process of determining unfair terms under the ACL must go through the steps of determining what a consumer contract is, what a standard contract is and what an unfair contract term is.

Consumer Contract and Standard Form Consumer Contract

While the contract term unfairness test is the core element of state intervention, the two remaining preconditions relate to the subject of regulation, a contract, under the ACL's strict control. Characteristics of a consumer contract, as defined in the ACL, require that the buyer be an individual in a business-to-consumer transaction, except for a contract between a business and a sole trader.[28] Determining whether a consumer contract is unfair focuses on identifying the reason consumers acquire goods and services through consulting contracts rather than focusing on the nature of the goods or services.[29] The buyer's purpose at the time of acquiring goods, services, or interest in land rather than later[30] is essential for determining the nature of the consumer contract; thereby, the purpose must be 'wholly or predominantly for personal, domestic or household use or consumption.

The Test of an Unfair Term

The test for the unfairness of contract terms is rather specific and complete, thanks to the technique of using the definition-based structure to map out the necessary criteria for unfair terms in the ACL. Accordingly, s 24 of the ACL sets a three-limb test for unfairness. Specifically, the court will have to consider three main issues arising from the terms: 1) significant imbalance in the parties' rights and obligations arising under the contract, 2) unreasonably necessary to protect the legitimate interest of the party who would be advantaged by the term, and 3) causing detriment to a party when the terms are applied or relied on.

The lawmakers' careful consideration in selecting the factors to consider is expressed through the characteristics of these three factors. They are a balanced division of choice involving the parties when a factor favors the seller's interests, another factor disadvantages the buyer, and the last factor addresses the degree of imbalance of rights and obligations between the seller and the buyer.

The first factor relates to two issues that need to be identified in the test—the existence of an imbalance of parties' rights and obligations and whether that imbalance is significant. Overall evaluation of this element gives some views that are sometimes contradictory. For instance, in *Director General of Fair Trading v First National Bank Plc*, President Mori argued that examining a significant imbalance in the parties' rights involves normative judgments. In contrast, Cavanaugh J asserts its inquiry is quantitative.[31] These arguments show various approaches to assessing whether an imbalance appears significant or not.

[27] *Supra* note 23, p. 332.

[28] Treasury Legislation Amendment (Small Business and Unfair Contract Terms) Act (2015) (Cth).

[29] Treasury Legislation Amendment (Small Business and Unfair Contract Terms) Act (2015) (Cth).

[30] Treasury Legislation Amendment (Small Business and Unfair Contract Terms) Act (2015) (Cth).

[31] Paterson, Jeannie, 2009. The Elements of a Prohibition on Unfair Terms in Consumer Contracts. *Australian Business LawReview* 37, p.184.

Generally, there are three approaches recognized in Australian case law in assessing the significant imbalance of parties' rights and obligations in a standard form consumer contract. The first model of assessment can be approached from the perspective of asymmetry in terms of parties' rights and obligations.[32] Elements related to a significant imbalance in parties' rights and obligations emphasize the quantitative difference in entitlement and performance of obligations between parties.[33] Claims on rights and obligations to consumers that do not match the respective the rights and obligations placed on traders may be viewed as an imbalance in this approach.[34] Such imbalance also needs to satisfy the level of 'significant' in which they should bear the features like 'significant in magnitude' or 'sufficiently large to be important', being a meaning not too distant from 'substantial'.[35] The second approach of the examination base is on the extent to which the allegedly unfair terms detract from the consumer's common contract rights.[36] Under this approach, common law rights of consumers accumulated throughout the length of constant judicial scrutiny can provide the benchmark that is supposed to be a fair imbalance in the rights and obligations of the contracting parties. The alleged terms not in accordance with the requirements based on these default rules will be considered to have caused significant imbalances. The third model provides a more proactive approach based on the degree of warping between the reasonable expectations of consumers in the contract and the consequences that the term causes or is likely to cause.[37]

The assessment of significant imbalances in Australia expresses some features rather differently from other regimes, including the UK, Europe, and Vietnam.[38] When the words in question bear more than one possible meaning, the Australian courts favor the interpretation that gives the most reasonable result based on what the parties are capable of having intended.[39] Accordingly, the High Court claims that the explanation must ensure to 'avoid consequences which appear to be capricious, unreasonable, inconvenient or unjust'.[40] This approach shows that Australian regulators keep tabs on the proper object of unfair contract term law which aims to protect the fairness in its original meaning, rather than the interests of the consumer. It is appropriate to place the philosophy of the approach in the context of the classical contract theory, which focuses on equality and voluntary agreement between the parties. It maintains the regulations of the unfair contract term, which is often criticized as a regime deeply interfering in contract freedom, obtaining a neutral and consistent appearance as implied in its name. Conversely, the introduction of the principle of explaining ambiguity based on rationality makes the amplitude of the meanings of these terms broadened, leading to a reduction in the likelihood of terms being judged unfairly by the court's decision.[41]

In the second step, the respondent must prove that there is a legitimate interest under the common law of the restraint of trade and the reasonable necessity of the provision to protect that interest.[42] The proof of the existence of legitimate interest is simple, done by showing that the

[32] [32] Ibid.

[33] Adrian Coorey, 2015. *Australian Consumer Law*: LexisNexis Butterworths. p. 338.

[34] *Supra* note 31, p.73.

[35] *Supra* note 33, p. 338.

[36] Chris Willett, 2016. *Fairness in consumer contracts: The case of unfair terms*: Routledge.

[37] *Ibid.*

[38] Paterson, Jeannie, 2012. *Unfair Contract Terms in Australia*: Thomson Reuters 4., p. 66–67.

[39] *Ibid,.*

[40] *Ibid.*

[41] *Ibid.*

[42] Stephen G Corones, 2011. *The Australian Consumer Law:* Thomson Reuters Lawbook Co, p. 196.

terms were drafted to protect the business from risks arising in the transaction.[43] However, justification of the reasonable necessity of the presence of terms is also abstract and must be examined by the proportionality of the term.[44] A proportionality is expressed in terms of the importance of the legitimate interest that the business needs to protect or the risk that the business must avoid and need to be consistent with the obligations placed on the consumer or the circumstances that the traders put forward in the contract. If a disproportionate response between benefits and risk is established, it will be considered that there is no reasonable necessity for the protection of the legitimate interests of the traders.

The consideration of whether legitimate interest protection is reasonably necessary or not emphasizes the reasonable necessity of the terms of the seller's right. Section 24(4) of the ACL requires the business to provide evidence that the party advantaged by the term done so in a manner reasonably necessary to protect its legitimate interests. It is a rigid assumption that these contract terms are not reasonably necessary for businesses unless they prove otherwise.[45] Evidence that can be admitted comprises the kind of goods or services provided, the nature and structure of the business and its costs, the risks of litigation, and industry practices.[46] This rule clarifies the liability of the business when arising dispute and helps the courts to implement the dispute effectively. The third element of the test relates to the financial and non-financial detriment to the consumer if the terms of the contract are applied.[47] The nature of the detriment is extended even to the non-financial consequences of allowing the court to consider in a wide range of forms likely to cause a considerable disadvantage for consumers.[48]

Further, in addition to these tests, three other tools give powerful support for these tests. These are analyzed below in terms of protecting information rights over claims to fairness in consumer contracts in the ACL. These three tools contribute significantly to the fact that the right to information is the basis for ensuring the fairness of contract terms. These tools primarily show that the right to information is the ground for guaranteeing the operation of the unfair contract term regime.

3.2.2.2. Supporting Tools

First, the transparency requirements of contract terms are outlined in s 24 (5) of the ACL, where consumers' right to information in the unfair contract term is most apparent. These conditions are expressed concerning language, formality, and content. Specifically, in terms of language, it must be written in reasonable plain language, the content must be presented clearly, and these terms must be legible and readily available to any party affected by the term. The transparency of content requires plain language to be intelligible to ordinary members of the public.[49]

From the respective of formality, transparency is directly determined by the specific signs of the legible, including the requirements of style and the size of the font used in a standard

[43] *Supra* note 38, p. 80.

[44] *Ibid*.

[45] *Supra* note 33, p. 340.

[46] ACCC (2016), "Unfair Contract Terms – A guide for Businesses andLegal Practioners" <http://consumerlaw.gov.au/files/2015/09/Unfair_Contract_Terms_Guide.pdf> 11–12.

[47] *Supra* note 33, p. 341.

[48] Treasury Legislation Amendment (Small Business and Unfair Contract Terms) Act (2015) s 5.33.

[49] Office of Fair Trading, 2008. *Unfair Contract Terms Guidance - Guidance for the Unfair Terms in Consumer ContractsRegulations 1999*. 87.

consumer contract.[50] The regulation on transparency under the ACL requires consumers to be given notice of unusual terms in the contract.[51] As defined by the Office of Fair Trading, the transparency of the standard form consumer contract does not require traders to interpret terms to ensure that consumers understand every word of the contract. It is important that they have a real chance to understand the terms that can bring unpleasant experiences by the time the contract becomes binding. Consequently, the relevant factors that the court may consider as set forth in the ACL revolve around evidence such as a notice or an explanation given to consumers, a practical opportunity to consider the terms, or professional advice provided before signing the contract.[52]

In some court cases, the problem is solving the following question: When a transparent clause has been notified to the consumer, which sufficiently satisfies the requirement of procedural unfairness, should it be considered substantive unfair by the court? For judges who favor the principle of contract freedom under a contract theory, once the conditions of transparency and voluntary participation in the contract are met, the contract must be respected, and the terms within the contract would bind the contracting parties.[53]

There is, however, another view that procedural consideration is not a shield that naturally ensures traders escape the liability of unfairness.[54] Substantive considerations by which to make an assessment of the balance of clause content must be taken into account as an essential element. The third approach is likely a search for a neutral point between loyalty to the principle of contract freedom and the strict intervention in voluntary contracting. According to Morris J, if reasonable notice of a standard term is given, then consumers will be bound by them, even if the consumer is unaware of the terms or could not have read or understood the terms, whereas some other terms can be considered unfair and void under the same conditions.[55] It is difficult, however, for those who follow this approach to determine which contract terms just need to satisfy the requirement of procedural fairness and which contract terms must guarantee substantive fairness.

When looking at the issue of adjusting unfair contract terms on the basis of emphasis on the importance of the consumer being informed and voluntarily entering into contracts, the protection of the consumer's right to information appears extremely important. It becomes an indispensable condition to identify or eliminate the possibility that a contract term is unfair. In other words, such an approach makes the protection of fair autonomy in the drafting and conclusion of consumer contracts become the protection of consumers' right to information—the right to know, understand, and have a reasonable opportunity to consider the content of the contract terms.

[50] *Supra* note 38, p. 87.

[51] *Supra* note 33, p.198.

[52] *Supra* note 49, p. 11.

[53] *Supra* note 38, p. 62. The author mentioned the statement of Harbison J in *Director of Consumer Affairs Victoria v Craig Langley Pty Ltd & Matrix Pilates & Yoga Pty Ltd*: 'it appears to me to reflect the common sense view that terms of a consumer contract which have been the subject of genuine negotiation should not be lightly declared unfair', and in the *Director of Consumer Affairs Victoria v Train station Health Clubs Pty Ltd* (Civil Claims): 'I can envisage that such a term might be perfectly fair if it was brought to a consumer's attention prior to signing of a contract'.

[54] *Supra* note 33, p. 199.

[55] *Supra* note 38, p. 62; The author referred to the statement of Morris J in the case (Director of Consumer Affairs Victoria v AAPT Limited [2006] VCAT 1493 at [48]): 'there will be other terms in consumer contract which will not be regarded as unfairif, and only if, individually negotiated, or, if, and only if, brought to the attention of the consumer'.

Assessment of Standard Form Consumer Contract as a Whole

The second supporting tool for the test of the unfair term is the requirement for examination of a term in the view of contract as a whole.[56] In light of this, Australian regulators have come up with a context for counterbalancing terms where a potentially unfair term is included in the contract but is counterbalanced by additional benefits such as low price.[57] Thus, the unfairness of a term is justified by looking at the terms in relation to the others of the contract to determine whether the existence of harsh terms in contracts is equal to benefits for a compensation.[58]

Consequently, a perception of a contract as a whole should be taken into account including the review of the purpose of the alleged terms and the consequence of the impossibility of enforcing this term and determine whether the term relates to consumers enjoying a compensation profit or not.[59] Considering a term individually will not allow understanding of the meaning of the term; the term must be considered as it was created and intended to be performed in the consumer contract as a whole. Therefore, the regulation that a contract term needs to be assessed as a whole seems to clearly express that the nature of unfair contract term adjustment is a form of regulating information rights in the ACL.

Grey List of Terms

The third supporting tool for the test of an unfair term is the list of terms that may be considered unfair as set forth in the ACL. The list includes a variety of terms listed in ACL s 25(1). However, these terms are only considered examples of terms that may be unfair. In each specific case, the determination of whether such a term is unfair depends on the judges' assessment based on the facts of the case[60] and the satisfaction of the factors mentioned in the test of the unfair term.[61] The terms listed in s 25(1) only provide a regulatory indication, but do not limit the use of these terms in a contract or considered them to be automatically unfair.[62] Even an exclusion clause is not considered unfair if the consumer understands the consequences of the term or if they have been reasonably notified of the existence of the term.[63]

This regulation demonstrates the technical consistency of the unfair contract regulatory mechanism in Australia's consumer protection policy. A grey list does not, however, go beyond the test of the unfair term that has justified the existence of the terms themselves in that they satisfy the criteria of being unfair. Further, the design of such a blacklist in the protection mechanisms ensures that it is a supporting tool for the test and does not disrupt the consistency and rationality of the overall adjustment mechanism on unfair contract terms in the ACL. The possibility of being an unfair term is given by whether it can be translated into a term containing certain information. Unfair elements have been filtered and concentrated in the list of terms considered examples of unfair terms. It also shows that identifying these terms is also a useful way for traders and consumers to access the information and make careful preparations beforeentering into contracts.

[56] The Australia Consumer Law (2010) s.24(2)(b).
[57] ACCC, 2010. *A Guide to the Unfair Contract Terms Law* 1313.
[58] *Supra* note 42, p. 199.
[59] *Ibid.*
[60] *Supra* note 24, p. 1574.
[61] Trade Practices Amendment (Australian Consumer Law) Act (No 2), (2010). (Cth) ss 5.44–5.45.
[62] *Supra* note 38, p. 345.
[63] *Ibid.*

3. DISCUSSION AND FINDINGS

3.1 Comparison of regulation on unfair contract terms between Vietnam andAustralia

The above analysis shows the similarities in the regulation of unfair contract terms between Australian and Vietnamese legislation. The first similarity is that the regulatory tools in both law systems are informational and relate to the consumer's right to information. Specifically, the subject matter and regulation tools, including the standard form consumer contract, regulation on the transparency of the contract, and the list of terms, are reserved for certain interests. Based on the use of these modalities, the perspective of the unfair contract terms regime in both systems is relatively homogeneous.

Although the aim of state intervention in this area is similar, the designation of provisions under the ACL has some differences compared to the regulations in Vietnam. Differences in the technical regulations established between the two law systems lead to a different level of consumer protection in this area, even predicted theoretically. The fundamental difference in regulating this regime between the two legal systems is that the rules governing unfair contract terms in Vietnam only focus on a contract term's formality rather than its unfair content. In comparison, the provisions in the ACL focus on the procedural and substantive unfairness of terms in standard-form consumer contracts. Since the LCP and the Civil Code 2015 only regulate a contract term's procedural unfairness, some shortcomings and limitations exist.

First, the LCP lacks a test on an unfair term in which the substantive content of the term would be focused on determining whether a contractual clause is unfair. While the test of substantive unfairness defines specifically factors for assessments courts of the possibility of an unjust term under the ACL, such a test is absenting in the LCP and replaced by a list of terms automatically considered unfair under the LCP and the Civil Code.

The absence of such a test led to consumers and traders not taking opportunities adequately to defend their rights. Incidents of consumers successfully impugning an unfair term, not in the list regulated under the LCP have become very rare, as there is no legal basis for consideration on which judges can base their decision. Conversely, traders cannot prove that the term they drafted is not unfair because there are no regulatory criteria under which an unfair provision is determined. In addition, the lack of a test of an unfair term makes the list of terms deemed unfair unconvincing since it is unclear whether they are set based on critical standards. This regulatory gap has the potential to not only limit consumers' ability to protect against unfair terms but is a major obstacle to the exercise of consumers' right to information.

As previously discussed, the LCP does not regulate the substantive unfairness content of a contract term but focuses on the elements surrounding the contract, such as regulation of registration of standard form contracts, obligation to give consumers notice of contract terms, and a list of alleged unfair terms. One interesting factor is that such an intervention focusing on the procedural unfairness of a term in the LCP tends to be more pronounced in the protection of information rights than in the protection of fairness of the contract terms.

In addition to the major differences between the principal regulatory regimes, the regulations relating to supporting tools between the two jurisdictions also have some differences. Even from the perspective of procedural unfairness control, the LCP's regulations have many limitations compared to the corresponding strict regulations in the ACL. The requirement of the text format of a standard form consumer contract is rather simple without rules on the words' font size. Whereas in the ACL, requirements of transparency of contract terms are carefully set forth, such as the demand of notifying the consumer to be aware of contract terms, using certain

font sizes in the contract, and terms being readily available to the consumer. Specifying the criteria of a transparent clause demonstrates an emphasis on the role of transparency in the design of the test of the unfair term under the ACL.

Further, the difference between the ACL and the LCP is expressed in terms of the list of terms that may be considered unfair. Based on the Civil Code and the LCP's regulations, judges and authorized agencies in Vietnam automatically conclude the list of terms enumerated in these two legal texts as unfair. While the Civil Code and the LCP regulate differently in the legal validity of the terms in the list when the contracting parties enter voluntarily into the contract, they are consistent with the general view that the terms listed are by their nature unfair. Meanwhile, although the list of terms is even more abundant, the ACL states that the provisions in this list are only examples of cases where an unfair term may be constituted. The factual conclusion that a term is unfair should be considered specifically for each case where the judge will rely on the test of an unfair term to make a judgment.

3.2 Shortcomings in the regulation of unfair contract terms in Vietnam

The entire provisions on standard form contracts and general transaction conditions in these laws clearly illustrate the most prominent feature of this regulation in Vietnam. It shows that the adjustment in the field of standard form contracts and general transaction conditions are unlikely to guarantee the fairness of contract terms in respective of substantive content. That is, the level of consumer protection of the LCP and supplementary regulations only stops at the level of procedural fairness protection rather than at the level of substantive fairness protection. This can be substantiated by the following arguments.

Firstly, the Vietnamese legal system ensures procedural fairness through the Civil Code 2015 and the LCP, focusing on two core principles, the transparency, and openness of the standard form contracts and general transaction conditions. These principles require a business to publicize standard form contracts and general transaction conditions to consumers and give them the appropriate time to read and understand the contract.[64] Transparency is also regulated at higher levels of control through the requirement that business entities in the certain industry must register standard form contracts with the Vietnam Competition Authority. However, this control of state agencies only touches on the formalities through the disclosure obligation of the standard form contract of the enterprise rather than control fairness of the terms of the contract. The provisions in the Civil Code and the LCP relating to this obligation require almost only a trader's acting of registration without further regulation on the approval of the state agency with respect to the terms of the standard form contracts. Thus, the registration is purely procedural to ensure transparency, while also supporting consumer access to the content of standard form contracts. This proves the tendency towards a procedural fairness level of protection in the LCP and the Civil Code.

Meanwhile, substantive fairness adjustment in Vietnamese law manifests itself in a faint and defective way. In comparison with respect to the obligation to publicly disclose the terms of the general transaction and the standard form contract, the clauses expressing control over the substantive content of the contract account are smaller in number and contain many shortcomings. This shows the moderation of substantive content of this regulation in Vietnamese law is still limited.

[64] The Civil Code 2015 art 405 regulates 'The standard form contract must be public in order for the parties to know or should know the contents of the contract', while the LCP art 16 requires 'Upon entry into a standard contract, the business individuals, organizations must provide a reasonable period of time for the consumers to consider the contract'.

Both the LCP and the Civil Code 2015 lack a general definition of what constitutes an unfair term, and there is no regulation of the fairness test of the terms of standard form consumer contracts. The words 'fair' or 'unfair' are not mentioned in either law when looking at the face of the terms used in their regulations. In the absence of an effective test mechanism, a regime of unfair contract terms cannot establish a framework that includes the essential provisions underpinning the application of the judges and administrative bodies on consumer protection. In other words, Vietnamese law has not yet established a sufficient basis for the effective implementation of the protection of the fairness of contract terms.

In the LCP's regulations, two signs of control over the fairness of the contract terms are found in terms of the implication of clauses, but they all have defects, and the LCP's content in terms of the adjustment objective is rather faint. These two signs are expressed in the two laws as follows.

The first sign is that the recognition of the principle of interpretation of unclear contract terms is in favor of the consumer. Article 405.2 of the Civil Code 2015 stipulates that 'where a standard form contract contains terms and conditions which are unclear, such terms and conditions shall be interpreted in a manner favoring the offeree'. In the LCP, this principle is specified in art 15: 'if contents of the contract can be interpreted in different ways, the contracts shall be interpreted in favor of the consumers by person or organizations authorizing to handle violations. The principle of explaining the unclear clauses of Vietnamese law based on the contra proferentem theory is also widely recognized in the legal system of other countries, whereby once contract terms show their unclear meaning, priority should be given in the opposite direction to the interests of the drafting party.[65] Of the three fundamental factors that need to be established in a regulatory framework governing the unfair contract term, this provision of Vietnamese law satisfies the second element of modifying the substantive content of the contract terms. However, the effectiveness of this application in practice is influenced by a number of other factors that have defects.

The second sign is to prohibit the unfair contract term through a blacklist, which enumerates the terms of disclaimer or limitation of liability of the seller or increasing consumer's disadvantageous obligation will have no legal effect. The LCP provides a total of nine categories of terms likely to disadvantage consumers and threatens the fairness of the contract and explicitly states that these terms would void if they exist in the standard form contract or general transaction conditions.[66] The regulation of such a list in the Vietnamese legal system is consistent with the trend of countries in trying to find optimal ways to ensure fairness of standard form contracts to protect consumer interests. The use of this method also shows that the state policy embodied in the LCP is that it does not hesitate to severely limit the parties' contract freedom for the purpose of guaranteeing the equity of this kind of contract.

However, the provision of the blacklist of terms in the regulations of Vietnamese laws reveals many weaknesses due to the lack of a general definition of what is unfair terms, and there no regulation on a substantive unfairness test in the legal system as mentioned above. The first shortcoming is that without a framework of elements constituted from a generic definition and a substantive fairness test on which a term would be considered unfair, this list lacks the basis that can explain their existence reasonably.

An argument that exploits these gaps in Vietnam's legislation is to argue the rationale for

[65] Nguyen Ngoc Khanh, 2007. *Contract Interpretation under the Vietnamese Civil Code:* Jurisprudence Publishing, p. 266.
[66] *The Law on Consumer Protection 2010* art 16.

the list of terms of exemptions or limitation of liability which could be considered to be void in a standard form consumer contract. This argument is based on the assertion that the waiver clause is beneficial in ensuring the effectiveness of the transaction because it can reduce the cost of risk, litigation, and transaction and help the parties bravely invest in the transaction.[67] Therefore, it is unreasonable to stipulate that the presence of these terms in the contract will automatically make themselves voidable, but the probability of their unfairness should be assessed in overall consideration of the contract and the actual situation of the transaction.[68] A feature of just focusing on fairness in terms of formality instead of the substantive fairness makes this regulation in Vietnam hard to be called a regime of the unfair contract term in the proper way. The governing of fairness of the contract terms is rather unclear, and the general terms of the rights and interests of the parties to the contract are not mentioned. As a result, procedural equity emerges sharply in terms of transparency requirements for terms rather than the objective of promoting fairness of standard form consumer contracts. Further, in the regulatory system of this regime in Vietnam, transparency is unlikely regulated at its profound meaning but only limited to the requirement for consumers' access to the terms of the contract. Meanwhile, transparency is also of clarity and purity—in other words, of fairness at the highest level of transparency itself. Such a requirement is challenging for Vietnamese policymakers. Such a request can only be made through the examination of the content of the contract, which is also the consideration of the fairness of the contract terms. Transparency is linked closely to fairness and can only be achieved on the basis of transparency. Therefore, once adjustments to the substantive unfairness of the terms have not been finalized, even the procedural fairness regulations can hardly be enforced effectively in Vietnam.

Considering the perspective of the selecting adjustment model, the change in the policy of publicizing the standard form contract and treatment of unfair terms in Vietnam reflects the move from the traditional adjustment model to the current trend of promoting consumers' choices. However, such a change could succeed and be effective in a comprehensive legal system capable of limiting to a minimum the risk of major disadvantages for consumers. This can be achieved in a whole legal system in which the likelihood of detriment to consumers has minimized thanks to comprehensive coverage and an effective containment system that makes violations by businesses subject to the cost of compensation.

Such a situation, when assessing the overall regulatory provisions and structure of the LCP as previously described, is unlikely to be achieved. Thus, respect for the choice of consumers in the legal context of many shortcomings exposes consumers to more risks than benefits. Nevertheless, it is necessary to reform the legal provisions to better protect consumers rather than to limit the freedom of choice of consumers.

4. RECOMMENDATIONS FOR VIETNAM

From these differences, along with the analyses of the shortcomings of Vietnamese consumer laws, this article proposes some solutions to improve Vietnamese regulations as follows. First, it is necessary to design the regulation for a test of unfair terms of the standard form consumer contract. Such a statutory regulation can be incorporated into the provision of the definition of the unfair contract term, which could be provided in the general protection section of the LCP. This regulation in the LCP requires a set of three elements that a term must satisfy to be

[67] Le Net (2008), "Comment on the Draft of Civil Code (amended) on Exemption Provisions from Liability and Limitation of Benefits in the Contract" (Gop y du thao Bo luat Dan su (sua doi) ve dieu khoan mien tru trach nhiem va han che quyen loi trong hop dong)' <https://thongtinphapluatdansu.edu.vn/2008/02/10/135/>

[68] Ibid.

considered unfair:

1) significant imbalance in the parties' rights and obligations arising under the contract,
2) unreasonably necessary to protect the legitimate interest of the party that would be advantaged by the term,
3) causing detriment to a party when the term is applied or relied on.

Second, it is necessary to remove the regulation in LCP that automatically presumes terms in the blacklist to be unfair and have no legal validity. The list of terms should not be considered invalid until such a conclusion is made after applying the test of the unfair term (as in the ACL) in which the terms do not meet the requirements of being unfair. Likewise, this new regulation should be consistent with the provisions of the Civil Code 2015 on the recognition of the validity of the provisions. Particularly, once consumers understand the consequences of inserting the terms into the contract or they have been reasonably notified of the existence of the terms, the LCP should recognize the legal validity of this agreement.

5. CONCLUSION

While the importance of the legal framework of unfair contract terms on a global scale is undeniable, the level of protection in consumer protection laws varies from country to country. From a legal perspective, that difference results from acknowledging and applying different legal philosophies and theories on consumer protection. Besides, it is also the consequence of adopting correct, carefully studied, or wrong, superficial economic theories or applying half- baked law-making techniques. Thanks to good legislative techniques and being a developed country, Australia has a sophisticated legal framework for unfair contract terms—a standard for Vietnam to aspire to and, therefore, provides insights to reform Vietnam's current consumer law. The findings that this article has proposed will hopefully contribute to a better new look for the Vietnam Consumer Protection Law, which is about to be amended.

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DEBT TRADING UNDER THE VIETNAMESE CIVIL CODE 2015: CHALLENGES AND RISKS

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Abstract

Debt trading means the debt seller transfers the creditor's ownership of the debt to the debt purchaser and receives a payment from the debt purchaser. The Investment Law 2020 has not recognized debt trading as a conditional or prohibited business line, so organizations or individuals can participate in debt trading activities. Thus, this is a great opportunity for developing the debt trading market in Viet Nam, but there are also many challenges and risks. By analyzing current legal regulations, this paper will review debt trading activities within the scope of the Civil Code 2015, identify challenges and risks to come up with some suitable solutions for the development of this activity in the future.

Key words*: debt trading; debt purchase and sell contract; debt trading market; 2015 Civil code.*

1. INTRODUCTION

Currently, according to the assessment of the World Bank[1], the International Monetary Fund (IMF)[2], the world economy is facing great challenges in terms of the risk of recession. After more than two years, the Covid-19 pandemic has left very heavy sequelae to the economy. When the pandemic was partly controlled, and countries were gradually recovering their economies, political instability occurred in some countries around the world, causing fuel prices to rise, breaking the chain, global supply, supply disruption, leading to price fluctuations in the commodity market, global production value have been decreasing. Besides that, the credit tightening policies will also makethe proportion of businesses and individuals falling into debt.

Vietnam is also heavily affected by the Covid-19 pandemic and political instability in other countries. Prices of consumer goods increased, businesses operated inefficiently, causing many overdue debts and bad debts in businesses and individuals. Overdue debts and bad debts are one of the causes leading to limited credit expansion, thereby affecting the production and business activities of enterprises. Debt settlement becomes an urgent issue not only for credit institutions but also for businesses and individuals. Debt settlement by debt trading is an effective solution to create a business environment for organizations and individuals with financial capacity and expertise to perform professionally. In the market economy, especially the debt trading market, debt trading activities are developed to help transfer debt collection rights from debt sellers to debt buyers.

[1] https://www.worldbank.org/en/region/lac/brief/recobrar-el-crecimiento-reconstruyendo-economias-dinamicas-pos-covid

[2] https://www.imf.org/external/pubs/ft/ar/2022/

The purchase and sale of debt is a civil transaction that the parties perform through a contract. Previously, according to the 2014 Investment Law, debt trading was a conditional business, the parties involved in debt purchase activities had to meet the statutory conditions, which caused debt trading activities to be limited on the subject of the debt purchaser. Debt buyers are usually organizations established and owned by the State such as Vietnam Asset Management Company Limited (VAMC), Vietnam Debt Trading Company Limited (DATC). The applied law for debt purchase and sale contracts includes the Civil Code 2015, Commercial Law 2005, but for each participant, there are also governing documents such as: i) For debt trading activities of credit institutions are regulated by Resolution No. 42/2017/QH14, "on piloting bad debt settlement of credit institutions"; Decree No. 53/2013/ND-CP dated May 18, 2013, of the Government "on the establishment, organization and operation of the Asset Management Company of Vietnam credit institutions"; Circular No. 06/VBHN-NHNN dated February 3, 2020, "regulating the purchase, sale and handling of bad debts of asset management companies of Vietnamese credit institutions". ii) For debt trading activities with the participation of DATC is regulated by Decree 129/2020/ND-CP dated October 27, 2020, "on functions, tasks and operation mechanism of the Company. one-member limited liability for buying and selling Vietnamese debt".

The Law on Investment 2020 has come into force from 01/01/2021, according to which debt trading is no longer a conditional business line, so there are no longer restrictions on participants, any organization or individual. Any person who has full legal capacity and personal capacity for civil transactions can buy and sell debt. That makes debt trading activities more involved by participants and can operate freely according to the market economy[3]. It is worth noting that the business of debt collection service as a banned business line, when the subjects of debt collection activities are no longer able to operate, it will give rise to many transformations from debt collection activities to debttrading activities.

2. DEBT TRADING ACTIVITIES UNDER THE VIETNAMESE CIVIL CODE 2015

2.1. Debt and debt trading

Nowadays, "debt" has been defined both from an economic perspective as well as a legal one. From an economic perspective, "debt can understand that the amount that an individual, company, etc. has borrowed from another person. Debts arise from borrowing money to purchase goods, services or financial assets. Debt certificates are proof to get back the loan amount, including interest during the loan term"[4]. In this definition, debt only refers to the relationship arising in borrowing money, it does not cover all property relations because in civil law property is not only money but "Property comprises objects, money, valuable papers and property rights"[5]. From a legal perspective, in the past, Clause 1, Article 3 of Decree 69/2016/ND-CP dated July 1, 2016 on conditions for debt trading services provided a definition of debt. Accordingly, "debt is the obligation to pay the debtor's property to the creditor expressed in a contract or arising rights and obligations as prescribed by law". However, this Decree has expired and was replaced by Decree 31/2021/ND-CP dated March 26, 2021 detailing and guiding the implementation of a number of articles of the Investment Law.

The purchase and sale of debt is the purchase and sale of property rights, because debt is a receivable property of the creditor. The purchase and sale of debt means the transfer of part or all

[3] https://vietnamlawmagazine.vn/structured-debt-bad-debt-and-enterprise-debt-trading-48867.html

[4] Nguyễn Ngọc Văn (2006), *Từ điển kinh tế học*, NXB Đại học Kinh tế Quốc dân, Hà Nội, tr.399

[5] Article 105 Civil Code 2015

of the debt collection rights and other debt-related rights by the debt seller to the debt purchaser and the debt purchaser to pay the debt seller. Debt trading is an activity to transfer debt collection rightsand debt-related rights from the debt seller to the debt purchaser.

Debt trading activities have benefits for the parties involved, the debt seller can liquidate the bad debt and collect a certain amount of money, the debt buyer generates a profit from that purchase. Besides the benefits achieved, debt trading activities are always associated with many risks. For the debt seller, it is necessary to accept the fact that when selling debt, the value will be much lower than the debt, the debt buyer will have a risk in recovering the purchased debt. In debt trading activities, liquidity is not high, because the right to claim debt is a special form of asset. The valuation of purchased and sold debt is complicated and difficult to be accurate, so it requires the participation of experts and experienced organizations.

As a civil transaction, debt trading activities must comply with the basic principles of civil law specified in Article 3 of the Civil Code 2015. In which, the principle of "Each person establishes, exercises/fulfills and terminates his/her civil rights and obligations on the basis of freely and voluntarily entering into commitments and/or agreements" is one of the important principles in debt trading. Specifically, (i) Buyers and sellers have the right to freely choose their partners and subjects in trading activities; (ii) the parties are granted the right to freely negotiate, but such freedom is limited and does not violate regulations of law and is not contrary to social ethics; (iii) the form of transaction establishment, the parties are free to choose whether it is oral or written, notarized, authenticated or not; (iv) when a dispute occurs, the parties are free to choose the method of settlement.

2.2. Noticeable legal issues in the debt purchase and sell contract

Firstly, the participants in debt trading activities.

Any subject being an individual or an organization that meets the conditions of legal capacity and appropriate behavioral capacity can become the subject of debt trading, except in cases where the operation is prohibited. Individual must have legal capacity, full personal capacity for acts, must be the owner of the lawful debt collection right or have the right to transfer the right to collect debt under authorization. For an organization, it must have legal entity status, be established and operate under the law, must be the owner of the right to collect debt or have the right to sell debt under authorization.

Secondly, the object of debt trading activities.

The object of debt trading activities is the debt collection right and the obligations attached to the debt collection right transferred by the seller to the buyer. To become the subject of debt trading activities, such debt collection rights must exist legally and be clearly defined, and there must be sufficient documents proving that such debt collection rights are owned by the seller. The subject of a debt collection right can be formed through a previous purchase and sale contract, a property loan contract, can also be formed from a court decision, arbitration award, can also be formed through a debt purchase and sale transaction, the buyer acquires the right to collect debt, and executes a transaction to sell the debt collection authority to another entity.

Thirdly, the rights and obligations of the parties

The debt seller has the right to receive the full amount according to the agreement between the two parties, depending on the agreement, the method and time of receiving the money is established. The debt seller's obligation, in addition to transferring and carrying out procedures for transferring the ownership of the debt collection right and other rights such as the right to

handle security assets to the debt purchaser, must also transfer all documents to the debtor. In addition, if the debt seller has a commitment to guarantee the payment of the debtor, the debt seller has an additional obligation to be responsible for paying the debt purchaser when it is due, but the debtor does not pay for the debt. debt buyer.

The debt purchaser has the right to own the debt collection right and other arising rights such as the right to handle the secured property, to be transferred all documents related to the debt collection right, in addition, if it is committed to securing the debt payment by the debtor, he/she is entitled to request the debt seller to make such payment when due but the debtor does not pay. The obligation of the debt purchaser is to pay the debt seller correctly and fully as agreed.

Fourthly, transfer of rights

The oblige owns the debt collection right and related rights, transfers that right to the subrogation party, then the debt purchaser becomes the oblige by becoming the subrogate. Such assignment does not require the consent of the debtor, except where the assignment of the right is concurrent with the assignment of the obligation, however, the assignor must give a written notice to the obligor to pay the debt. If there is no notice, when there are costs incurred, the transferor must be responsible for such arising. When transferring a debt collection right with a security measure attached, the assignor must concurrently transfer the security measure. If the obligor does not receive written notice from the licensor and the assignee fails to prove the authenticity of the assignment, the obligor may refuse to pay the debt to the subrogation.

Fifthly, transfer of obligations

When transferring an obligation, the assignor no longer has obligations towards the oblige, the assignee becomes the obligor. Unless otherwise agreed, the security will terminate if the obligation containing the security is transferred. Therefore, the transfer of obligations usually occurs in the type of contract where the outside seller has the right to collect the debt but also has an obligation to perform towards the debtor. When entering into a contract with a debt purchaser, the debt seller simultaneously transfers both ownership of the debt collection rights and obligations towards the debtor to the debt purchaser, subject to the debtor's consent. If the debtor does not agree, the debt seller maynot transfer the obligation to the debt purchaser.

3. SOME CHALLENGES AND RISKS IN DEBT TRADING ACTIVITIES UNDER THE VIETNAMESE CIVIL CODE 2015

3.1. Challenges in debt trading management

First, the management of the debt trading market.

For debt trading activities of credit institutions, foreign bank branches, they are subject to the management, inspection and supervision of the State Bank; for debt trading activities of Vietnam Debt Trading Company Limited (DATC) under the management, inspection and supervision of the Government. For debt trading activities of organizations and individuals, because it is no longer a conditional business line, debt trading activities of organizations and individuals are regulated by the 2015 Civil Code. Due to the market mechanism, there will be many participants. Up to now, there are no specific regulations on which agency or organization is directly responsible for managing and supervising the operation of the debt trading market between organizations and individuals. If a dispute occurs and the parties request a settlement, the Court or Arbitrator shall resolve the settlement, or when the debt trading activity shows signs of violating the criminal law, the investigating agency will only participate in the settlement investigation.

Second, manage the credit of the market.

With the removal of the regulation on the minimum charter capital of debttrading enterprises - previously the minimum charter capital was VND 100 billion, entities with insufficient financial capacity can also participate in business. debt trading. Thus, it may create worse and more complicated consequences for the market, if an entity participating in the purchase of debt is not financially able to pay the debt seller, there will be a dispute over contract performance. That does not solve bad debts but also creates more burden for the judicial authorities in resolving arising disputes. With no regulatory framework for this issue, state management agencies do not have the authority to conduct inspection, supervision, and preventive measures against entities with no financial potential. mainly engaged in debt trading activities.

Third, the challenge of state management of taxes and other financial obligations.

With the operation of the market mechanism, the parties freely agree on the purchase and sale price, when the subjects of debt trading activities deliberately deceive in declaring the true value in the contract, the state agencies will not have a basis to collect income tax, or other financial obligations, from which the State will lose a source of budget revenue. This is a big challenge for the state management agency on tax and financial obligations.

Fourth, challenges in managing social order and security, due to the transformation from debt collection services to debt trading.

Debt collection activities have been banned from business, when the subjects of debt collection activities are no longer able to operate, it will give rise to many transformations from debt collection activities to debt trading activities. When free entities participate in debt trading, it is difficult for state agencies to verify who is the subject of legal debt trading activities and which is the debt collector hiding in the shadow of debt trading activities by "changing names, changing surnames". These subjects, after buying debt, can perform debt collection by threatening, putting pressure... thereby causing many bad consequences for the debtor himself, affecting social security and social orders. Since then, this shall create great challenges for police agencies and local authorities in state management of ensuring social security, social orders, and ensuring a peaceful life for the people.

3.2. Risks in debt trading activities

First, the risk to the market. When there are many entities involved in debt trading but do not have financial capacity, the liquidity of the market will not be high. Since then, it causes the market to fall into a deadlock, when the contract has been entered into, the debt buyer does not fulfill the financial obligations to the seller, the seller does not transfer the debt collection right to the buyer, nor does the seller may proceed to sell that debt to another entity because the debt itself is the subject of a contractual dispute. Dispute resolution cannot happen overnight, but sometimes takes a long time, making suspended debt unable to enter the market. At that time, the purpose of debt trading activities is not achieved, but it also creates more burdens for the parties and for the dispute settlement agency.

Second, the risk to the debt seller. When selling debt to a debt buyer, the debt seller himself is often the weakest party in negotiating the purchase price, because the debt sold is usually a bad debt. Currently, there is no standard valuation to regulate the determination of appropriate prices in debt trading activities. In fact, the price of the debt purchased and sold in the contract usually accounts for about 30% to 50% of the debt value[6], thereby causing a lot of damage to the seller.

[6] https://baodauthau.vn/thi-truong-mua-ban-no-tac-vi-dinh-gia-post81082.html

Another risk is that there is no credit rating mechanism for individuals and organizations engaged in debt trading activities, making it difficult for the debt seller to check the buyer's financial ability, so when the contract has been approved the debt purchaser does not fulfill its financial obligations to the seller.

Third, the risk to the debt buyer. The debt in debt trading is usually a bad debt, this is a high-risk transaction. In fact, there is asymmetry of information between parties in debt trading activities, debt buyers often do not fully grasp information about the debt and financial capacity of the debtor. When buying debt, if there is no collateral for the debt, it is actually very difficult for the debt purchaser to pay the debt purchased from the debtor, because if it is able to repay the debt, the debtor has already paid the debt owner to maintain its reputation, if the debt has collateral, the creditor himself has used measures to handle security assets to recover the debt. At that time, the debt purchaser will face the risk of being paid the purchased debt, if not paid, it will be entangled in a civil dispute. If the parties cannot reconcile, they must use the method of settlement, such as courts or arbitrations. Debt buyers have run out of capital for business activities, wasting time and money in resolving arising disputes.

4. RECOMMENDATIONS

Firstly, there should be a separate regulatory framework for debt trading. With the civil law regulating debt trading as a normal asset trading activity, it has not yet created an adequate legal framework for regulations, because the nature of debt trading activities carries many risks which shall affect socio- economic development. Therefore, there should be a number of separate regulations governing debt trading, in which the following provisions should be noted:

- Specifying clearly the agencies and organizations with the functions and tasks of governance of debt trading activities. This will create a legal corridor in the implementation of supervision and management of the debt trading market, in order to promptly detect, prevent and handle illegal and unethical acts in debt trading. It is recommended that this agency be a part of the finance departments of provinces and centrally run cities.
- Regulations on proving financial capacity, or ability to raise capital for each specific debt trading activity, this does not mean that the minimum charter capital is regulated as in the previous regulations, but in each debt purchase and sale transaction, it is necessary to prove the capital source before the transaction is established for the new contract to take effect. This not only creates favorable conditions for the debt purchaser to be convenient in transferring financial resources, easily participating in activities, but also limits the risk of the debt buyer not having enough finance to pay to the debt seller, causing contract disputes and reducing market liquidity.
- Specify the form of contract payment must be by bank transfer. Although this is not an absolute control, it also limits the dishonest declaration of prices, thereby helping state management agencies have grounds to collect financial obligations to the State.
- The parties must fully disclose information about the purchased and sale debt, thereby limiting information asymmetry, helping the parties to limit risks in establishing transactions. Disclosure of this information can be through the debt trading Exchange.

Second, it is necessary to build debt trading Exchange, forcing debt trading activities to go through this Exchange. The debt trading Exchange shall help parties to sell and buy debt easily through the market. At that time, information about the debt to be traded is publicly and transparently, the parties have enough information to evaluate the debt whether to participate in the

transaction or not. Besides, it also helps state management agencies to easily manage, supervise and inspect market activities, quickly take measures to react to the market when there is a negative situation. The construction of this debt trading Exchange can be applied according to the model of the stock market, assigning management responsibility to the State Securities Commission.

Third, it is necessary to build and develop a credit rating and valuation organization specializing in debt trading activities. When there is a credit rating and valuation organization specializing in debt trading activities, the assessment of the financial capacity of the debt buyer and the debt assessment will be more accurate and reliable, the borrowers the party easily decides whether to trade the debt or not, thereby limiting risks for both the buyer and the seller.

Fourth, the parties involved in debt trading activities need to improve their own capacity when participating in the market to limit risks. For the party with a debt to sell, it is necessary to actively learn the capacity of the party wishing to buy the debt, improve the debt valuation capacity and negotiation skills to limit the risk of selling the wrong debt with its inherent value. For debt buyers, it is necessary to proactively find out enough information about the debt, train human resources to serve the debt assessment, thereby limiting risks when deciding to buy and sell.

5. CONCLUSION

When debt trading is regulated by the 2015 Civil Code, a freely operating debt trading market will create great opportunities for market development but existing many challenges and risks. Challenges in market management and supervision; in the state management of taxes and other financial obligations; in the management of social order and security, by the transformation from debt collection services to debt trading. Besides challenges, there are many risks for the market and parties involved in debt trading. The development of a separate regulatory framework for debt trading activities; building debt trading Exchange forcing debt trading activities to go through the exchange; building and developing credit rating and valuation organizations specializing in debt trading activities. At the same time, the parties involved in debt trading activities need to improve their own capacity when participating in the market as solutions to help limit challenges and risks for debt trading activities when regulated by the Civil Code 2015.

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APPLICATION OF THE THEORY OF PROPERTY RIGHTS IN VIETNAM LAW

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Abstract

Vietnam uses Marxist-Leninist philosophy as the cornerstone for constructing a legal system of property but also acknowledges the importance of private property for economic growth. Therefore, it is inevitable that the controversy over the superiority, efficiency, fairness, and sustainability of private property compared to public property as stipulated in the Constitution and other legal documents is still a barrier to development. How can there be no inequality between the private economy and the state economy? The author suggests to start from the theory of property rights to regulate property rights institutions. This article will analyze the current situation theory of property rights in Vietnam, the value of the theory of property rights, and the application of the theory of property rights to perfect the property rights institution in Vietnam.

Keywords. *property law, property rights, theory*

INTRODUCTION

When the Vietnamese communist revolutionaries fought for the independence of the nation and liberated the people, the question was: why should nations prosper? The answer is the difference between prosperity and poverty is property. But at the beginning of the 20th century, the prosperity of the nation when private property rights were not well defined and enforced was still not fully and universally answered by science. Even private property is occasionally perceived as a source of injustice and exploitation. In 1945, Vietnam established the current state, following communist ideals. Vietnam's modern history over the past 50 years has been a practical demonstration of the pure application of Marxist-Leninist theory to the goal of building a just state while promoting public property, including state and collective property in centralization within a "subsidized" economy controlled by the state. In 1986, unfeasible results from the reality of the "subsidy" period forced policymakers to "Doi Moi", although they were still consistent with Marxist-Leninist theory but had creatively applied them in accordance with Vietnamese practice. Most importantly, the "Doi Moi" wave recognized private property while maintaining a dominant role in law for state and collective property. The economy operated according to the rules of the state-controlled market over the past 30 years has made certain achievements, but when converting from public property to private property, it is not immune to the tragedy of common resources or corruption. Although private property rights are recognized on a practical basis, there is still a lack of a solid theoretical foundation when building property rights institutions. Recently, although it has not been officially named as the theory of property rights or the modern non-Marxist theory of property rights, documents of the Communist Party and current practical laws have begun to reflect views on property rights, on the relationship between property rights and the development of the economy, on the well-defined property rights and strong protections that are scientifically proven and widely recognized by policymakers around the world. This article discusses the essential problems in the modern theory of property rights. It applies the theoretical foundation of property rights in general and

private property rights in particular to perfect the Vietnamese property rights institution.

1. PROPERTY RIGHTS THEORY: A GAP IN LEGAL RESEARCH AND EDUCATION IN VIETNAM

The law, as well as many other things and phenomena, needs to answer the questions of what the law prescribes? And why does the law say that? What theoretical background does that rule come from? If someone claims to be a legal academic, how do they respond to the law? How to apply it in practice? etc. With that being said, this just stops at the "floating" part of the research problem, and these types of questions are not necessarily answered by legal experts, but those who apply them in practice can still thoroughly address these types of questions. However, when going deeper into the "submerged" aspects of the essence of the issue, such as its genesis, function, significance, and comparability, as well as why the legislation is so tightly controlled, not every researcher has the solution. The respondents must examine the theoretical underpinnings of the research topic in order to fully understand the research challenge and react to the legal requirements. Both types of questions must be addressed by anyone who writes laws or talks about changing existing legislation.

Property rights are central to both private and public law, so many Vietnamese scholars discuss them in teaching and research. However, articles in specialized journals, textbooks, reference books, conference proceedings etc. searching regarding the theory of property rights is almost absent or only vaguely mentioned. Survey on the thematic directory of property rights at the library of Law University-Hanoi, which is considered the oldest and most prestigious in Vietnam, with over 100 typical Vietnamese documents by 2018 with key words: ownership, property rights (University, 2018). reveals that the writers' primary concentration is on studying the written law and actual law on property in Vietnam over time and making recommendations to reform the law, with no studies on the theory of property rights being conducted at all. In particular, theoretical documents on property rights are widely cited in the world today, such as: *Some Fundamental Legal Concepts as Applied in Judicial Reasoning* (Hohfeld.1913); *The Problem of Social Cost* (Coase, R.H.1960); *Toward a Theory of Property Rights* (Demsetz, H.1967); *Economic analysis of property rights* (Barzel, Y.1989); *The role of transaction costs and property rights in economic analysis* (Eggertsson, T. 1990) are also almost absent of citations in academic documents in Vietnam. Even familiar Theory of Rights in Rem articles, close to Vietnam's property law, such as: *Property Is Not Just a Bundle of Rights* (Smith, H.E. 2011); *Property as the Law of Things* (Smith, H.E. 2012); *What Happened to Property in Law and Economics* (Merrill, T.W., & Smith, H.E. 2001) are also rarely cited in research. What are the reasons for these circumstances?

The first reason is that the theory of property rights has been under-studied, stemming from the Vietnamese legal system influenced by the civil law tradition, so the Theory of Rights in Rem from ancient Rome is considered as the center, one of the fundamental theories in civil law.

The second reason for the above situation comes from the difference in the legal higher education programs in Vietnam compared to developed countries. A common concept with researchers when doing research topics without a solid theoretical basis is that they are just "blatant" talkers. The same research topic but different theories can give different research results. Reading the studies in bachelor, master, and doctoral theses in law in the past 20 years, one will see that purely Marxist-Leninist theory is popularly applied by researchers as a unique feature of Vietnam. In contrast, in developed countries, teaching bachelor of law degrees and above is identified with the importance of theoretical education as a specific conception of the nature of universities as well as one of their most prominent features. The hallmark of higher

education is that it involves the development of complex conceptual or theoretical structures. The prevailing view in the relevant Western literature is that the pursuit of knowledge and an interest in theory are central to the university. All legal scholars should have knowledge of this theory and should regard it as a necessity in their research and teaching process. Theory should be a natural and integral part of their thinking and their teaching of the law (Cownie, 2000). If a Vietnamese legal scholar is interested in the theory of property rights and uses the Google Scholar tool to search the Vietnamese keyword "property rights theory", he will be completely disappointed with the expected results. However, using the same tool, with the English keyword "Theory of property rights", the results obtained will be beyond the ability of an individual if he wants to study all documents. With more than 100 universities currently training from a bachelor of law or above in the training program, there is always a civil law subject with an average volume of 3 to 5 credits, including a part of property law with the main content discussing property in accordance with the provisions of the Civil Code. A subject for a separate property law is rare in a bachelor's degree program in law in Vietnam.

Although the theory of property rights is a gap in research and training in Vietnam, this concept is frequently mentioned by academia in legal journals, such as: "Using the concept of property rights instead of rights in rem in the draft civil code." (Hanh, 2015); "The problem of institutionalizing property rights in perfecting the establishment of a market economy with a socialist orientation" (Hoang, 2017). In particular, with the characteristics of Vietnam's political regime, the documents of the Communist Party that serve as a guide for drafting and enforcing laws make reference to the idea of property rights, such as: "The institutionalization of property rights of the State, organizations, and individuals was established in the 2013 Constitution." (PARTY'S, 2014). In addition, the government, which has executive authority and is submitting the draft law to the National Assembly, also requires "fully institutionalize the ownership of organizations and individuals as provided for in the 2013 Constitution, ensuring that the property rights are traded easily, effectively enforced, and effectively protected." (MINISTER, 2021). However, what is property in Vietnam? "things" or "rights"? The answer is both, because Article 105 of the 2015 Civil Code stipulates: "Property comprises objects, money, valuable papers, and property rights." Therefore, the directive documents of the Communist Party and the government that require research into the institutionalization of "property rights" in the legal system are derived from the concept of limited property rights in Article 105 of the 2015 Civil Code. Or does the concept of property rights replace the concept of property, including things and rights in the Civil Code? This question has no official explanation from the issuing authority. The term "property rights" in the aforementioned papers, which defines property as "Rights" rather than "Things," is, in the author's opinion, a novel approach in Vietnam that has to be explored in order to replace the definition of "property" as stated in Article 105 of the 2015 Civil Code. In order to complete the task of developing the property institution, the Communist Party and the government expect the academic community to work together on the study and application of the theory of property rights. This is essential for growth and integration.

2. BASIC IDEAS IN THE THEORY OF PROPERTY RIGHTS

The question that we need to ask is, why should nations prosper? We argue that the difference between prosperity and poverty is property. Nations prosper when private property rights are well defined and enforced (Hoskins, 2003). People and property cannot be separated. People without property will fall into poverty and perish. When people own property, it not only sustains life but also values other human rights such as freedom, warmth, and happiness etc. If property is not associated with people, then it is merely a "thing" of the Creator. That is why, for the past 2,500 years, philosophers have tried to define "property is what we own" (LibreTexts,

2022) to represent the intimate relationship between property and people. Therefore, a wide range of scientific fields are interested in the subject of property. Philosophical inquiry examines the roots and beginnings of the nation's human property. Whereas natural science analyzes the laws of nature for the production of property, economics examines the value or mobility of property. At the same time, fundamental jurisprudence analyzes the laws governing the formation and change, termination, and protection of property. What is more, property is a focus of numerous social revolutions that seek to alter the course of a party or nation's policy. Property rights are crucial for development because they enable individuals to reap the rewards of their own labor, promote investment, build up capital, and efficiently manage the resource economy. Property rights specify the legal theory, legal ownership of, and our use of social and natural resources. The state, specific people, or communities may be the owners of these resources.

Property and its relationships are not an easy notion to grasp. "Mine, not yours," as we frequently say, implies an expression of the relationship between the owner and the property. Since the owner's rights are not fixed, the reality is far more difficult. In fact, the definition of property itself is subject to change. For this reason, achieving greater social and economic justice is not only about changing who owns property but also about what rights are attached to ownership. However, the property only has "Right in Rem" or also includes "Right in Personam." What is their relationship? This has remained the focus of legal political science through many periods of academia. What is property? For most people, property means the things we own. On the other hand, legal scholars understand property as a legal relationship between people. Some scholars see property as a natural right, while others see it as a mandate of the government or as a bundle of rights (Singer, 2014). How property is perceived will determine the building of property institutions over time or the laws of each country. Property rights are legal relations between people about the object matter, whether those things are tangible or intangible. An important question is: how are these relationships described? Currently, in the world, there are two popular views: (1) The relationship between people and objects is represented by property rights and (2) Property rights are social rights. Property rights are difficult to define, and there are different views on what is included in the concept of property rights.

First, it derives from Roman law that property rights are the only rights in "rem." The materialistic nature of property rights in rem was later recognized by some property theorists, who discovered that this characteristic is crucial since it creates a foundation of security against outside interference. For example, William Blackstone famously defined property as "that sole and despotic dominion which one man claims and exercises over the external exclusion things of the world, in total of the right of any other individual in the universe." (Blackstone, 2016). According to Adam Smith as well, property is a right in rem. The explanation is that Roman law is a classic in terms of jurisprudence—a legal system with great legal value created over a period of more than a thousand years. Therefore, it is accurate to say that the two concepts of property and obligations serve as the fundamental tenets of both private law and the overall legal system. Countries affected by Roman property law such as Vietnam only consider rights in rem as property rights (the concept of property rights in a narrow sense), and the law often separates rights in rem and rights in personam. For this reason, it is frequently argued that a property and an obligation are fundamentally distinct from one another or that they are mutually exclusive. This theory is supported by the notion that rights in rem are considered to be property rights and that rights in personam are connected to obligations, suggesting that they are personal rights rather than property rights. The classification of rights, including property rights and non-property rights, should be rejected as unprofitable and inconsistent with case law. The recognition that a beneficiary of an obligation has a property right does not erase the distinction

between property and obligation. The interest side of the obligation belongs to the property, but the liability side does not. The interest side of the obligation shows that the property rights correlate with the liability side of the obligation. The issue of property and obligations should not be combined at all; it is not a practical problem to solve. Because obligations have become an important part of property law and the interest side of obligations is an important part of private law (Tarrant. 2011).

Second, property rights encourage us to think about what property rights are rather than just who is the legitimate owner as well as what we mean by "property rights." Property rights essentially involve the social interaction of legal rights between individuals rather than isolated possessions. Because of this, common law countries still consider property to be rights rather than things. An analysis of property rights shows the importance of exercising caution while using the word "property." Properties are frequently employed in a variety of circumstances, which can lead to confusion. According to Bentham, talking about one's property, instead of the things that are important to it, separates things from property and causes people to concentrate more on things than on the rights associated with them (Tarrant, 2008). In contrast to the notion of rights in rem, Hohfeld, who is known as the father of the theory of property rights, was the first to draw a distinct line between property as things and property as rights. Hohfeld contends that property can only be rights between individuals or legal persons over things, not actual items like real estate or breweries (Hohfeld, 1919). Today, a common way of thinking is to view property as an unlimited collection of rights, powers, and obligations. The latter decades of the 20th century saw a significant growth in state engagement in economic concerns, which coincided with a widespread reduction in property owners' constitutional rights. Property was envisioned by Blackstone, Smith, Bentham, and their successors as a unique right in material possessions that fosters the security of expectations regarding the use and enjoyment of resources in particular. The opposing idea that property is a collection of legal relations has been successfully promoted by legal realism (Smith, 2001).

Determining that property is a right between people in a legal relationship, and things are just objects, so contracts are also considered property rights. Is there a relationship between contract law and property law, or is the common belief that "contract law and property law are different fields that deal with different issues together?" In fact, these two fields are very closely related. The conclusion, modification, and termination of a contract are essentially transactions subject to property law, and therefore, a strict division between contract law and property law is unreasonable. Contract law deals with enforceable commitments or legally binding agreements. It facilitates exchanges, protects the mutual and private interests of the parties, and provides a mechanism to settle disputes over private. Contractual claims are also seen as moral rights (rights in personam), as they allow the obligee to compel the obligee to carry out specific legal obligations. This is distinct from property rights (rights in rem), which are the subject's legal entitlements to direct control over an object. Any interference is deemed unlawful. As a result, property law frequently addresses the legal relationships (property rights) of people to things. Although there is a distinct distinction between contract law and property law, these two fields interact and support one another due to their interdependence. Contract law is also known as "the generator or enabler of property law," because property rights are transferred through the conclusion of a contract. Therefore, it is common to refer to contractual rights as property rights (Wolff, 2020). (the concept of property rights in a broad sense).

On the role of property rights: There is widespread academic recognition that the legal system and property rights play an essential role in economic development, from Hayek (1960) to North and Weingast (1989) to Acemoglu and Johnson (2005) to Gwartney (2009) and Ogilvie

and Carus (2014) (Murphy, 2020). Therefore, in the institution of property rights, if the determination of property rights on the basis of theories, principles, policies, and legal rules on property rights plays an important role, the enforcement and protection of property rights are decisive. Property rights are at the heart of any economic activity, i.e., an economic activity that is and can only be effectively exercised if private property rights are secured. In other words, no one will become economically active if he can be deceived by the fruits of his efforts. In addition, only in a system of clearly guaranteed private property rights can prices make sense and ensure economic efficiency (Heitger, 2003). Effective property rights protection is key to a country's economic prosperity (Libecap, 1990).

According to the economic analysis of the legal theory of property rights put forward by Ronald Coase, Douglass North, Oliver Williamson, Harold Demsetz, and Yoram Barzel, why do countries with the same natural resources differ from each other economically? The answer lies in the structure of property rights in an economy that affects the allocation and use of economic resources in specific and predictable ways. Property rights that are ill-defined or ineffectively enforced may be the cause of some economies' poor performance. Property rights are addressed with a policy suggestion for developing and transitioning economies (Libecap, 1990). Therefore, the obligation to establish property rights must be specifically specified by law and vigorously enforced, regardless of whether the resources are those of the individual, the community, or the state. Institutions based on property rights support how well economies run and how income is distributed.

In a legal relationship involving property rights, the subject must have the following rights: (1) the exclusive right to use the property; (2) the right to an interest in the property; and (3) the right to transfer the property. The degree to which property rights are enhanced and enforced is a measure of how efficient an economy is. Where the property rights system is strong, the economy is more efficient. Therefore, effective property rights cannot be achieved without the role of the state. In relation to property rights, the role of the state includes (1) defining, interpreting, and enforcing property rights; (2) defining property rights is a legislative function of the state; (3) interpreting property rights as a judicial function of the state; and (4) exercising property rights is a function of the state (Mueller, 2008).

According to property rights theory, the definition of property is a broad one, because property can be considered to be anything that has value and is capable of being owned. But any definition of property must include concepts of economics, wealth, and rights acquired, as well as the ability of the law to protect rights. The legal concept of property is that it constitutes a bundle of rights, namely: (1) the right to possess one’s property; (2) the right to use property; (3) the right to exclude others; (4) the right to transfer ownership by gift or by sale; (5) the right to dispose of one’s property after death; (6) the right to compensation from governments if they acquire the property (Davies, 2015). This idea of the bundle of rights derives from a combination of Hohfeld. Hohfeld believed that there were different types of "right" very broadly conceived, which needed to be kept separate from each other and which could only exist between two individual people (Sheehan, 2017).

3. APPLYING THE THEORY OF PROPERTY RIGHTS TO PERFECT THE INSTITUTION OF PROPERTY RIGHTS IN VIETNAM

First, Vietnam should keep up its ancient Roman-inspired research and teaching of rights in rem in its undergraduate and graduate legal education and training programs. This is to help students comprehend how property was perceived in the past and why this theory is relevant to the economic, scientific, and social conditions before the 20th century. Furthermore, Vietnam

should continue to define the Marxist-Leninist theory of property rights, emphasizing its benefits and shortcomings that require correction besides adding fundamental information to the training curriculum for law students in their first four years of study, such as the following: (1) the origins and typical forefathers of the theory of property rights; (2) the main points of the theory of property rights; and (3) the significance and function of the theory of property rights in the evolution of the law and the market economy. With regard to resources, tangible or intangible objects that are exclusively the object of property rights. Concentrating on learning outcomes and goals, the training program must assist students in comprehending, analyzing, and demonstrating that property rights are rights and that there are legal relationships between people. Students' abilities and attitudes toward output criteria are documented after studying the theory of property rights. The training program should assist students in comparing and applying the theory of property rights in order to assess the clauses of the existing legislation and the direction of reform. Students need to understand how important property rights are to the health of the nation.

Second, due to the features of Vietnamese politics, the Communist Party texts are helpful for regulating the formulation and application of the law. When entities posting these declarations use the term "property rights," it is vital to specify that it replaces the commonly understood concept of property. This indicates that if a notion has not been explored in Vietnam, it should be thoroughly explained or researched by academics.

Third, the concept of "property rights" rather than the concepts of ownership or property must be used consistently throughout the Constitution and other legal texts.

Fourth, the thorough reform the present Civil Code of Vietnam (2015) should be carried out with regard to the idea and framework of the law, including the regulation of property, inheritance, and contracts. In particular, it should be doen by replacing the idea of property with the concept of property rights in Article 105 (which considers the theory of rights in rem as the dominant theory) (according to the theory of property rights). Vietnam's Civil Code is regarded as the country's private law Constitution. The Civil Code must be followed in all specific legal agreements governing property relations involving objects of property rights, such as land, minerals, copyright, securities, etc.

CONCLUSION

In industrialized countries, the theory of property rights is widely utilized to apply and implement legislation pertaining to property rights. However, because there are still many people who have not had the opportunity to learn about the theory of property rights, the fundamental ideas of this theory have not been applied in the development and application of the legal system in Vietnam. This limitation leads to conflicts over property rights between entities, especially related to resource objects such as land, minerals, the environment, or virtual property, which still lack a fair legal basis. The current property rights regime has not yet protected the rights of property rights holders as the investment, economic, and social environments have not developed as expected. To escape the title of a middle-income country, Vietnam urgently needs to build a property rights institution in accordance with the theory of property rights.

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COMPARISON OF THE UNITED STATES, THE EUROPEAN UNION, AND VIETNAM'S PESTICIDE REGULATIONS FOR AGRICULTURAL PRODUCTS' MAXIMUM RESIDUES LEVEL

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Abstract

Because of the agricultural industry's competitive advantage, Vietnam's agricultural products have increased significantly in value and export volume in recent years to key markets such as the United States, the European Union (EU), Japan, and others. However, one issue that is causing various challenges for Vietnam's agricultural exports today is being warned or forbidden from importing by the importing country for violating pesticide residue levels and maximum residues in exported agricultural products. The article examines pesticide management and maximum residue levels (MRL) legislation in the United States, the European Union, and Vietnam, and then offers suggestions for improving Vietnam's legal pesticide management standards and establishing MRL for pesticides.

Keywords: *Regulations, Maximum residue level, pesticide, US, EU, Vietnam*

1. CONCEPT OF MAXIMUM RESIDUE LEVEL OF PESTICIDES

According to the FAO, the word "Maximum residue level" is synonymous with the terms "Maximum residue level", "Maximum residue limit" (FAO, 2021),[1] or the term "Tolerances" in the United States (EPA, 2021).[2] There are numerous definitions for the phrase pesticide MRL, including the following:

The Maximum Residue Limit (MRL) is defined in Article 2 of the International Code of Conduct for Pesticide Management as the maximum concentration of residue permitted by law or recognized as appropriate in or on food, agricultural goods, or feed (FAO and WHO, 2014).[3]

According to the European Union, the MRL "is the maximum permissible level of pesticide residues in or on food or feed pursuant to Regulation (EC) 396/2005, based on food farming practices and the lowest level of consumer exposure essential to safeguard vulnerable consumers."

In Vietnam, the Ministry of Health defines pesticide residues (residues) as residues in food

[1] FAO (2021). *Maximum Residue Limits*. http://www.fao.org/pesticide-registration-toolkit/information-sources/maximum-residue-limits/en/, accessed on August 8, 2021.

[2] United States Environmental Protection Agency – EPA (2021). *Regulation of Pesticide Residues on Food*. https://www.epa.gov/pesticide-tolerances, accessed on August 8, 2021.

[3] FAO and WHO (2014). *The International Code of Conduct on Pesticide Management*. http://www.fao.org/pest-and-pesticide-management/pesticide-risk-reduction/code-conduct/en/, accessed on August 6, 2021.

as a result of pesticide use. Pesticide residues might originate from unknown, unforeseen sources (such as the environment) or from the usage of chemicals. Pesticide residues, which include pesticide derivatives such as conversion products, metabolism products, reaction products, and impurities, are regarded to be harmful in nature. The maximum limit for pesticide residues is defined as the total amount of pesticide residue in food (in milligrams per kilogram of food).[4] The Ministry of Science and Technology also supplied the following lengthy and comprehensive explanation: Pesticide residue is the active ingredient, its metabolites, and other components of a medicine that persists on plants, agricultural products, soil, and water over time as a result of living systems and external factors (light, temperature, humidity...). A drug's residue is indicated as mg (milligrams) of drug per kilogram, agricultural product, soil, or water (mg/kg). The authorized MRL is the maximum concentration of a drug residue, stated in mg/kg, that is legally permissible or deemed acceptable in or on agricultural or feed products without causing harm to people or animals when consumed. The MRL will be inversely proportional to the medicine's toxicity; that is, if the drug includes a high level of toxicity, the MRL will be low in order to avoid hazardous residues in the product.

Thus, the pesticide MRL is the maximum amount of a certain drug residue that is permitted to exist legally or is deemed acceptable in or on agricultural products, feedstuffs, etc., animals without causing harm to the user or the animals that consume such foods.

2. REQUIREMENTS FOR THE DETERMINATION OF MAXIMUM RESIDUE LEVELS OF PESTICIDES

Regulations on MRLs and other sanitary and phytosanitary measures are issued with the greatest priority of preserving consumer health, plant and animal health, and environmental protection. These measures, however, should not be used beyond need and should not impede trade. As a result, the MRL must be developed in accordance with the following broad principles of the WTO SPS Agreement:

Article 3 of the SPS Agreement specifies three options for Member States to consider when implementing their own sanitary and phytosanitary measures: (i) based on the Member State's SPS measures adhering to international standards in accordance with Article 3.1; (ii) adhering to international standards in accordance with Article 3.2; and (iii) imposing an SPS measure with a higher level of protection than generally recognized international standards in accordance with Article 3.3.[5] The Appellate Body in EC - Hormones (1998) determined that a Member State measure is based on an international standard if it is derived from one or more existing international standards, based on international standards to develop MRLs for its country.[6] Regarding the second approach, if a Member State's SPS measures comply with international standards, those measures will be considered to provide an adequate level of protection and will be considered to provide an appropriate level of protection under the SPS Agreement and the GATT 1994 (localization or direct reference to international standards on MRLs, such as those of the Codex).[7] If a Member State decides to go above and beyond existing international requirements (as per Article 5.7 of the SPS Agreement), those actions must be based on scientific evidence and risk assessed.[8]

[4] Article 1(1) of Circular 50/2016/TT-BYT.

[5] Peter Van De Bossche and Werner Zdouc (2013). *The law and policy of the World Trade Organization (3rd ed.).* Cambridge University Press. p. 910.

[6] WT/DS26/AB/R WT/DS48/AB/R, para. 78.

[7] Article 3.2 of the SPS Agreement.

[8] Footnote number 2 of the SPS Agreement.

According to the WTO's 2019 Report, approximately 51% of nations' sanitary and phytosanitary measures now diverge from available international standards.[9] Furthermore, according to FAO and Codex statistics, the percentage of countries in the world applying MRL standards that are lower than Codex (meaning higher MRL requirements) is increasing, particularly in the following countries: Australia (about 70% MRL lower than Codex), the United States (more than 70% MRL lower than Codex), the EU (more than 80% MRL lower than Codex), and Japan (nearly 80% MRL is lower than Codex). This is contrary to the purpose of harmonization (standardization) of international standards and is likely to obstruct international trade activities, impair the economy, and eliminate hunger and poverty reduction in developing and undeveloped countries.[10]

According to WTO general principles, each nation has the ability to adopt its own rules when it comes to licensing and establishing an MRL within its borders. As an example:

(i) Australia gives the general parameters for calculating pesticide MRLs as follows: The Australian Pesticide and Veterinary Medicines Authority (APVMA) registers, authorizes, and establishes MRLs for all agrochemicals and veterinary chemicals in Australia. The pesticide MRL is based on the amount of chemical required to control pests or diseases, as well as the level of safety for human health when consuming foods containing pesticide residues plant protection. Limits are set using internationally recognized procedures (empirical methods) and national scientific data, and they should be substantially lower than what would represent a health risk to consumers.[11]

(ii) The European Commission's Regulation (EC) 396/2005 to regulate the registration and establishment of MRLs in the EU has repeatedly emphasized the requirement of MRL management and establishment to protect a high level of consumer protection.[12] As a result, the applicant is required to submit the papers listed in paragraph 2 of Article 14 of Regulation (EC) 396/2005 as a basis for considering the issue of a license to use and establishing MRLs for pesticides. The Committee reviewed the relevant literature and consulted with the European Food Safety Authority.[13] The EU will assess and approve a pesticide MRL for wide use in all European Union countries.[14] The OECD[15] MRL calculation formula is used to issue MRLs in the United Kingdom.[16]

(iii) Section 408 of the United States Food, Drug, and Cosmetic Act (21 USC 346a) requires that the MRL be set to "safe" levels.[17] The safety level is defined as "reasonable

[9] WTO – Trade Policy Review Body (2019). *Trade-restrictive measures continue at historically high level*. https://www.wto.org/english/news_e/news19_e/trdev_22jul19_e.htm, accessed on 23/7/2019.

[10] FAO (2020). *Understanding international harmonization of pesticide Maximum Residue Limits (MRLs) with Codex standards: A case study on rice*, http://www.fao.org/3/cb1428en/cb1428en.pdf, accessed on July 5, 2021, pp. 9-11.

[11] Food Standards (2018). *Chemicals in food - maximum residue limits*. https://www.foodstandards.gov.au/consumer/chemicals/maxresidue/pages/default.aspx, accessed on 08/8/2021.

[12] Point a paragraph 1, Article 14 of Regulation (EC) 396/2005.

[13] Clause 6 Preamble to Regulation (EC) 396/2005.

[14] EC (2021). *How are EU MRLs set?* https://ec.europa.eu/food/plants/pesticides/maximum-residue-levels/how-are-eu-mrls-set_en, accessed on 08/8/2021.

[15] OECD (2021). *OECD Maximum Residue Limit Calculator*. https://www.oecd.org/chemicalsafety/pesticides-biocides/oecdmaximumresiduelimitcalculator.htm, accessed on 08/8/2021.

[16] Health and Safety Executive - HSE (2021). *MRLs and import tolerances*. https://www.hse.gov.uk/pesticides/mrls/index.htm, accessed on 08/8/2021.

[17] 21 USC 346a(b)(2)(A).

certainty that no harm will result from pesticide residue exposure".[18] In the United States, the Environmental Protection Agency (EPA) has the jurisdiction to issue pesticide licenses and set MRLs. As a result, before authorizing pesticides to be used on crops, the EPA uses experimental data to determine the maximum residual limit that a pesticide can have in or on each processed product (Canada also follows this method). Following a thorough assessment of the application file and Expert Council recommendations, EPA will post a notice on the Federal website inviting relevant groups and individuals to comment on the proposed MRL. Based on the available facts and other comments, the EPA will either reject the application or create a final MRL. Once a pesticide's MRL has been determined, the EPA makes this information public, and the new MRL rule is also added to the Code of Federal Regulations (CFR).[19]

Currently, pesticide MRLs in Vietnam are assigned to two specialized ministries to manage from two different perspectives: (i) the Ministry of Agriculture and Rural Development manages the List of banned pesticides and allowed to use in the agricultural sector in Vietnam; and (ii) the Ministry of Health specifies the types of pesticides that are allowed to be used and the MRLs of pesticides that are left in food (agricultural products). However, there is currently no legislative document in Vietnam that uniformly specifies the principles of developing and granting MRLs for pesticides. According to Vietnamese Standard No. TCVN 5139:2008, the recommended method of sampling to determine pesticide residues is consistent with the maximum residue limits announced by the Ministry of Science and Technology; the basis for issuing a pesticide MRL is based on the results obtained from the experimental method, and there are no other guidelines in principle to determine how the MRL is suitable for the protection health of producers, consumers, and workers.

The idea of promulgating regulations on MRLs is outlined in only one document, Circular No. 24/2019/TT-BYT of the Minister of Health promulgating regulations on the management and use of supplemental food additives of 400 types of additives, dated August 30, 2019. The purpose of Circular No. 24/2019/TT-BYT is to control the MRL of food additives, not pesticide MRLs. The outstanding feature of Circular No. 24/2019/TT-BYT is that it specifies entire guidelines for adjusting the additive MRL in accordance with global practice. To be more specific, the MRL must aim to assure human health safety. Harmonize with worldwide norms and regulations on food additive management and use; Updated in accordance with recommendations on risk management for food additives issued by Vietnam's competent authority, the Codex Committee of International Food Standards, the United States' Expert Committee on Food Additives, the Food and Agriculture Organization (FAO), and the World Health Organization (WHO), as well as other countries.[20]

Second, establish guidelines for calculating the maximum amount of food additives that can be used in conformity with Good Manufacturing Practices (GMP): (i) Use the smallest amount of food additives possible to achieve technical efficiency; (ii) The amount of food additives used in the production process must ensure that it does not change the nature of the food or the technology of food production; and (iii) Food additives must ensure food quality and safety and be processed and transported as food ingredients.

As a result, Vietnam currently lacks legislation governing the principles and requirements for determining how MRLs of pesticides are appropriate for protecting human health, plants,

[18] 21 USC 346a(b)(2)(A)(II).

[19] 40 CFR 180.29.

[20] Article 4 of Circular No. 24/2019/TT-BYT.

animals, and the environment. The basis for determining the MRL of pesticides on crops is currently based on the guidance of TCVN 5139:2008, that is, using the experimental method of collected samples and lacking guidance on specific factors that must be considered when setting the MRL for a specific drug, as the United States, European Union, or Australia are doing.

3. REGISTER TO APPLY THE MAXIMUM AMOUNT OF RESIDUE

3.1. European Union

The European Commission enacted Regulation (EC) No 396/2005 to provide a single legislative framework for pesticide registration and MRL establishment, as well as to regulate the harmonization of the regulatory system for MRLs across the EU region. Under EU law, all actors with a legitimate health concern, including civil society organizations, manufacturers, growers, importers, and producers of regulated products listed in Annex I of Regulation (EC) 396/2005, can apply to an EU Member State for a license to use and establish an MRL for one or more pesticides under Article 7 of Regulation (EC) 396/2005,[21] including the filing of an application for import. Articles 6 to 14 of Regulation (EC) 396/2005 detail the process of applying for a license to use and establishing the MRL of a plant protection medication. As a result, the applicant will apply directly to an EU member state. After reviewing the application, the applicant will submit it along with its assessment to the EC; the EC will transfer this dossier to the European Food Safety Authority (EFSA), which is in charge of reviewing the dossier and advising the European Commission on whether to approve the application and establish, modify, or deny the application to establish the MRL.[22]

The following information must be supplied to an EU member state when applying, according to paragraph 1 of Article 7 of Regulation (EC) 396/2005:

First, the applicant's name and address;

Second, the record includes: (i) a record summary; (ii) the main text of the request to apply the MRL; (iii) a list of documents; and (iv) a copy of a set of GAP (good agricultural practice standards) relevant to the specific usage of the pesticide;

Third, a thorough examination of the scientific data on pesticide-related issues in the record;

Fourth, the data required to establish the MRL are specified in Annexes II and III of Regulation (EC) No 91/414.

The European Commission will consider the following factors when deciding whether to accept an application for the formation of a pesticide MRL:[23] (i) Scientific and technical information; (ii) The possibility of pesticide residues originating from sources other than the current use of active pesticides, as well as other cumulative and cumulative effects; (iii) The results of the potential risk assessment to high-volume and highly vulnerable consumers and animals (if necessary); (iv) The results of all assessments and decisions related to crop protection product amendments; and (v) CXL or GAP made in a third country;

The receiving State Party may, if required, demand the applicant to supply additional information relevant to the application; the overall application process shall not exceed two

[21] Clause 2 of Article 6 Regulation (EC) 396/2005.

[22] Duong Anh Son, Tran Vang-Phu (2021). *Regulation of the EU on the maximum residue levels of pesticides – comments and criticisms*. Journal of Legal, Ethical and Regulatory Issues, Volume 24, Special Issue 1-68, pp. 2-3.

[23] Clause 2, Article 14 of Regulation (EC) 395/2005.

years.[24] According to a research by the United States International Trade Commission (USITC), the real time for a pesticide to be licensed is 2.5 to 3.5 years from the time of application.[25] After the EFSA has reviewed the application and based on its consultation, the EC will consider establishing a specific MRL level for a pesticide that has been or is being considered for a license to use within a minimum of three months,[26] but in reality, up to two years.[27] The EFSA, in particular, will conduct risk evaluations in order to advise the EC on the necessary MRL.[28] Assume that a specific MRL application is rejected. In that situation, the above-mentioned drug-containing commodities will be subject to the default MRL or the lowest limit of detection (LOD).[29] The above two processes are rated as having a lot of redundant content, which wastes time and money for applicants and creates unnecessary barriers to trade, especially for imported items (USITC, 2020).[30]

3.2. The United States

Along with this issue, the United States has very detailed regulations on the application, application composition, and registration fee. As a result, the applicant (all companies and people) will submit two sets of dossiers to the Environmental Protection Agency (EPA) in accordance with Article 180.7, part 40 of the Environmental Protection Code (abbreviated 40 CFR 180).[31] The registration dossier contains 16 types of information specified in Article 180.7(b), including some key information such as I a summary report of information related to the registered substance; (ii) the name and composition of the registered substance; (iii) complete reporting of the registrant's test results (laboratory and experimental); proposed MRLs and residue levels specified by Codex (if any); and (iv) supporting documents for other applications or other documentation.

Currently, US law does not indicate how long the time limit for awarding a pesticide license is from the date of receipt of a complete and legal dossier. The time it takes to obtain a license will vary depending on the pesticide and the amount of samples analyzed, but the average period from application to final EPA results is 2 to 3 years.[32] When reviewing a pesticide's MRL, the EPA must consider the Codex recommendation for the registered drug; in the absence of the Codex-recommended MRL, the EPA[33] or the applicant (where the applicant requests not to use the Codex standard) must provide an explanation and public posting of the reasons for not using the Codex standard.[34] Unlike in the EU, where the applicant must go through both the

[24] Clause 2 Article 7 Regulation (EC) 396/2005.

[25] USITC (2020). *Global economic impact of missing and low pesticide maximum residue level*. Investigation number: 332-573, Vol. 1, p.123.

[26] Article 14 Regulation (EC) 396/2005.

[27] USITC (2020). *Global economic impact of missing and low pesticide maximum residue level*. Investigation number: 332-573, Vol. 1, p.125.

[28] Ecorys (2018). *Study Supporting the REFIT Evaluation of the EU Legislation on Plant Protection Products and Pesticides Residues (Regulation (EC) No 1107/2009 and Regulation (EC) No 396/2005)*. European Commission, Directorate-General for Health and Food Safety, p. 194.

[29] Article 3 of Regulation (EC) 396/2005.

[30] USITC (2020). *Global economic impact of missing and low pesticide maximum residue level*. Investigation number: 332-573, Vol. 1, p.125.

[31] Section 180 Part 40 – Environment Protection e-CFR.

[32] EPA (2021). *Pesticide Registration Manual: Chapter 2 - Registering a Pesticide Product*. https://www.epa.gov/pesticide-registration/pesticide-registration-manual-chapter-2-registering-pesticide-product, accessed on Septemper 1, 2021.

[33] 21 USC 346a(b)(4).

[34] 40 CFR 180.7(b) (14).

application for a license to use and the application to establish the MRL for a specific pesticide, US legislation mandates that the EPA perform its evaluation after the application is accepted to establish a specific MRL.[35] At the same time that the United States specifies highly specific registration fees for establishing, modifying, or canceling the MRL, as well as the instances in which the registration fee is exempted and refunded,[36] the EU has no laws on this subject.

3.3. Vietnam

All pesticides used to control organisms harmful to plants; plant growth regulation; plant preservation; warehouse disinfection; except for harmful effects on construction works and dykes; remove weeds on uncultivated land; increase safety and effectiveness when used (with its trade name) must be registered in the "List of pesticides permitted for use in Vietnam".[37] Domestic or foreign organizations and individuals (who have a representative office, company, or branch of a pesticide trading company that is currently licensed to operate in Vietnam) have the right to register the pesticides that they manufacture directly in their name.[38]

According to Article 13 of Circular No. 21/2015/TT-BNNPTNT, the following application and components must be filed to register the use of plant protection medications in Vietnam:

To begin, organizations and individuals submit dossiers to the Plant Protection Department directly, by post, or online; the Plant Protection Department must check the dossier's legitimacy within two working days. If the dossier is authentic, it will be received; if not, it will be returned to the organization or individual and supplemented and finished.[39]

Second, the quantity of documents: one paper copy and one electronic copy of the label template in Word, Excel, or PowerPoint format.

The profile includes the four categories of documents listed below:

(i) An application form for a certificate of registration of plant protection medications, completed in accordance with Appendix II of Circular No. 21/2015/TT-BNNPTNT;

ii) A copy of the trial license granted;

iii) A sample medicine label in accordance with Sections 1, 2, 3 of Chapter X of Circular No. 21/2015/TT-BNNPTNT;

iv) The original of the biological validity test results, the test results used to calculate the isolation duration, and the summary report of the test results in the manner prescribed in Appendices VI, VII, and XI to Circular No. 21/2015/TT-BNNPTNT.

Fourth, within 06 months of receiving a complete and valid dossier, the Plant Protection Department shall organize the appraisal and submit it to the Minister of Agriculture and Rural Development to add plant protection drugs to the List of pesticides plant protection permitted for use in Vietnam; grant a certificate of registration of pesticides using the form specified in Appendix V issued in conjunction with Circular No. 21/2015/TT-BNNPTNT.[40] Although the time limit for licensing the use of pesticide medications is six months from the moment the Plant Protection Department receives a complete and valid dossier, the dossier must be accompanied

[35] 40 CFR 180.29.

[36] 40 CFR 180.33.

[37] Clause 1, Article 5 of Circular No. 21/2015/TT-BNNPTNT.

[38] Clause 2, Article 5 of Circular No. 21/2015/TT-BNNPTNT.

[39] Clause 1, Article 10 and Clause 1, Article 13 of Circular No. 21/2015/TT-BNNPTNT.

[40] Clause 3, Article 13 of Circular No. 21/2015/TT-BNNPTNT.

by data to be licensed. The test was carried out in accordance with the legislation. The period and scope of testing vary depending on the type of plant protection medicine, but the average is one year to three years. As a result, to be licensed to use in Vietnam, the registrant must take between 02 and 05 years.[41]

It should be noted is that if a plant protection medicine is patented in a foreign country but has not been approved for use in another country (inventor country or other third countries), it cannot be registered for testing and use in Vietnam.[42]

Thus, for new plant protection drugs to be approved in Vietnam, the registrant must apply directly to the Plant Protection Department of the Ministry of Agriculture and Rural Development. Although the profile's composition is very straightforward in comparison to US and European Union rules, the assay information of the type of registered medicine is the deciding factor in the final evaluation. National Technical Standard No. TCVN 5139:2008 (CAC/GL 33-1999) specifies the current testing and sampling procedures. TCVN 9016:2011 - Sampling method for short-term crops such as leafy vegetables, fruit vegetables, and tea; TCVN 9017:2011 - Sampling method on production gardens for perennial plants such as perennial fruit trees; TCVN 9018:2011 - Sampling method on production gardens. These standards have all been compiled based on papers used by Codex or other international organizations and developed countries, ensuring that the testing and sampling procedures under Vietnam's existing regulations are in conformity with worldwide regulations. The plant protection drug testing process in Vietnam is carried out according to world standards. However, a very important issue now is when the Ministry of Agriculture and Rural Development approves the application for registration of a pesticide. For certain pesticides to be included in the List of pesticides used in Vietnam, this agency does not simultaneously stipulate the pesticide residues of that drug. However, there are only instructions on the amount and dosage to use, the date of pre-harvest isolation, etc. At the same time, there is no regulation on the registration process to establish the specific MRL for the licensed drug.

Regarding the establishment of MRLs for pesticides, only the provisions of Clause 2, Article 38 of Decree No. 15/2018/ND-CP stipulate that the Ministry of Agriculture and Rural Development is responsible for formulating and sending The Ministry of Health promulgates regulations on safe limits for product groups in Appendix III issued together with Decree No. 15/2018/ND-CP. However, up to now, there has been no document guiding the specific process of setting safe limits for food, as well as the coordination and responsibilities of the Ministry of Agriculture and Rural Development with the Ministry of Health on this content. This omission has led to confusion for both producers and authorities in the management and control of MRLs for post-harvest agricultural products and to compare with the regulations of the importing country. Current regulations make pesticide management very expensive for both government agencies and businesses, and users due to cumbersome procedures for testing and effective management and re-enforcement very low, contrary to the management of countries in the world today.

4. ESTABLISH A TEMPORARY MAXIMUM RESIDUAL LEVEL FOR PESTICIDES AND A DEFAULT MAXIMUM RESIDUE LEVEL

[41] Dan, D. B. N. (2018). Tọa đàm "Nâng cao hiệu quả công tác quản lý và sử dụng thuốc bảo vệ thực vật - Định hướng và lộ trình thực hiện" - Seminar "Improve the effectiveness of the management and use of pesticides - Orientation and implementation roadmap" (*translated by author*). https://daibieunhandan.vn/toa-dam-nang-cao-hieu-qua-cong-tac-quan-ly-va-su-dung-thuoc-bao-ve-thuc-vat---dinh-huong-va-lo-trinh-thuc-hien-412076, accessed on September 29, 2021.

[42] Article 6 of Circular No. 21/2015/TT-BNNPTNT.

Because soil conditions and farming techniques vary by region and country, so do pesticide types and concentrations. Since then, the list of pesticides allowed in each country has changed but registering a new medicine or revising or supplementing an existing prescription takes time.[43] To better protect consumer health and handle imported consignments containing pesticides that are not on the List of pesticides permitted for use in the importing country, countries around the world have developed regulations on temporary pesticide residue levels and default pesticide residue levels.

The US does not have a default pesticide MRL, but it does have a temporary pesticide MRL. As a result, 40 CFR 180.31 establishes a temporary pesticide MRL as follows:

First, the applicant for a temporary pesticide MRL must have obtained or be applying for a Federal Insecticide, Fungicide, and Rodenticide Act permission to test pesticides. The applicant must attach the appropriate documentation per 40 CFR 180.7(b) and pay the application fee subject to 40 CFR 180.33.

Second, temporary pesticide MRLs may be provided for raw agricultural commodities generated during drug testing under a Pesticide, Fungicides and Drug Administration testing permit. The pesticide MRL may be temporarily revoked if the trial permission is revoked or if scientific data shows that the temporarily established MRL did not fulfill the safety criteria.

Since the US does not have a default pesticide MRL and does not have a reference to the Codex's recommended residue level, pesticide businesses intending to use or import items containing pesticide residues must first apply to the US Environmental Protection Agency for a temporary MRL. A zero-tolerance policy for medications that have not been authorized for use in the United States, are not allowed for use, or are utilized without authorization[44] is also regarded a substantial trade barrier in the United States.[45]

Provisional and default residue levels for non-formula pesticides are set out in Regulation (EC) 396/2005. Drugs not listed in Annexes I and II of Regulation (EC) 396/2005 will be prescribed provisional MRLs for pesticides.[46] The temporary maximum residue level will be established as low as possible in all Member States (GAP). The establishment or modification of interim MRLs will be implemented and listed in Annex III of Regulation (EC) 396/2005.[47] A temporary MRL shall be removed from Annex III of Regulation (EC) 396/2005 one year after the date of inclusion or non-inclusion of the pesticide in Annex I of Directive 91/414/EEC, as provided in Article 45, paragraph 2 of Regulation (EC) 396/2005. the date of the plant protection drug's inclusion or exclusion from Appendix I of Directive 91/414/EEC, as per Article 45(2) of Regulation (EC) 396/2005. An additional year of MRL provisional status may be granted upon request by one or more Member States awaiting certification that any scientific research required to support the MRL application was conducted.[48]

It should be emphased that a temporary MRL in Annex III of Regulation (EC) 396/2005 will be based on the competent authority's opinion, monitoring and evaluation data indicating

[43] FAO and WHO (2018). *Codex Alimentarius: Understanding Codex*. 5th ed, pp. 7, 17

[44] 40 CFR 180.5.

[45] Richard J. Fussell (2020). *An Overview of Regulation and Control of Pesticide Residues in Food*, http://tools.thermofisher.com/content/sfs/brochures/WP-71711-Regulatory-Pesticide-Residue-WP71711-EN.pdf, accessed on May 17, 2021.

[46] Clause 1 Article 22 Regulation (EC) 396/2005.

[47] Points b and c paragraph 1 Article 15 Regulation (EC) 396/2005.

[48] Duong Anh Son, Tran Vang Phu (2021). *Regulation of the EU on the maximum residue levels of pesticides – comments and criticisms*. Journal of Legal, Ethical and Regulatory Issues, Volume 24, Special Issue 1-68, pp. 3-4.

that there is no unacceptable danger to consumers or animals. The interim MRLs mentioned in Points a, b, c, and d of Article 16 Regulation (EC) 396/2005 will be reevaluated every 10 years and changed or eliminated as necessary. MRLs in point e paragraph 1 of Regulation (EC) 396/2005 will be reevaluated at the end of their authorized essential shelf-life; MRLs in point f paragraph 1 of Regulation (EC) 396/2005 will be reevaluated four years after they are submitted to Annex III.[49]

Unlisted pesticides have a default MRL of 0.01 mg/kg in Annex II and III of Regulation 396/2005. This is crucial when importing items cultivated outside the EU and using pesticides not on the EU's approved list. New Zealand and Canada similarly set a default MRL threshold of 0.1 mg/kg, which is ten times greater than the EU standard (Table 1).[50]

Table 1: Comparison of regulations on pesticide residues of some fruit import markets in Vietnam (Source: VCCI, 2021)[51]

Countries	Codex MRL standards recognition	The default MRL	Permitted number of pesticides
EU	None	0,01 mg/kg	1100
Nhật Bản		0,01 mg/kg	600
New Zealand	Yes	0,1 mg/kg	-
Canada	None	0,1 mg/kg	-
Australia	None	None	11000
The United States	None	None	16000
China	None	None	25000
Vietnam	None	None	5260
Note: "-" means no data found.			

The European Union's MRL law is one of the harshest and most complex in the world, according to the European Parliament's 2018 Report on the Union's Authorization Procedures for Pesticides.[52] According to a 2018 European Commission report, setting the EU default MRL level is not recommended by the Codex and can hinder international trade.[53] There is no scientific proof or risk assessment; there is no abuse of the SPS Agreement's Article 5.7; there is

[49] Clause 2 of Article 16 of Regulation (EC) 396/2005.

[50] VCCI (2019). *Nghiên cứu hoa quả Việt Nam vượt qua các rào cản của thị trường EU để tận dụng cơ hội từ EVFTA* - Research on Vietnamese fruits to overcome barriers of the EU market to take advantage of opportunities from EVFTA (*translated by author*). Hanoi, pp. 49-52.

[51] VCCI (2021). *EVFTA và ngành rau quả Việt Nam: Các biện pháp SPS chính mà EU áp dụng đối với mặt hàng trái cây tiềm năng của Việt Nam* - EVFTA and Vietnam's fruit and vegetable industry: Key SPS measures applied by the EU to Vietnam's potential fruit products EVFTA and Vietnam's fruit and vegetable industry: Key SPS measures applied by the EU to Vietnam's potential fruit products (*translated by author*). https://trungtamwto.vn/chuyen-de/17729-evfta-va-nganh-rau-qua-viet-nam-cac-bien-phap-sps-chinh-ma-eu-ap-dung-doi-voi-mat-hang-trai-cay-tiem-nang-cua-viet-nam, accessed on August 11, 2021.

[52] European Parliament – EP (2018). *Report on the Union's authorisation procedure for pesticides*. pp. 7, 17. https://www.europarl.europa.eu/doceo/document/A-8-2018-0475_EN.pdf, accessed on August 30, 2021.

[53] Ecorys (2018). *Study Supporting the REFIT Evaluation of the EU Legislation on Plant Protection Products and Pesticides Residues (Regulation (EC) No 1107/2009 and Regulation (EC) No 396/2005)*. European Commission, Directorate-General for Health and Food Safety, pp. 191-194.

no effort to prevent negative trade repercussions.[54]

Moreover, the list of pharmaceuticals used in agricultural production and processing in the EU is very narrow compared to other industrialized countries, limiting the adoption of new drugs and new technologies in production.[55] According to the author's statistics from the official website of the EU, Regulation (EC) 396/2005 is frequently revised, often monthly. Regulation (EC) 396/2005 was published on January 23, 2005 and has been amended and supplemented 168 times as of July 26, 2021, with some amendments occurring multiple times in the same month, such as May 2011: 04; June 2014: 04; October 2014: 05; January 2016: 04; June 2016: 04; January 2019: 07; June 2020: 08. Thus, revising EU legislation to govern agricultural output and processing has been tough for foreign firms.[56]

In 2011, the EU denied many shipments of fresh fruit from Kenya because they exceeded the maximum pesticide concentration level.[57] In 2011, the EU decreased the insecticide Dimenthoate's MRL from 0.2 mg/kg to 0.02 mg/kg. For Kenyan exporters, this shift has cost $192 million The above damage has two causes: (i) 0.02 mg/kg residue level for Dimenthoate (this EU regulation is lower than the Codex standard);[58] (ii) Due to the revised MRL standards, it is still exporting items to the EU under the MRL of 0.2 mg/kg.[59]

Another example of EU MRL volatility is tea-related drugs. Pre-2008 regulation was 0.1 mg/kg, however by 2021 it will be 0.05 mg/kg. Previously prescribed doses of Fenitrothion and Flucythrinate were 0.5 mg/kg, now 0.05 mg/kg; Bifenthrin was 5 mg/kg in 2008, now 0.05 mg/kg.[60] Because laws change frequently, Vietnamese tea exporters will encounter various challenges while exporting to the EU.

Because Vietnam exports tropical fruits, some crops can be grown in Vietnam but not in Europe or the US (Longan, dragon fruit, litchi...), which means a pesticide used in Vietnam is not on the EU's list of pesticides and must be registered for a temporary pesticide residue level. If the medication is not listed in Annexes I and II of Regulation (EC) 396/2005,[61] then a default residual level of 0.01 mg/kg must be used when exporting to the EU market, and zero MRL when exporting to the US, which will substantially restrict Vietnamese exporters in terms of cost

[54] WTO (2021). STC Number – 306 - Maximum residue levels of pesticides. http://spsims.wto.org/en/SpecificTradeConcerns/View?ImsId=306, accessed on Septemper 4, 2021.

[55] United States Trade Representative (USTR) (2014). *Report on Sanitary and Phytosanitary Measures*. https://ustr.gov/sites/default/files/FINAL-2014-SPS-Report-Compiled.pdf, accessed on August 4, 2021.

[56] Richard J. Fussell (2020). *An Overview of Regulation and Control of Pesticide Residues in Food*, http://tools.thermofisher.com/content/sfs/brochures/WP-71711-Regulatory-Pesticide-Residue-WP71711-EN.pdf, accessed on May 15, 2021.

[57] VCCI (2019). *Nghiên cứu hoa quả Việt Nam vượt qua các rào cản của thị trường EU để tận dụng cơ hội từ EVFTA* - Research on Vietnamese fruits to overcome barriers of the EU market to take advantage of opportunities from EVFTA (*translated by author*). Hanoi, p. 55.

[58] Tran Vang Phu, Mohamad Ayub Dar (2020). *Overuse of consumer protection doctrine and its adverse impact on international trade*. International Journal of Economics, Commerce and Management, Vol. VIII, Issue 6, June 2020, pp. 107-114.

[59] U.S International Trade Center – USITC (2014). *Kenya: Company perspectives – An ITC series on non-tariff measures*. http://www.intracen.org/publications/ntm/Kenya/, accessed on April 9, 2020, pp. 34-35.

[60] Đỗ Thị Hương, Nguyễn Thị Thơ (2021). *Hàm ý chính sách từ việc so sánh giới hạn dư lượng thuốc bảo vệ thực vật đối với chè xuất khẩu của Việt Nam và EU* - Policy implications from comparing pesticide residue limits for tea exports from Vietnam and the EU (*translated by author*). Economic and Forecasting Review, Vol. 9/2021. https://kinhtevadubao.vn/ham-y-chinh-sach-tu-viec-so-sanh-gioi-han-du-luong-thuoc-bao-ve-thuc-vat-doi-voi-che-xuat-khau-cua-viet-nam-va-eu-18786.html, accessed on Septemper 2, 2021.

[61] Tran Vang-Phu, Duong Anh Son (2021). *The European Union's Import Conditions on Agricultural Products*. Empirical Economics Letters, Vol. 20, Number 6, pp. 1041-1043.

and time.[62]

According to 2018 FAO data, Vietnam ranks 80th out of 160 nations that use pesticides, with an average of 1.7 kg/ha.[63] For example, while exporting to the EU, Vietnam has one of the highest rates of MRL infractions.[64] The MRL rules for some pesticides in Vietnam differ significantly from those in the EU and the US (Table 2). For example, in the case of Bifenthrin as follows:

Table 2: Bifenthrin MRL in Vietnam, US, EU and Codex (Source: compiled by the author)

Kind of foods	Vietnam[65]	The U.S[66]	EU[67]	Codex[68]
Banana	0,1 mg/kg	0,1 mg/kg	0,1 mg/kg	0,1 mg/kg
Tomatoes	0,3 mg/kg	**0,3 mg/kg**	**0,05 mg/kg**	0,3 mg/kg
Brassica vegetables	0,4 mg/kg	**0,6 mg/kg**	0,4 mg/kg	0,4 mg/kg
Mustards	4 mg/kg	**N/A**	**0,02 mg/kg:** (Mustard seeds) **0,01mg/kg**: (Mustard red)	4 mg/kg (Mustard green)
Tea	30 mg/kg	**N/A**	30 mg/kg	30 mg/kg
Citrus fruits of the citrus family	0,05 mg/kg	0,05 mg/kg	0,05 mg/kg	**N/A**

Through the above analysis, the regulations of the US, EU and Vietnam can be summarized as follows:

First, the time for pesticide license varies by country. Licenses are issued within six months of receiving a complete and valid dossier. To submit the dossier, the applicant must have a License for testing and results. The time it takes to finish testing and get the results approved by the authorities is roughly three years. Thus, the licensing time for a plant protection medicine in Vietnam is 2.5 to 3.5 years, which is the global average.

Second, unlike the US[69] and EU[70], where authorities will proceed to establish a specific

[62] Tran Vang-Phu, Lam Ba Khanh Toan, Nguyen Thanh Giao (2021). *Comparison of Vietnam's and the European Union's regulations on product labelling and maximum residue levels of pesticides*. Journal of Legal, Ethical and Regulatory Issues, Volume 24, Special Issue 1-238, pp. 4-5.

[63] Minh Huệ (2020). Tăng cường kiểm soát, quản lý thuốc bảo vệ thực vật - Strengthening control and management of pesticides (*translated by author*). https://nhandan.vn/tin-tuc-xa-hoi/tang-cuong-kiem-soat-quan-ly-thuoc-bao-ve-thuc-vat-629542/, accessed on Septemper 29, 2021.

[64] Joe Whitworth (2021). *EFSA presents data on pesticide residues in food*. https://www.foodsafetynews.com/2021/04/efsa-presents-data-on-pesticide-residues-in-food/, accessed on Septemper 4, 2021.

[65] Appendis of Circular 50/2016/TT-BYT.

[66] 40 CFR 180.442 Bifenthrin; tolerances for residues. http://fluoridealert.org/wp-content/pesticides/bifenthrin.us.residue.level.htm, accessed on Septemper 2, 2021.

[67] Appendis II of Regulation (EC) 396/20005.

[68] Codex (2021). *178 - Bifenthrin*. http://www.fao.org/fao-who-codexalimentarius/codex-texts/dbs/pestres/pesticide-detail/en/?p_id=178, accessed on Septemper 2, 2021.

[69] 40 CFR 180.32.

[70] EC (2021). *Approval of active substances*. https://ec.europa.eu/food/plants/pesticides/approval-active-substances_en, accessed on Septemper 5, 2021.

MRL for a plant protection medicine after granting a license, Vietnam has no such law. This complicates pesticide control and use in Vietnam for both regulators and users. According to Circular No. 10/2020/TT-BNNPTNT, Vietnam now has around 5260 pesticides and active chemicals licensed for usage. MRLs for pesticides and active substances are regulated by Circular No. 50/2016/TT-BYT; for food additives, by Circular No. 24/2019/TT-BYT. In total, Vietnam uses around 4,900 insecticides and active chemicals. No MRL exists to advise drug users, and authorities cannot control pesticide contamination or abuse in food production and processing, or agricultural exports in particular. The Ministry of Health's Circular No. 24/2019/TT-BYT stipulates an irregular period of 02 years or depending on the actual situation to check and update the list of drugs or active ingredients as well as the permitted MRL.

Moreover, Vietnam has no temporary or default MRLs for plant protection drugs. Also addressed are periodic and unscheduled inspections of approved pesticides, as well as MRLs.[71] According to a study at the 45th Conference of the International Food Standards Committee (Codex Committee) in Hanoi, "about 70% of the Vietnamese food standards are compliant with Codex standards".[72] According to a report of FAO in October 2020 found that while 60% of Vietnam's MRL laws are similar to Codex, 30% of Codex standards have not been reached. In the absence of domestic regulation, Vietnam does not automatically implement Codex standards.[73]

5. INCOMPATIBILITY IN VIETNAMESE LEGISLATION ON MAXIMUM RESIDUE LEVELS OF PESTICIDES WITH THE US AND EU AND RECOMMENDATIONS FOR IMPROVEMENT

Although Vietnam has internalized a number of international commitments relating to sanitary and phytosanitary measures in general and regulations on plant protection drug MRLs in particular, the country's current legal framework still contains numerous inadvertent provisions, as illustrated by the following issues:

To begin, there is no legal document outlining the basis for establishing pesticide MRLs. The principles for developing pesticide MRLs will assist in establishing the legal-legal framework for guiding and setting criteria for both the management and enforcement of pesticide MRLs. Due to the absence of these principles, the regulation of pesticide usage does not establish a clear purpose in issuing laws on MRLs to safeguard consumers' health and to be consistent with global standards, or to be implemented to protect consumers' health to a high degree, as in the EU and Australia. Since then, the absence of a defined direction for the development of standards, technical regulations, and legal documents has resulted in an inconsistent and overlapping organization of the management apparatus.

Second, the legal papers in this field continue to overlap, making implementation difficult; coordination in state administration of pesticide MRLs remains weak, passive, and inefficient.[74] In many countries, the agency responsible for reviewing and licensing pesticide use is also

[71] United States Trade Representative (USTR) (2014). *Report on Sanitary and Phytosanitary Measures*. https://ustr.gov/sites/default/files/FINAL-2014-SPS-Report-Compiled.pdf, accessed on April 8, 2020.

[72] Băng Thu (2013). *Khai mạc Hội nghị Codex về thực phẩm ở Hà Nội* - Opening of the Codex Conference on Food in Hanoi *(translated by author)*. https://dantri.com.vn/suc-khoe/khai-mac-hoi-nghi-codex-ve-thuc-pham-o-ha-noi-1384650358.htm, accessed on October 2, 2021.

[73] FAO (2020). *Understanding international harmonization of pesticide Maximum Residue Limits (MRLs) with Codex standards: A case study on rice*, http://www.fao.org/3/cb1428en/cb1428en.pdf, accessed on July 5, 2021, pp. 9-10.

[74] OECD (2015). *Agricultural Policies in Viet Nam 2015*. https://www.oecd.org/countries/vietnam/agricultural-policies-in-viet-nam-2015-9789264235151-en.htm, accessed on December 20, 2019.

responsible for establishing the MRL for the drug they have licensed, ensuring that the management process runs smoothly and uniformly, creating a unified focal point and increasing accountability in the management and provision of information to relevant parties, while also creating convenience for both producers' and users' pesticide use. In contrast to the preceding management, Vietnam lacks the conditions and procedures necessary to develop pesticide MRLs. After receiving a license from the Ministry of Agriculture and Rural Development for use in Vietnam, a substance may be circulated and used without being subject to MRL oversight. The regulations governing the establishment of MRLs to safeguard the safety of agricultural products are only briefly described in Clause 2, Article 38 of the Government's Decree No. 15/2018/ND-CP dated February 2, 2018. The Ministry of Agriculture and Rural Development is responsible for detailed regulations on the implementation of numerous articles of the Food Safety Law "developing and submitting to the Ministry of Health for promulgation regulations establishing safe limits for categories of products and services." products listed in Appendix III issued in conjunction with Decree No. 15/2018/ND-CP". Thus, the Ministry of Agriculture and Rural Development will develop the MRL standard and forward it to the Ministry of Health for final approval. However, the procedure for producing pesticide MRLs and coordination between these two ministries is not controlled under existing legislation. This point complicates state management; farmers and businesses involved in the production and export chains of agricultural products face numerous obstacles when using pesticides, most notably during food safety inspections and phytosanitary certificates required prior to customs clearance of goods, as well as significant risks from the import market.

Separation of regulatory agencies and the absence of a mechanism for establishing MRLs have resulted in insufficiency. Approximately 5,260 insecticides and active compounds are now licensed in Vietnam. However, only roughly 270 types of pesticides and 400 types of food additives are subject to MRL regulation, which means that approximately 4,900 types of pesticides and active ingredients are routinely utilized in Vietnam without being subject to MRL regulation.[75] Inconsistency in the registration process for pesticide use and the formation of pesticide MRLs also complicates enforcement of the Penal Code's "Crime of breaking hygiene and safety standards". As a result, points b and c of Clause 1 of Article 317 of the Penal Code 2015 (as revised and added in 2017) are all predicated on a single criterion for determining the dangerous level of the offense, namely drug usage. Plant protection products are on the list of prohibited chemicals, not on the list of commonly used medications, but they result in "creating residues in excess of the permissible threshold in the product" or do not fall within the penalty frame. However, as evaluated, around 4,900 pesticides on the List of pesticides approved for use in Vietnam are now being used, although there is no MRL control. No maximum residual level will be allowed for plant protection medications used in Vietnam or on the List of pesticides banned in Vietnam. Thus, if an organization or individual uses a pesticide but the MRL has not been prescribed, it is difficult for authorities to determine if the use of a particular plant protection drug "created residues exceeding the permissible limit in a product" or not.

A prime example of regulatory overlap and confusion regarding the use of pesticides and MRLs in current regulation is the August 2021 case of the Irish Food Safety Authority and the Police System. According to the European Rapid Newspaper on Food and Animal Feed (RASFF), certain batches of Acecook Vietnam Company instant noodles and Thien Huong Company beef and chicken-flavored dry noodles have residues of the medication Ethylene.

[75] Tran Vang Phu, Lam Ba Khanh Toan, Nguyen Thanh Giao (2021). *Comparison of Vietnam's and the European Union's regulations on product labelling and maximum residue levels of pesticides*. Journal of Legal, Ethical and Regulatory Issues, Volume 24, Special Issue 1-238, pp. 4-5.

Oxide levels above the EU's allowed limit. Specifically, Acecook Vietnam Company's Hao Hao noodle product has Ethylene Oxide in the RASFF warning system at a concentration of 0.066 mg/kg, whereas Thien Huong Food Joint Stock Company's beef and chicken-flavored dry noodles have 0.052 mg/kg. Meanwhile, EU Directive 91/414/EEC and Regulation (EC) 396/2005 require that the Ethylene Oxide level of these foods be less than 0.05 mg/kg.[76] According to the Ministry of Industry and Trade's Department of Science and Technology, Vietnam has not yet regulated to allow or prohibit Ethylene Oxide in agricultural production or to limit residues in food. Additionally, according to September 2021 information, Hao Hao noodles made for the Vietnamese market do not include Ethylene Oxide, but rather 2-Chloroethano, which has an MRL of 1.17 mg/kg.[77] A critical point here is that both Ethylene Oxide and 2-Chloroethano are not on Vietnam's list of authorized pesticides. Furthermore, while the EU controls both compounds at a common MRL of 0.05 mg/kg, Canada and the United States allow for extremely high residual levels; Canada and the United States both prescribe MRLs of 7 mg/kg for Ethylene Oxide and 940 mg/kg for 2-Chloroethanol sprayed to sesame seeds.[78] As a result, it can be stated that Ethylene Oxide and 2-Chloroethanol are illegal substances. Vietnamese authorities are cooperating to resolve this situation, which includes considering licensing and regulating the use of two herbicides with MRLs.[79] Additionally, as discussed previously, the competent authority will not create the MRL for the two medications mentioned above because they are not on the list of pesticides used in Vietnam. Vietnam will have a difficult time dealing with criminal culpability. However, in the majority of cases, administrative violations can be prosecuted solely for the act of "Using pesticides that are not on the list of pesticides approved by the Government for use in Vietnam" is punishable by a fine of between 1,000,000 and 2,000,000 VND (approximately 50-100 USD) for individual violators and twice that amount for violating organizations.[80] Moreover, the author was unable to locate information indicating that competent authorities sanctioned Acecook Vietnam Company and Thien Huong Company for illegal acts in violation of the Government's Decree 31/2016/ND-CP dated May 6, 2016 on administrative violations in the field of plant varieties, plant protection, and quarantine.

Thirdly, there is a dearth of broad and predictable regulations that keep pace with global progress.

Vietnam is now working with pesticides and MRLs to develop a list of compounds that may and may not be used (positive lists). When combined with the adoption of synchronous

[76] Food Safety Authority of Ireland (2021). *Recall of Certain Batches of Instant Noodle Products due to the Presence of the Unauthorized Pesticide Ethylene Oxide*. https://www.fsai.ie/news_centre/food_alerts/instant_noodles_ethylene_oxide_recall.html, accessed on September 4, 2021.

[77] Trần Chung (2021). *Mì Hảo Hảo bị thu hồi ở EU, nhà cung cấp dùng chất khử khuẩn nguyên liệu* - Hao Hao noodles are recalled in the EU, suppliers use disinfectants for ingredients (*translated by author*). https://vietnamnet.vn/vn/kinh-doanh/thi-truong/cong-bo-ket-qua-chi-tiet-kiem-nghiem-thuc-te-mau-mi-hao-hao-774244.html, accessed on September 13, 2021.

[78] It is worth noting that both substances are regulated by the EU with a common MRL of 0.05 mg/kg, but both Canada and the United States allow very high residue levels. Canada and the United States both prescribe MRLs of 7 mg/kg for Ethylene Oxide and 940 mg/kg for 2‑Chloroethanol for sesame seeds. *See*: Health Canada Pest Management Regulatory Agency (2019). *Proposed Maximum Residue Limit PMRL2019-29, Ethylene Oxide*. https://www.canada.ca/en/health-canada/services/consumer-product-safety/pesticides-pest-management/public/consultations/proposed-maximum-residue-limit/2019/ethylene-oxide/document.html, accessed on September 15, 2021.

[79] Minh Chiến (2021). *Từ vụ mì Hảo Hảo bị thu hồi ở Ireland, Phó Thủ tướng chỉ đạo khẩn* - Since Hao Hao noodles were recalled in Ireland, the Deputy Prime Minister directed urgently (translated by author). https://nld.com.vn/kinh-te/tu-vu-mi-hao-hao-bi-thu-hoi-o-ireland-pho-thu-tuong-chi-dao-khan-20210912220928414.htm, accessed on September 29, 2021.

[80] Point a Clause 2, Article 26 of Decree No. 31/2016/ND-CP.

management principles, this strategy can significantly improve the effectiveness of state management in terms of pesticide management and use, as well as MRL control. Vietnam's current strategy, on the other hand, produces confusion among authorities and difficulties for the issue of pesticide use, as evidenced by the following points:

(i) Because plant protection drugs have been licensed for use but the MRL has not been established, the competent authority lacks the authority to inspect, evaluate, and manage pesticide use, regardless of whether it complies with regulations; additionally, it is difficult for users of plant protection drugs to self-regulate their drug use behavior;

(ii) There is no regulation requiring the competent authority to request the establishment of MRLs for pesticides, processes, procedures, or the basis for establishing MRLs, etc., which creates confusion for even state agencies in their implementation, and drug users also do not know how to obtain the MRL for the drug being used, because if it is based on international standards or the standards of the importing country for production, but then the agency Vietnam's function requires that the MRL be established.

(iii) There is no provision for temporary or default pesticide MRLs, which would impede domestic production of unlicensed or licensed pesticides used but not yet regulated by an MRL, and at the same time, Vietnamese authorities (customs and phytosanitary) can only refuse to conduct import procedures or temporary import for re-export for consignments containing pesticides that Vietnam has not yet licensed or has licensed but not yet regulated by an MRL, because there is no MRL to govern such cases.

(iv) Failure to establish a period for periodic review of plant protection drug MRLs in accordance with scientific and technological advancements may result in Vietnam being exported to other countries due to the application of standards that are either excessively strict or not based on available scientific evidence, thereby obstructing international trade. Now, only the provisions of Clause 2, Article 48 of the 2013 Law on Plant Protection and Quarantine (as amended and supplemented in 2018) provide for the following: "Each year, the Ministry of Agriculture and Rural Development publishes a list of pesticides that are permitted for use in Vietnam and a list of pesticides that are prohibited".

Based on the analysis of shortcomings and the experience of the United States and the European Union, the author offers the following remedies to contribute to the improvement of pesticide management legislation and MRLs in Vietnam:

To begin, while developing laws to manage pesticides and MRLs, it is critical to clearly identify the concepts and levels of consumer health, plant and animal health, and environmental protection. Products for the preservation of plants. Specifically, because Vietnam's socioeconomic development constraints preclude the use of excessively stringent requirements for food hygiene and safety, the rules governing pesticide management and MRLs apply. Crop protection products now on the market should adhere to US standards at the levels judged required to protect public health while also accounting for the need for an adequate, safe, and nutritious food supply.[81] Additionally, given the serious consequences of improper pesticide use and non-compliance with pesticide MRLs for human, animal, and plant health and the environment, it is necessary to amend and supplement regulations governing the handling of administrative violations in the field of plant protection and quarantine in the direction of increasing the sanction level and specifying that each level of violation will result in

[81] National Academy of Sciences (1987). *Regulating Pesticides in Food*. National Academy Press, Washington, D.C., pp. 22-25.

corresponding fines and mandatory recall or destruction. Simultaneously, consider amending and supplementing Article 317 of the Penal Code 2015 (as amended and supplemented in 2017), "Crime of violating food safety regulations," to increase the level of sanctions for violations, supplementing regulations establishing penalties based on the value of the consignment that violates food safety regulations or on Codex standards, in cases where the plant protection drug under consideration has not yet been detected. Thus, it is possible to boost deterrent against organizations and individuals that violate pesticide rules and pesticide MRLs, resulting in substantial implications for human health. Health of humans, animals, and plants, as well as the environment. It should be highlighted that customers may still seek damages under civil law and consumer protection law. However, if we opt to resolve through civil proceedings, the burden of proof shifts to the requesting party, i.e., the consumer; this solution is not very feasible due to consumers' lack of legal understanding. It is challenging to establish damages and to present scientific data.

Second, based on the experience of the United States and the European Union, as well as a number of other countries (Thailand,[82] Australia,[83] and India[84]) it is necessary to reform the state management apparatus for pesticides and the MRL for pesticides in the direction of concentrating management on a single focal point. Specifically, establishing a Food Safety Authority through the separation and merger of the appropriate specialized units of the Plant Protection Department, the SPS Vietnam Office, and the Department of Agriculture and Rural Development. Food safety is a responsibility of the Ministry of Health. This Food Safety Authority might be structured similarly to the Vietnam Chamber of Commerce and Industry. The merger of the three agencies mentioned above to form a new agency is necessary for the following reasons:

(i) Because a portion of the Plant Protection Department within the Ministry of Agriculture and Rural Development is currently responsible for pesticide testing, it possesses the expertise, experience, and a laboratory system capable of determining the toxicity level of pesticides and advising on the most effective drug concentration and isolation time.

(ii) Because the specialized division of the Food Safety Department under the Ministry of Health has experience managing MRLs for pesticides and by-products used in food and has a system of specialized departments conducting experiments to determine the level of food poisoning, it will be able to advise appropriately on establishing the most appropriate MRL to protect consumers' health for both domestic and imported products.

(iii) The Vietnam SPS Office now has the responsibility of compiling information on sanitary and phytosanitary measures announced by WTO member countries, which serves as a critical focal point for updating sanitation and hygiene epidemiology regulations in general, as well as MRL regulations globally, to provide early warning to Vietnamese authorities and domestic enterprises. Additionally, this agency is regarded as the most competent in the world on pesticide regulation and the establishment of MRLs. Thus, based on the experience of other countries, it is possible to advise on drafting laws for pesticide licensing and how to construct MRLs that adhere to global standards while

[82] National Bureau of Agricultural Commodity and Food Standards – ACFS (2022). *Structure of organization*. https://www.acfs.go.th/#/page/11, accessed on January 14, 2022.

[83] Food Standards (2018). *Chemicals in food - maximum residue limits*. https://www.foodstandards.gov.au/consumer/chemicals/maxresidue/pages/default.aspx, accessed on August 8, 2021.

[84] Food Safety and Standars Authority of India – FSSAI (2022). *Food Authority*. https://www.fssai.gov.in/cms/food-authority.php, accessed on January 14, 2022.

remaining compatible with Vietnam's socioeconomic situations and legislative aims.

Since these organizations are unified, the Food Safety Authority, based on the results of the plant protection medicine trial, the assessment of the level of toxicity to humans, and international standards, The product can make the most informed decisions on pesticide licensing and MRL setting. Because human resources and equipment are already available, the current reorganization into a unitary agency will not result in extra staff or significant expenditures. While the transition period may be perplexing, the long-term effect will benefit Vietnam in the following ways: (i) unifying the process of pesticide licensing and setting the MRL level, in line with the practices of many countries in the world today, such as the United States, the European Union, and Australia... and in accordance with the Codex MRL setting process; currently, Vietnam does not have regulations on the process of setting MRLs; (ii) due to management unification, overlapping situations should be minimized, responsibilities should be extruded, thereby increasing accountability;

Thirdly, include a temporary MRL and a default MRL provision. Vietnam does not currently have temporary MRLs, import tolerance levels, or default MRLs. It will generate a massive vacuum in the management of goods in general and food in particular, whether circulation, export, or import circumstances are considered. As a result, it is important to draw on international experience, particularly that of the European Union, in order to formulate three laws for pesticides that are not included on the list of pesticides permitted for use in Vietnam: (i) establish a registration process and a temporary MRL; (ii) establish import tolerances for goods containing substances not on the list of pesticides approved for use (official and temporary), with the exception that the MRL applies only to imported goods and not to domestic goods (USITC, 2020);[85] (iii) establish a default MRL level for drugs that have been approved for use but have not been used, which could be 0.1 mg/kg as experienced in Canada and New Zealand.[86] Thailand and Vietnam share numerous parallels in terms of socioeconomic growth and agricultural production and export conditions. Prescribes a default MRL and a dynamic reference to a Codex standard in instances where Thailand's National Food and Agricultural Commodities Authority has not yet adopted a Codex standard.[87]

Fourth, align domestic regulations with international MRL standards. Once a country has entered the world market and ratified international accords. In other words, Vietnam's international obligations must be gradually internalized. In the current situation, if Vietnam adds a regulation that will apply Codex standards in the absence of national standards, it can accelerate the process of internalizing and harmonizing national standards and regulations with global standards, while also saving significant money for both state agencies and enterprises producing plant protection drugs; Thailand, Brazil, Indonesia, and a number of other countries around the world already do so; Thailand, Brazil, Indonesia, and a number of other countries

[85] USITC (2020). *Global economic impact of missing and low pesticide maximum residue level*. Investigation number: 332-573, Vol. 1, p.127.

[86] VCCI (2021). *EVFTA và ngành rau quả Việt Nam: Các biện pháp SPS chính mà EU áp dụng đối với mặt hàng trái cây tiềm năng của Việt Nam* - EVFTA and Vietnam's fruit and vegetable industry: Key SPS measures that the EU applies to potential Vietnamese fruit products (*translated by author*). https://trungtamwto.vn/chuyen-de/17729-evfta-va-nganh-rau-qua-viet-nam-cac-bien-phap-sps-chinh-ma-eu-ap-dung-doi-voi-mat-hang-trai-cay-tiem-nang-cua-viet-nam, accessed on August 11, 2021.

[87] USDA (2017). *Thai FDA Revises Pesticide Residue Standards and MRLs in Food*. https://apps.fas.usda.gov/newgainapi/api/report/downloadreportbyfilename?filename=Thai%20FDA%20Revision%20on%20Pesticide%20Residue%20Standards%20and%20MRLs%20in%20Food_Bangkok_Thailand_2-14-2017.pdf, January 14, 2022.

around the world also do so.[88] In light of Vietnam's existing socioeconomic situation, the use of Codex standards is entirely acceptable in the future when agricultural production is automated and scientific and technical level and control are accomplished. Assume that socioeconomic conditions improve and the Vietnamese people's nutrition and physical health improve. In that circumstance, Vietnam may consider amending domestic rules to incorporate automatic reference to US or EU regulations, as the United Arab Emirates now does.[89]

6. CONCLUSION

To be permitted to use pesticides in Vietnam, it must first obtain authorization to experiment and then apply for a license to use in Vietnam. Only pesticides listed on the List of pesticides authorised for use in Vietnam are permitted to circulate on the market and be employed in agricultural production and processing activities. The research findings have highlighted critical concerns in Vietnam's regulatory procedures for managing MRLs of pesticides used in agricultural products. Specifically:

To begin, Vietnam's present pesticide testing, and licensing practices are in accordance with international norms. However, Vietnam has not yet "legalized" the basic ideas that will serve as a theoretical framework and orientation for the consideration of pesticide licensing and determining the MRL.

Second, there are no requirements or procedures in place in Vietnam to set MRLs for pesticides. That is, once a medicine has been licensed for use in Vietnam by the Ministry of Agriculture and Rural Development, it will be able to circulate and be used without being subject to MRL oversight. The Ministry of Health has the jurisdiction to establish the MRL. Because of the separation of regulatory authorities and the lack of an MRL establishment process, there are now around 4,900 pesticides and active ingredients licensed for use in Vietnam but not yet regulated to a specific MRL. This problem complicates state administration; farmers and enterprises involved in the production and export of agricultural products encounter numerous challenges when utilizing pesticides.

Third, there is no provision in Vietnam for establishing temporary and default MRL levels, nor does it mention the automatic implementation of Codex standards in the absence of domestic law. This omission has resulted in state pesticide management and low MRL effectiveness, as well as confusion when considering goods containing pesticide residues that are not on the list of drugs allowed to be used and are not on the list of banned pesticides, or the drug is on the List of drugs allowed to be used in Vietnam. However, because there is no particular MRL, assessing the safety level for consumers used as a foundation for awarding food safety or providing import and export licences is impossible.[90]

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[88] FAO (2020). *Understanding international harmonization of pesticide Maximum Residue Limits (MRLs) with Codex standards: A case study on rice*, http://www.fao.org/3/cb1428en/cb1428en.pdf, accessed on July 5, 2021, pp. 10-11.

[89] FAO (2020). *Understanding international harmonization of pesticide Maximum Residue Limits (MRLs) with Codex standards: A case study on rice*, http://www.fao.org/3/cb1428en/cb1428en.pdf, accessed on July 5, 2021, pp. 10-11.

[90] Tran Vang-Phu, Lam Ba Khanh Toan, Nguyen Thanh Giao (2021). *Comparison of Vietnam's and the European Union's regulations on product labelling and maximum residue levels of pesticides*. Journal of Legal, Ethical and Regulatory Issues, Vol. 24, Special Issue 1-238, pp. 4-5.

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3. The United States

7 U.S.C 6

21 U.S.C. 9

21 U.S.C. 27

40 CFR 180

4. Vietnam

Decree No. 31/2016/ND-CP.

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IMPROVING REGULATIONS ON THE RIGHT OF FREE USE OF WORKS IN TEACHING ACTIVITIES ACCORDING TO VIETNAMESE COPYRIGHT LAW – SOME INSPIRATIONS FROM SINGAPORE COPYRIGHT LAW

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Abstract

According to the Vietnamese law on intellectual property in force, the use of works in education results in acts of use of works without requesting authorization and without payment of remuneration. This content has some notable changes in the latest amendment of the Intellectual Property Law in the middle of 2022. These amendments are generally appropriate, however, the relevant regulations are still at a general level and have not been explained specifically, creating a ambiguity in interpretation and cam make their application difficult. Based on the above reasons, in this article, the author will focus on analyzing the regulations on the free use of works in education according to the current Law on Intellectual Property and its recent amendments in 2022, thus clarifying the progress and certain limits of this regulation. As a basis for proposals for improving the law, the author also analyzes some corresponding provisions of Singapore's copyright law. The results of this article are some lessons learned from the analysis of the above provisions in the copyright laws of the two countries, thus making recommendations for the improvement of the relevant regulations regarding the free use of the work in educational activities in Vietnam.

Keyworks: *free use of works, teaching activities, fair use, copyright limitation, compulsory license, statutory license*

1. GENERAL INTRODUCTION OF "THE RIGHT OF FREE USE WORKS IN TEACHING ACTIVITIES"

The right to freely use a work is an indispensable part of the law on copyright protection. This right is recognized in international treaties related to copyright protection such as the Berne Convention, the WCT Convention and the TRIPS Agreement. Among the acts of free use of works that are allowed, those related to teaching activities are a very important part because they facilitate learning, creativity and promote human development. In this section, some general content about the freedom to use the work will be introduced, including the concept, the terms used and specific provisions on the freedom to use the work in teaching activities in accordance with copyright law in Vietnam, national copyright laws in some countries and a number of relevant international conventions.

1.1. General overview of the right of free use of the work

Free use of the work refers to the use of a copyrighted work without obtaining permission from the copyright holder and without paying for that use. Internationally, the Berne Convention

for the Protection of Literary and Artistic Works[1] (hereafter referred to as the Berne Convention) recognizes a number of cases where works may be freely used (eg Article 10 and Article 10bis). In national law, terms such as "free use" (as in US copyright law) or "fair use" (as in the UK and Singapore's older copyright laws) are also mentioned to indicate the act of free use of the work. In essence, the freedom to use a work is a form of limitation of copyright[2] because it directly affects the exploitation of rights holders. These restrictions, however, are necessary because they strike a balance of interests between copyright owners and the general public and society[3].

In order to avoid abuse, these freedoms of use are often subject to a variety of conditions relating to the purpose and nature of the use, the amount of content used, and other affects to the normal exploitation of the work[4]. Under US copyright law, to qualify an action as "free use", factors to consider include the purpose and nature of the use (for example, whether is for commercial or educational and non-commercial use), the nature of the work used, the actual amount of content used, and the impact of the use on the exploitation of the used work in the potential market and the value of the work[5]. "Free use" is also considered "de minimis use" where only a small, insignificant portion of the protected work is used[6]. Under the Berne Convention, an authorized citation of a work or use of a work for illustrative purposes must be made in accordance with the purpose of the citation, with appropriateness and information about the original author must be presented (Article 10).

It is necessary to distinguish the freedom to use the work from other kinds of general public licenses. While free use of work is an exception made to permit the use of a work without compensation or permission from the copyright owner, a public license is a special form of copyright license under which the creator of the work still holds the copyright to his or her work, but the user of that work is allowed to freely use, share, modify and share the modifications with others. This type of license is intended to make the work available to the public as far as possible, to facilitate the revaluation and improvement of the work while the author's rights are respected. Computer program works or open encyclopedias are the example of the application of General Public License (the GNU) or the license of Creative Common. In such cases, copyright infringement while using works distributed under a public license may occur if the user exceeds the freedoms set forth in the respective license[7].

Within the scope of this article, the focus of the analysis will be on the freedom to use the copyright-protected work in teaching activities without obtaining permission from the right holder and without paying the copyright owner. Under the current law on copyright protection[8], the mentioned uses are parts of the provisions on "The use of published works without permission and without payment" or "Case exception of non-infringement of copyright" and

[1] In this article, the version used of the Berne Convention is the version revised in 1971 in Paris.

[2] Other forms of limitation of copyright include "compulsory licensing" whereby the work may be used without permission but subject to compensation to the owner or other restrictions imposed by law.

[3] WIPO. (n.d.). Limitation and Exceptions, Link: https://www.wipo.int/copyright/en/limitations/ (last accessed December 2021)

[4] WIPO. (2016). *Understanding Copyright and Related Rights* (2nd ed.)., p 15, link: http://www.wipo.int/edocs/pubdocs/en/wipo_pub_909_2016.pdf

[5] See Section 107, US Copyright Act of 1976

[6] Inest, A. (2006). Theory of *de minimis* and proposal for its application in copyright. *Berkeley Technology Law Journal 21(2),* p 947.

[7] The GNU public license includes many types such as GPL - General Pulbic License, LGPL - Lesser General Public License, AGPL - Affero General Public License, FDL - Free Documentation License. Each category has different degrees of permission for freedom of use of the work. See more about the GNU license at www.gnu.org.

[8] Amended and supplemented in 2009 and 2019

"Limitation of copyright" in the latest amendment and supplementation of the Intellectual Property Law in 2022.

1.2. The right to freely use the works in educational activities in accordance with the provisions of copyright law in Vietnam in different periods

From a terminological perspective, the act of freely using a work is defined by the Law on Intellectual Property of Vietnam (hereinafter refered to as the IP Law) as an act of using a work without permission and without having to pay royalties or remuneration. In this article, the analysis of "the freedom to use works in teaching activities" will focus on the acts of using published works in teaching activities without having to ask for permission and pay the remuneration to the copyright holders in accordance with the law on copyright and is considered not infringing copyright. In fact, related contents have been mentioned in different versions of copyright law in Vietnam over time.

In the 1994 Ordinance on Copyright Protection, for the first time the acts of "quoting works to teach and test knowledge in schools" and "recording live performances for the purposes of news reporting or teaching" is recognized as part of the free use of the work for teaching purposes. Article 16 of this Ordinance stipulates that, for published works, the use of works in the above cases does not require permission or compensation, but the use must "not for commercial purposes, not for interfere with the normal exploitation of the work and do not infringe upon other rights of the author", provided that the author's name and the source of the work are mentioned. The law also excludes the application of the above provisions to the act of copying architectural works, visual works and computer software. These contents are again repeated in the 1995 Civil Code in Article 761. The slight difference here is that the act of free use of the work, as stipulate in the Code, is clearly defined as "forms of use of the work of art without asking for permission and without having to pay compensation".

In the 2005 Civil Code, although the content of copyright is recorded in a separate section, the Code does not specify the provisions for the use of works without asking for permission, without paying remuneration as in the previous Code. Instead, this content is regulated by the 2005 IP Law in Article 25 – "Case of using published works without asking for permission, without paying royalties or remuneration," which includes acts of "self-reproducing a copy for the purpose of scientific research, personal teaching" and "quoting the work to teach in schools without misleading the author's intention, not for commercial purposes." After two amendments and supplements to the IP Law in 2009 and 2019, these regulations have remained unchanged. The general condition of acts of freedom to use work in such cases is "not to interfere with the normal exploitation of the work, not to prejudice the rights of the author, the copyright owner" and the user must to notify information about the author's name and the origin and origin of the work (Article 25(2) of the 2005 Law on Intellectual Property).

In 2022, the IP Law is again amended and supplemented for the third time. In this revision, in relation to the content of the freedom to use the work, there are several proposals to ensure harmony between creators, operators, users and the public enjoying the work. With regard to the lawful use of works in educational activities, the new law recognizes this in article 25 "Exceptions for not infringing copyright"[9].

[9] In this article, the author only analyzes the content related to the freedom to use the work, not including the freedom to use the objects of related rights, such as performances, records of phonograms and broadcasting programs.

1.3. The right to freely use works in teaching activities in accordance with the current Intellectual Property Law

The legal basis for the act of freely using works in teaching activities in accordance with current Vietnamese law is the 2005 IP Law and Decree 22/2018/ND-CP detailing several articles and measures to implement the 2005 IP Law (amended and supplemented in 2009) (hereinafter referred to as the Decree 22).

According to the provisions of Article 25 of the current IP Law, acts of using published works without permission, without paying royalties or remuneration to authors and right owners related to teaching activities include:

- Self-reproducing one copy for the purpose of personal scientific research and teaching (Point a, Clause 1);

- Quoting works for teaching in schools without misrepresenting the author's intentions, without commercial purposes (point d, Clause 1);

- Recording live performances for teaching (point g, Clause 1).

The recognition of these contents has created favorable conditions for the teaching and research activities of teachers, lecturers and researchers. For example, from a teacher's point of view, the above exception allowing copying and quoting of works for teaching purposes is extremely advantageous as he/she can freely make the copy of the work for his/her own teaching purposes without the costs associated with obtaining permission, paying the author, the relevant copyright holder.

The general condition for the above acts is not to affect the normal exploitation of the work, not to prejudice the rights of the author, the copyright holder and must provide information on the author's name and the origin and origin of the work (Clause 2, Article 25 of the IP Law). Regarding each specific act, the detailed conditions to use the work in teaching can be summarized in the following table:

<table>
<tr><th>The act of free use of the work</th><th colspan="2">Conditions</th></tr>
<tr><td>Copying works for the purpose of teaching</td><td>- The subject of the act is an individual;
- Not for commercial purposes;
- Self-copy not more than one copy.</td><td rowspan="3">Not to affect the normal exploitation of the work, without prejudice to the rights of the author or copyright holder; information on the author's name and the origin and origin of the work must be provided.</td></tr>
<tr><td>Citation for teaching in schools</td><td>- Do not misrepresent the author's intention of the cited work;
- Not for commercial purposes.</td></tr>
<tr><td>Recording live performances for teaching</td><td></td></tr>
</table>

1.4. The right to freely use works in teaching activities in accordance with the provisions of the Intellectual Property Law in the most recent amendment and supplement in 2022

In the third amendment and supplement of the IP Law in 2022 (hereinafter refered to as the 2022 IP Law), the provisions related to the free use of works in teaching activities are shown in Article 25 on "Exceptions for non-infringement of copyright", which notes the exception "Reasonable use of works for illustration in lectures, publications, performances, phonograms,

recordings television programs and broadcasts for teaching purposes." The law also stipulates that this use may include the use in an internal computer network provided that technical measures are applied to ensure that only learners and instructors in the couse can access to the used work (point c clause 1 Article 25).

In addition to the only exception mentioned above, the 2022 IP Law also adds a provision related to the use of works for teaching activities in Article 26 on "Limitations of copyright." This exception allows Vietnamese organizations and individuals to enjoy the privileges accorded to developing countries for the right to translate works from foreign languages into Vietnamese and the right to copy for non-commercial teaching purposes. This is essentially the internalization of the exceptions for developing countries in the Annex to the Berne Convention regarding compulsory licenses in the field of copyright in order to facilitate exploitation of the work, especially in the field of education.

Therefore, compared with the current regulations, the amendments that will be applied in the near future will be in the direction of narrowing the free use of works in teaching. Specifically, "self-reproducing a copy","quoting" and "recording performances" for teaching are not recognized in the new regulations. Instead, the law allows the work to be "fair use" for illustrative purposes in the lecture without asking for permission, paying the author, the right holder, as long as the author's name and and information of the origin of the work must be provided.

2. SOME EVALUATIONS OF NEW REGULATIONS RELATED TO "THE RIGHT TO FREELY USE WORKS IN TEACHING ACTIVITIES"

In general, the contents related to the right to freely use works in teaching activities as recognized in the revised IP Law of 2022 are consistent with the provisions of Articles 9(2) and Article 10 of the Berne Convention to which Vietnam is a member. Under Article 9(2), States Members to the Convention have the right to permit the reproduction of literary and artistic works in certain special cases, provided that such reproduction does not prejudge the normal exploitation of the work or do not cause damage to the legitimate interests of the author. In Article 10 of the Convention, it is a free act to quote a work for illustration for teaching purposes, as long as the citation is within the appropriate range and the source of the work, the author's name is indicated. In addition, as a developing country, Vietnam is fully entitled to use the exceptions granted to it by the Berne Convention regarding the granting of licenses to translate and copy works without consent of the copyright owner.

In the analysis of the next section, the article will clarify some shortcomings of the current regulations on the relevant issues. Some of these shortcomings have been reasonably remedied in the third amendment of the IP Law, nonetheless, these amendments urgently need a detailed guidance document to facilitate their practical application.

2.1. Some advantages in the new regulations of the Intellectual Property Law amended and supplemented in 2022

2.1.1. The removal of the "non-commercial" condition

According to current regulations, the condition "not for commercial purposes" is prescribed for two acts of "copying works for teaching purposes"[10] and "quoting for teaching in schools"[11].

[10] See Article 22(1) of Decree 22

[11] See Article 25(1d) of the IP Law

As aforementioned, the Berne Convention provides that such copying or quoting can reasonably be done without prejudice to the copyright of the original work, and the practitioner must state the source of the work and inform about the author of the work used. According to Vietnamese law, besides the above conditions, the practice must be "not for commercial purposes". This additional condition makes it more difficult to use the work. Currently, teaching activities are diversified with many forms, including public, private and combined. While private educational institutions are opened with clear profit goals (language centers, exam preparation centers, private educational institutions, etc.)[12], in the public sector, particularly in the activities of universities and colleges, the general trend is to increase the level of financial autonomy, so "commercial purposes" or generate profits in teaching is a possible factor. In cases where it is impossible to prove that the use is "for commercial purposes", it is very likely to conclude that lecturers at universities and colleges become the infringers of copyright.

As aforementioned, the Berne Convention provides that such copying or quoting can reasonably be done without prejudice to the copyright of the original work, and must state the source of the work and information about the author of the work is used. According to Vietnamese law, besides the above conditions, these practices must be "not for commercial purposes". This additional condition unintentionally makes it difficult to use the work in free use cases. In Viet Nam, teaching activities are diversified with many forms, including public, private and combined. While private educational institutions are opening up with clear profit goals (language centers, exam preparation centers, private educational institutions, etc.), the educational institutions in public sector, particularly at the level of universities and colleges, are in the general trend to increase the scope of financial autonomy, thus "commercial purposes" or generate profits in teaching is unavoidable. In cases where it is impossible to prove that the use is "for non-commercial purposes", it seems that lecturers at universities and colleges have become the infringers of copyright.

Therefore, in the third amendment, by providing for the free act of fair use of works for illustration, the law has removed the requirement of "not for commercial purposes". This is a reasonable change to make the regulations become more consistent with the Berne Convention and facilitate the exploitation and use of works in teaching activities at educational institutions.

2.1.2. The removal of the right to make" one copy" in teaching activities

Under current IP Law, the "one copy" limitation applies to the act of "copying a work for teaching purposes". Although the legislator seem to use this as a limit to to prevent abuse of the work users from detriment of the copyright holder's exploitation of the copyright. However, this goal may not be achieved in some cases. For example, if a reference book work is make only for teachers and lecturers, the right to freely "reproduce one copy" for teaching will create adverse affects to the copyright holders in exploiting the rights of the reference book.

Under current IP Law, the "one copy" limitation applies to the act of "copying a work for educational purposes". Although the legislator seems to use this as a limit to prevent users from misusing the work to the detriment of copyright exploitation by the copyright holder. However, this goal may not be achieved in certain cases. For example, if a reference book is produced only

[12] Article 16(2) of the Education Law 2019 also clearly states the policy of education socialization, according to which "The State plays a leading role in the development of the cause of education", but also encourages "diversification of types of educational institutions and educational forms; encouraging, mobilizing and creating conditions for organizations and individuals to participate in the development of the educational cause; encourage the developing of private educational institutions to meet social needs association for high-quality education."

for teachers and lecturers, then the right to "freely reproduce one copy" for teaching will create adverse effects for copyright holders in the exploitation of the reference book.

With the above analysis, the new regulation that completely removes this right is also very appropriate, helping to protect the legitimate rights of authors and owners in exploiting their works.

2.1.3. The removal of the act of "recording live performances for teaching purposes"

With respect to the act of recording or filming live performance for education specified in 25(1g) of the IP Law, the act is not reasonable to be classified in the group of acts related to the work. From the point of view of terminology, a "performance" is more appropriate to be considered as an object of "neighboring rights", therefore, the act of recording a live performance for teaching activities should be categorized using neighboring rights without having to seek authorization, without paying royalties or remuneration. So, when the new law does not continue to record this content, it is also an appropriate development to avoid unnecessary duplication with similar content specified in Article 32(1a) of the IP Law in relation to the use of neighbouring rights.

2.1.4. The addition of regulations on "compulsory license" in the field of education

In Article 26(4) of the IP Law 2022, there is an additional provision to allow Vietnamese organizations and individuals to enjoy preferential treatment for developing countries for the right to translate works from foreign languages into Vietnamese and the right to copy for non-commercial teaching purposes. When performing acts such as translation or copying of the work in these cases, the user of the work must always pay the author at the rate according to the law. Legally, "the use of published works without authorization but payment must be paid" is subject to special licenses granted by competent state agencies at the request of the users of the work[13]. The addition of this provision is very necessary as it creates favorable conditions for those who wish to translate and copy works for non-commercial educational purposes. On the other hand, this provision also helps Vietnamese copyright law to harmonize more with the provisions of the Berne Convention on exceptions for developing countries.

2.2. Certain limitations in the third revision of the Intellectual Property Law regarding free use of works for teaching purposes

2.2.1. Lack of explanation of the meaning of "reasonableness" in free use and some general conditions for free use of the work

The current regulations do not contain formal guidelines on this issue. In the latest draft decree guiding copyright to replace the Decree 22 (hereinafter refered to as the Draft Decree), the issue of "reasonableness" in the free use of works in education is guided in some detail[14]. Specifically, the use of works to illustrate in lectures must be guaranteed to be used only within the scope of the lesson and only learners and teachers of this session are allowed to access the work. If the work is used in exam questions and answers to test knowledge and skills in the national education system, it may be used to the extent necessary. In addition, the use must meet other requirements, including ensuring that the use is solely for the purpose of introducing, commenting on, or clarifying the subject of one's work, and does not infringe the right copyright of the work used and must be compatible with the nature and characteristics of the type of work

[13] Conditions for being granted a license, and the licensing process for cases of translating and copying works for non-commercial educational purposes are detailed in the Draft Decree guiding copyright in Articles 37 and 38.

[14] See Artilcle 27(1) of the Draft Decree

used, as well as the indication of the origin of the work and the name of the author must be clearly indicated.

Thus, in the above explanation, the legislator only provides the "conditions" for an act of free use to be considered "reasonable", but has not provided an explanation to the scope of the use in question. For example, can teachers quote, copy or partially translate a work from a foreign language and include it in their lectures for the purpose of illustrating, or any act of using the work are allowed as long as the above conditions are met? For such reasons, a clearer guideline on the scope of the activity of "using" works in teaching activities is urgently needed.

Similarly, for conditions such as "not to infringe the normal exploitation of the work, not to infringe the rights of the author, copyright holder", the law does not give any explanation. In particular, no provision of the law allows the author or the holder of the rights to determine that such use hinders the normal exploitation of the work or infringes his/her rights, and if this occurs, he/she has no basis to know what procedures they should follow to protect the rights.

2.1.2. Lack of explanation of the concept of "teaching activities"

Regarding some concepts such as "teaching" and related concepts, the new provisions of the law did not specify the scope and explanation of these activities. According to the draft Decree on copyright guidance, "teaching activities" may include providing lectures, giving questions in examination to test knowledge and skills and preparing the corresponding answers[15]. However, the draft does not provide clear answers to a number of issues, including:

- It is generally unclear what activity "teaching" is aimed at in which areas of the national education system, in particular the school level, the training level, the private or public sector;

- While teaching activities include lectures, exam questions and answers, it is uncertain whether or not they includes other activities such as preparation of textbooks, data banks exams, graduation internship or thesis;

- In terms of subjects, who is entitled to benefit from the above exceptions in teaching activities: lecturers, teachers according to the provisions of the law on education or anyone who conducts activities of the nature of "teaching", there is still no answer in the law.

In order to ensure the exercise of the right to freely use the work for teaching activities, it is very important that the above issues are identified in order to facilitate the exploiter of the work, on the other hand, still ensure the legitimate interests of the author, the owner of the works used.

3. THE RIGHT TO FREELY USE THE WORK IN TEACHING ACTIVITIES UNDER SINGAPORE COPYRIGHT LAW

3.1. Introduction to copyright law in Singapore

Singapore copyright law is generally influenced by the laws of common law countries in the Commonwealth system such as the United Kingdom and Australia.

Prior to 1987, Singapore's intellectual property legal system was based primarily on British Empire law. In 1987, Singapore enacted its own copyright law, but this law continues to be heavily influenced by Australian[16] and British laws[17]. After several changes and additions, the

[15] See Article 27(1a) of the Draft Decree

[16] The Australian Copyright Act 1968

current version is the Copyright Act as amended in 2021 (hereinafter refered to as the 2021 SCA)[18]. Apart from this major Act, Singapore has also issued a series of sub-law documents to regulate matters relating to specific aspects of copyright protection, such as copyright royalties, border controls, network service providers and the fight against online copyright infringement[19]. In the last revision in 2021, the law is amended to increase interaction with the public and add content, such as recognizing the moral rights of authors and improving the balance of interests between authors, owners of rights and the public.

3.2. Regulations on the right to freely use works in teaching activities under Singapore's copyright law

It can be said that Singapore's copyright law places a great emphasis on the content related to freedom of use of the work, as evidenced by the relevant content recognized in a series of provisions in the 2021 SCA. From the perspective of the freedom to use work, the SCA addresses this issue through two main mechanisms. Firstly, the law provides a general provision on the freedom to use the work (called *fair use* in Singapore law[20]), according to which involves acts of using the work for certain purposes such as criticism or evaluation, reporting, provision for computer programs, legal proceedings or advice, etc. To judge whether an act is *fair use*, the following factors are taken into account[21]:

- The purpose and character of the use, including whether the use is of a commercial nature or is for non‑profit educational purposes;

- The nature of the work:

- The amount and substantiality of the portion used in relation to the whole work; and

- The effect of the use upon the potential market for, or value of, the work.

In addition, the law also provides for several cases that are not considered copyright infringements when the work is used for the purposes of providing information, criticism[22], research, learning[23] and support for people with print-reading disabilities[24] or intellectually impaired[25], library activities[26], copying computer programs[27], authorized acts of using cinematographic[28], musical works[29], artistic works[30], etc.

With respect to educational activities, the SCA contains extensive provisions on this issue,

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[17] The Copyright, Patent and Designs Act of 1988 and Copyright Act

[18] In this article, the analysis related to Singapore's copyright law will be based on the Singapore Copyright Law, last revised in 2021.

[19] Details of these documents can be viewed at the link https://sso.agc.gov.sg/Act/CA1987?ViewType=Sl (last accessed October 17, 2021)

[20] As of the last revision in 2021, the term "*fair use*" is officially used for cases of free use of the work. Previously, the Singapore Copyright Law used the term "*fair dealing*".

[21] See Section 191 of the 2021 SCA

[22] Sections 192, 193 of the 2021 SCA

[23] Sections 194 of the 2021 SCA

[24] Dision 4, from Section 206 to Section 216 of the 2021 SCA

[25] Dision 5, from Section 217 to Section 220 of the 2021 SCA

[26] Dision 6, from Section 221 to Section 236 of the 2021 SCA

[27] Dision 7, from Section 237 to Section 242 of the 2021 SCA

[28] For example, Section 251 of the 2021 SCA

[29] For example, Section 260 of the 2021 SCA

[30] For example, Sections 268, 269 of the 2021 SCA

with a focus on Section 3, Part 5 of this document. In the following content, the author will focus on analyzing some aspects of the above provisions to serve as the basis for some suggestions for amending and improving Vietnamese law in relevant regulations.

First, as mentioned above, the SCA sets forth general criteria for *fair use* - the free use of works. The advantage of this approach is that it helps the relevant state agency or other dispute resolution bodies to determine whether a particular act is *fair use* or not, even if the practice is not directly mentioned in the law. This is particularly important in the Singapore legal system, as the Court can interpret and create case law itself in the process of dealing with relevant cases. In Vietnam, while the law only provides a list of permitted acts but does not provide general guidelines on the factors used to assess these acts, the assessment of a practice that is not described in the law will be very difficult.

Second, Singapore's copyright law contains a detailed explanation of related terms such as: "educational institution" [31] and "educational purpose" [32]. As defined by law, educational institutions include schools of various levels and fields of education, or whose primary function is education, as long as they operate on a non-profit basis. For copying of work for educational activities, the law shall include the making of copies for the courses of an educational institution, including the making of copies of libraries belonging to it. In each cases of free use of work, the law also prescribes the conditions and levels of use. For example, for the act of copying literary or artistic works for teaching activities at an educational institution, the copying must be done on the premise of that educational institution or in the network system managed by that institution. In terms of quantity, if the used work is 500 pages or less, copying will be authorized up to 5 pages; if the work exceeds 500 pages, copying will be allowed up to 5% of the pages. For electronic works, the calculation of the reproduction rate can be based on character capacity or word count, usually also at 5%, and the reproduction of the sequel is not made until 14 days later[33]. For exam-related activity, *fair use* of work is permitted for the creation of questions, communication to the examiner, and answers to those questions [34]. It is worth noting that Singapore's copyright law regulates in great detail each act of *fair use* for each distinct type of work (e.g. literary, artistic [35], musicalworks [36], works transmitted on the internet [37]), each containing corresponding conditions[38], or sometimes, examples to ilustrate the provisions[39].

To facilitate educational activities, in addition to the provisions on the right to freely use works, the law also provides the content of "statutory licenses" for educational institutions. Thank to this type of license, educational institutions in Singapore are permitted to copy or transmit part or all of the work without seeking permission from the right owner. However, the royalties must be paid at the request of the right owner at a rate agreed between the parties or determined by the competent authority[40]. The recognition of this content makes it possible to supplement the regulations on the *fair use* of the work in teaching activities. In general, a free

[31] Sections 83, 84 of the 2021 SCA

[32] For example, see Sections 195, 204(3) of the 2021 SCA

[33] Section 197 of the 2021 SCA

[34] Section 202 of the 2021 SCA

[35] Section 197(1) of the 2021 SCA

[36] Section 205(1) of the 2021 SCA

[37] Section 204(1) of the 2021 SCA

[38] For example, see Sections 196(2), 197(2), 198(2), 201(2), 204(2), 205(4)(6) of the 2021 SCA

[39] For example, see Section 204 of the 2021 SCA

[40] Section 198(4) of the 2021 SCA

use of a work only applies to part of a work, while a "statutory license" may allow copying of an entire work, but must pay royalties. It should be noted that this legal license may be suspended if the educational institutions commit violations, until the competent authorities realize that the conditions that the law imposes on educational institutions are again met[41].

4. SOME PROPOSALS TO IMPROVE THE PROVISIONS ON THE RIGHT TO FREELY USE WORKS IN TEACHING ACTIVITIES FOR VIETNAMESE LAW

Based on the analysis of the pros and cons of the new provisions of the third amendment of the IP Law, combined with the analysis of the 2021 SCA on related issues, the author gives some recommendations for improving Vietnamese law in this area.

First, the law need to have a general provision on the criteria for considering permitted *free use* rather than focusing only on listing acts, similar to the provisions of Section 197 of the 2021 SCA. This general shall enable the relevant dispute resolver to consider a particular use, including permitted conduct for teaching activities. In addition, the law should specify specific conditions for and levels of exploitation in specific cases, such as the percentage of citation and copying.

Second, the law should add explanations for relevant issues, such as "reasonable use" and conditions such as "must not affect the normal exploitation of the work, without prejudice to the rights of the author, the copyright holder." These explanations may be contained in sub-law documents or interpreted by the Court in case precedents, if any.

Third, in addition to the "compulsory license" provision, the law must add a "statutory license" provision similar to the approach of the 2021 SCA. Unlike the "compulsory license" type, in the "statutory license" type, educational institutions do not need to follow any procedure to be authorized to use the work, but only fulfill the conditions set forth by the law. Therefore, the interests of the rights holder are always guaranteed by this always paying use in accordance with the regulations. This regulation on the one hand reduces the procedure for obtaining authorization, on the other hand also increases the autonomy and self-responsibility of educational institutions. However, the law should complement the role of functional agencies in inspecting and monitoring the activities of educational institutions, making prompt corrections when violations occur.

5. CONCLUSION

Right of free use of works in educational activities is a very important content according to the provisions of the current Vietnamese copyright law as well as the Berne Convention on the protection of copyrighted works of which Vietnam is a member. However, the provisions relating to this content in Vietnamese copyright law, even though they have undergone modifications and additions, are still sketchy and general, lacking detailed provisions to facilitate their application. In the respective provisions of the 2021 SCA, the analysis shows that Singapore has a fairly comprehensive approach to the content of *fair use* – freedom to use works, especially in the field of education activities. For the above reasons, the recommendations in this article are made on the basis of analyzing most recent Vietnamese copyright law combined with some experiences drawing from Singapore copyright law. In the proposals, the author emphasizes on providing common criteria to define the acts of free use of the work, adding explanations of certain related terms and adding additional regulations on "*satutory license*" for educational institutions in the exploitation and use of works for educational purposes. With these

[41] Section 199 of the 2021 SCA

proposals, the author hopes to contribute to drafting the relevant content in a special Decree guiding copyright law in Vietnam in the coming times.

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LAW ON TRANSGENDER IN VIETNAM - SITUATION AND RECOMMENDATIONS

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Abstract

In Vietnam, the last decade has witnessed the rapid emergence of the movement for LGBT rights. An increasing number of transgender people are openly sharing their gender identity or sexual orientation, which has brought a fundamental change to social perception. Therefore, the research on the topic "Law on transgenderism in Vietnam - the situation and recommendations for improvement" raises questions on the concept and current legal status of transgender people, the methods to ensure the rights of transgender people. Further, it makes recommendations to develop laws to ensure human rights and citizenship for transgender people in Vietnam.

Keywords: *LGBT, LGBT rights, Transgender, Transgenderism, Transgender rights*

1. INTRODUCE RESEARCH TOPIC

1.1. Research background

Transgender is a hot issue in society. Studies on this issue in Vietnam still have many unsolvable problems such as sex discrimination, health facilities, specialized law,… That makes transgender people limited in their rights. The basic reason leading for these limitations is that the State has not yet had an official and specific regulation on gender change in a separate legal document. In some legal documents such as the Civil Code Law 2015, the Law on Marriage and Family 2014, the regulations on gender change have not been clear. Currently, Vietnam has a draft Law on transgenderism to submit to the National Assembly. This is really an important step forward. In the future, society needs to continue to speak up for the transgender community.

1.2. Research situation

Before the 2015 Civil Code, Vietnamese law did not recognize transgender people and only provided for re-determine gender identity for cases where an individual's natural gender was misidentified at birth. November 24, 2015 has become a memorable milestone for the Vietnamese Les, Gay, Bisexual and Transgender (LGBT) community in general and the Transgender community in particular when the 2015 Civil Code officially acknowledged the right to change their civil status and identity information. This is considered an "open door" for a better and brighter future for the Vietnamese transgender community (ICS Center, 2020). After the 2015 Civil Code, Vietnam's law has a new and more progressive point, which is the recognition of the right to a Sex reassignment in Article 37.

Some prominent works related to the issue of transgender people are as follows:

Le Van Phuong (2017) "The rights of transgender people in Vietnam today", Master's

thesis in jurisprudence, Vietnam Academy of Social Sciences, Hanoi;

Vu Thi Ngoc Anh (2017) "Completing the law on transgender in Vietnam today", Master thesis of law, Hanoi National University, Hanoi

Proceedings of a legal scientific conference on transgender in the world and experiences for Vietnam organized by the Faculty of Law of Vietnam National University, Hanoi in 2016.

Scientific documents of ISEE Research Institute (one of the research groups on LBGTI): Nguyen Quynh Trang (editor) (2010); Pham Quynh Phuong, Le Quang Binh, Mai Thanh Tu (2012), Transgender people in Vietnam-Practical and Legal Issues, Hanoi; ...

Although there are many research works on the issue of trans, the works are still not in-depth. In particular, the Law on Protection of transgender people's rights has not been paid much attention to and is in the draft stage to become a legal corridor to protect them. Therefore, it is necessary to study, pay attention and develop to perfect the Law on Transgender Law.

1.3. Research Methods

The work uses social science research methods to solve the following problems:

Comparative method: This method is used in the comparison between the two concepts of gender reassignment and gender equality (Part 2). From there, draw other points about nature, characteristics, and objects.

Legal analysis method: It is a method that plays a role in analyzing the concepts of the draft Transgender and the laws of some countries. Transgender rights (Parts 2, 3). To clarify the law and make reasonable recommendations and solutions suitable to the current situation.

Methods of statistics, synthesis, and analysis: The work uses reports and statistics from professional agencies and organizations such as the ISEE Institute for Social, Economic and Environmental Research,... (Parts 2,3,4) aimed at clarifying issues of gender equality rights in Vietnam today.

1.4. Research scope

Based on the understanding of previous studies, the Ph.D student identifies the issues within the scope of the article as follows:

Firstly, the article researches the general theory of transgender people, including clearly identifying the group of transsexuals as people who want or have undergone surgery to achieve a match between genitalia and real gender identity in their brains (Văn Thị Hồng Nhung, 2021). Thus, gender transition requires confirmation that you have undergone hormone use for the prescribed time or have medical intervention.

Secondly, the article only references international law on the rights of transgender people in society without going into analysis or comparison with Vietnamese law on similar issues.

Thirdly, focus on analyzing and studying the legal provisions on the rights of the group of transgender people, which are specifically recorded in Article 37 of the Civil Code 2015, in addition, introduce the Draft Law on Transgender present.

Fourthly, based on the study of theoretical issues, legal situation and practical application of the law on the rights of the group of transgender people mentioned above, in order to see the positive aspects achieved and the limitations still exist in the exercise and protection of rights of the group of transgender people. From there, recommendations are made to ensure the rights of the community regarding gender transition.

1.5. Research structure

In addition to the conclusion, list of references and appendices, the content of the research paper includes 4 parts:

1. Introduce research topic

2. General theory of being transgender

3. Overview of the rights of transgender in Viet Nam and in the world

4. Some recommendations about transgender in Viet Nam

2. GENERAL THEORY OF BEING TRANSGENDER

2.1. General overview of gender and transgender

2.1.1. Overview of sex and gender

Clauses 1, and 2 of Article 5 of the Law on Gender Equality 2006 stipulate:

"1. Gender indicates the characteristics, positions, and roles of man and woman in all social relationships.

1. Sex indicates biological characteristics of man and woman."

Thus, gender refers to the difference in characteristics, positions, and roles of men and women in social relationships or also refers to the social differences between men and women, reflecting characteristics of social relations between men and women, to the social status of men and women. Gender identities emerge through an individual's maturation and cognitive processes. An individual was born and raised as a girl/boy who will identify himself/herself as female/male. Therefore, gender identities are culturally and spiritually determined rather than natural or innate.

Different from gender, sex is a natural and innate factor, that is a concept used to refer to the biological characteristics of men and women. These characteristics seem to be constant, which is the basis for later gender role standards. Transgender can be caused by biology, culture, economy,... (Nguyễn Thị Minh Tâm , 2013). In other words, a person with male-specific genitalia is male, and a person with female-specific genitalia is female.

* Characteristics of sex:

- Biological characteristics are determined entirely by genes through genetic mechanisms.
- Innate
- Homogeneous because this is a product of biological evolution, so it is independent of space and time.

Biologically, there are only two types of sex: male and female. Scientifically, gender is seen as a band. In addition to the two main typical forms, male and female, there is another form called "intersex". Intersex is defined as an individual with chromosomal, sex-hormonal, or genital characteristics that, as defined by the United Nations, are "not typical characteristics of male or female". They are the people who have abnormal external and/or internal genitalia. (SCDI Center, 2021)

2.1.2. Overview of transgender

Transgender: is a term used to refer to all those who have a gender identity, expression, or behavior that is not following standards corresponding to their biological sex. Gender identity is a person's internal feeling of whether they are male or female, or of another gender; gender

expression is the way that a person shows his/her gender identity through external expressions (dressing, hairstyle, etc.) (Phạm Quỳnh Phương , 2014)

According to the document of iSEE Institute: "The transgender whose desired sex is not the same as the sex at birth, regardless of the state of the body that has undergone surgery or not" (iSEE Research Institute, 2014). By definition, a transgender feels his or her own gender identity, regardless of medical or legal procedures. Transgenders only need to change their characteristics, positions, and roles in social relationships to match the gender that they perceive themselves to be. Transgender people will be different from transsexual people. Specifically:

Table 1. Distinguishing transgender people from transsexual people

Transsexual people	**Transgender people**
People whose gender identity differs from their biological sex at birth. Under normal circumstances, they will change or want to change their body by using hormone therapy, surgery, or other methods to have a body that is most similar to the gender they want.	People whose desired sex is different from the sex which they were born with. They perceive themselves and may express a gender that is not consistent with the standards corresponding to their biological sex.
Transsexual people directly affect their biological sex through medical intervention, i.e. changing from appearance to genitals (even whole body) to match the male /female gender.	Transgender people only need to change their characteristics, positions, and roles in social relationships and can express gender following the gender that they self-identify and perceive.

2.1.3. Reasons for recognizing the right of the transgender

Firstly, transgender is a legitimate need for a group of people who want to live with their real gender. From the perspective of human rights, individuals have the right to life, which includes the right to live as themseles and to have the right to make decisions about their body and appearance. Therefore, the law needs to be changed and expanded to protect the group of transgender people.

Secondly, despite the barrier of not having a legal corridor to protect them, transgender people do not give up their desire to live as themselves. They are willing to risk all health and life risks to carry out the illegal and poor-quality transgender process. Because of the lack of clear legal regulations, it has caused many consequences for transgenders and at the same time created a burden for both society and the State.

Thirdly, it causes many difficulties and challenges for transgender people. This directly affects their legitimate rights and interests. For example, the correction of civil status after transgender, difficulties in marriage registration, obstacles to participating in labor recruitment, job search, etc. Socially, transgender people are discriminated against, unrecognized, and mentally and physically abused, by their own families. Parents do not accept making their children gradually self-deprecating, depressed, and have a tendency to want to commit suicide and have committed suicide. In terms of employment and education: They are not recruited, promoted, or even paid fairly.

2.2. The distinction between re-determine gender identity and Sex reassignment

Table 2. The distinction between re-determine gender identity and Sex reassignment

	Re-determine gender identity	Sex reassignment
Definition	Re-determine gender identity of a person is performed in cases where the person's gender is congenitally disabled or in an unspecified accurate form that requires medical intervention to determine gender.	The transition from one gender to another can be through hormone therapy, surgery, or other methods to achieve the body of the desired gender.
About the condition	The gender is born with a birth defect or has not been correctly shaped but requires medical intervention to determine the gender	Not yet defined
Cognitive	They can think of themselves as male, female or satisfied with their current gender.	Born male but perceived as female or born female but perceived as male.
About method	Through medical intervention	Possibly through medical intervention or hormonal treatment
About the result	Gender may not change	Gender completely changes

3. OVERVIEW OF THE RIGHTS OF TRANSGENDER IN VIETNAM AND IN THE WORLD

3.1. Transgender rights in some countries in the world

First of all, transgender rights are recognized in LGBT rights documents, in which the first and fundamental right is equal rights mentioned in the preamble of the Charter of the United Nations 1945. The preamble to the Charter declared that: "to reaffirm faith in fundamental human rights, in the dignity and worth of the human person, in the equal rights of men ....". Similarly, Article 1 also provides: “encouraging respect for human rights and fundamental freedoms for all without distinction as to race, sex, language, or religion ” (Trương Hồng Quang, 2017). Thus, the Charter of the United Nations affirms equal rights and fundamental human rights, including the rights of transgender people.

In June 2011, the United Nations Human Rights Council issued a resolution affirming that "everyone has equal rights, regardless of sexual orientation". Documents on LGBT rights in the world have also been adopted based on human rights. One of the first international instruments on LGBT rights was the United Nations Human Rights Commission's Declaration on Sexual Orientation and Human Rights, adopted in March 2005.

Not only in Vietnam but the right to change sex is also a right that the international community has paid great attention to recently. As of December 2016, “60 countries have legalized the right to transgender, 95 have not yet legalized but have not banned it, and 58 countries still ban transgenderism” (Government web portal, 2017) according to the statistics of Equadex.

In Europe, the Netherlands is a leading country in the recognition of transgender rights. Dutch law stipulates that the subject with the right to change gender is a citizen aged 16 years or older who finds that gender identity is not the same as when born, and has the right to change the gender in the civil status book and related documents. The condition to change gender is to have

a certificate from an expert in the gender council confirming that you have a different gender than the one on your birth/certificate and the certificate is only valid when accepted within six months. Regarding the legal gender change procedure, a person who wants to change gender only needs to go to the civil status registration office to apply to change the gender box then the civil status registry office will consider it. If eligible, they will decide to change the gender category for them. In addition, according to the Civil Code 2013, the Netherlands does not require surgery and sterilization if it wants to be recognized as the desired gender.

In Asian countries, many countries recognize transgender after surgery: Japan, China, Singapore, and the Philippines. Meanwhile, some countries do not require surgery to change gender documents such as Korea, Taiwan, etc. For example, Korea 2013 issued a ruling that: "a person does not need to undergo gender reassignment surgery to change their gender on paper after considering a lawsuit filed by the plaintiff. The application is there are five transgender people, all of whom have not undergone surgery" (Government web portal, 2017). In China, there is no law prohibiting gender reassignment surgery. After successfully changing gender on paper, they have the same rights and obligations as the new gender.

In general, many countries are fighting for the desired gender change on paper without surgery. This is the most developmental trend for transgender rights.

Below is a summary of some countries that have legalized sex change according to statistics from the Institute for Studies of Society, Economy, and Environment (iSEE).

Table 3. Summary of some countries legalizing transgender

Country (Year allowed)	Note
Australia (1987)	The cost of surgery is covered by the state
Sweden (1972)	From 2013 surgery is not required
Germany (2010)	Surgery is not required
Kingdom of England (2004)	Surgery is not required
Italy (1982)	Surgery is required
Belgium (2007)	Request surgery
Netherlands (1985)	Surgery is not required
Canada	All provinces do not require surgery, except Saskatchewan province
USA	Depending on the state, 5 states do not allow changes, 27 states allow change of documents after surgery, 18 states allow and do not require surgery.
Cuban (2008)	The cost of surgery is covered by the state
Iran	Male to female only, the cost of surgery is covered by the state
Korea (2006)	From 2013 surgery is not required
Israel	Surgery is not required, the cost of surgery is covered by the state
Taiwan (2013)	Surgery is not required
France	The cost of surgery is covered by the state
Portugal (2011)	Surgery is not required
Finland	Surgery is not required

3.2. Vietnamese law on transgender

3.2.1. Principles of the right to transgender in the Constitution

In current Vietnamese laws, the rights of transgender people are included in human rights and are recognized in the Constitution. Specifically:

> *"1.In the Socialist Republic of Vietnam, human rights and citizen's rights in the political, civil, economic, cultural and social fields shall be recognized, respected, protected and guaranteed in accordance with the Constitution and law. 2. Human rights and citizens' rights may not be limited unless prescribed by a law solely in case of necessity for reasons of national defense, national security, social order and safety, social morality and community well-being."* (Article 14 of the 2013 Constitution). This has affirmed that human rights and citizen's rights, including the right to gender equality, are restricted only when there is a very necessary reason and must be recognized, respected and protected.
>
> *"4. The exercise of human rights and citizen's rights may not infringe upon national interests and others' lawful rights and interests."* (Article 15.4 of the 2013 Constitution).

The transgender rights are part of human rights and citizen's rights. Therefore, the exercise of the right to gender equality needs to be recognized and specifically guided by the related law to ensure that it does not infringe upon the national interests, the rights and legitimate interests of others.

> *"1. All people are equal before law 2. No one is subject to discriminatory treatment in political, civil, economic, cultural or social life."*(Article 16 of the 2013 Constitution). Regardless of gender or sexual orientation or gender identity, people are protected and equal before the law. Therefore, transgender people need to be recognized and protected by the law against discrimination in life.

3.2.2. Urgency of recognizing the right to transgerder right:

Research in the world shows that the average rate of transgender people is from 0.3% to 0.5% of the population. According to the Ministry of Health in Vietnam, it is estimated that there are nearly 295,457 transgender people (as of November 25, 2021, the population of Vietnam is 98,485,682), if it gets 0,5%, Vietnam estimated 480,000 transgender people (Newspaper "Labour Capital", 2022). Thus, the number of transgender people are not small, they are a community being outlawed.

They face difficulties due to the mismatch between existing identity documents and gender. According to a study by iSEE Research Institute, 71.4% of study participants said that after surgery, they had problems related to identification documents, because their real appearance did not match the information and pictures on paper…

In 2017, according to a survey by iSEE Research Institute, 59.6% of transgender people who are currently taking hormones (hormones) have never received testing and counseling before starting use. For those who received counseling, most of the information they received was from the hormone seller themselves, often not doctors or specialists from legitimate medical centers. Even many transgender people choose to inject hormones themselves at home or with the support of friends or acquaintances who are not doctors or nurses at medical examination and treatment facilities.

To sum up, before the legal barrier, the LGBT community cannot live with their true gender. They face many threats in society. But if there is legal recognition for transgender

people, the country will reduce the burden and guarantee the rights of transgender people. In addition, citizens need to be protected and strictly complied with the Constitution and international law.

3.2.3. Rights of transgender people in Civil Code 2015

In the Civil Code 2015, the right to re-determine gender identity (Article 36) and the provisions on sex reassignment (Article 37) are progressive points of legislative opinion and have deep social significance, which is the legal basis for protection for individuals existing as an independent subject in the community. Through the concretization of the provisions of the 2013 Constitution on human rights, Civil Code 2015 identifies a group of transgender people who have personal rights appropriate to the converted gender according to the provisions of the Civil Code and other relevant laws as well as each individual has the right, obligation to register changes in civil status under the Law on Civil Status.

In fact, Vietnam still does not have a law regulating this issue. In Decision No.243 dated Feb 5th, 2016 of the Prime Minister promulgating the plan for implementation of the Civil Code 2015 has been assigned to the Ministry of Health to research, propose to develop legal documents on gender transition. Currently, the Draft Law on Transgender is in the process of developing a dossier to request the Government to approve the policy to include in the law and ordinance development program in 2022-2023. (Ministry of Health, 2021)

Main contents of the Draft Law on Transgender

The Draft Law consists of 5 Chapters and 24 Articles.

Chapter I: General provisions.

Chapter II: Conditions, dossiers and procedures for applicants for medical intervention for gender transformation.

Chapter III: Conditions, dossiers and procedures for organizations and individuals performing psychological identification and medical intervention to sex reassignment

Chapter IV: Recognition of transgender people to change civil status papers.

Chapter V: Terms of Implementation.

3.2.4. Guarantee the rights of group of transsexual people in the Draft Law on Transgender

Strict regulation of gender transition procedures and procedures is essential to ensure that the human rights of transgender people are respected and protected. Therefore, the next issue we need to consider is the provisions of the Draft Law on Transgender in order to detect the limitations that still exist in the terms.

Firstly, the conditions for a person who proposes to use sex hormones or undergo breasts/genital surgery for gender reassignment prescribed in Clause 4 of Article 6 and Clause 1 of Article 7 *"is an independent person"*. According to the provisions of the Draft Law in Clause 8 of Article 2 *"A single person is a person who is not currently in a marriage relationship as prescribed by law"*, so a single person can understand *"a person who has never been married before or married but divorced under a valid judgment or decision of the Court"*. However, in practice this provision still has certain limitations. A single person in the case of having a child and on the child's birth certificate can have complete information of both biological parents. At that time, recognition as a transgender person will lead to the case that child has two fathers without a mother or two mothers without a father while initially having both parents. Obviously,

this is different from the common perception of the child, the family and contrary to social morality, although on basis of the legal regulations this problem can be solved by changing civil status of the related people. However, if this recognition becomes a reality, it will cause what is normal for a child to have one mother, one father to suddenly become abnormal with two mothers or two fathers.

Second, the case a person proposes to gender transitions through surgery will make that person's appearance appear less or more different from the original, which may affect the enforcement of relevant laws. For example, a person has committed an illegal act but has not been detected or prosecuted and at the same time, that person performs gender transition surgery, if the surgery is successful but the crime has just been discovered, it will be difficult to find people, especially those who have changed their civil status. Therefore, the provisions in Article 9 of the Draft still lack the criminal record conditions of the person requesting the surgery for gender transitions.

4. SOME RECOMMENDATIONS ABOUT LEGISLATION ON TRANSGENDER IN VIETNAM

In addition, the State should consider and carry out in parallel the improvement of the legal framework as well as other social measures to protect and ensure the exercise of rights of the transgender people.

Firstly, the Ministry of Health of Vietnam has a special responsibility in ensuring the right of transgender people. They are the agency that directly intervenes in health issues and determines the success of the surgical process. In order to speed up the promulgation of the Law on Transgender, the Ministry needs to establish adequate and advanced infrastructure and equipment. Moreover, the Ministry of Health needs to support health insurance for transgender people. The Law on Health Insurance has not yet provided support for surgery costs for people with disabilities, because they are confirmed to be normal people with complete biological organs, so they will not be eligible for hospital fee exemption or reduction. clear definition of payees and categories.

Secondly, the National Assembly needs to soon finalize and pass the Law on Transgender Fair in order to legalize the right to gender equality in Vietnam, concretize principles to ensure equality, and take specific measures to protect the interests of this group of people. They should speed up enforcing the issuance of certificates of recognition as a transgender person in legal documents. The competent authorities need to build a clear legal basis, ensure the synchronization and consistency in the legal system. Also, it is recommended to refer to the new and progressive points in the Law on Transgender in the world to apply appropriately in practice in Vietnam. However, acts of taking advantage of LGBT people to violate the law should be strictly handled to ensure security and order for society.

Thirdly, it is necessary to amend and supplement relevant legal documents on the issue of trade unions. According to Article 13 of Decree 137/2015 (amended and supplemented in Decree 37/2021, effective from May 14, 2021), the identifier code is a sequence of natural numbers consisting of 12 numbers, including the number containing the code sex. When the police have to re-issue the personal identification number. In addition, the old number will not be reissued to anyone else. On the other hand, the Law on Civil Status 2014 needs to supplement the issue of sex determination with the case of gender registration for children born as intersex or with both male and female genitalia, unknown. In addition, it is necessary to amend relevant laws that are suitable for them such as the Constitution 2013, the Civil Code Law 2015, Law on Marriage and Family 2014, Law on Citizen Identity 2014,...

Fourth, transgender people should be support from third parties, social organizations. With the role of providing support services from social work organizations for them, including social activities to raise awareness for the community about gender diversity in order to reduce stigma and prejudice against transgender people. Social workers participate in the policy advocacy process to create a favorable legal framework for them, creating a safer living environment for these sexual minorities. In addition, the subject "Social work with LGBT people" should be included in the university training program, majoring in social work. The LGBT group is a vulnerable group, so it needs support from social organizations.

Finally, sex education is very important, especially children. It helps to raise the people's legal and social awareness on the issue of gender equality. The dynamics of strict and conservative traditional social concepts are the premise to create discrimination against transgender people. To have awareness of equal rights in society, avoid cases of rejection when they apply for jobs, and participate in civil transactions.

According to the subjective opinion, we hope that they are able to in the future. Howerver, we actually know that the process of completing the Law on Transgender will take a long time and face many difficulties. So they depend on the development of society and people's awareness.

5. CONCLUSION

As a whole, the legalization of transgender is the most developed trend that all countries are towards reaching. Vietnam is the 62nd country in the world to record the right to transgender. Article 37 of the 2015 Civil Code mentioned the right to change sex. However, this is just the foundation, the principle, and thus can not be implemented in life because there is no specific law on this issue. The above has led to difficulties for transgender people in legal documents, preventing them from enjoying legitimate human rights and interests or performing gender reassignment surgery that affects health. The rights of transgender people are also involved in human rights and citizenship. Therefore, the recognition of these rights is the realization of the equal rights enshrined in the Constitution.

The above issues have raised an urgent that the State urgently promulgates the Law on Transgender in Vietnam. Currently, the Draft Law on Gender Transgender is in the period of being implemented and proposed to be approved by the Government. In order to build the legal system for transgender in Vietnam, the research paper has made some recommendations. In particular, the Ministry of Health should have a special responsibility in ensuring the right of transgender people. The State also needs to quickly approve and promulgate the Law. In addition, it is necessary to amend the legal documents related to gender change to create uniformity in the legal document system. And to ensure transgender people have a better life and be recognized by society, it is necessary to propagate education on gender issues to everyone, to help raise social consciousness and people's awareness of the community. LGBT community. Hopefully, the above research and recommendations can contribute to building a complete legal system for the transgender community in Vietnam.

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ADVERTISEMENT CONVEYORS ON TIKTOK UNDER VIETNAMESE LEGISLATION IN COMPARISON WITH CHINESE LEGISLATION

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Abstract

Nowadays, social network advertising has been popularized as the result of the arrival of the dense appearance of bringing advertised products which is conducted by advertisement conveyors on social platforms, especially TikTok, one of the platforms that attracts millions of users monthly. TikTok can facilitate such promotional activities as advertisement conveyors are able to give information of products in detail in thirty-second videos. Contrary to the development of such a phenomenon, Vietnam legislation merely recognizes advertisement conveyors as means of advertisement instead of subjects conducting advertising activities. Thus, there is no specific regulation on rights and obligations for them. This essay will discuss legal issues about advertisement conveyors and their activities on TikTok and make a comparison of regulation on such promotional activities between China and Vietnam, thereby, extend the concept of the contemporary advertisement conveyors and also provide suggestions to build up a legal framework for them.

Keywords: *Advertisement conveyors, Advertising activities, Online advertising, TikTok, Law on Advertisement, Commercial Law.*

1. INTRODUCTION

1.1. Background of the study

The thrivingness of advertisement in this contemporary society has attracted a considerable investment, which leads to a significant increase in the workforce of such a field. Accordingly, advertising activities based on the experience of products or services (also known as reviews) also appear widely across platforms and media, typically TikTok. Under Law on Advertisement, a person conducting such activities shall be called advertisement conveyor. Advertisement conveyors, however, have no specific stipulation upon neither obligations nor rights, which may lead to many legal risks in practice. Concomitantly, the overwhelming popularity of TikTok has renders advertisement conveyors a perfect place to conduct such promotional activities. Therefore, this essay (advertisement conveyors on TikTok under Vietnamese legislation) will discuss advertisement conveyors and relevant legal issues conducting such activities on TikTok in order to build up a general legal frame to regulate them (advertisement conveyors on social platforms) under current Vietnam Law on Advertisement.

1.2. Research objectives and questions

The aim of this essay is to adopt a novel and suitable approach to regulation on advertisement conveyors. From such an approach, the research question is: "How advertisement conveys should be regulated under Vietnam Legislation?" This will specify who advertisement conveyors include, what conditions shall a person satisfy if he wished to be an advertisement conveyor and what are the rights and obligations of them.

1.3. Area of research

This essay will discuss advertisement conveyors and their relevant activities. Generally, it will include the following part: General concept; analysis of regulation upon such advertisement conveyors and activities under Law on Advertisement 2012 (amended in 2018) and other law; comparative part between China's and Vietnam's regulation upon advertisement conveyors. Also, it shall illustrate the adequacies and challenges in terms of applying law and thereby provide optimal solutions for regulation upon them on TikTok.

1.4. Research methods

The article uses four research methods in order for approaching such legal issues, as followed:

Firstly, analytical and synthetic methods are to analyze some theoretical issues of the legal provisions regulating advertisement conveyors on TikTok and other social networks in Vietnam. This method is applied in part 1 and part 2.

Secondly: comparative methods are to compare Vietnamese law with Chinese law on people conducting such activities as TikTok is originally based in China. This method is applied in part 3.

Thirdly, quantitative research methods (using a survey within 300 people) are to ask TikTok users (also the consumer) for their opinions about the promotional product and the advertisement conveying activities.

Finally, using case study methods is to approach such legal issues in practice as well as to prove that a research on advertisement conveyors is a critical need. This method is also applied in section 4.

2. GENERAL CONCEPT OF ADVERTISEMENT CONVEYORS

Under Article 8.2 Law on Advertisement 2012 (amended in 2018), advertisement conveyors are defined as:

> *"people that directly bring the advertisements to the public or display the advertisements on their bodies in forms of wearing, hanging, sticking, drawing or similar forms"*

Also, Article 17.7 merely considers advertisement conveyors as means of advertising, Thus, the current Law on Advertisement deems that advertisement conveyors are like models showing products in newspapers and magazines. They are, however, with the development of social platforms, gradually not covered by the connotation of the above definition. Today, advertisement conveyors may appear in the form of Review (giving reviews and experiences about services and products) or Influencer marketing (a form of marketing using social influencers to convey messages),... Additionally, as there are no restrictions on age, occupation to become an advertisement conveyor, advertising conveying may include a wide range of activities and the number of people considering themselves as advertisement conveyors are also high. Nonetheless, even though becoming advertisement conveyors could be easy, bringing advertisements to the public is a challenging task as such an activity must exert a high influence on TikTok users. Most advertisement conveyors on TikTok nowadays are people with a large influence in a certain field, people who are well known on TikTok, it could be an artist or a celebrity, etc …

3. VIETNAMESE LEGISLATION ON ADVERTISEMENT CONVEYORS

Despite the fact that there is no regulation on obligation and right for advertisement conveys,

they are still governed by Law on Advertisement and other relevant laws. In this part of the article, the author will present the current Vietnamese legal framework that governs the subjects of advertisement conveyors in the Law on Advertisement and related laws.

3.1. Law on Advertisement 2012 (amended, supplemented 2018) and guiding documents

3.1.1. Law on Advertisement 2012 amended, supplemented 2018

Article 17.7 of Law on Advertisement 2012 only considers Advertisement conveyors as means of advertisement, so they have no specific rights and obligations. Thus, in the event of a violation related to advertisement conveyors, the advertiser (which are "are organizations and individuals that demand to advertise their products, goods and services, or to advertise themselves" (Law on Advertisement 2012, §2.5, 2018)) and advertisement service providers (which are "organizations and individuals that perform one, a number of, or all the phases of an advertisement process under the advertisement contract with the advertiser" (Law on Advertisement 2012, §2.6, 2018)) shall be responsible for the quality assurance and the advertised products. However, if it is deemed that advertisement conveyors has acted in violation in advertisement about the quality and uses of products and goods, they shall still assume the liability according to Article 8.9 of this Law:

"Article 8. Prohibited acts in advertising

... 9. Advertising incorrectly or causing confusion about the business competence, the ability to provide products, goods and services of organizations and individuals trading and providing such products, goods and services; about the quantity, quality, prices, features, designs, package, brand name, kinds, method of service, warranty duration of the registered or announced products, goods and services."

3.1.2. Decree 38/2021/ND-CP administrative violations involving cultural activities

Decree 38/2021/ND-CP only provides general provisions on administrative remedies in the field of advertisement in general for those who commit acts of advertisement misleading content or causing confusion in terms of quality, publicity and the use of advertised product. Therefore, these remedies may still apply to the advertisement conveyors. In case the advertised products do not guarantee the quality, do not meet the requirements set forth by the Ministry of Health, but still intentionally participate in transmitting false information about the advertiseda products, Advertisement conveyors will assume joint responsibilities with the manufacturer of the advertised product in accordance with Article 34.5 of this Decree are as follows:

"5. Imposing the fine ranging from 60,000,000 dong to 80,000,000 dong for the act of putting false or misleading advertisements about the capability of trading or providing products, goods and services of individual or institutional traders; the quantity, quality, price, usability, design, packaging, trademark, origin, type, method of rendering or warranty period of registered or announced products, goods and services, except as specified in clause 4 of Article 51; point b of clause 4 of Article 52; clause 1 of Article 60; and point c of clause 1 of Article 61, in this Decree."

3.2. Other related legal documents

3.2.1. Civil Code 2015 amended, supplemented in 2017

Misleading advertisements could reach the users as long as they still use social networks. This is only harmless if social media users ignore such information. However, such advertisements can do a large disservice to the property, health, and lives of those who purchase

these types of products. For damage to property, health and life suffered by consumers, based on the arising of non-contractual damages in Article 584 of the Civil Code 2015 as follows:

> *"A person harming the life, health, honour, dignity, reputation, property, or other legal rights or interests of another person, thereby causing loss and damage, must compensate [for such loss and damage], unless otherwise provided by this Code and other relevant laws."*

Accordingly, in the case that consumers suffer losses in terms of life, health and property because of using advertised products that Advertisement conveyors has made deviations from statements and information about the product's purpose, use, quality, etc; then they must be liable for the compensation for damage in Article 584 of the Civil Code 2015. In addition, in the case that consumers have to suffer losses caused by both parties: the party producing the poor quality product and the other party who gives false information, both Advertisement conveyors and the enterprise providing products and services must be jointly liable according to the provisions of this Code.

3.2.2. Criminal Code 2015 amended, supplemented in 2017

The Criminal Code 2015 as amended, supplemented in 2017 does not have any regulations that directly regulate the group of Advertisement conveyors, but there are sanctions for false advertising actions under Article 195. In terms of behavioral signs, the criminal signs in this law are false advertising acts, that is, conveying incorrect information, causing confusion to consumers about the product's quality, use, form, function etc… for the purpose of making a profit; at the same time, the offender has also been administratively sanctioned or convicted for this crime before. In addition, in terms of consequences, it is necessary to determine the nature and extent of the crime of the subject. Accordingly, the person convicted of this crime has resulted in damage to the life, health and property of consumers. Thus, if Advertisement conveyors continue to engage in fraudulent promotional activities despite having been held liable before the law for similar crimes, they will be charged with crimes and sentenced under this Law.

3.2.3. Vietnam Commercial Law 2005 amended, supplemented in 2019

The Commercial Law 2005 amended, supplemented in 2019 only regulates the following groups of subjects: commercial advertising hirers, commercial advertising service providers and commercial advertising distributors. Therefore, this law has not yet identified the subject of Advertisement conveyors or has other governing laws related to this subject. However, in terms of behavior, Advertisement conveyors has false advertising acts are still liable under Clause 7, Article 109 of the Commercial Law 2005: *"Advertisements containing untruthful information on any of the following contents: quantity, quality, price, utility, design, origin, category, packing, service mode and warranty duration of goods or services."*

3.2.4. Law on Protection of Consumer Rights 2010

From the perspective of the Consumer Rights Protection Law 2010, if Advertisement conveyors commits acts of promoting products or services that are deceptive or misleading, they will still be subject to the regulations of this Law and this violation will be punished considered as "makes deceitful or misleading advertisements or conceal information or provide incomplete, untruthful or inaccurate information" under Article 10.1.a of the Law on Protection of Consumer Rights 2010. At the same time, in this Law, Advertisement conveyors, who shall play the role as the third party, shall be liable for providing information about goods and services to consumers according to Article 13.1 of the Law on Protection of Consumer Rights 2010. Pursuant to this provision, Advertisement conveyors can be exempt from liability in cases where there are

accurate grounds that they have researched and verified the information of the products and goods they advertise. However, determining that Advertisement conveyors has had the act of verifying product information is still very difficult to determine because most of the verification of product information is simply based on the behavior of providing unilateral product information of the third party - advertisement conveyors without specific legal evidence to prove that the product information verification action has been performed previously.

4. CHINESE LAW ON ADVERTISING

Through the comparison of the Law on Advertising in Vietnam and the Law on Advertising in China, the authors found that the provisions in the Chinese legal system on "endorser" are similar to those of advertisement conveyors that the team studied. Part 3 of this article will present the legal framework for the “endorser” of the Law on Advertising of China, thereby drawing conclusions for the shortcomings of regulations for advertisement conveyors in Vietnamese legislation.

4.1. Definition of endorser in Chinese Law on Advertising

According to Article 2 in Chinese Law on Advertising:

“For the purposes of this Law, endorser means a natural person, an entity, or any other organization, other than the advertiser, that recommends or certifies goods or services in an advertisement in its own name or image.”

Compared with the Vietnamese Law on Advertising, advertisement conveyors can only be an individual, not an entity or other organizations. This is an advanced point of Chinese Law on Advertising when it expands the scope of application for the definition of an endorser. Moreover, the Advertising Law of China stringently stipulates that advertisers - people who want to advertise their own products cannot be "endorsers". The endorsers simultaneously recommend and certify the advertised product. In addition, the endorsers who are celebrities, also have indirect forms of making recommendations or certifications, such as using their own influence to imply expressing their recommendations, or using their reputation like an implicit certification in assuring the quality of the product. Vietnamese legislation has no regulation on "certify" or guarantee about the products and services they represent. The endorsers have close similarities with the advertisement conveyors in the Vietnamese law. Both groups of objects can perform the behavior in their own name and thereby display the advertising product to some extent.

4.2. Regulations on endorsers in Chinese Law on Advertising

4.2.1. Endorser’s principles:

Pursuant to Article 38 in Chinese Law on Advertising:

“An endorser shall, genuinely, recommend or certify goods and services in advertisements in accordance with this Law and the relevant laws and administrative regulations, and shall not recommend or certify any good that has not been used or service that has not been received by the endorser.”

According to the aforementioned article, the endorser must advertise faithfully and use the promotional product. These two obligations complement each other, the endorser uses the products and services to ensure the truthfulness in advertising. On the contrary, to ensure the truthfulness of product quality, the endorser must really use the product. In addition, this regulation also requires ethics in advertising activities in order to protect consumers from misleading or false advertisements. Article 8.9 of the Vietnamese Law on Advertising also

stipulates that advertising activities that are not true or cause confusion are prohibited acts. It can be said that the Law on Advertising of both countries has a commitment of truthfulness in bringing the advertisements. However, Vietnamese legislation has no specific stipulation upon advertisement conveyors' activities and how they shall work.

4.2.2. The endorser's Age

When child stars in entertainment programs become popular, which means they are favored by advertisers and appear a lot in commercial advertisements. As children are always in need of protection, Article 38 of the Chinese Law on Advertising stipulates that "A minor under the age of ten shall not serve as an endorser." Vietnamese law does not stipulate the age of advertising conveyors. The authors suggest that, in order to avoid legal risks in the future, Vietnamese legislators should also consider the age limit for those people.

4.2.3. Endorser's Liability

** Civil liability*

When there is a case of false advertising, the endorser must be jointly responsible with the advertiser when such an act causes damage to consumers as specified in Article 56 Chinese Law on Advertising, which is divided into two cases:

- Where a misleading advertisement on a good or service involving the life or health of consumers causes any damage to consumers, the endorser of the false advertisement shall assume joint and several liability with the advertiser.
- Where a misleading advertisement on a good or service other than one as mentioned before causes any damage to consumers, if the endorser of the false advertisement knew or should have known that the advertisement was false but still provided recommendation or certification, it shall assume joint and several liability with the advertiser.

From two cases above, it is clear that the joint responsibility of the endorser depends on the type of product they advertise. The endorser has a strict legal responsibility when advertising products related to the health of consumers, whether they are aware of the problem about false advertising or not, they are still jointly responsible. Regarding the remaining advertising products, the endorser is only jointly responsible when there is an error (knowing or should have known about false advertising) (舒海 董珏, 2022). The joint responsibility of the endorser to the advertiser is the civil liability for damages as stipulated in the Chinese Civil Code.

** Administrative Responsibilities*

Endorsers who violate the provisions of Article 62 shall confiscate illegal income and impose a fine which is not less than one time nor more than two times the illegal income. Article 62 of Chinese Law on Advertising stipulates that the endorser will be sanctioned if they provide any recommendations or certifications for the products of medical services, drugs; dietary supplements; or goods that have not been used; goods or services that have a false advertisement. In China, the amount of money that the endorser receives when recommending and certifying products and services is not low, so this sanction would act as a deterrent. In Vietnam, the fine is not determined according to the amount of illegal income received by advertising conveying activities. According to Degree 72/2013/ND-CP, the fine for the endorser ranging from 60,000,000 dong to 80,000,000 dong for the act of putting false or misleading advertisements. Besides, we have no sanction for confiscation illegal income from advertising conveying activities

According to Article 38.3 Chinese Law on Advertising, a endorser who violates this law will be banned from operating for a period of three years:

> *"Where an administrative penalty is imposed on a natural person, an entity, or any other organization for recommendation or certification in a false advertisement, if it has not been three years since the imposition of the penalty, the natural person, an entity, or other organization shall not serve as an endorser."*

That is, within three years, individuals, entities and other organizations are not allowed to act as endorsers, nor may they advertise any products under the circumstances that they violate the clause in this law. It can be said that this is the heaviest sanction for endorsers. Vietnamese Legislation also has a similar form of prohibition from activities as prescribed in the Criminal Code 2015, called prohibition from doing certain works with the duration from 01 to 05 years.

Generally, the legal framework of the "endorser" in the Chinese Law on Advertising is strictly regulated. Compared to the Vietnam Law on Advertising, this is a great progress when the Chinese legislature considers the endorser as a "subject" in the advertising activities. The authors highly appreciate the feasibility of referencing China's regulations on "endorser" to the advertisement conveyors in Vietnam. Besides, we must also pay attention to other relevant laws in Vietnam that govern the act of "advertising" in general, to avoid unnecessary adequacies in legal documents.

5. CONVEYING ADVERTISED PRODUCT ON TIKTOK PLATFORM IN PRACTICE

The most prominent activities on TikTok today related to conveying advertising products can be mentioned as: product experience through short videos, using advertising products through live streaming on TikTok, etc. This partly causes strong impacts on both domestic and global social life. Thus, establishing legal frameworks for the current advertisement conveying on TikTok and other social media is a critical need. At the same time, it is also essential to ensure such activities remain under the control of the authority without restricting its development.

5.1. Data on the influence of advertisement conveyors on social media

The researcher team conducted an online survey via Google Form targeting the audience from 18 to 25 years old to verify the current status of the influence of the target group on the current advertising market.

* Products advertised in the form of personal experience (reviewer) have a great influence on shopping behavior of viewers

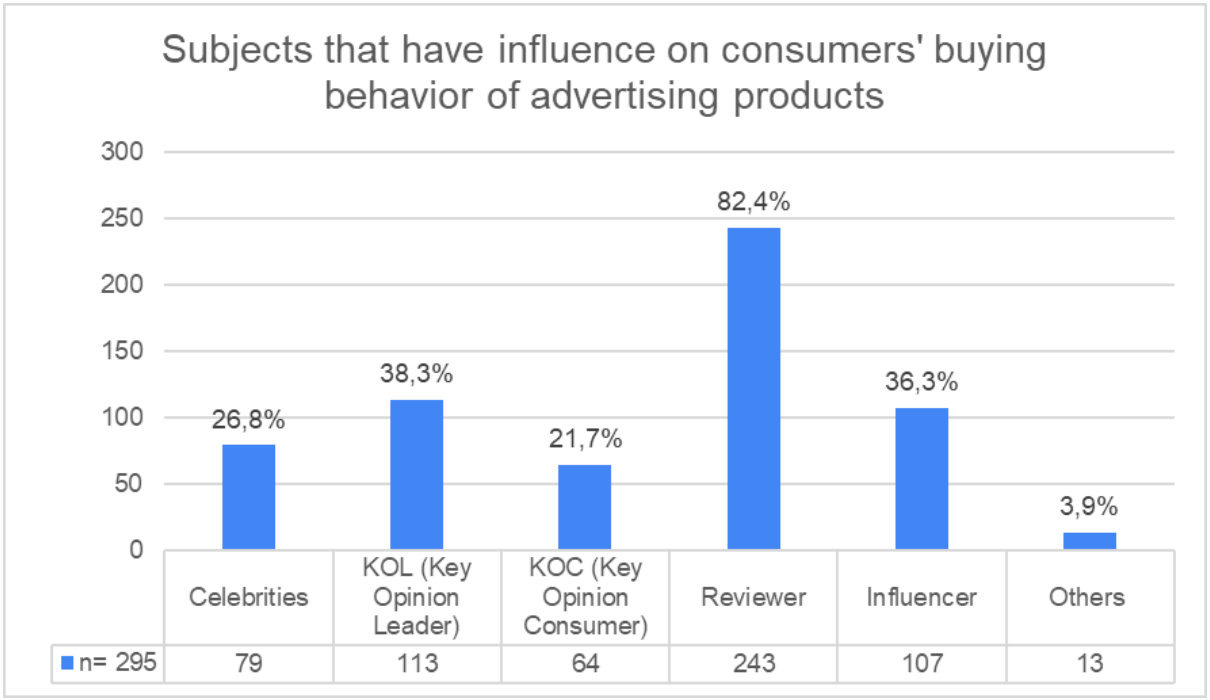

Figure 1. *Subjects that have influence on consumers' buying behavior of advertised products*

Up to 82.4% of the participants chose Reviewer as the person who attracted customers to the product the most. Followed by Reviewer, Influencers, KOLs, and KOCs, they are also believed by survey participants to have an influence on their shopping behavior. In general, the form of "experience of individuals" is not very fair (does not bring back objective assessment), but it has invisibly captured the hearts of a fairly large community in social networks.

*"Advertisement conveyors" is still a strange term according to the consumers.

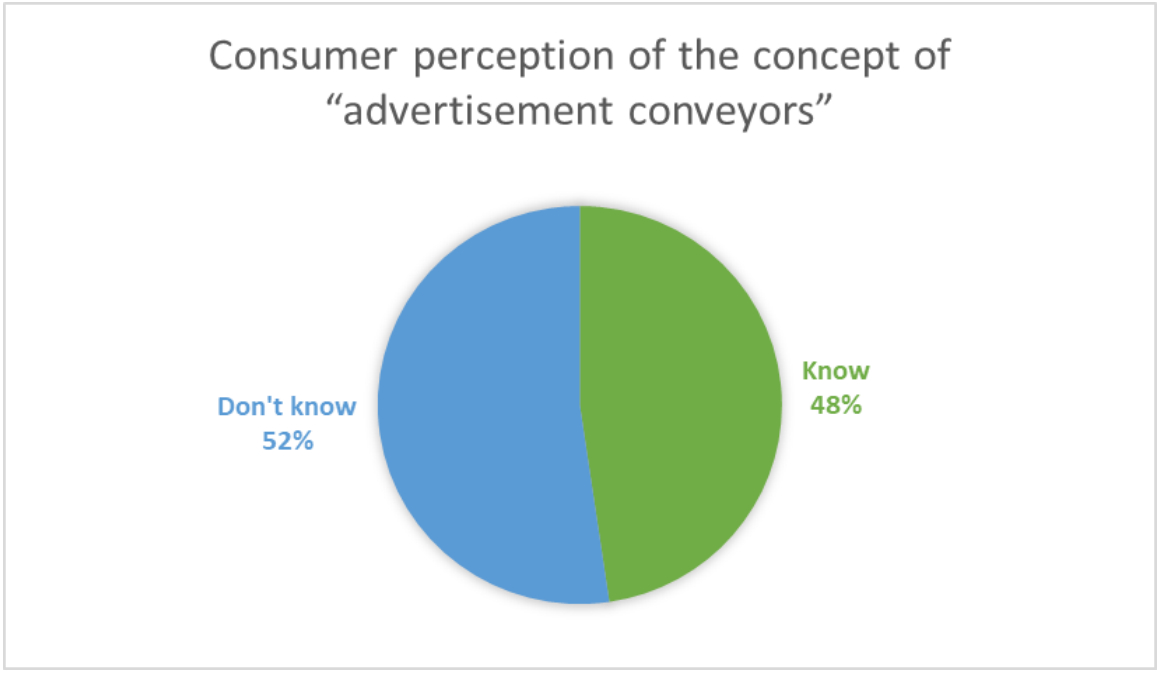

Figure 2. *Consumer perception of the concept of "advertisement conveyors"*

Overall, the concept of advertisement conveyors seems to be very new to consumers today. The chart illustrates that the number of people knowing this definition accounts for 47.7% of the

total, the remaining 52.3% of people do not know.

* The advertisement conveyor definition is more closely related to the representative face and KOL than Reviewer and influencers in general

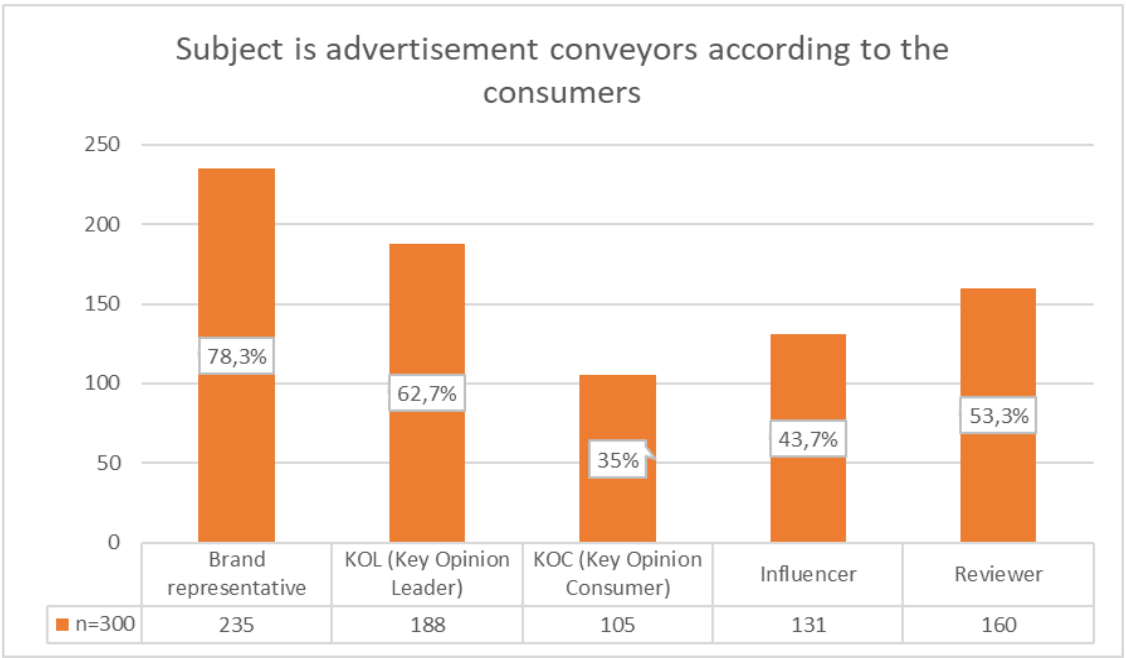

Figure 3. *Subject is advertisement conveyors according to the consumers*

The majority of survey respondents said that the two specific groups that this definition is aimed at are brand representatives (78.3%) and KOLs (62.7%). For the rest, Reviewer is still an option that is agreed the most. According to the above results, we can see that advertisement conveyors are usually people with a certain level of popularity. By reviewing the above survey results, the author found that advertisement conveyors can actually be seen as subjects and can include many other objects.

* The majority of survey respondents have experienced advertisement conveyors' advertisement on TikTok

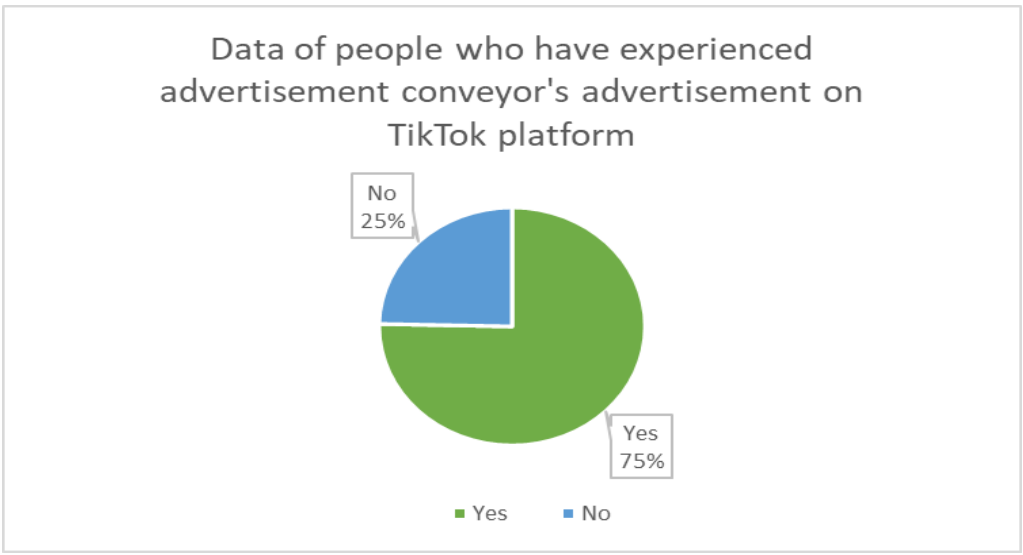

Figure 4. *Data of people who have experienced advertisement conveyor's advertisement on TikTok platform*

Currently, the TikTok platform has a high popularity: up to 226 (75.3%) survey respondents agree that they have experienced the advertising of influential groups such as KOLs, Reviewers,... on this platform. This shows that it's time to pay attention to this issue, not only TikTok but also other social media platforms. Although people tend not to trust, the number of respondents choosing to continue the experience as suggested by advertisement conveyors on TikTok accounts for a high percentage. In the group of people who have neutral attitude towards products advertised by advertisement conveyors, more than 80% (196 people) still want to continue the experience according to people who convey advertising products on TikTok, then the selection rate continued to experience a gradual decrease of 70% in the group that mostly believed and followed, 42.8% in the group that did not believe and did not follow, 21% in the group that mostly did not believe and did not follow. When asked why they did that, most viewers answered mainly because the information on TikTok made them curious and they wanted to know more about that product or service, even though they knew these products and services might be risky. Survey participants rated that this is a "mindful" type of information because it is highly personal, and they are easier to trust than previous types of traditional oriented advertising.

* Consumers think that Vietnamese legislation needs to adopt stringent regulations for advertising activities of advertisement conveyors group on TikTok:

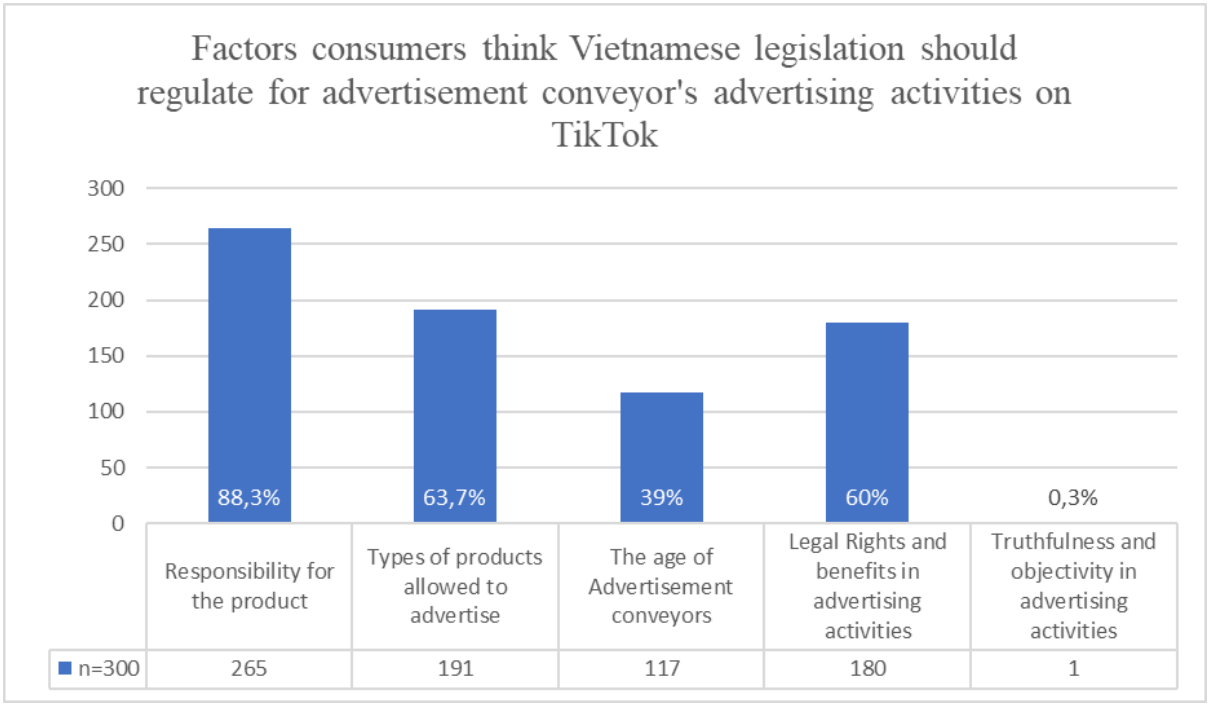

Figure 5. *Factors consumers think Vietnamese legislation should regulate for advertisement conveyor's advertising activities on TikTok*

In this chart, 63.7% of consumers voted that there should be more specific regulations for the lists of products that are allowed to advertise and that are prohibited from advertising on TikTok in particular. In addition, 60% of consumers expect that Vietnamese legislation should strictly stipulate upon rights and obligations of the parties involved in the transmission of advertising products (specifically, the parties here are consumers and advertisement conveyors). Also, 39% of the respondents believe that the age of the conveyors should also be clearly regulated. Thus, this has shown the urgency of Vietnamese society to build up a legal framework for situations arising from advertising activities carried out by this target group.

5.2. Relevant case

In fact, the verification of advertising products on social networks is beyond the control of competent authorities, leading to consumers putting their trust in advertisement conveyors and buying poor quality products, which causes damage to property, health, and life. It is not difficult to see promotional products related to rapid weight loss on TikTok as the result of the increase in people's demand for beauty and weight loss. We can easily find those advertisements on TikTok through the hashtag #fast_weight_loss (#giảm_cân_cấp_tốc). With a huge amount of internet traffic, these attractive titles hit the consumers who want to lose weight "Fast weight loss, 2 - 5 kg a week" ("Thuốc giảm cân cấp tốc trong 1 tuần, giảm từ 2-5kg"), "Super product weight loss 14 days lose 8kg" ("Siêu phẩm giảm cân 14 ngày giảm 8kg"), "Weight loss candy, eat one capsule a day, lose 10 kg a month" ("Kẹo giảm cân, mỗi ngày ăn một viên, một tháng giảm 10 ký"). In fact, these rapid weight loss drugs also help users lose weight, but they don't base on the scientific weight loss mechanism having a direct impact on white fat (Hạ Quyên, 2022). These medicines often have a list of ingredients such as: reishi, lotus leaf, honeysuckle, brown rice, and vitamin C; which affect the central nervous system of the user, causing the body to lose appetite as well as water through the digestive and urinary tracts (Bảo Loan, 2021). "Expedited weight loss products can cause many dangerous side effects such as prolonged diarrhea leading to vasomotor disorders, electrolyte disturbances, low blood pressure, calcium, liver failure, even leading to death." (Quyên, 2022) Although many experts have warned, the number of people buying and using fast weight loss pills is still a lot. However, up to now, the worst adverse effect that this problem brings to users has only ended in terms of professional ethics, not leading to specific legal consequences needing intervention of the law. Generally, this is just an example of the detrimental effects caused by the transmission of advertising products on TikTok. Therefore, consumers are still the object that needs to be protected first in the process of carrying out these activities. This protection therefore needs to be done right from the beginning of the promotional product delivery activities.

6. SUGGESTIONS

It is apparent that there is a boom of activities of conveying advertising products in the edge of social networks**.** However, the lack of regulation on advertisement conveyors leads to some inadequacies in management and implementation. Also, from the provisions of the Advertising Law of the People's Republic of China for endorser, the authors propose recommendation to build up a legal framework for advertisement conveyors, specifically as follows:

Firstly, classifying advertisement conveyors and completing the definition of active advertisement conveyors according to the definition of endorser. We can categorize advertisement conveyors into two groups of subjects as follows: passive advertisement conveyors and active advertisement conveyors. As for the passive advertisement conveyors, the authors holding the view admit that they are an advertising medium and they shall be subjected to the current Vietnam Law on Advertising 2012. Active advertisement conveyors is the subject of this activity, whereby advertisement conveyors is a person, entity or other organization that directly or indirectly uses its name and language to introduce as well as express opinions about products under many forms to encourage consumers to buy products; advertisement conveyors must not be an advertiser of such products, goods or services.

Secondly, there shall be a regulation on the age of active advertisement conveyors. The authors do find that the implementation of advertising product activities requires a proper awareness of ethics and law, as well as the requirement for the subject to be able to take legal

responsibility. We suggest active advertisement conveyors taking the initiative must be an individual who must be at least 16 years old.

Finally, building a legal framework on rights and obligations of active advertisement conveyors:

Active advertisement conveyors has the following rights:

+ To decide the form and method of advertising.

+ To be required to check documents, information and those related to advertising conditions of organizations, individuals, products, goods and services to be advertised.

+ To be required to compensate for loss of health, life, honor due to advertising activities of the advertiser's products.

+ To receive remuneration as agreed in the commercial advertising service contract.

Active advertisement conveyors must have the following obligations:

+ Faithfulness in advertising about the product.

+ Using and experiencing advertising products related to health and life before carrying out activities to convey advertising products to consumers. This would help to ensure the truthfulness of the advertisement and avoid taking advantage of rampant and false advertising to stimulate product consumption.

+ To be liable for the advertising products that they transmit in accordance with the provisions of the current Vietnam Law on Advertising 2012 and other relevant laws. Like other subjects, when active advertisement conveyors become a subject under Vietnam Law on Advertising's regulation, they cannot have an exemption from legal liability for their advertising products.

7. CONCLUSION

With the **“Advertisement conveyors on TikTok under Vietnamese legislation"** research, the authors have indicated the adequacies of regulation upon Advertisement conveyors in Vietnamese Legislation. Through the analysis of theoretical issues about advertisement conveyors in terms of: concept, form of operation, scope of object, role; fact-based research on the advertisement conveyors team on a specific platform - TikTok; combine the assessment of consumers' perceptions and opinions about the provisions of advertisement conveyors in general; consumers' perceptions and evaluations when deciding on behavior based on the transmission of advertising products on TikTok in particular (through surveys) to form an overview of the research issue. Beside that, the team put in comparison with the endorser in the Advertising Law of the People's Republic of China (with similarities with advertisement conveyors) for reference and learning. From there, the team proposed some suggestions to adjust the advertisement conveyors audience on TikTok and expand with other platforms, as follows:

Firstly, in terms of legal direction: advertisement conveyors need to be adjusted according to the framework of hard law, which is clearly specified in legal documents; classifying advertisement conveyors into two groups of subjects: passive advertisement conveyors and active advertisement conveyors.

Secondly, about the concept: Finalize the definition of active advertisement conveyors. For the passive advertisement conveyors, it remains unchanged according to Article 2 of Vietnam Law on Advertising 2012, while the active advertisement conveyor is defined as follows: a

person, entity or organization that acts directly or indirectly, using its name and words to introduce and express opinions about the product by a variety of forms to encourage consumers to buy the product; advertisement conveyors must not be an advertiser of such products, goods or services.

Finally, on legal provisions: Supplement regulations for active advertisement conveyors to complete the law (specifically: age, rights and obligations, and legal responsibilities).

To sum up, a stringent legal framework for advertisement conveyors would protect the legitimate rights and interest of consumers. Also, this builds up a clear legal corridor for advertisement conveyors to develop, thereby creating a fair competition environment along with promoting development and creativity continuously.

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Appendix

SURVEY ON THE RELIABILITY OF ADVERTISED PRODUCTS ON TIKTOK

First of all, our team would like to say hello and thank you for taking your valuable time to help our group with the survey.

We are a group of research students from UEH University. We are doing a survey form on "Reliability of advertising products on Tiktok" to serve for a scientific research project.

We promise that all information will be kept confidential and only used for research purposes, once again thank you for your time.

Please give me your name:

1. ***Your age:***
   - o Under 18
   - o From 18 to 25 years old
   - o Over 25 years old
2. ***Your gender:***
   - o Male
   - o Female
3. ***Your current occupation?***
   - o Pupil
   - o Student
   - o Employee
   - o Other
4. ***Which product promotion platforms have an impact on you: (select multiple)***
   - □ Via social networks (Facebook, Instagram, Twitter, Tiktok)
   - □ Through books, newspapers, TV…
   - □ Via promotional pages (random promotional videos, pop-up ads, ...)
   - □ Other
5. ***You typically buy products advertised by:***
   - □ Celebrity
   - □ KOL (Key Opinion Leader)
   - □ KOC (Key Opinion Consumer)
   - □ Reviewer
   - □ Influencers
   - □ Other
6. ***Do you know the term advertisement conveyors?***
   - o Yes
   - o No

Advertisement conveyor: is a person who directly delivers advertising products to the public or displays advertising products on people through wearing, hanging, mounting, pasting, drawing or similar forms. . (According to the current Advertising Law)

7. ***Which of the following groups of people do you think is the advertisement conveyor? (select multiple items)***
   - □ Representative face (brand)
   - □ KOL (Key Opinion Leader)
   - □ KOC (Key Opinion Consumer)

- ☐ Influencers
- ☐ Reviewer
- ☐ Other

8. Have you ever experienced following the ads of the above objects on the TikTok platform?

- o Yes
- o No

9. In which field do you have experience? (select multiple items)

- ☐ Food and beverage
- ☐ Cosmetics
- ☐ Houseware
- ☐ Fashion
- ☐ Entertainment venues
- ☐ Functional foods (products are not drugs and do not have the effect of replacing medicines)
- ☐ Other

10. In your opinion, how do you rate the reliability of the advertising products suggested on Tiktok by the above target groups?

- o Most do not trust and do not follow
- o Half believe it, half do not, depending on the situation
- o Most believe and follow
- o 100% trust and 100% experience

11. Do you intend to continue the experience as suggested by the above target groups?

- o Yes
- o No
- o The reason you choose that is: (optional)

12. What do you think the issue of advertisement conveyors should be clearly defined in the law? (select multiple items)

- ☐ Age
- ☐ Types of products allowed to advertise
- ☐ Responsibility for the product they advertise
- ☐ Rights and obligations in product advertising activities
- ☐ Other

Thank you for joining the survey!

CHANGES AND ADAPTATIONS OF VIETNAM LAW TO HANDLING VIOLATIONS IN THE CONTEXT OF THE COVID PANDEMIC

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Abstract

The outbreak of the covid pandemic has had a profound impact on all aspects of social life around the world. Vietnam is also a country heavily affected by the pandemic. In order to ensure the prevention and control of the COVID-19 epidemic, the State has been implementing strongly and drastically applying many measures, including legal corridors - an important tool to control the spread of the virus. regulate and handle relevant law violations. The article studies the new changes of the law to effectively handle different types of violations. The method of legal analysis is the preferred method used in this article to show the changes of Vietnamese law and evaluate its adaptability to the adjustment of social relations. born during and after the covid pandemic. The results of the article will also provide readers with an overview of the current Vietnamese legal regulations on response and handling of violations related to the covid pandemic, as well as provide some proposed to enforce the law and protect social relations, create stability of the country to adapt to the new normal.

Key words: *change, adaptation, violations, legal policies, covid pandemic*

1. INTRODUCTION

Law is an important tool for the State to fulfill its social management responsibilities in general, and to respond to emergencies such as natural disasters, epidemics and disasters in particular. In a state of emergency, the State needs to show its responsibility in terms of domestic and foreign affairs to maintain social order, restore normalcy, and minimize adverse consequences. Because, in the complicated context with unpredictable developments, it is very necessary for the law to tighten discipline and maintain order in social relationships when there is a disturbance.

Legal regulations are an integral part of the overall strategy of preventing, combating and repelling the COVID-19 epidemic. Vietnam has had success in preventing the spread of the disease, minimizing damage. In fact, there are countless studies on the timely government response that is considered one of the most important factors contributing to Vietnam's success in the fight against this pandemic. For example, the study of Djalanteet al. (2020) shows the timely policy responses of the Government of Vietnam and the media to the COVID-19 pandemic compared to other ASEAN member states. Or Luong's study (2020) points out the police force's initiatives in preventing covid, including: proactive activities, propaganda approaches, protective measures and possible forms of prevention. Prevention is a priority in community-based policy to prevent and combat COVID-19. Research by Nguyen, Cao and Nghiem (2020) has highlighted the characteristics of COVID-19 infection in Vietnam and the response policy to find out the aspects that contribute to Vietnam's success in the fight against the pandemic. Translate. In addition, Thuong's study (2021) evaluates both past and present policies and measures implemented by the Government of Vietnam as well as public

perceptions, and makes recommendations for the Government. Government of Vietnam to overcome the current difficulties and maintain success in the fight against the COVID-19 pandemic. In the context of the pandemic, the main tasks of crime prevention in countries are now less prioritized than building new techniques and skills to manage the process of applying social distancing, while implementing best practices to limit mass gatherings in public areas by fines or imprisonment (Loader 2020b, Walton and Falkner 2020). This shows that the handling of legal violations related to the Covid epidemic needs to be done, the legal framework needs to be changed to adapt to the prevention and control of crime and law violations in the new situation.

2. THE IMPACT OF THE EPIDEMIC ON LAW VIOLATIONS

An epidemic is the rapid spread of an infectious disease with a large number of infected people in a community or area for a short period of time. In Vietnam, the first confirmed case of COVID-19 infection was on January 23, 2020. Despite its proximity to China, where COVID-19 emerged, Vietnam has experienced a small number of COVID-19 infections and deaths compared to other countries. Therefore, it can be said that to some extent, Vietnam has succeeded in preventing and controlling the covid epidemic. This implies that the measures and policies adopted have been effective in combating the coronavirus[1]. One factor contributing to Vietnam's success is probably the mindset of the leaders. The Vietnamese government claims that "fighting the COVID-19 pandemic is like fighting an enemy". This motto has helped shape awareness about COVID-19 in the community. In addition, measures include: restrictions on immigration and movement, strict quarantines, social distancing, complete tracing and tracking of those who have come into contact with the infected, locking doors and raising Public health awareness has been effective for Vietnam, a country with limited resources[2].

However, besides the initial successes in epidemic prevention activities, Vietnam is facing problems arising from the covid pandemic such as stalled production and business; Many economic, cultural and social activities were seriously affected. More specifically, the pandemic has affected human behavior, affecting the perception of a large number of people who have resisted behaviors, do not comply with the law, leading to violations of the law. the law. In the early stages of the epidemic outbreak, activities were almost stalled, and people were anxious and even afraid when responding to the epidemic. Therefore, the situation of crime and law violation does not change significantly, even some violations have no conditions to arise in reality. It is clear that since people started staying indoors, the crime rate has decreased significantly, although we are seeing an increase in reports of domestic violence and child abuse as well as crime. related to cyberspace[3,4]. However, in the next stages of the period of living with the epidemic, many violations including criminal acts with new criminal methods and tricks have emerged. This has caused serious damage to the state, causing bad consequences affecting people's trust in the Party and state. The report of the Supreme People's Court on the handling of epidemic-related violations in 2021 shows that the courts have handled 144 cases with 187

[1] H.D.N. Trang, D.C. Vu (2020), *Summary of the COVID-19 outbreak in Vietnam — lessons and suggestions*, Travel Med Infect Dis, Article 101651

[2] F. SeanViet Nam shows how you can contain COVID-19 with limited resources(2020)https://www.weforum.org/agenda/2020/03/vietnam-contain-covid-19-limited-resources/How Vietnam is winning its 'war' on coronavirus(2020) https://www.dw.com/en/how-vietnam-is-winning-its-war-on-coronavirus/a-52929967

[3] Carlson, J., 2020. Policing a pandemic. Available from: https://jdawncarlson.com/2020/03/27/policing-in-a-pandemic/.

[4] Levi, R., Foglesong, T., and Torigian, M., 2020. Community safety and repurposing the police before, during and after a pandemic: methodological notes. *Journal of community safety & well-being*, 5 (2), 75–78.

defendants related to the prevention and control of the Covid epidemic. -19, tried 136 cases with 177 defendants[5]. Law-breaking acts of individuals and organizations taking advantage of State policies in the prevention and control of the COVID-19 epidemic for personal gain; a number of large-scale and large-scale cases involving many ministries, branches and localities, a number of cadres and party members abetted and covered up the crime. Especially in the past time, the situation of taking advantage of the epidemic situation to raise the price of medical equipment, supplies and essential supplies for profit has caused many consequences and especially serious damage to the country. The big case of Viet A company is a typical case of crimes related to the Covid pandemic[6].

3. LEGAL FRAMEWORK FOR HANDLING LEGAL VIOLATIONS RELATED TO THE COVID PANDEMIC

Like many other countries, Vietnam needs to balance epidemic prevention and control measures with respecting and ensuring the civil and political rights of the people, especially the vulnerable. Therefore, in order to ensure that the provisions on "limitation of rights for reasons of public health" in the Vietnamese legal system are formulated and implemented, they must be consistent with the requirements of the International covenant on Civil and Political rights in 1948[7], which focused on 4 main groups of rights: the right of non-discrimination (including gender equality); privacy; the right to access information and the right to freedom of movement. In addition, to handle acts of non-compliance with epidemic prevention and control measures and other related acts, the current law has a relatively complete, clear and transparent legal framework. Associated with each stage of disease outbreak, state agencies have made assessments and forecasts to promptly supplement, adjust and improve.

When the COVID-19 Pandemic began to break out in Vietnam, in addition to the previous regulations, the Government and the State also took quick official and timely actions to issue new relevant documents. to the handling of violations of the law on prevention and control of infectious diseases; changed sanction levels and added more regulations to meet the complexity of the COVID-19 pandemic. This is also consistent with the spirit of Resolution 86/NQ-QH of the National Assembly dated August 6, 2021 on urgent solutions to prevent and control the covid-19 epidemic, which is: “Strictly handle violations, including criminal handling according to the provisions of law for all acts of non-compliance, obstruction or opposition to the implementation of regulations and measures for disease prevention and control of competent agencies”[8]. Detail:

** For administrative handling sanctions*

One of the fundamental foundations of the promulgation of policies and laws on administrative handling in order to respond to and adapt to urgent issues such as natural disasters and epidemics is the National Assembly's permission to the Government and the National Assembly. Provincial people can promulgate legal documents according to simplified procedures for urgent cases and to solve urgent problems arising in practice[9]. This is what countries around

[5] Summary report summarizing the work in 2021 and the direction and key tasks of the courts in 2022

[6] http://congan.com.vn/an-ninh-kinh-te/bai-1-bat-thuong-gia-ban-kit-test-viet-a_135624.html, http://thanhnien.vn/da-khoi-to-26-vu-an-va-94-bi-can-trong-dai-an-viet-a-post1506921.html accessed on 10/10/2022

[7] International covenant on Civil and Political rights in 1948

[8] Point b, Clause 1, Article 1 of Resolution 86/NQ-QH of the National Assembly dated August 6, 2021 on urgent measures to prevent and control the covid-19 epidemic to implement Resolution No. 30/2021/QH15 July 28, 2021 of the XV. National Assembly

[9] Clause 44, Article 1 of the Law on promulgation of legal documents to be amended and supplemented in 2020

the world have done[10]. This is a very important regulation, unprecedented before, creating a legal corridor for the Government and the Prime Minister in the management process as well as promptly reacting to urgent problems that may arise out in the future[11].

To raise awareness and comply with the law, the Government also issued Decree 117/2020/ND-CP on sanctioning administrative violations in the health sector on September 28, 2020, replacing Decree 176. /2013 / ND-CP. In fact, violations of the law on epidemic prevention and control are increasing in number and complex in nature, moreover, the handling provisions in Decree No. 176/2013/ND-CP provide for penalties. Administrative violations in the health sector are not yet comprehensive enough, the sanctioning sanctions are still quite light, not commensurate with the nature and severity of violations, so they are not enough of a deterrent. Therefore, most of the new decrees increase the fine level from two times to ten times compared to the previous sanction for administrative violations on preventive medicine, especially related to the prevention and control of the COVID-19 pandemic, from 3,000,000 VND to 100,000,000 VND.

This was followed by Decree No. 15/2020/ND-CP stipulating penalties for administrative violations in the fields of post, telecommunications, radio frequencies, information technology and electronic transactions. This is the main document stipulating sanctions to handle acts of providing untrue information, distorting and insulting the reputation of agencies and organizations and the honor and dignity of individuals related to COVID-19 prevention and control. This Decree is seen as a stronger remedy to prevent fake, misleading and confusing information; At the same time, it is a factor contributing to the construction of network culture.

Notably, most recently, on the basis of the Law on Handling of Administrative Violations Amended and Supplemented in 2020, on January 10, 2022, the Government issued Decree 07/2022/ND-CP on amendments. , supplementing a number of articles of Decree No. 35/2019/ND-CP on sanctioning of administrative violations in the fields of forestry, plant protection and quarantine, veterinary medicine, animal husbandry with adjustments to reduce the level fines for some violations in the field of wildlife protection. Meanwhile, Decree 124/2021/ND-CP amending and supplementing a number of articles of the Government's Decree 115/2018/ND-CP dated September 4, 2018 stipulating the sanctioning of administrative violations of the Decree No. Food safety and 35 articles of Decree 117/2020/ND-CP dated September 28, 2020 of the Government regulating penalties for administrative violations in the health sector have increased the fine level in the health sector.

** For criminal sanctions*

The criminal legal sanctions framework applied to handle criminal acts related to the prevention of the COVID-19 epidemic is specified in the 2015 Penal Code, amended and supplemented in 2017. The Penal Code was issued and took effect on January 1, 2018 ie before the pandemic occurred, so the new changes in criminal policy for crimes related to infectious disease prevention have not yet been released. yes. The fact is that the prosecuting agencies apply flexibly to handle violations according to the crimes specified in the Penal Code. Accordingly, even when the epidemic is taking place at a high level, causing significant damage to people and properties, affecting business activities of the subjects, affecting the economy of the land. countries, violations in this context are always considered and considered to be handled

[10] Andras Jakab (2019). *German Constitutional Law and Doctrine on State of Emergency – Paradigms and Dilemmas of a Traditional (Continental) Discourse*, German Law Journal, Volume7, Issue5.

[11] Point 3.3. Section 1 Resolution No. 30/2021/NQ-QH The First Session of the 15th National Assembly

in accordance with the actual and objective circumstances that occur. On that basis, the Government and relevant agencies have issued various documents to solve this problem. Official Letter No. 45/TANDTC-PC of the Supreme People's Court on the adjudication of crimes related to the prevention and control of the COVID-19 epidemic, including: acts of directly infringing upon the object are regulations on prevention , anti-epidemic in humans; other acts of infringing upon other objects related to the prevention and control of the COVID-19 epidemic. For example: the act of speculating and hoarding goods when goods are scarce in the context of an epidemic can be handled under the Crime of Speculation (Article 196 of the Penal Code); Acts of posting on computer networks, telecommunications networks, fake information, untrue information or misrepresentation of information about the Covid-19 epidemic situation may be handled according to Article 288 of the Penal Code 2015; acts of spreading the Covid-19 epidemic to others may be handled under Article 240 of the Penal Code 2015; Acts related to regulations on illegal exit, entry or stay in Vietnam may be handled under Articles 347 and 348 of the Penal Code 2015; Acts of using force, threatening to use force or other tricks to obstruct the performance of official duties in the prevention and control of the Covid-19 epidemic may be handled according to Article 330 of the Penal Code 2015.

Thus, it can be seen that, although the provisions of the Penal Code 2015 are applied without any change in the content of the law, but the timely promulgation of sub-law documents to guide the application and handling of cases. With the offenses related to the covid pandemic, it has shown the change and adaptation of Vietnamese law in the criminal field to promptly handle newly arising crimes. This also shows that Vietnam actively and actively deploys to build a legal framework to cope with the new situation after the outbreak of the Covid pandemic.

4. ASSESS THE CURRENT STATE OF LEGAL REGULATIONS

It can be said that the current Vietnamese law has taken timely steps to adapt to the situation of the covid epidemic. Amending and supplementing a number of legal provisions or promulgating additional sub-law documents to guide the handling of typical acts arising in this period is extremely necessary and meaningful. These have been described above. In this section, we want to evaluate the effectiveness and legitimacy of legal regulations in handling violations occurring in the context of the epidemic.

First, when assessing the accessibility of policies and legal documents that the Government of Vietnam has issued for COVID-19 prevention and control activities, one study has shown that more than 96 % of the total number of respondents are regularly updated through the mass media so that they are aware of the regulations of the state. However, although most respondents are familiar with updating policies and legal documents issued by the Government related to the COVID-19 pandemic, their understanding of the Law on Prevention and Control infectious diseases 2007 is still inadequate. People also have not properly identified the violations of the law and the level of sanctions specified in the document handling administrative violations in the health sector according to Decision 117/2020 / ND-CP of the Prime Minister. Government. Even they have not accurately determined the seriousness of the crime of transmitting infectious diseases to people according to Article 240 of the Penal Code 2015 amended and supplemented in 2017 when most Vietnamese people think that the harms of the crime are similar. large, unpredictable and therefore should be the most serious offence[12].

[12] Hieu Le, H. T., Đinh Le, O. ., Thi, Y. N., Nguyen, T. T. ., & Verrances, J. B. . (2022). Why Does the Government of Vietnam Become Successful in The Fight Against the Covid-19 Pandemic from Legal Perspectives?. *Conference Proceedings of COVID-19 Pandemic and Public Health System*, *1*(1), 25–42. https://doi.org/10.32789/covidcon.2021.1003

Secondly, the National Assembly's authorization to promulgate legal documents according to simplified procedures in case of urgency or urgency due to the covid epidemic creates a basis for the Government and People's Committees at all levels and agencies to State administrative agencies implement drastic, comprehensive and effective anti-epidemic measures and this is considered necessary in the context of epidemic outbreaks. However, in Vietnam at present, there is no Law on the State of Emergency as well as regulations on special measures to be applied in the state of emergency, so giving the Government or local authorities to issue documents in the state of emergency will create certain pressures for the Government[13,14]. In particular, the promulgation of the document in too short a time and without extensive appraisal and consultation is the cause of the document's shortcomings when it comes to practical implementation, in which the problem of ensure that human rights such as privacy, liberty and the pursuit of happiness are respected[15]. That is the reason why, in fact, some localities have issued documents implementing the provisions of the Law on Prevention of Infectious Diseases beyond their competence to handle acts considered as violations of human rights. specifically applied in that locality, this has led to the withdrawal of the document[16].

Third, the exemption or reduction of fine levels in administrative sanctions is one of the major changes in Vietnamese law to handle administrative violations. The outbreak of the COVID-19 pandemic has severely affected the economy, especially the private economy. In 2021, 70,209 businesses will withdraw from the market[17], it is the responsibility of policy makers to come up with policies to support businesses and create a legal corridor to help stabilize the economic market. Therefore, the regulation on exemption and reduction of fines for individuals and organizations for the reason of the epidemic is completely appropriate in the context of the pandemic. For example, a large proportion of violators in the forestry sector are local people with extremely difficult economic conditions, hunting, catching, killing, confining or possessing wild animals is the main livelihood. their. If the application of sanctions with too high a fine will lead to the violator's inability to execute the sanctioning decision, this makes the provisions of the law, although there are, cannot be implemented in practice[18]. And therefore, the deterrence of administrative sanctions is no longer meaningful. Therefore, reducing the fine level is both a reduction in sanctions but also implies discouraging other individuals and organizations from performing similar acts, with a mechanism to promote the "fear of punishment" mentality; That mentality will make individuals control their behavior well as well as make choices to perform legal acts or even individuals may still intentionally perform acts but there will be consideration. , moderation in order to reduce the level of violations; thereby improving compliance with the law. However, this provision can be abused to cause businesses to break the law or delay law enforcement.

Fourth, the state has strictly applied a "zero-tolerance policy" when the spread of the pandemic is high, requiring necessary measures, which can be administratively sanctioned or

[13] Nguyen Dang Dung (2007), *The idea of a responsible state*, Da Nang Publishing House, pp.143

[14] A. Jakab & M. Hollán, *Die rechtsdogmatische Hinterlassenschaft des Sozialismus im heutigen Recht: Das Beispiel Ungarn* [*The Legal Conceptual Legacy of the Socialism today: The Example of Hungary*], 46 Jahrbuch für Ostrecht 11 (2005)

15 *The Covid – 19 Pandemic and the rights of the individual in tems of private and public law*, Revista de Derecho. Vol. 9 (II) (2020), pp. 225-250. ISSN: 1390-440X - eISSN: 1390-7794.

[16] http://www.qdnd.vn/xa-hoi/tin-tuc/van-ban-phong-chong-covid-19-vuot-qua-da-duoc-thu-hoi-thay-the-nen-khong-thuc-hien-quy-trinh-xu-ly-675097 accessed on 10/10/2022

17 Ministry of Industry and Trade, Report on operation and commercial production in December 2021

18 Muhammad Sabir Rahman (2019). *Fines Sanction as a Meeting Form Principles of Agreement Contracts Construction Service***,** Amsir Law Journal, Vol 1- No1, https://doi.org/10.36746/alj.v1i1.18

fined or imprisoned for those acts. any major pandemic-related violations. Police forces enhance their professional skills to detect any violations that distort or conceal their medical situations related to COVID-19[19]. However, a study has shown that some of the measures that countries have taken in response to the COVID-19 pandemic constitute human rights violations and do not comply with the legal conditions to limit the spread of the virus. human rights regime. Indeed, the COVID-19 pandemic has exposed ugly cracks in the healthcare system, health inequalities, racism and discrimination, eroding freedoms of speech and access to information, gross negligence in protecting detainees from infection with COVID-19, all of which constitute a clear violation of the principles of international human rights law[20]. It is clear that the Vietnamese government's response to the covid pandemic is undeniably effective, but conflicting with the emergency powers enshrined in the Constitution is no guarantee of legitimacy even now. no disputes arise or challenges to be faced. This can be seen as a loophole in Vietnam's legal framework on the use of the state of emergency and the abuse of power, making it a bad precedent with consequences in the future[21]. However, there are also opinions that, in the context of the Covid-19 pandemic, stemming from the nature and serious consequences of the Covid-19 pandemic, the limitation of constitutional rights for the sake of protecting the public interest is not the case. community is completely reasonable and legal, because this is also aimed at ensuring the stable and sustainable development of society, protecting the lives and health of individuals in society[22,23]. This issue also needs to be studied more closely in the process of adjusting legal instruments in the coming time[24].

Fifth, on the issue of legal responsibility, the enforcement of the law on prevention of disease transmission may infringe upon basic human rights. are not. For example, the behavior of a doctor who decided to remove the breathing tube of a patient with a critical covid disease to give life to a patient with a higher chance of cure. Or the act of a violent user causing significant damage to someone who has intentionally spread the disease to others[25]. The current Vietnamese law does not seem to have any adjustment on this issue.

Another problem is, how to handle in case the disease occurs in prisons and infects prisoners. In this regard, the WHO published a guidance against coronavirus disease in March 2020 called “Preparation, prevention and control of COVID-19 in prisons and other places of detention”. This has put the authorities before the decision to make a decision about the mass release of convicts from prison. It is also understood as the reduction to the minimum penalty for the convicted person to be released on parole early[26] . Vietnam's criminal procedure law also has

[19] Luong, H. T. (2021). Community-based policing in COVID-19: a 4-P’s priorities of Vietnam’s police. *Policing and society*, *31*(10), 1217-1231.

[20] Elshobake, M.R.M. (2022), *"Human rights violations during the COVID-19 pandemic"*, International Journal of Human Rights in Healthcare, Vol. 15 No. 4, pp. 324-339. https://doi.org/10.1108/IJHRH-11-2020-0097

[21] Giao, V. C., & Dao, T. U. (2022). State of emergency in Vietnamese law: Reflections on the government response to the Covid-19 pandemic. *Australian Journal of Asian Law*, *22*(2), 5-19.

[22] Nguyen Duy Dung (2022), *Limiting Constitutional Rights in the Context of Covid-19 in Vietnam*, Journal of Law and Practice, No. 50/2022, pp.13-30, http://tapchi.hul.edu.vn

[23] Rhiannon Frowde & Edward S. Dove & Graeme T. Laurie (2020), *Fail to Prepare and you Prepare to Fail: the Human Rights Consequences of the UK Government’s Inaction during the COVID-19 Pandemic*, Asian Bioethics Review, 12:459–480.

[24] Alice Bloch, Leena Kumarappan and Sonia Mckey (2014). *Employer sanctions: The impact of workplace raids and fines on undocumented migrants and ethnic enclave employers*, Critical Social Policy, Volume35, Issue1.

[25] Shkabin, G. S., Pleshakov, A. M., & Nazarov, A. D. (2020, November). Problems of Criminal Law Provisions in the Context of the COVID-19 Pandemic. In *Research Technologies of Pandemic*

[26] Preventing COVID-19 outbreak in prisons: a challenging but essential task for authorities. https://www.euro.who.int/en/health-topics/healthemergencies/coronavirus-covid

provisions on early release from prison for inmates when certain conditions are met, but it has not yet provided for easing measures to enforce prison sentences or reducing prison sentences. the number of prisoners in prisons and transferred to another corresponding punishment in the context of the epidemic.

5. CONCLUSIONS AND RECOMMENDATIONS

From the above research results, it can be seen that the Government of Vietnam has a policy to respond to the covid epidemic, in order to prevent the spread of the disease and ensure the interests of actors in society. Vietnam has also issued, amended and supplemented the legal framework to promptly and effectively handle violations in the context of the covid pandemic. That legal framework includes sanctions for administrative violations and sanctions for criminal penalties. However, these provisions may affect the fundamental principles of the Constitution. This also poses the challenge of the Vietnamese legal system to the challenge of timely adjusting and supplementing new regulations so as to ensure both disease prevention and control, but also ensure that basic rights are not infringed. other individuals, organizations and the state. The COVID-19 pandemic is not the worst human experiment. In the near future, humanity may face more dangerous threats. This means that for now, experience in the prevention and handling of violations must be used to develop a common mechanism to regulate public relations in critical situations[27]. Therefore, right now, the adjustment of legal regulations to meet the needs of fighting, preventing and handling violations related to the spread of disease transmission in particular and taking advantage of the epidemic to carry out general violation is what is really necessary.

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Elshobake, M.R.M. (2022), *"Human rights violations during the COVID-19 pandemic"*, International Journal of Human Rights in Healthcare, Vol. 15 No. 4, pp. 324-339. https://doi.org/10.1108/IJHRH-11-2020-0097

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[27] Shkabin, G. S., Pleshakov, A. M., & Nazarov, A. D. (2020, November). Problems of Criminal Law Provisions in the Context of the COVID-19 Pandemic. In *Research Technologies of Pandemic*

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On the textually bound nature of Hungarian legal reasoning in general, *see* A. Jakab & M. Hollán, *Die rechtsdogmatische Hinterlassenschaft des Sozialismus im heutigen Recht: Das Beispiel Ungarn* [*The Legal Conceptual Legacy of the Socialism today: The Example of Hungary*], 46 Jahrbuch für Ostrecht 11 (2005).Google Scholar

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REAL ESTATE TRADING FLOORS IN VIETNAM: LAW AND PRACTICAL

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Abstract

This paper just analyses legislative regulations on two aspects: Legal framework in real estate business whereas real estate trading floors have become popular in Vietnam since 2015. We emphasize on the role of 2014 Law on real estate business regulating real estate trading floors which has lots of reforms in comparison with the former code; By supervising the practical of 2014 Law on real estate business in recent years, the Paper has found out couple of defect legal rules refering to real estate trading floors such as conflict of law in principles of brokerage activity, donating right for developers to decide to sell their project's products on real estate trading floors or not…All of these factors resulted in inefficient performance of current law in practical. Perhaps, they need to be renewed in the coming time. Basing on those data, the Paper recommends some settlements to perfect legal corridor and suggestions to steps up effectiveness of real estate trading floors in Vietnam.

1. OVERVIEW ON LEGAL FRAMEWORK FOR REAL EATATE TRADING FLOORS IN VIETNAM

Overall, up to now, Vietnam real estate market seems to be younger than any other economy in the world. Reason for this phenomena is explained by the fact that Vietnam real estate market really formed and erupted in recent years. Before 1993, there was no business transaction referring to real estates on the whole. Particularly, transaction of properties which called land use rights, was mostly sidelined. This distinctive asset wasn't selled or bought amid traders together, due to series of strict measures controlled by the government across the country. In that circumstance, there was certainly no opportunity for real estate trading floors existing in the economy, it is an easy issue in compliance with the policy of government at that time. Even those, some years later, when Vietnamese lawmakers passed Law on land in 1993 and in 2003 which consisted of huge reforms in real estate market, for instance, the regconization of freedom in exchanging land as well as other assets involving in land, houses on Vietnam market. Maybe, those fluctuations in legal system over land use rights had marked a significant achievement of real estate market in Vietnam. They initially built up a solid legal benchmark for enterprises, business households and other merchants to do business in the wider range in real estate sector in Vietnam for many years later. Apart from certain advances, investors also felt down with those two codes as they didn't deliver any concept on real estate trading floors in their content indeed. By this time, most of real estate transaction in Vietnam were assisted by real estate brokerage company instead of real estate trading floor as in current time.

In 2006, Vietnamese lawmakers promulgated a new law – This is still called Law on real estate business which set important legal framework for activities on real estate market in Vietnam in a new period of economic integration. Since then, thousands of real estate trading

floors have been emerged amid strongly development of real estate market nationwide. During the time of this code taking into effect, one of common scene in real estate market were the presentation of plenty of real estate trading floors throughout the country. Perhaps, the outbreak of real estate trading floors was resulted in legal rules at 2006 Law in which lawmakers enforced all developers must have duty to transact their real estate products on real estate trading floors, otherwise they were imposed on a fine up to 60 million VND immediately under a decree given out by the government at that time. Commenting on enforcement of law in practical Rita Yi Man Li (2014) said that law serves as social order.[1] Basing on legal framework which defines as an order of lawmakers, the existence of real estate trading floors had partly oriented real estate market in Vietnam moving toward transparency and openness. Besides that, they provided useful measures in protecting consumers's rights so much more than before when name of real estate trading floors was entirely slipped off at any document in Vietnam

One of the central point of 2006 Law on real estate business was rules on requirement of real estate products originating from developers's projects ought to be conducting on real estates trading floors in any case which were unfamiliar with most of developers and customers at that time. It is said that those legal rules brought innovation for the economy as well as the real estate market in Vietnam. Notwithstanding, those legal regulations only lasted 8 years, not long as expectation. Because, in 2014, this law was replaced by 2014 Law on real estate business that gains much progress to improve business environmnent in Vietnam in the integration process. Accordingly, lawmakers have ruled out regulations on compulsory transaction of real estate products on real estate trading floors. Since mid-year 2015, following this law, transaction of real estate products on real estate trading floors has been a right of developers. They can freely choose to sell their project's products on real estate trading floors to customers or not. Despite of flexible rules, lawmakers also set many standards and conditions for erecting a real estate trading floors in Vietnam which any investor wants to form one having to meet those legislative requirements.

According to the 2014 Law on real estate business, to set up real estate trading floors, domestic promoters or foreign investors should satisfy with couple of criterias, such as : (1) They have at least two brokers holding certificate of real estate brokerage provided by Department of Construction and the director of real estate trading floors also has similar one. (2) Headquarter of real estate trading floors is situated at a specific site within 12 months from the time of formation, it doesn't have permission to move to any another site during that time. Simultanously, area of a real estate trading floors ought to be at least 50m2 in practical. (3) They was established in form of an enterprise or a branch of an enterprise with no minimum capital requested by this law.

One of the most advantages of this law that attracts customers is information attaching to products selling on real estate trading floors is deeply ensured legal safety in any case. Because managers of real estate trading floors are responsible for legal risk to customers when they purchase products displayed there. Resting on those advantages, hundreds of real estate trading floors have been emerged and activated in Vietnam, modify to the diversity of real estate services in the economy and the development of real estate market in the integration process. Lots of people agree that role of real estate trading floors partially drive Vietnam real estate market to transparency and openness, contribute to the stability of real estate market significantly.

[1] Rita Yi Man Li (2014): "Law, Economics and Finance of real estate Market: A Perspective of Hongkong and Singapore" Pubisher: Springer, Page 487

2. PRACTICAL OF REAL ESTATE TRADING FLOORS IN VIETNAM

Backing to 10 years ago, there were thousands of real estate trading floors in Vietnam, stretching from the northern to the southern Vietnam. Because 2006 Law on real estate business defined the exchange real estate products as an obligation of developers. Whereby, series of real estate trading floors were established across the country. Especially, in some large urbans such as Hainoi city, Hochiminhcity or Đà Nẵng city,….Nevertheless, some years later, a large number of real estate trading floors had rapidly declined due to flexible legal rules at 2014 Law on real estate business as this law allows developers to decide to sell their products on real estate trading floors or not. As a result, many of real estate trading floor disappeared immediately in a short time. This is not a sudden event in the economy so far, because it can be premisely speculated. According to reliable statistical data, there are approximately 200 real estate trading floors activating in Vietnam currently, fewer than before 2015 so much. Proportion on transaction through real estate trading floors also gets minor quantity in comparison with actual transaction in the market which occupied about 1-2% overall. Particularly, in time of Covid-19 Pandemic, about 80% percent of real estate trading floors were closed due to inner difficulties of the economy. Taking into statistical data provided by the General Statistics Office of Vietnam in 2021, only did large real estate trading floors have chance to exist in reality.[2] Anyway, those statistical data reflect uneffectiveness of real estate trading floors. Many reasons was given out to explain to this phenomena. One of these was the expense for conservation of a real estate trading floor so much for developers whereas quantity of transaction over real estate trading floors was so few amid economic crisis. Furthermore, under 2014 Law on real estate business, most of transaction of real estate needn't carry out over real estate trading floors as usual in the past. So all those factor have negative impact on the existence as well as amount of real estate transaction over real estate trading floors. Besides that, it is said that measures to control real estate trading floors by the central government and local authorities also gets much confusion that need to be solved in the next time in Vietnam.

3. LEGAL HURDLES TO THE DEVELOPING OF REAL EATSTE TRADING FLOORS

So far, real estate trading floors is an exclusive legal regulations in Vietnam, it expresses a bid to drive Vietnam real estate market to apparent operations in matching to other economy in the world. Certainly, outcome of implementation process of those legal rules has orientated real estate market towards transparency and openness, was highly appraised, too. However, after the time of implementing those legislative regulations, they also exposes some legal challenges, showing over these specific areas:

Firstly, definition of real estate trading floor stipulated at Article 3.6 is seemingly unclear, it doesn't relate to real estate trading floor's function in practical, as a result, creating a conflict of law that is not essential in the implementation of this law in the economy

Understanding to this Article, all real estate trading floors are testified to be the site of transaction in selling, buying, leasing, subletting, hire-purchasing with products provided by developers.[3] In fact, this legal rules doesn't accurately perform the substance of real estate trading floors.[4] Because the true essence of a real estate trading floor is only a place where they deliver couple of fundamental services for customers, chiefly in brokering, consulting legal rules, taking care of houses for owners. If lawmakers said that real estate trading floor was a site for

[2] https://vneconomy.vn/80-so-san-giao-dich-bat-dong-san-phai-dung-hoat-dong.htm

[3] See : Article 3, 2014 Law on real estate business, promulgated in 2014

transaction of real estate products. This statement seemed to be a fault. As we all know, under this Law, real estate trading floor only has one function is to provide servives for customers who bring their houses, land and other real estate products to real estate trading floor to look for buyers. Thus, standards to set up a real estate trading floor entirely based on legal rules applying for real estate services not for doing real estate business. So far, many people easily misunderstand all real estate trading floors is a place where they can take part in transaction over real estate products. That means real estate trading floors can directly sell any real estate assets if they want. Clearly, people argued thạt this regulation has a fault as mixing service activities into doing real estate business acitivites, unify them into only one activity. That is a mistake and need to be corrected in the coming time so as to navigate real estate trading floor's activities reflecting their true nature.

Additionally, one more problem to discuss onwards is the necessarity of real estate traing floors in reality in Vietnam. Actually, hundreds of real estate brokerage company are existing in the economy presently. On overall, there is few differences between a brokerage company and a real estate trading floors over their function and role. Both of them have similar function in brokerage field. They were positioned as the third side to stimulate buyers and sellers to do business over real estate products. Despite, the name of them is different. But they all have same conditions to start up as a business, for instance, they should have at least two staffs receiving certificate in real estate brokerage, make as a bridge to get in touch with the buyers and sellers. The part is similar to their function and content. So somebody think the maintance concept on real estate trading floors is not essential more. It should be displaced and repalced with an uniform name: real estate brokerage company in accompany with their essence in reality.

Secondly, conflict of law is still exists, partly creates difficulties to implement 2014 Law on real estate business in reality. At present, the Article 62.3 of 2014 Law on real estate business inhibits brokers to become the sellers or buyers at the time if they signed a contract with customer. Although, we all know the genuine nature of real estate trading floor is a real estate broker who is a person hired to negotiate the sell or purchase real estate for a commission.[5]Meanwhile, in content of this Law, lawmakers also permit developers controlling real estate trading floors, have rights to sell their project's products on their own real estate trading foors over limitless way. Under these regulations, we know all real estate trading floors originating from developers may simultaneously activate at two fields with two functions at the same time : they are defined as a place to supply brokering service for customers in which all employee instructed by developers. So all of them certainly have to follow mandate delivered by developers. Consequently, it is difficult to gain truthful information over real estate products due to the close connection of developers to these brokers. Besises that, real estate trading floors are also a place where developers can sell their project's products instead of using other real estate trading floors. In my opinion, this legal rules completely conflict to one confirmed at Article 62.3. As a result, the explicit meaning of real estate trading floor with the purpose to bring openness, transparency for real estate market is uneasy to achieve due to conflict of law as analyzing above

Thirdly, ventialtion of legal rules makes real estate market get in trouble problems: As we all know, real estate business is confirmed as a conditional business activity due to huge impact of its on social – economic life as well as brings its risk to customers.[6] Instead of obligation as

[5] Robert J Aalberts, George J Siedel (2008): "Real estate Law" South - Western Cengage Learing, Page 216

[6] Luru Quoc Thai : New point of 2020 Law on Investment relating to real estate business activities and some assessment, Page 55, Journal of Vietnam Legislative Science, No 01(140), 2021

selling products on real estate trading floors as the former code made earlier. The prevailing code adjusts real estate transaction on the other side. Under present legal regulations, developers can sell their project's products on real estate trading floors in voluntary way, instead of their obligation. So these regulations cause ineffience of real estate trading floor's operation immediately, explains for one of reasons to decline significant number of real estate transaction in the market recently. In the past, under 2006 Law on real estate business, all products originated by developers (except for soicial houses and invidual assets) must sell on real estate trading floors. But, those regulations haven't lasted up to now. Perhaps, the abolishment of those regulations drives the real estate market into a mess and the government is facing series of matters coming from this ventilation in practical.

Fourthly, lacking of prompt instructions of the government on procedure and time to unveil information over products to transact on real estate trading floors that hasn't been delivered so far. As a result, that defect is partly impact on the effectiveness of real estate trading floors in recent years. Under 2014 Law on real estate business (was amended and modified by No 03/2022/ Law), all developers who do any real estate project in Vietnam, have obligation to declare information involving in their projects. The specific site to do their work is on real estate trading floors or at their project headquarter or on their website. Among these sites, the publication on real estate trading floor seems to be more popular than other method listed formerly. But, after over 7 years implemention of 2014 Law on real estate business, competent authorities haven't declared any instructions to developers how to unveil their project's products on real estate trading floors. This causes inconvenience, confusions to developers and partners when they comply with legal regulations of 2014 Law on real estate business at present, even if in the future.

Fifthly, shortage of using digital technology to unveil informations on real estate trading floors to support for developers and customers in time of outbreak of advertisement spreading in the world. According to Cliff Perotti (2009), advertisement on internet brings brokers chances exclusively, understood by thousands of potential customers with extremely suitable expense.[7] The internet also offers some valuable research tools.[8] When arguing about the challenges to competitition law, Nguyễn Thu Trang (2022) stated that the foundation of digital economy has created much challenges to competitition law.[9] Meanwhile, current 2014 Law on real estate business doesn't completely refer to digital technology in transaction real estate products on real estate trading floors. As a result, it causes more costly for customers. Perhaps, those defect points have significantly reduced effectiveness of the activities of real estate trading floors. In my opinion, in the time of digital technology, most of businessmen use internet transaction to save money, shorten proceedings in order to earn more benefit. Especially, in real estate business, using electronic equipment is so important and urgent rather than other fields at all. Otherwise, investors can face with failure in their investment in the economy. So, in many countries, most of transaction of real estate products are carried out on internet platform with lots of convenience. On the contrary to that, there is no connection with blockchain or online transaction mentioned at 2014 Law on real estate business in Vietnam. These defects partly influences on effectiveness of this law in practical, increases costs for developers as they sell their project's product to customers as well as creates financial burden for customers when trading with developers

[7] Cliff Perotti: The real estate entrepreneur" translated by Nguyen Huy Hieu, Published by HCMC General Publishing,, 2009, Page281

[8] Neal R. Bevans, J.D (2016): "Real estate and property law for paralegals" Publisher: Wolters Kluwer, Page 65

[9] Nguyên Thu Trang: Digital economy and challenges to competition law: international experiences and lesson for Vietnam" Journal of Legislative Studies, No9 (457), 05/2022, Page 55.

4. SOME SOLUTIONS OVER REAL ESTATE TRADING FLOORS

Real estate trading floor is an absolutely unique legal rule in Vietnam, rarely exists in other economy. Outcome of implemention process of 2014 Law on real estate business has made a bid for sustainable enhancement of real estate market. Nevertheless, legal corridor surrounding real estate trading floors is also facing with lots of hurdles that needs to be examined in the future. In range of this paper, the writer suggests some ideas over fulfillment of legislative framework for real estate trading floors in some areas:

Firstly, lawmakers should define duty of developers to transact their project' products on real estate trading floors as 2006 Law on real estate business did in the past. This meams Vietnamese lawmakers should strongly fluctuate current legal rules towards eliminating series of irrelevant regulations that is hinting the development of real estate trading floors in actual. This change has a great meaningfulness for everyone who has needs to approach directly informations on transaction, eliminating illegal investment, declining speculation in purchasing real estate products in reality.[10] I think it is the time for recovery former regulations at 2006 Law on real estate business in the aim serving for the transparency and openness of real estate market in Vietnam. Implementation process of 2014 Law on real estate business for over 7 years has left so many issues that we should reconsider in comprehensive areas, arguing amid duty or right of developers to transact their project's products on real estate trading floors. For us, the best settlement for this is lawmakers reinstate legal rule on duty of developers to sell their project's products on real estate in any case instead of right as current law stipulated. If we correct it in this way, it certainly creates transparency to real estate market as well as ensures benefit of consumers better than in the coming time.

Secondly, rule out regulations on sending monthly report of real estate trading floors to the local Department of Construction. At present, under 2014 Law on real estate business which is still effected up to now, sending that document to the Department of Construction is a compulsory duty of any real estate trading floor. Meaningfulness of this regulation is to ensure the effectiveness of administration in real estate aspects. But, on the other hand, those regulations proved inefficiently, irrelevant for over 7 years in implementation. They partly created complicated administrative procedures, caused troublesome to developers in unessential way. By the way, we request the lawmakers displace that regulation in order to spare developers trouble as well as eliminate unnecessary administrative procedures hinting enterprise's operation

Thirdly, redefine concept "real estate trading floors" in order to match with their nature and activities. Lawmakers should exactly define the meaning of real estate trading floors. Whereby, real estate trading floors is a site to provide types of service for customers in real estate business area. We think that correction is urgent and necessary to cover defects in the current law as analyzed above. Furthermore, it guarantees to reflect essence of real estate trading floors as comparing with the current law confirmed

Fourthly, upgrade standards and conditions to establish a real estate trading floor. According to us, lawmakers should upgrade some better conditions in setting up a real estate trading floor, for instance, all real estate trading floors must work as a legal entity in the market, not being a branch or an unit belongs to enterprise as stipulated at Article 24.2 of Circular 11/2015/TT-BXD. Additionally, the director oblige to have their own certificate in management and administrating real estate trading floor instead of no requirement presently. This change is

[10] Nguyen Van Hau and Nguyen Thi Thu Ha (2009): "Perfect market institution orientating socialism in the time of Vietnam as a member of WTO" Pubisher: National Politics, Page 260

necessary and makes real estate trading floor's activities absolutely clearer, more transparent than now. Thus, it strengthens and ensures responsibility of developers over control real estate trading floor's operation. Following such regulations, it will probably stimulate the role of the head of real estate trading floor in administration this entity in a professional way as well as exactly define main duty of the leader if there is a breach happening at real estate trading floors in practical later.

4. CONCLUSION

Real estate trading floor is a new entity in Vietnam. The developing process of this concept has gain great of achievements for over 7 years. There are hundreds of real estate trading floors erected throughout the country. They contribute to urge the economy toward the transparency và legal safety in real estate transaction. Notwithstandings, conflict of law, shortage of applying digital technology in trading real estate products as well as allocating right to developers to sell their products on real estate or not at 2014 Law on real estate business has partially driven to arguments in practical. Therefore, correction of this law is essential action that lawmakers must do in the near future. Resting on those data, we insist that lawmakers should define duty of developers to sell their real estate products on real estate trading floors and eliminating responsibility of developers to send their monthly report to local authority as regulations presently. These absolutely build a better business environment for the investors to pour money into the economy as well as protect customers's benefit more effective than at present.

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RIGHT TO PRIVACY IN RELATION WITH FREEDOM OF INFORMATION, PROTECTION OF PERSONAL DATA AND RIGHT TO FORGET IN THE DIGITAL AGE

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Abstract

Before the information technology revolution, people longed for the freedom to access information and freedom of information. It can be said that freedom of information is the right to protect rights, that is, grounds for the protection of other rights only reveal themselves when information is available. In the current age, information, technology and its applications are widespread and numerous, creating a vast network of information that crosses all national borders. This caused some to demand the state to implement effective measures to ensure right to privacy, the right to personal data and the right to be forgotten. One of the consequences of the development of technology has been creating favorable conditions for putting information on the internet. As such, acts of invasion to privacy and personal data are on the rise. Many also do not want information related to them to permanently remain on the internet. This article analyzes the relationship between privacy and these rights, the law on handling privacy violations in Vietnam as well as presenting additional recommendations.

Keywords: *freedom of information, right to privacy, right to protect personal data, right to be forgotten, information technology revolution*

1. BACKGROUND

Throughout history, humanity often finds itself needing information as information has a profund effect on all aspects of human life, from economic, cultural, social, political to ensuring the protection of basic human rights. In this day and age, with the explosion of growth in information and technology, information has become one of humanity's vital needs, a foundation for all of society. As such, everyone must be afforded the chance to be informed and nobody should be excluded from the benefits of society's information. This has greatly shifted the global community's perspective on the importance and power of information.

Before the information technology revolution, people longed for the freedom to access information and freedom of information. It can be said that freedom of information is the right to protect rights, that is, grounds for the protection of other rights only reveal themselves when information is available. In the current age, information, technology and its applications are widespread and numerous, creating a vast network of information that crosses all national borders. This has led some to demand the state to provide effective measures to ensure right to privacy, the right to personal data and the right to be forgotten.

However, the explosive growth of technology has had powerful effects on the legal system. Before, when the media was not strongly developed, people fought for the freedom of information; now people demand the right to privacy, the right to be forgotten to be recognized

and protected. The disclosure of information is caused by the concealment of information and this is a direct cause of various cases of abuse of power, corruption and dictatorship around the world. As such, it is vital that people fight for this right. However, alongside the progressive and positive side of this development in freedom of information, the emergence of social media, smart devices and artificial intelligence created new concerns relating to their negative impact on the protection of privacy as well as it's negative effects on society. As the prevalence of acts of privacy and personal data invasion increases, many people do not wish to have their information remain permanently on the internet. This partially stems from the ease of access to the internet, with many devices using modern technology that allows their users to film and take photos and recordings at low cost, creating favorable conditions for the monitoring and interference into the lives of average citizens without their consent. Moreover, it is extremely difficult to effectively control personal information on the internet due to the amount of account holders on social media and the amount of foreign anonymous accounts.

Currently, Vietnam is one of the countries with the fastest rate of internet development and application in the world and currently ranks 13th in the amount of users with 64 million users. In addition, the Government has directed efforts to promote the construction of e-Government with a goal towards digital government and digital economy. These efforts have yielded many important results. However, private information disclosure leaks, identity theft and trading of personal data are still prevalent in most countries around the world, including Vietnam.

As such, researching the characteristics of these rights, the relation between these rights in order to establish methods of handling violations is a difficult issue in legislative activities and requires time to fully understand the principles of information and the value and consequences of the spread of information

2. THE DEFINITION OF RIGHT TO PRIVACY, FREEDOM OF INFORMATION, THE RIGHT TO PROTECT PERSONAL INFORMATION AND THE RIGHT TO BE FORGOTTEN.

Right to privacy (or privacy rights): Of all human rights, it can be said that the right to protect privacy is the hardest to define. Definitions of Right to privacy vary depending on the conditions of different countries and cultures[1]. In some countries, this definition has been merged with the definition of the right to protect personal information, in which privacy is the management of said personal information. Currently, the right to protect privacy is considered a basic right to protect human dignity and has equal value to other rights like the right to free speech[2]. At its core, the right to protect privacy is considered a guideline to ensure that society minimizes its interference in one's private and personal matters.

Privacy right is the right of individuals to not disclose information, documents and data relating to their private lives, the inviolability of their body, place of residence, correspondence, telephone, telegram and other digital information to which no entity has the right to access, publicize or view except with the consent of the individual or decision of relevant authorities[3]. The right to protect privacy is a basic human right and is highly important in the process of ensuring self control and protecting human dignity. This allows individuals to create and control necessary boundaries with others, thereby protecting themselves from unauthorized interference

[1] Madrid Privacy Declaration: Global Privacy Standards for a Global World, at http://thepublicvoice.org/madrid-declaration/ For example, November 3, 2009.

[2] *Simon Davies(1996), Big Brother: Britain's Web of Surveillance and the New Technological Order 23 (Pan 1996).*

[3] Thai Thi Tuyet Dung (2012), *Privacy in the age of information technology*, Journal of Legislative Research No. 09.2012.

in their lives and allowing individuals to define who they are and how they wish to interact with the world around them. To wider society, the protection of right to privacy of each member is also the creation and protection of the foundation of community life. A community can't exist if its members aren't adequately protected from abuse. In that sense, the protection of right to privacy contribute to ensure democracy, civilization and the stable, peaceful development of society. As such, right to privacy have become a key human rights issue.

Right to privacy have grown increasingly difficult to determine in the digital age when considered in relation with other freedom rights such as the freedom of press, freedom to access information and freedom of speech. Social media helps individuals practice their democratic rights and allow them to express their opinions on various societal issues. However, many individuals use social media to violate the right to privacy of others through acts like disclosing personal secrets, banking information or publishing defamatory information, posting sensitive videos or selling private information to unauthorized entities[4]. Despite their actions, these individuals are often not prosecuted. Moreover, the legal framework governing the issue has always been a major challenge to countries and policy makers both in developed and developing countries. In many cases, as soon as new regulations are put into effect, the technology has developed beyond the scope of new regulations. Author Yuval Noah Harari[5], expressed his concerns by stating that the internet and social media is a lawless land that deteriorates national sovereignty, ignore national borders, destroys privacy and create a serious global security threat.

Freedom of information is the right to freely search, access and impart information and ideas of all manner, regardless of domain or method of imparting said information such as orally, in writing, in the form of arts or any form of media that one chooses. This right has been recognized early on in international documents like the 1948 Universal Declaration of Human Rights (UDHR) also stated "everyone has the right to freedom of opinion and expression; this right includes freedom to hold opinions without interference and to seek, receive and impart information and ideas through any media and regardless of frontiers". The 1966 International Covenant on Civil and Political Rights also proclaimed[6]: "Everyone shall have the right to freedom to seek, receive and impart information and ideas of all kinds, regardless of frontiers, either orally, in writing or in print, in the form of art, or through any other media of his choice. The exercise of the rights carries with it special duties and responsibilities, it may therefore be subject to certain restrictions, but these shall only be such as are provided by law and are necessary such as respect of the rights or reputations of others; the protection of national security or of public order, or of public health or morals.

The limitations stated in this document are to protect the rights and reputation of others, to protect national security interests or public safety or public healthcare and morality interests. The term "freedom of information" inherently contains a wider meaning that is recognizing and protecting the rights of individuals to freely impart, exchange information under all forms with anyone they wish. The purpose of this protection is to allow information to be freely exchanged without interference. Currently, thanks to information technology, freedom of information has

[4] Just by typing in the keyword "buying and selling customer data" on Google will immediately get nearly 6.5 million results. If one were to search for "list of customers in Ho Chi Minh City" alone, it gives more than 1 million results… The service provides a lot of this type of customer list. Just spend from 400.000 - 1.5 million, anyone can receive a list of more than 1 million people. There are even quite specific lists such as VIP customers of Bank A. with a savings limit of 1 billion VND or more; or a list of customers who bought cars from a company.

[5] Yuval Noah Harari (2017), *Homo Deus: A Brief History of Tomorrow*,

[6] Institute for Research on Human Rights (2007), *International documents and laws of some countries on access to information*, Publishing House. People's Police, Hanoi, p.17.

been effectively practiced, occasionally to the detriment of other rights such as right to privacy and negatively affecting them in the process.

The right to protect personal information is the right to protect any and all information regarding the identity of an individual. The right to protect personal information includes the following aspects: (1) The right to own one's personal information and the ability to request entities that have access to said information to make changes to said information to ensure the integrity and accuracy of one's personal information. (2) The right to allow third parties to access one's personal information; (3) The right to demand relevant entities to ensure the secrecy of one's personal information such as anonymizing personal information,…;(4) The right to demand compensation from relevant parties when illegal acts involving one's personal information occurs, incurring damages to said individual[7]. In many countries, the right to protect personal information has been codified into law[8] and Vietnam is currently in the process of finalizing the Decree on the protection of personal information.[9]

The right to be forgotten on the internet is a newly developed right as society progresses into the digital age. Some users want personal information that appeared on the internet or appeared in the past to be forgotten. As such, it is crucial that the right to be forgotten is recognized and protected as early as possible. The right to be forgotten is given to the subject of the information (information regarding the subject, personal information provided by the subject,…). It is the right to demand the removal of said information from internet search results and other databases in specific cases, at a particular point in time in order to prevent third parties from accessing the data. At its core, this is the right of an individual to freely decide how they live their lives without being condemned by the consequences of actions in the past. They are allowed to request the removal of information, videos, images related to them on the internet so that said information can't be accessed or searched. For example, a convicted felon after serving their sentence and having their criminal records wiped can request that third parties refrain from publishing their past criminal charges in order to make it easier for them to reintegrate into society[10].

3. THE RELATIONSHIP BETWEEN THE FREEDOM OF INFORMATION AND RIGHT TO PRIVACY

The freedom of information and right to privacy are both human rights that inspire the creation of new legal regulations that aim to ensure that each and everyone has the right to freedom of information but also still have their privacy protected. It is the responsibility of the state to design mechanisms to protect and ensure optimal conditions for the exercise of the right to freedom of information and privacy of each individual.

Freedom of information and right to privacy are closely related. Both of these rights are recognized and protected by various international treaties and constitutions of various nations and both share one similarity which is the protection of the rights to freedom of information

[7] European Commission, "What is personal data?", https://ec.europa.eu/info/law/law-topic/data-protection/reform/what-personal-data_en.

[8] The European General Data Protection Law (GDPR) was enacted in April 2016, and applies to 28 EU members; Japan's Personal Information Protection Act (APPI) promulgated in May 2017, Canada's Personal Information and Electronic Documents Protection Act (PIPEDA), Singapore's Personal Data Protection Act October 15 2012…

[9] For the full text of the draft and draft documents, from: https://bocongan.gov.vn/vanban/Pages/van-ban-moi.aspx?ItemID=418

[10] Bach Thi Nha Nam (2020), Right to be Forgotten from Judgment Practices within the European Union, Journal of Legislative Studies No. 24 (424), December 2020

helps protect right to privacy and on the reverse, the rights to privacy has an effect on freedom of information. The relationship between these two rights are often described as "two sides of the same coin" – Primarily they operate as additional rights to further individual rights in order to allow individuals to further protect themselves and promote government accountability[11]. Freedom is the ability to do anything the law does not prohibit[12]. The free expression of information is that citizens have the ability to actively seek out and receive information or refuse receiving said information in the event that they wish not to. At the same time individuals should not be allowed to do anything that negatively affects the freedom of information of others because society, the state and other individuals also have their own freedom in regard to this matter.

The state has the responsibility to clearly identify the boundaries of said freedoms and prevent individuals from abusing these freedoms to cause damage to society and other individuals. The relationship between right to privacy and the freedom of information is an often debated issue in various countries. Currently, over 50 countries have passed regulations that recognize and protect both of these rights.[13]

Before the technological revolution, freedom of information, freedom of press and right to privacy existed alongside other human rights. However, the demand for information to further help protect other rights became stronger, as many countries have focused on completing the mechanism through which this right would be prioritized over right to privacy. Moreover, there are little concerns about right to privacy during this period as there were fewer effective tools to spread this information. If information does spread, it's only a blip in time, published in printed media before fading away over time. Therefore, it can be said that while right to privacy already existed, there has yet to be an opportunity to trigger a powerful wave of demand for its protection like now.

Nowadays, modern media has changed the approach methods to the point lawmakers have yet to come up with. Thanks to the technological revolution, freedom of information is more clearly expressed. Specifically:(1) People can easily access almost all information via the internet without relying on traditional media; (2) People can collect vast amounts of information for practically no cost, especially with the help of search engines (most famously: www.google.com); (3) Individuals can access a variety of information from different sources and different viewpoints as everyone can upload information to the internet. People can hope for significant change, especially via the method which produces reports and accurate decisions based on gathering the public's opinion. There are dozens of NGOs that have started searching for all types of previously unreachable documents, such as reports on pollution or street crimes. (4) The community can quickly and simultaneously share information via social media like Facebook, Twitter and Youtube.

Freedom of information helps people easily express their opinions, access information and help to further publicize government activities and make the government more transparent. This is a difficult and highly complex process that requires a delicate balance between interest groups. A publicized government has the advantage of making the division of responsibilities more clear, making it easier for citizens to participate in the democratic process. However, there are some

[11] David Banisar (2011), *The Right to Information and Privacy: Balancing Rights and Managing Conflicts*, SSRN Electronic Journal, March 2011, SSRN.1786473

[12] Nguyen Thanh Binh (2004), Freedom and Law, Legislative Studies, no. 9.

[13] David Banisar (2011), The Right to Information and Privacy: Balancing Rights and Managing Conflicts, SSRN Electronic Journal, March 2011, SSRN.1786473

drawbacks to this model such as negatively affecting important societal values such as right to privacy of each individual. Most democracies must be publicized and transparent. However, even the most publicized and transparent governments still require a degree of secrecy and discretion in order to function effectively.

Nowadays, information technology and smart devices are tools and methods to easily collect data and make committing acts that intrude on right to privacy, personal secrets, secret correspondence, honor and dignity easier. Defamatory or private information can easily and quickly spread through the internet and it's very difficult to trace the violator as they can remain anonymous online. Furthermore, there are organizations that use the media and freedom of information with nefarious intentions, attacking others by publicizing their private information. This is dangerous to society as its influence can quickly spread and endanger the stability of society. In Vietnam, right to privacy are approached rather slowly. As such, acts of privacy invasion are prevalent whereas most countries have developed their own "communication culture" for use in daily life.

However, the struggle between these values requires a publicized government and between the values that protect right to privacy are constant. As soon as digital databases come into existence, it has been nearly impossible for people in modern society to completely conceal information about their personal lives. Vast amounts of information and events of private citizens are legally collected by government entities and organizations and stored in government controlled databases that are easily compromised. As such, in order to meaningfully protect right to privacy, it is crucial to admit that there are no ways to completely protect right to privacy and as such there is a need for proper legal regulations to carefully and selectively manage the disclosure of information. This is crucial to meaningfully protect the right to privacy of private citizens[14].

4. THE RELATIONSHIP BETWEEN THE RIGHT TO PERSONAL DATA AND RIGHT TO PRIVACY

The right to personal data is a part of right to privacy. Data plays a crucial part in the developments of today. This relies on the development of storage mediums and sensors that allows them to collect vast amounts of data from wider society. However, this also poses a requirement to ensure that everyone can control their personal information and data. As such, the term personal data has been recognized and became popular in legal sciences.[15]

With the development of the 4.0 Industrial Revolution, personal data nowadays have become a commodity that is sought after and used for commercial purposes by various entities as well as used by governments for population management purposes. In the current age, there are more and more programs, systems and methods to collect personal data, and run widespread surveillance on individuals on a national or even global scale. The problem is that these programs and systems are being used with little oversight by government and private entities and seriously intruding on the right to privacy of individuals.

One of the best examples of the problem of illegal collection and storage of personal data has been revealed by Edward Snowden, a contracted worker for the National Security Agency of

[14] Thai Thi Tuyet Dung (2012), ''Access to information and right to privacy in Vietnam and some countries'', Monograph, Publishing House of Vietnam National University, Ho Chi Minh City.

[15] Vu Cong Giao, Le Tran Nhu Tien (2020), Protection of rights to personal data in international law, legislation in some countries and reference value for Vietnam, Journal of Legislative Studies No. 09 (409), May 2020.

the United States (NSA)[16]. It is clear that technology has allowed for entities, including private entities and governments, to easily collect data and monitor phone calls, exchanges, economic trades and other activities and habits of an individual. A private individual can have their activities observed by others as well as have that data gathered and processed so that relevant entities can predict their future activities and further control and direct the lives of private individuals. This has the potential to further worsen the power imbalance between individuals and entities both private and governmental in modern society.

In summary, the right to personal data is a part of right to privacy, are human rights that play an important role for individuals to affirm their values, self control and status. Technology with the ability to collect, analyze and publicize private data are becoming more sophisticated and creates an urgent need to protect the right to personal data for individuals and right to privacy. As such, policies and regulations need to be put into effect to protect private data against invasion by any and all entities.

5. THE RELATIONSHIP BETWEEN RIGHT TO PRIVACY AND THE RIGHT TO BE FORGOTTEN

Right to privacy have been recognized early on but weren't a major focal point until the information technology revolution, at which point the invasion of this right became more prevalent. The right to be forgotten has a tight relationship with right to privacy, however the right to be forgotten has a basic difference which is the subject of right to privacy is private information that has not yet been made public whereas the subject of the right to be forgotten is information that has been made public at some point in time but currently the subject of the information doesn’t want third parties to be able to access them. There are those who are against this right, stating that it can interfere with freedom of expression and freedom of press. Currently some countries recognize this right, including but not limited to EU countries, the United States, South Korea and India.

However, creating effective mechanisms to protect the right to be forgotten is difficult as everyone can upload information and publicize their private information on social media like Facebook, Viber, and Zalo. This information can be accessed by multiple individuals at any place and point in time, then stored and sent via other methods. As such, there are cases where identifying the data that needs to be removed is difficult and needs to be balanced with other basic rights like freedom of information and right to privacy. Moreover, the boundaries of these rights are hard to define, between the truth, freedom of information and the protection of the victim’s rights with the protection of right to privacy and the right to be forgotten at a later point in time. Even in the cases where individuals agreed to an interview by the press but later decide they wish to be forgotten, removing this information or not is a complicated problem. As such, to decide to remove the information or not on the basis of the demand of the individuals, on the basis of the comparison of individual rights and the freedom of information in specific contexts. It is difficult to create a unified formula as the criterias to categorize information are still subjective. The consideration of deletion will consider whether this information can bring benefits to the community and at the same time, weighing that benefit with the rights that need to be protected is a challenging problem.

[16] Jan Albrecht (2016), *Data protection: "Snowden case showed the US needs to deliver on trustworthy rules"*; from https://www.europarl.europa.eu/news/en/headlines/security/20161128STO53434/data-protection-snowden-case-showed-us-needs-to-deliver-on-trustworthy-rules

6. THE PROTECTION OF RIGHT TO PRIVACY, RIGHT TO PERSONAL INFORMATION AND RIGHT TO BE FORGOTTEN HAS BEEN FORGOTTEN BY SOME LEGAL REGULATIONS IN RECENT YEARS IN VIETNAM

With respect to right to privacy, violations to this right incurs the Administrative sanctions [17] **:** According to Decree 15/2020/ND-CP, individuals will be administratively sanctioned for disclosing private life secrets and other secrets such as (family secrets) but not reaching the level of access. criminal liability, a fine ranging from 10 to 15 million dong and at the same time forced to remove offending information; and organizations will be fined from 10-20 million if they disclose information about private life, personal secrets, family secrets but not to the extent of criminal prosecution. However, this regulation has not quantified the sanctions in case the act of disclosing personal information or private life secrets spreads to a lesser or greater extent. If the information has limited spread, the above measures are appropriate. However, there are that involves influential public figures, many people will share this information and if media websites and other organizations with many members discloses an individual's private information, this information will quickly spread through the internet and lead to negative consequences for the victims. In these cases the measures above are not appropriate with the severity of the offense and those with financial resources will be willing to pay fines to commit these violations. In Egypt there have been efforts to categorize violations based on the severity and the spread of information, specifically in 2018 Egyptian parliament passed regulations that state accounts and blogs with over 5000 followers on social media like Facebook and Twitter will be considered media and the act of spreading false information will incur criminal charges[18]. Furthermore, violators may be liable for civil liability: compensate for damage in accordance with the Civil Code if and when the victim files a lawsuit.

Therefore, in essence, the legal framework to deal with violations of right to privacy in Vietnam aren't lacking, but to effectively enforce these regulations there are technical issues, time constraints and responsibilities from relevant authorities as there are cases where the consequences are already too severe when sanctioning is completed. We must also admit that dealing with acts of right to privacy violation is a difficult process in the context of breaches from social media instigated by anonymous accounts and accounts registered abroad. As such if the accounts are registered in Vietnam, relevant authorities should effectively handle the situation and quickly form wake-up calls for violators, creating a trend of fear of authority to warn those who have and are committing acts of right to privacy violation. In regards to cases where the accounts are registered in a foreign country, the relevant authorities need to quickly move to support the violated person to limit the consequences, such as requesting the removal of information by media companies or issue warnings about information that invades privacy, or has media messages about violations to create a culture of respect to privacy.

In 2022, the Standing Committee of the National Assembly issued the Ordinance on Sanctions of Administrative Violations for Obstructing Proceedings. This document, prior to its passing, was controversial as it included regulations related to privacy in legal proceedings and

[17] Criminal charges: the violator will be subject to the following Crimanal Code Vietnam 2015: Defamation (Article 155); Infringement on the secrecy or safety of another's correspondence, telephone, telegram or other form of private information exchange (Article 159, however this article stipulates that it only applies for cases where the violator has been previously disciplined or administratively sanctioned); Illegally transmitting or using information via computer and telecommunication networks (Article 288)

[18] Egypt: Parliament Passes Amendments to Media and Press Law; (Law No. 92 of 2016, AL-JARIDAH AL-RASMIYAH, vol. 51 (duplicate), 24 Dec. 2016 (in Arabic). From https://www.loc.gov/item/global-legal-monitor/2018 -08-06/egypt-parliament-passes-amendments-to-media-and-press-law/ (Accessed October 10, 2022).

procedural activities, specifically a fine of between VND 7-15 million for the act of recording speech and images of the trial panel and of procedure participants without their consent during the trial. adjudicating civil and administrative cases; not only impose fines but also confiscate material evidence and means of administrative violations, and force the recovery and return of documents, documents, images, illegal profits obtained from committing violations. This regulation contains heavy handed sanctions, but has been supported by many as a means to protect the privacy of procedure participants as well as ensure judges and jurors to concentrate on performing their duties and avoid distraction by the media.

With respect to the right to personal information, regulations already exists in Decree 15/2020/ND-CP (amended and supplemented by Decree 14/2020), specifically, the following acts will be penalized:

- Collecting personal information without the consent of the subject of said information about the scope and purpose of the collection and use of such information; supplying personal information to a third party when the subject of personal information has requested to stop supplying it.
- Using information improperly without the consent of the subject of said personal information; providing or sharing or spreading personal information without the consent of the subject of said information; Illegally collecting, using, spreading and commercially trading another's personal information. In addition, the information related to the infringements will be forcibly destroyed.
- Failure to destroy stored personal information after the purpose of use has been fulfilled or the storage period expired.

With respect to the right to be forgotten, there are yet to be regulations that directly manage this right. However, a positive signal is that in the draft for "Decree on personal information protection" there are a number of regulations regarding the right to be forgotten, specifically regulating when data can be publicized without permission, removal of data if requested by the subject of said data, removal of data after the passing of the subject. Specifically, the draft regulates cases where personal information can be publicized without the permission of the subject: In accordance with legal regulations, publicizing information is necessary for national security, public safety, national defense, public security, public morality, public health; or on media in accordance with Press Law, not causing economic, honor, spiritual and physical damages to the data subjects; cases of emergency, serious threats to lives or serious threats to the data subjects or public health and safety.

Alongside the publicized information, the data processors and third parties must immediately cease to publicize personal information when the subject of said personal information requests it. At the same time, there are regulations that stipulate that data processors that the data processor stops storing, deleting data and destroying the means of storing personal data in the case of: (1) improper processing of registered or notified personal data purposes. with data subject; (2) the maintenance of personal data storage is no longer required; (3) after 20 years after the data subject's death, unless the data subject decides otherwise.

7. CONCLUSIONS AND RECOMMENDATIONS

It is hard to find a unified formula to define the boundaries of these rights as the criterias are still subjective, the consideration on whether the information is private, whether the information is personal information, deciding whether this information can be beneficial for the community and at the same time consider if the benefits outweigh the need to protect one's

rights is a challenging problem that all countries face. These rights depend heavily on the level of development and pose a great challenge for lawmakers. In the case of Vietnam, the author has the following recommendations:

First and foremost the time has come to put a law on the protection of right to privacy into effect to balance the interests of freedom of information, right to privacy and the right to be forgotten as well as creating a proper legal framework to define the boundaries between these rights. This is also in compliance with Article 21 of the 2013 Constitution: "Everyone has the right to inviolability of private life, personal secrets and family secrets; and has the right to protect his or her honor and reputation. The security of information about private life, personal secrets or family secrets shall be guaranteed by law". At the same time, violations should be quantified with respect to the severity of the violation and based on the greater the degree of information dissemination. Heavier sanctions will be a deterrence to those who have committed these violations in recent years.

Secondly, it is necessary to quickly issue a Decree on Personal Data Protectio[19], which can then be compiled into a law. Currently, regulations on protection of personal data rights in Vietnam are still compartmentalized in many different legal documents, leading to both overlaps and inconsistencies and difficulties for the application of the law.

Third, it is necessary to amend and supplement regulations on information security, personal data, and privacy present in specialized laws such as the Law on Information Technology, the Law on Network Information Security, and the Law on Cybersecurity to ensure uniformity and consistency. In particular, the Law on Cybersecurity currently has potential loopholes that allow state agencies to arbitrarily interfere in private life through the collection of private data.

Fourth, amend and supplement regulations on sanctions for violations. As analyzed, sanctions for violations of the right to privacy in general and privacy data in particular in Vietnam are currently too low compared to sanctions seen in Europe and other countries, not commensurate with the severity of the violation and as such not strict enough to ensure deterrence. Therefore, the State needs to amend relevant legal documents to prescribe more severe forms of sanctions, especially administrative and civil, for entities both private and government that violate the right to private information.

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SOME CHALLENGES IN COMBATING CYBERCRIME IN THE DIGITAL AGE OF VIETNAM

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Abstract

The Fourth Industrial Revolution has profoundly affected all areas of global socio-economic life, bringing both undeniable benefits and threats to societies, economies and national security with the explosion of cybercrime caused by the society's dependence on internet connectivity and digital infrastructure. Cybercrime has become a serious problem globally, affecting nearly every country in the world and posing enormous difficulties in the fight against this crime. The article focuses on analyzing the concept and nature of cybercrime as well as the situation of high-tech crime in the context of digital transformation to point out the challenges that Vietnam authorities face in reducing the occurrence and growth of cyber-related crime in Vietnam.

Keywords: *cybercrime, challenges, digital age, law enforcement, criminal law*

1. INTRODUCTION

The Fourth Industrial Revolution with the exponential development of advanced technology has transformed human society, leading to radical changes in every facet of daily life. Digital technology becomes the foundation for the economic and social development, from industry, transportation to culture, entertainment, and healthcare contributing to making life easier and faster. The explosion of technological breakthroughs such as the internet of things, artificial intelligence, quantum computers, cloud computing, and big data systems, etc has profoundly changed cyberspace in both quality and quantity, which is forecasted to bring unprecedented benefits to human beings but also pose great potential dangers.

According to Statista, there are 4.9 billion internet users worldwide in 2021 and as of July 2022 continues to increase to 5.03 billion, which is 63.1% of the world population (Statista c, 2022). The expansion of cyberspace's functions has increased human reliance on digital systems, especially after the Covid 19 pandemic, and opened up at the same time new opportunities for those who commit online crimes and use the Internet as a tool for their cybercriminal targets. The potential risks of cyberspace are increasing in modern society (Choucri, 2019) and are likely to far exceed the ability of a community to effectively prevent or respond to them (World Economic Forum, 2022). The total global damage caused by cybercrime is over $1 trillion, an increase of more than 50% compared to 2018 (Mcafee, 2020). The World Economic Forum has ranked Cybersecurity has been ranked fourth out of ten clear and present threats in its global risk report 2021 (World Economic Forum, 2021). The prevention and combat against illegal acts and crimes in cyberspace is an indispensable task in almost all nations.

Ranked fourteenth among the countries with the largest digital populations in the world (Internet World Stats, 2021) at 72.1 million, accounting for 73.2% of the total population at the beginning of 2022 (Kepios, 2022), Vietnam is one of the countries with the greatest figure of Internet users and also in the group of nations which have the highest rate of cyberattacks and malware infection in the world (Bkav, 2021). In 2021, 70.7 million computers are infected with

viruses, causing considerable damage at 24.4 trillion VND (equivalent to 1.06 billion USD) (Bkav, 2021). Although the Vietnamese Government has implemented some measures in order to deal with this situation, particular difficulties and obstacles may be encountered in the fight against cybercrime.

In that context, this article analyzes the characteristics of cybercrime, and its regulations in Vietnam's legal system, and clarifies practical obstacles as well as legal challenges related to criminal law, criminal procedure law that Vietnam is facing in the fight against virtual crime.

2. THE NATURE OF CYBERCRIME

There are many terms used to define computer-related crimes depending on the role of telecommunications networks and electronic devices such as internet crime, computer crime, high-tech crime, virtual crime, digital crime, electronic crime, cybercrime, etc (Phillips et al., 2022).

In 2000, at the Tenth United Nations Congress on the prevention of crime and the treatment of offenders, within the framework of a conference, the concept of cybercrime was introduced. In a narrow sense, cybercrime includes illegal acts carried out by electronic devices that target the cyber security of data and computing systems. Cybercrime, in a broader sense, is any unlawful act committed by means of, or in relation to, a computer-based system or network (United Nations, 2000). Thus, while the internet and digital technologies can only be the target of cyberattacks in a narrow sense, they can also be tools, and platforms for committing crimes as well as a place to store crime-related content in a broad sense. This concept is also used by The European Union Agency for Law Enforcement Cooperation (Europol) when it defines cybercrime as "a crime that can only be carried out using computers, computer networks or other forms of information and communication technology" (Europol, 2017). Cybercrime can be traditional crimes carried out in a new way with the involvement of networks and computers, but cybercrime can also be a new form of crime that could not happen without a computer (Holt, Thomas J. & Bossler, Adam M., 2020).

The two above cybercrime concepts show that cyberspace provides unique features for cybercriminals that traditional criminals cannot. These characteristics pose difficulties not only to individuals, enterprises, and organizations but also to criminal law enforcement authorities all over the world in taking advantage of cutting-edge technologies as well as dealing with the risks they pose.

2.1. Transnational

The cyber environment independently creates interactions between individuals and organizations in spatial and temporal contexts (Nguyễn Quý Khuyến, 2021). Internet services are operated in one country but could be easily and quickly accessed by users from all over the world. This breaks down territorial barriers in human communication across the globe, creating enormous advantages in all aspects of the economy and society. Cyberspace, by its very nature, ignores geographical boundaries (Menon, S. & Guan Siew, T, 2012). Its global nature of cyberspace allows offenders who are present in a place could commit illegal acts anywhere and vice versa, any individual from anywhere in the world can become a victim. While traditional crimes are often limited to the territory of the place where the crime occurred, advanced technologies have challenged this. Exploiting the high-speed internet and information transfers, criminals, in a short time, can commit offenses anywhere in the world without being in the same space with the victim and cause damage to a wide range of victims. Basically, cybercrime is a cross-border crime (Joshua B. Hill & Nancy E. Marion, 2016).

2.2. Accessibility

Just a few decades ago, computers were bulky devices used primarily by authorities and academic institutions, thus cybercriminals were mostly restricted to those who are experts and enable them to access computers. Nowadays, computers have become ubiquitous and user-friendly, securing the availability of both criminals and victims. Global accessibility via the internet became even easier as smartphones came along. This device has essentially become a powerful handheld computer, capable of performing functions in computing and connecting to the internet network. With the above feature, the number of mobile phone users worldwide increases rapidly, from 3.67 billion in 2016 to 6.26 in 2021, and is forecast to reach 7.69 billion in 2027 (Statista b, 2022). This means that the ability to connect to the internet via smartphones has become more and more open for everyone (Hai Van Nguyen, 2019). Advanced technologies and techniques allow users to directly interact with many people across the globe at any time in a simple and cost-effective way.

In addition, users on social media platforms like Instagram, Twitter, or Facebook shared private information about their lives, schedules, activities, and interests which make the offender reach countless potential victims at almost no cost (Clough, 2015). This allows perpetrators to break the law on an unattainable scale in the offline environment. A large number of users, fast access and processing speed, and the ability to automate further amplify this scale.

2.3. Anonymous

In the global data processing system, there is no prerequisite that needs to be performed before users can log in to link with anyone and anywhere in the world. In virtual space, users are not forced to provide identity authentication. Anonymity enables anyone to hold their own opinions and to freely express them without interference which is considered unfettered freedom of expression (Scott, C.R., 2004). However, the anonymity created by modern technology is an enormous favor for perpetrator behavior. The unfettered freedom in the information and communication sectors enables the offenders to conceal themselves by using different electric gadgets. Perpetrators may deliberately hide their identity online by introducing themselves under fake names or stealing someone else's personal information for criminal purposes. This seems to be impossible to trace the online address of any user in a virtual environment. Anonymization poses new challenges for law enforcement agencies as well as victims of cybercrime in tracing and identifying perpetrators (Nawang, 2017). While some traditional criminals may also try to conceal their identities, it is not as large-scale as cybercriminals' anonymous activity (Lusthaus, 2016).

Thus, with the above characteristics, cybercrime is completely different from traditional crimes. These distinctive features create considerable obstacles in the fight against cybercrime.

3. OBSTACLES IN TACKLING CYBERCRIME

With the shift from an industrial society to an information society, cybercrime has become a global threat as mankind increasingly depends on the internet and network services**.** While traditional crime prevention strategies still remain effective in many modern areas of crime, fighting cybercrime poses unique challenges that require the attention of both legislators and law enforcement agencies.

3.1. Challenges associated with national legal frameworks

3.1.1. Conceptual issue

Although the Vietnam Penal Code 1999 criminalized the infringement of information

technology and cyberspace for the first time, only three crimes of assault on computer networks are regulated in the chapter "crimes against public safety and order" (Articles 224-226) without any definition of cybercrime. In 2014, Decree No.25/2014/ND-CP dated April 07, 2014, of the Government on prescribing the prevention and combat of crimes and other law violations involving high technology introduced for the first time a relevant concept - the concept of a crime involving high technology. Accordingly, Clause 1 Article 3 of this Decree stipulates that "crime involving high technology means a socially dangerous act prescribed in the Penal Code and involving the use of high technology" and in this Decree, high technology is limited to only information technology and telecommunications (Government, 2014). Meanwhile, high technology, in Law on High Technologies 2008, is much more broadly defined as "a technology with a high content of scientific research and technological development; integrated from modern scientific and technological achievements; create products with quality, outstanding features, high added value, friendly with the environment; play an important role in the formation of a new manufacturing or service industry or the modernization of an existing manufacturing or service industry" and encompasses many areas such as information technology, biology, automation, new material technology, etc. (National Assembly, 2008), not only includes information technology and telecommunications.

After that, Criminal Code 2015 when regulated nine cybercriminals in a separate section "offenses against regulations on information technology and telecommunications network" did not provide any separate definition of cybercrime (Article 285-295) and also limits cybercrime to two areas as in Criminal Code 1999 and Decree No 25/2014/ND-CP.

Until 2018, the term cybercrime was officially used and codified for the first time in the Law on Cybersecurity as "activities of using cyberspace, information technology or e-facilities to commit a crime as defined in the Criminal Code" (National Assembly, 2018), which defines cybercrime as any criminal activity involving any electronic device, information technology or network system. With this understanding, networks and e-facilities could be both targets of criminals and be used as tools to commit any criminal act, not limited to nine offenses as prescribed by Criminal Code 2015. Thus, there is currently no unified and precise concept of cybercrime in the Vietnamese legal system. This leads to a lack of consensus on what activity is considered a cybercrime.

3.1.2. Unclear scope of cybercrime

Interpol points out that although there is no universal definition of cybercrime, law enforcement agencies often differentiate between two main kinds of cyber-related crimes (Anthony J. Masys & Leo S.F. Lin, 2018) based on the functions of computer networks, and electronic equipment:

1. Cyber-dependent crime: crime attacks networks and electronic devices by infecting viruses, spreading malware, etc. ICT is seriously involved in criminal activities and this type of crime would not be possible without ICT. These crimes directly attack the integrity, availability, and confidentiality as well as the misuse of computerized data and networks.

2. Cyber-enabled crime: a crime that can be committed without the involvement of the computer but has been considerably transformed in scale by using advanced technology and is also known as the digital version of a traditional offense. In this approach, computer networks and electronic devices, instead of being the aim of cyber perpetrators, are used only as a tool to do unlawful acts in cyberspace. These crimes can be carried out online or offline but online can take place with unprecedented scale and speed (Council, 2018). Modern technologies and networks are facilitators enhancing the efficiency of cybercrime

but do not change its nature.

And this is also the classification used by the Vietnamese Ministry of Public Security dividing e-crime into two systems: a crime that infringes the operation of ICT and a crime that takes advantage of ICT to do illegal action (Hoàng Việt Quỳnh, 2016).

Based on this classification, the group of crimes whose main target is computer networks and electronic equipment includes the following: Manufacturing, trading, exchanging, and giving instruments, equipment, and software serving illegal purposes (Article 285); Spreading software programs harmful to computer networks, telecommunications networks, or electronic devices (Article 286); Obstruction or disturbance of computer networks, telecommunications networks, or electronic devices (Article 287); Illegal provision or use of information on computer networks or telecommunications networks (Article 288) and Illegal infiltration into the computer network, telecommunications network, or electronic device of another person (Article 289).

However, there are two crimes that are not classified as cybercrime, though they target to attack computer networks and electronic devices in Penal Code 2015: crimes of terrorism to oppose the people's government (Article 113.2.d) and the crime of terrorism (Article 299.2.d) with the aggravating circumstance of “attacking, infringing, obstructing or disrupting the operation of computer networks, telecommunications networks and electronic devices of agencies, organizations and individuals". Thus, although they infringe on the integrity, confidentiality, and availability of computer networks and electronic media, they are not considered cybercrimes by Vietnamese criminal legislators.

Meanwhile, the second group of cybercriminals consists of traditional crimes but are carried out with new tricks, including only two crimes: appropriation of property using a computer network, telecommunications network, or electronic device (Article 290) and Illegal collection, storage, exchanging, trading, publishing of information about bank accounts (Article 291). However, the use of modern technology and electronic media as a tool to optimize the offense includes not only the above two crimes but also the five acts that are scattered in other chapters and not considered as cybercrimes by legislators, including Insults to another person (Article 155.2.e), Slander (Article 156.2.e), Illegal gambling (321.2.c), Organizing gambling or running gambling-dens (Article 322.2.c), Distribution pornographic materials (326.2.g). With the regulations of Penal Code 2015 as above, the limited scope of cybercrime is not really in the narrow sense but also not entirely in the broad sense.

3.2. Obstacles to international cooperation

The nature of cyberspace poses various challenges in the implementation of anti-crime regulations in countries all over the world. Although governments have made many efforts to combat cybercrime, these efforts do not seem to address the root of the problem. There is a pressing necessity, recognized in the United Nations Crime Congress Kyoto Declaration, to strengthen international cooperation to successfully prevent and fight the increasing cybercrime threat (UN, 2021).

A thorough international cooperation against cybercrime requires the harmonization of domestic criminal law (World Bank, 2017), the unification of law in different countries as well as an effective cooperation mechanism. Cybercrime can vary in different countries, but governmental response policies to this crime should generally be the same (Lusthaus, 2020) to achieve effective prevention.

Transboundary nature

Generally, according to the territorial principle, states limited their jurisdiction to criminal issues arising within their boundaries. However, ICT has challenged that model. Cybercrime can be occurred in any place with technology as well as disrupts the relationship between the offender and the space as the victim and the offender are not required to be present in the exact location (Yar, M., & Steinmetz, K., 2019). In other words, cybercrime has no geographical restrictions (Clough, 2015).

Differences in culture, economy, tradition, and legislative history as well as the cybercrime contexts make up the difference in criminal law between countries. Therefore, although cybercrime is a transnational crime, it is an undeniable fact that each country has its own criminal justice system. Based on the principle of independence, sovereignty, and territorial integrity of the state, every country in the world has the right to promulgate laws that bind all individuals and organizations in its geographical entity. Therefore, when different countries make laws on the same issue, law conflicts are inevitable. Additionally, not all countries have their own cybercrime regulations, and the absence of a regulatory framework for e-crime in a particular country can affect the rest of the world. Searching for a particular similarity and harmonization in the criminal laws of different countries to combat the transnationality of cybercrime is a challenge that is not easy to overcome.

Thus, unlike other crimes, fighting cybercrime requires multi-stakeholder cooperation, especially in large-scale attacks (Interpol, 2017). Traditional cooperation tools such as mutual legal assistance have been inadequate in the Information Age and therefore global community should replace by advanced assistance mechanisms (Świątkowska, 2020).

Jurisdictional disputes

The absence of territorial restrictions has blurred the connection between cyber activity and a certain 'space of law' (Tsaugourias, 2018). Borderless cyberspace creates existential challenges to orthodox conceptions of territory and jurisdiction. When criminal activity originates in one country, passes through one or more intermediaries, and causes damage in the destination country, or if a large-scale cybercrime targets victims in many different countries, it poses a question that which country's courts are confirmed to have criminal jurisdiction. In these cases, the cooperation of law enforcement authorities in all affected territories is seriously needed because the separate national jurisdictions which are limited within their territories do not seem appropriate.

The right of a state to fully exercise jurisdiction in its territorial zone can also be considered one of the fundamental rights derived from the facets of self-governance (Moynihan, 2019). States must adhere to the basics of international law such as respect for equality, national supreme power, and non-intervention in the domestic affairs of other countries (UNGA, 2015). Thus, without relevant state consent, a nation does not have the authority to pursue criminal investigations inside another territory. Additionally, according to the dual-criminality principle, international cooperation may be hindered when the requested State does not regulate the conduct as a crime. The criminal maybe not in the same jurisdiction as the sufferer, and the legislative framework of the criminal behavior in the two judicial systems may not match (Calderoni, 2010).

Criminals can fully exploit the advantages of ICT to conduct their illegal behaviors in selected countries that have a tolerant criminal justice. As a result, countries with incomplete laws are at high risk of cybercrime safe-havens. Extending the penal jurisdiction on a

transnational basis to cyber offenders located abroad could be a solution chosen by many countries (Arnell P. & Faturoti B., 2022).

The process of extradition

"Extradition is the formal process whereby a state requests from the requested state the return of a person accused of a crime to stand trial or serve a sentence in the requesting state" (UNODC, 2018). Particularly, the person accused of a cyber offense in a particular jurisdiction and flee to another country, the country where the cybercriminal resides, promptly return the perpetrator to requesting country for investigation and trial. However, according to international law, sovereign states have no obligation to automatically bring cybercriminals to trial.

Cybercrime law enforcement at the transnational level is extremely complicated due to a lack of compatibility in substantive laws and extradition regulations between countries. (Holt, Thomas J. & Bossler, Adam M., 2016). Jurisdiction is usually invoked to refuse extradition, especially if the requested offender is a citizen of the requested State. This not only opens up, literally, a world of opportunities for perpetrators but it also represents serious challenges for law enforcement and international cooperation.

To address the shortcomings created by the fact that international law does not require extraditing criminals, bilateral and multilateral mutual judicial assistance agreements have been signed by countries to fill the gap. However, even when international cooperation is established, the extradition process has not been trouble-free. The double criminality principle is one of the first obstacles. This principle holds that a wrongful behavior is not extraditable unless it constitutes an offense in both the country where the extradition is requested and the country in which the offender resides. If this condition is not met, the extradition request may be refused. In addition, concerns about offenders being subjected to inhumane treatment such as torture and humiliating punishment are another barrier. Complicated processes, cumbersome procedures, and costly extraditions are also other challenges.

3.3. The nature of the evidence

Networking and digital technologies also pose a variety of challenges for law enforcement agencies in gathering evidence. Offenders can intentionally use hidden online identities to hide their actual location by abusing encryption, anonymity tools, cryptocurrencies, etc. This poses considerable obstacles for government agencies to locate the perpetrator as well as prove the guilt via electronic evidence (Europol, 2019). Authorities are required to demonstrate that the Internet account belongs to the offender and there is no proof that any other person has used the e-gadget at the time the crime was committed (Nawang, 2017).

Moreover, global internet connectivity has made it possible for data to be transferred through certain jurisdictions before reaching its destination or intentionally stored in jurisdictions where lax regulation and surveillance make evidence tracing extremely struggling (Europol, 2019). In particular, some nations support and expand the anonymity principle in order to protect the digital privacy of users. Data confidentiality is regulated to secure information from unauthorized access by using encryption technology as a key technological solution. Some territories may even see possibilities to set themselves up as data havens, providing the greatest privacy and minimal provisions of the content stored there.

One of the most vital prerequisites for both traditional and digital proof is the legality of the evidence. Although users leave a trail-like digital footprint whenever they online such as an electronic record of their access history, the websites they surfed, files they've downloaded, individual data they've entered, images they've uploaded, etc. (Yar, M., & Steinmetz, K., 2019),

but this electronic evidence can simply be destroyed in a short period of time. Offenders can completely remove all criminal traces with a pre-set erasure program or software when illegal behaviors are conducted. The volatile characteristics of digital information require complex forensic methods and techniques to ensure its collection, preservation, and legality in a criminal court. In addition, regulatory barriers arise in digital data collection from cloud storage because spread-out data can be across many servers in different countries, so it will be a complex task to specify data residency and powerful jurisdictions (ITU, 2014).

4. CONCLUSION

Nowadays, the information and communication technology revolution has posed new challenges to combat cybercrime. The cyber offense not only builds a barrier to digital trust, greatly reduces the benefits of cyberspace, hinders efforts to stabilize international cyberspace, and can weaken the digital economy (Pham Thi Thanh Binh & Vu Van Ha, 2022) but also can put countries with ineffective law and enforcement regimes at high risk of these dangers to society as a whole. Cybercrime threats will enormously increase in number and sophistication in the coming years (Europol, 2017). Experts in network security predict that total damage of cybercrime will rise by 15% per year for 5 years from 2020 - 2025, reaching 10.5 trillion USD per year by 2025 (Interpol, 2021).

In Vietnam, although the Government has made efforts in cybercrime prevention and achieved some positive results when in 2020, Vietnam ranks 25th out of 194 countries in the Global Cybersecurity Index - GCI (PwC, 2022) but the increase in cyber attacks over the years in Vietnam has demonstrated major shortcomings of its law enforcement authorities. The nature of cross-border, anonymous and easily accessible creates many difficulties and challenges for Vietnam's law enforcement agencies in the fight against virtual crime. Cybercrime cannot be managed properly by separate national strategies or global policies. Unifying a definition of cybercrime in order to accurately determine the scope of cybercrime according to international practices is perhaps a prerequisite for Vietnam to cooperate with other countries in the world because the law inconsistency makes the fight against cybercrime extremely difficult (Broadhurst, R. & Chang, L., 2012), especially regarding the provisions to investigate cybercrime and collect electronic evidence.

Furthermore, amending legal provisions to be in line with international practices and legal documents is also a matter to consider. Globally, the Council of Europe cybercrime convention (also named The Budapest Convention) is the first international convention to tackle cybercrime (Phạm Thị Thanh Bình & Vũ Văn Hà, 2022). Despite the difference in social, cultural, and legal factors, all countries around the world cannot escape from cyber offences because it is a global issue. Therefore, although Vietnam is not a party to the Budapest Convention, it is very worthy to reference other countries in terms of legal, technical, and educational solutions (Hai Thanh Luong, 2019). However, the demand for legislative amendment has not been easy for legislators partly due to the ongoing changes in technology usage and its application in criminal behavior (Holt, Thomas J. & Bossler, Adam M., 2016) as well as differences in economic, culture and legislative tradition in different societies.

The increasing growth of information and communication technology, robotics, and artificial intelligence requires that the wide gap between legislation and reality should be bridged in the shortest possible time at an international level. Law enforcement agencies should speedily adapt to the ever-changing criminal environment aiming to protect communities and ensure a safer digital world.

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GREEN COUNTERVAILING DUITES FOR NATURAL RESOURCE CONSERVATION

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Abstract

Trade and the environment have been in congruence by the treatment of environment–harmful subsidies. Several environment–friendly scholars in the 1990s suggested using countervailing duties endorsed by the WTO Subsidy Agreement to counteract such harmful subsidies as a prospective instrument for environmental protection. The United States recently brought this idea to the WTO; however, the proposal seems not to attract much attention from other member countries. The article revisits the past debate on the practicability of countervailing duties for environmental protection through recent developments of the WTO subsidy law. It is argued that, with the WTO jurisprudence on subsidization by natural resource exploitation rights, countervailing duties can be employed for natural resource conservation but not for environmental protection at large; however, there are limitations on the applicability of this green trade instrument for the conservation purpose. The instrument can be applied to certain "industrial" natural resources, such as minerals or commercial forests, but may be impractical for "consumer" natural resources such as fisheries or public grasses.

Keywords: *natural resource subsidies, eco–dumping, green CVDs for natural resource conservation, natural resource exploitation rights, Softwood Lumber VI, level the playing field*

1. INTRODUCTION: A DEBATE ON THE GREEN COUNTERVAILING DUTIES PROPOSAL

The relationship between trade and the environment is always a controversial topic in an increasingly interdependent world. Using unilateral trade restrictions for environmental protection had been extensively discussed in the trade and environmental literature (Esty, 1994; Howse, 2002; Hudec, 1994b; Schoenbaum, 1997). Two symbolic disputes in the field, *Tuna–Dolphin* (1991, 1994) in the GATT period and *Shrimp–Turtle* (1998) at the WTO, harshly sparked the trade and environment controversy for more than a decade. Daniel C. Esty (1994) lucidly explained the conflict as "a clash of cultures, a clash of paradigms, a clash of judgments". This scholar suggested a bridge for the underlying controversy:

Adherence to the polluter pays principle or other cost-internalization strategies can harness market forces in the cause of environmental protection by creating incentives to use scarce resources carefully and to minimize pollution. At the same time, such incentive-based environmental regulations (by avoiding the technology-specific mandates of traditional command and control regulations) reduce the scope for conflict with market access rules and other aspects of the international trade system. (p 277)

This bridge is the precise rationale behind the recent U.S. proposal at the WTO in December 2020 for using countervailing duties against weak environmental standards (WTO, 2020):

1. The failure of a government to adopt, maintain, implement and effectively enforce laws and regulations that ensure environmental protections at or above a threshold of

fundamental standards shall constitute an actionable subsidy under the ASCM.

2. If an industry disproportionately benefits from pollution controls or other environmental measures set below a threshold of fundamental standards, a Member may impose a countervailing duty equal to the benefit received by the industry when the goods from such an industry enter the Member's customs territory.

On the "green" front, environmentalists have proposed that weak environmental standards should be considered a kind of implicit subsidy; consequently, countervailing duties or eco-duties (hereafter green CVDs) could be invoked against environment–dumping imports (Barcelo, 1994; Komoroski, 1988; Plofchan, 1992). The rationale behind this "past" green CVDs proposal is likely the same as that of the United States today: encouraging internalization of environmental externalities for better environmental protection as well as securing a fair trade relation (WTO, 2020). Beyond the trade concern, environmentalists fear a loss of higher environmental standards (downside harmonization) as well as future domestic resistance to the upgrading of standards (Esty, 2001). In other words, green CVDs should be employed against eco-dumping imports to pursue two relevant objectives: leveling the playing field and environmental protection.

On the "amber" front, trade scholars might not think in the same way. Most of them have argued that such a green CVDs proposal may not pass the subsidy law test from a purely legal perspective. In particular, it might not satisfy the specificity test (a subsidy must be conferred on specific recipients to be potentially countervailed) because weak foreign environmental policies are generally implemented across the country. This means the benefit of such weak environmental policies (if any) is supposedly widely distributed. Further, the multilateral subsidy regime may not be designed to "punish" a regulatory subsidy (Horlick and Clarke, 2017). Indeed, if an anti–subsidy punishment is permitted against a trading nation's "weak" environmental policies, what would be the next target of such uncontrolled protectionism once Pandora's box is opened (Jackson, 1992)? John H. Jackson even proposed to add an environmental exception (to the WTO Subsidy Agreement) to prevent the invocation of such eco-dumping duties. Robert E. Hudec might agree with the trade law obstacles to the green CVDs proposal as he envisioned the subsidy definition as a loose concept as it "can always be extended to cover any additional unfair benefits that political leaders want to countervail" (Hudec, 1996a).

In line with Hudec's prediction, the article examines the green CVDs' practicability based on recent developments of WTO subsidy law. It is argued that WTO jurisprudence permits using countervailing duties against below–market natural resource exploitation abroad. This trade pressure can contribute to rationale use of the natural resources at concern in the exporting countries. As a result, countervailing duties are a prospective instrument for natural resource sustainability, but not for attacking weak environmental standards as proposed by the United States. In terms of structure, the article comprises six sections, providing background of the discussion (this section) and demonstrating the practicability of countervailing duties for natural resource conservation (sections 2, 3, 4). Section 5 subsequently presents observations on the applicability of this green trade instrument. The wrap-up is section 6.

2. NATURAL RESOURCE EXPLOITATION UNDER THE WTO SUBSIDY AGREEMENT

To be subject to countervailing duties, governmental transactions must be a countervailable subsidy in accordance with the WTO Subsidy Agreement (ASCM). Article 1 of the Agreement defines a subsidy to comprise two elements: a *financial contribution* or income/price support on

the government's side and a *benefit* received from the contribution on the recipient's side. Article 1(1.1)(a)(1) exhaustively lists a limited number of governmental transactions which could be considered a financial contribution: (i) direct funds transferred, (ii) government revenue foregone, (iii) provision or purchase of goods or services, and (iv) the indirect financial contribution through a government-entrusted private body. The term "benefit" is understood as "the financial contribution makes the recipient better off than it would otherwise have been, absent that contribution (WTO, 1999, para 152). The conferred benefit is, in principle, measured by comparing the actual value received/paid by the recipient with a "counterfactual" value found in the market without the alleged governmental contribution (Mavroidis, 2016). To be subject to countervailing duties, a subsidy has to be *specific* and the subsidized imports must cause *material injury* to the domestic industry (WTO, 1994a, arts 2, 5, 15).

Besides such legal premises, the jurisprudence developed by the WTO judiciary has substantially been used to justify a subsidizing situation. The subsidy question of governmental provision of natural resource exploitation is not explicitly mentioned in the ASCM (Gagné & Roch, 2008); therefore, WTO adjudicators had to use tools of treaty interpretation to resolve natural resource exploitation disputes. The timber harvesting rights dispute between the United States and Canada - *Softwood Lumber III (2002)* - was the start of an intricate subsidy debate at the WTO.[1] However, legal foundation of the natural resource exploitation subsidy was mostly crafted in *Softwood Lumber IV (2003)*[2] concerning Canada's timber rights. The Appellate Body (AB) in this dispute agreed that governmental provision of timber harvesting rights can be considered a financial contribution through the government's provision of goods. In this sense, the WTO judiciary considered governmental provision of timber rights as a mechanism of *providing* goods by developing the "reasonable proximate relationship" test (WTO, 2004, para 71). As a consequence, the government's provision of exploitation rights to other *in situ* natural resources like minerals can be similarly captured by the ASCM as a subsidy transaction.

This landmark dispute also provided guidance on the benefit calculation derived from the timber rights subsidy (the subsidy definition's second element). The government's market predominance in Canada's timber rights allocation is widely recognized. This situation, however, might inactivate the recognition of the timber rights subsidy because the price comparison can be circular (WTO, 2004, paras 99, 100). To escape such uselessness of the WTO subsidy rules, the Appellate Body permitted using an alternative benchmark, even a value outside the provision country, to measure the alleged subsidy: "However, contrary to the views of the Panel, that guideline does not require the use of private prices in the market of the country of provision in every situation. Rather, that guideline requires that the method selected for calculating the benefit must relate or refer to, or be connected with, the prevailing market conditions in the country of provision, and must reflect price, quality, availability, marketability, transportation and other conditions of purchase or sale, as required by Article 14(d)" (WTO, 2004, para 96). Though this jurisprudence has been criticized as judicial activism (Horn & Mavroidis, 2006), whether desired or not, it is part of the existing subsidy law.

Relying on such timber rights jurisprudence, the United States was confident to challenge "market distortion" natural resource allocation abroad. It took land-use rights of China (Panel Report, 2010), mining rights of India (Appellate Body Report, 2014), timber rights of Indonesia (Panel Report, 2017), and recently again timber rights of Canada (Panel Report, 2020) to the

[1] WTO, United States - Preliminary Determinations with Respect to Certain Softwood Lumber from Canada (DS 236), available at <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds236_e.htm>, accessed April 22, 2022.
[2] WTO, United States - Final Countervailing Duty Determination with Respect to Certain Softwood Lumber from Canada (DS 257), available at <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds257_e.htm>, accessed April 22, 2022.

WTO litigation.[3] Although these post–*Softwood Lumber IV* disputes made some stretches and squeezes to the past jurisprudence, the subsidy question of governmental provision of natural resource exploitation is likely confirmable (Duong, 2021). Accordingly, governmental provision of natural resource exploitation rights could be considered a subsidy transaction under Article 1.1(a)(1)(iii) of the ASCM. This jurisprudence is the legal basis for revisiting the idea of green countervailing duties in next sections.

3. GREEN COUNTERVAILING DUTIES FOR NATURAL RESOURCE CONSERVATION

3.1. Legal premise

Even though environmentalists and the United States (in its proposal to WTO in 2020) vehemently support the use of countervailing duties against weak environmental standards, most trade scholars cast doubts on this suggestion. Hudec (1996a) reminded that the definition in the GATT (including the ASCM) does not capture regulatory subsidies (e.g., subsidized by an environmental policy) or governmental inaction (e.g., intentionally set less stringent environmental standards) as forms of the subsidy transaction. Therefore, under the current legal context, any expectation to stretch the subsidy definition to embrace a less-stringent environmental policy would be inconsistent with world trade law.

The second hurdle is how to find a market value for calculating the amount of subsidy conferred by an environmental policy. In fact, there is no existence of a "fair market" value for a governmental policy in the country of provision as required by the ASCM. One can suggest the use of an environmental standard in a foreign country with an equivalent environmental situation as the benchmarking value. However, the problem is also how to evaluate such a referenced environmental policy in monetary terms. Given the multilateral subsidy law's market-based rationale, a failure to find a "persuasive" market benchmark for calculating the alleged subsidy means the collapse of the subsidy allegation. Even the subsidy definition could legitimately be stretched to discipline weak environmental standards as a governmental subsidy, the last hurdle is the specificity test. Most trade law scholars point out this element to argue that such a regulatory subsidy could not be countervailed (Ripinsky, 2004). The reason is simply that environmental policies are usually applied throughout the country, and this general application is an "exclusion" from the specificity test under the current subsidy regime.

WTO subsidy law concerning natural resource exploitation rights removes the aforementioned legal obstacles to the green CVDs proposal. First, the WTO judiciary connected the governmental provision of natural resource exploitation rights to the government's provision of goods (ASCM Article 1.1. (a)(1)(iii)) by means of approving the "reasonable proximate relationship" test and some other expansive interpretations to the treaty terms (for examples, interpreting "goods" and "provide" (WTO, 2004, paras 57-76)). Thus, the governmental provision of natural resource exploitation rights can be a subsidy transaction (fulfilling the first element of the subsidy definition). As a consequence, countervailing duties can be invoked against imported products made with a resource from below-market exploitation rights.

[3] WTO, United States - Definitive Anti-Dumping and Countervailing Duties on Certain Products from China (DS 379), available at <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds379_e.htm>, accessed April 22, 2022; United States - Countervailing Measures on Certain Hot-Rolled Carbon Steel Flat Products from India (DS 436), available at <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds436_e.htm>, accessed April 22, 2022; *United States - Anti-Dumping and Countervailing Measures on Certain Coated Paper from Indonesia (DS 491), available at* <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds491_e.htm>, accessed April 22, 2022; United States - Countervailing Measures on Softwood Lumber from Canada (DS 533), available at <https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds533_e.htm>, accessed April 22, 2022.

Second, WTO subsidy jurisprudence eases the way to calculate the subsidy in the case of the governmental provision of natural resources. Unlike environmental policies which do not have an "equivalent" market benchmark value, natural resources are common trading products; therefore, they are capable of finding an appropriate benchmark for the subsidy calculation. We should note that the existing jurisprudence permits the benefit calculation upon the exploited natural resources rather than upon the exploitation rights of such resources (unexploited natural resources). The Appellate Body in *US – Carbon Steel (India)* explained: "This, in our view, supports the Panel's conclusion that the government grant of mining rights is reasonably proximate to the use or enjoyment of the minerals by the beneficiaries of those rights" (WTO, 2014, para 4.74).

For example, suppose a government provides mining rights to extract aluminum. In this case, the benefit calculation should compare the governmental price with the market benchmark price of the extracted aluminum rather than of the right to extract aluminum. Since the market value of natural resource exploitation rights might hardly exist, the market value of the extracted resources would be easier to find. If the investigating authority could not find an appropriate domestic market value for the extracted resources due to the government's predominant position, the existing subsidy jurisprudence suggests that up to five alternatives should be looked at to find a proper benchmark value (WTO, 2004, para 106; WTO, 2012, paras 4.262,4.291; Qin, 2019). Therefore, the benefit calculation could be feasible with these innovations in the current jurisprudence.

Third, in contrast to a national environmental policy which is likely implemented across the country (no specific endorsement), exploitation rights over *in situ* natural resources (forests, oil wells, coal mines…) are almost always allocated to specific eligible/capable exploiters. This specific allocation could appropriately fit the specificity test under the ASCM and, therefore, satisfy the last element of the countervailable subsidy. However, the specificity analysis should depend on exploitation patterns of the resources at issue. For some natural resources, such as fish, the right to harvest them is distributed on a geographic rather than exploiter basis. In this situation, the regional specificity test under ASCM Article 2.2 as interpreted in *US – AD/CVD (China)* might help determine the specificity element (WTO, 2010, paras 9.113,9.114).

In short, WTO subsidy law currently provides the legal premise to determine governmental provision of below-market natural resource exploitation rights as a countervailable subsidy. As a consequence, countervailing duties could be employed against this resource-wasting practice (below-market natural resource allocation) if the injury element (WTO, 1994a, arts 5,15) is subsequently found to exist. The market-based demand behind the green CVDs is expected to promote the rational use of the alleged resources. Therefore, this instrument could provide a "trade pressure" on the resource-waste country to strengthen the property rights regime of the resources (Chichilnisky, 1994).

3.2. Practical evidence

Natural resource economists teach us that the market mechanism is effective in allocating natural resource exploitation rights for natural resource sustainability (Shneidman et al., 2005). Relying on this rationale, the United States has challenged the allegedly underpriced natural resource exploitation of Canada, Indonesia, and India using the countervailing duties instrument. As noted previously, the United States considered such natural resource underpricing practices to be countervailable subsidies under current trade law. In the early case concerning the timber rights subsidy of Canada, *Softwood Lumber II (GATT)*, the United States premised its anti-subsidy challenge on research of the World Bank (Indonesia taken as an example) (GATT, 1993,

para 180):

Low rates of rent "capture" have several important effects. The first is to limit Government revenues. Since such revenues should be available for development purposes, there is a cost to the public in terms of the foregone benefits. The second is to leave the rent available to other parties, giving rise to "rent seeking" by concessionaires. This means that there is pressure to harvest large areas in order to obtain quick profits. The net result is an acceleration in the rate of forest depletion as concessionaires rush to secure their share of high profits. Finally, high profits permit concessionaires to sell good timber products at low prices, even though the practice may not be economically sound. (Underlined as in original.)

The United States has pressed for a market-based timber industry in Canada since the timber rights conflict emerged in the bilateral trade relations. Besides a request to impose export taxes on lumber exports (on Canada's side), the United States has further demanded a reform in the Canadian stumpage system toward market principles. The U.S. lumber industry has consistently called for an open and competitive timber market in Canada; otherwise, it will continuously initiate anti-subsidy cases against Canadian softwood lumber imports (Zhang, 2007). Right after the expiration of the 2006 Softwood Lumber Memorandum between the two countries, the U.S. lumber industry filed anti-subsidy petitions against the Canadian softwood lumber imports in 2017, and the dispute is now under appeal at the WTO.

Taking British Columbia as a primary example, U.S. countervailing pressure, among other factors, has been a "coercive" incentive in fostering the forest policy reform in this territory. Along with the litigation at the WTO, the United States dispatched a policy proposal in 2003 to push for the market-based reform in the Canadian forest sector (U.S. Department of Commerce, 2003). At that time, British Columbia immediately released the Forest Revitalization Act to establish the market-based timber pricing system for reallocating 20 percent of the timber harvest from major licenses. At present, such a market-based timber mechanism is operated under the BC Timber Sales Regulation (B.C. Reg. 142/2020). However, one should not expect a complete free-market timber sale in British Columbia or Canada at large; Canada still affirms the tenet of public policy-based forest policies (Gagné, 2007). Nevertheless, any movement toward the market-based allocation of timber harvesting rights may contribute to an efficient use of this resource.

Although the United States did not issue a policy press on the captive mining system in India as it did in the case of Canada's timber rights, the general WTO legal loss in *US – Carbon Steel (India)* in 2014 with respect to the captive mining rights subsidy to some extent meant additional pressure on the ongoing market-based reform in this sector (WTO, 2014, para 5.1). India has employed competitive auctions as a market-based instrument for mineral exploitation since 2015. Recently, an advanced market-based reform proposal has been circulated for public comments, which promises a crucial market-based transformation in the Indian mining industry (Finance Minister of the Indian Government, 2020).

In 2009, the Indian Government in a special report entitled "Subsidy Discipline on Natural Resource Pricing" (submitted to the UNCTAD India Program) admitted to the existence of implicit subsidies in mining and energy sectors created by its underpricing practices. This report advised that the elimination of such implicit subsidies might not be in India's interest (Goldar & Kumari, 2009). However, the current movement toward market principles in the allocation of mining rights in this country might prove to be the best contradiction to this advice. What was missing in this report were the ongoing countervailing duty investigations at the United States Department of Commerce (USDOC) against India's captive mining rights. Such a subsidy

concern from the United States and the subsequent loss at the WTO appear to contribute to India's market movement in natural resource management reform.

These case studies bring up two implications. First, the current tendency in the management of some "industrial" natural resources appears to be the use of a market-based allocation of natural resources as compared to the underpriced resource policies. Second, U.S. countervailing pressure against such "harmful" natural resource practices directly or indirectly promotes the market-based resource allocation in the alleged countries. The WTO subsidy jurisprudence regarding natural resource exploitation rights strengthens U.S. countervailing confidence against foreign resource underpricing policies. These pieces of evidence are the practical aspect of the green CVDs proposal.

4. GREEN COUNTERVAILING DUTIES FOR SUSTAINABLE FISHERIES: A CRITICAL ASSESSMENT

The previous sections demonstrated that WTO subsidy jurisprudence creates an opportunity for importing countries to make pressure on foreign underpriced resource allocation practices. Looking through the natural resource subsidy disputes before the WTO, it can be noted that all the disputed resources are the *in situ* resources: timber (from Canada, Indonesia) and minerals (from India). This brings up a question as to whether such green CVDs could be applied to the case of below-market fishing rights. In *Softwood Lumber III*, Canada viewed the governmental provision of timber harvesting rights as similar to the governmental provision of licensed fishing quotas (WTO, 2002, para 4.118). With this logic in mind, if the existing trade rules permit the use of green CVDs to counteract below-market prices on timber or iron ore inputs, these rules should logically permit such an anti-subsidy challenge against below-market prices for fish in terms of the fishing rights factor. In other words, the governmental provision of free access or "cheap" fishing rights to domestic harvesters could be subject to CVDs in importing markets.

4.1. Countervailability of below-market fishing rights in the WTO subsidy regime

As one of the most traded natural resource commodities (United Nations, 2019), a flood of cheap fish harvested by "free of charge" fishing access might cause irritations for fishers in the importing countries where supposedly maintain a sophisticated fishing rights allocation system. To offset such an "unfair" trade advantage or prevent the environmental "dumping" practice, fishers from a market-based fishery management country can suggest using green CVDs against fish imports derived from free or below-market fishing rights. In theory, the anti-subsidy instrument could be used against free or below-market fishing rights thanks to the development of WTO subsidy law. As discussed previously, the existing subsidy jurisprudence permits the governmental provision of natural resource exploitation rights to be captured as a form of subsidy transaction (*the first element* of a countervailable subsidy). Therefore, the governmental provision of below-market fishing rights could logically be considered a subsidy transaction. The Appellate Body in *Softwood Lumber IV* demanded a demonstration of the "reasonable proximate relationship" or the *raison d'être* between the action of provision from the government and the recipient's use or enjoyment (WTO, 2004, para 71; WTO, 2014, para 4.74). Applying this interpretation to the case of fisheries, the governmental provision of fishing rights may be equivalent to the governmental provision of the harvested fish. However, the conclusion still depends on the risks and uncertainties of fishing activities (weather conditions, fishing techniques, fish stock estimation…).

The second element of the subsidy examination is a calculation of the amount of benefit (thus the amount of subsidy) received by eligible fishers. Guidance from the WTO subsidy

jurisprudence relates to the use of governmental price and the market price of the government-provided goods to make a benefit comparison. In this situation, we should at first know the governmental price and the comparable market price of the fishing rights. Fortunately, existing WTO law may ease the way to calculate the alleged benefit here. It is permitted to use the prices accruing to the consequence of the financial contribution transaction – the exploited resources - rather than the right to exploit such resources (WTO, 2014, para 4.332).

In the fishing rights situation, this means that the benefit conferred could be calculated based on the price comparison upon the harvested fish rather than the fishing rights. For example, in an examination of the benefit conferred by the governmental provision of tuna fishing rights, the investigating authority should compare the price of tuna paid by the alleged harvester to the governmental tuna supplier with the price of "private" tuna harvested under the market-based fishing rights. If the governmental price of tuna is less than the private price of tuna, a benefit and thus a subsidy might exist. Since the government normally controls the fishing rights allocation within its jurisdictional waters, the government is the monopoly provider of fishing rights or the "public fish" to its domestic harvesters regardless of the provision method. Therefore, under a free or below-market tuna fishing rights allocation system (e.g., license to fish or fishing quotas set by the government), all tuna fishers of the country may enjoy the same "cheap" fishing rights. This phenomenon means there would be no domestic "market" price for tuna in terms of the fishing rights factor. Therefore, the domestic price of tuna in this situation cannot be used as a point of reference to discern the fishing rights subsidy. Fortunately, the WTO's alternative benchmarking jurisprudence might provide a solution for this fishing rights monopoly circumstance (WTO, 1994a, art 14d; WTO, 2004, para 103). With the number of choices permitted by the WTO case law (WTO, 2004, para 106; WTO, 2012, paras 4.262,4.291; Qin, 2019), the chance to find a market benchmark price for tuna to discern the fishing rights subsidy is theoretically highly secured.

The final element to constitute a countervailable fishing rights subsidy is the specificity test. In this situation, the nature of fishing activities might result in a distinctive specificity test. In the timber rights (Canada, Indonesia) and mining rights (India) disputes, the USDOC conducted the *de facto* specificity analysis (under ASCM Article 2.1(c)) to verify whether the governmental provision of natural resource exploitation rights was conferred on specific exploiters. However, it is common for fishing rights to be allocated upon fishers in a designated fishing area (Cochrane & Garcia, 2009). The specificity test here should thus be the regional specificity. The WTO panel in *US – AD/CVD (China)* explained that a subsidy conferred upon certain enterprises located in a designated geographical region could satisfy the regional specificity requirement of ASCM Article 2.2 (WTO, 2010, paras 9.133,9.134). Taking advantage of this jurisprudence, a group of harvesters authorized to fish in a designated fishing zone (a fishing region) could be considered to be regionally specific (Erpenbach, 2020).

In conclusion, the existing WTO subsidy law may *theoretically* provide the legal standards to justify the governmental provision of below-market fishing rights as a countervailable subsidy. This means that the importing country could use countervailing duties to make pressure on such trade-distorting fishing rights allocation. This trade pressure might encourage the targeted country to utilize its fishery resources more efficiently. However, it should be cautious in that the subsidy determination may depend on the complexities and uncertainties of fishing activities.

4.2. Practical challenges

The legal analysis presented above is just a theoretical prediction based on WTO case law.

There is currently no clear trend as to the consideration of governmental provision of below-market fishing rights as a subsidy. The case of inadequate recovery of fishing rents was excluded from the fishery subsidy examination by the United Nations Environment Program (UNEP) (Tipping, 2015). The OECD mentioned uncollected fishing rents as an implicit subsidy; however, the value is generally negligible (OECD, 2003). By contrast, below-market exploitation rights in the forest and mineral sectors have been overly examined. These facts reflect a stark difference in the general perception toward how control can be tightened over a particular subsidy problem. This reality raises the question of whether a countervailability proposal against imports benefited from free or underpriced fishing rights can be practicable. There are at least three obstacles that this green CVDs proposal has to confront.

The open-access problem

The problem of open access is vastly predominant in fisheries history and still remains in most parts of the world's oceans. According to OECD Glossary (2001), "Open access is the condition where access to the fishery (for the purpose of harvesting fish) is unrestricted; i.e., the right to catch fish is free and open to all." Fishing activities connect to human history as part of our economic life. This connection has directly secured the lives of millions of people in coastal areas (Payne, 2000). The open-access status of fishery resources creates the dissipation of fishing rents; therefore, the concentration of fishing interests in a few "powerful" fishers is likely unconcerned (Homans & Wilen, 2005). The benefits of fishery resources are theoretically distributed "across-the-board" among fish harvesters. Nevertheless, this favorability or preferential treatment is precisely the object that WTO subsidy law was designed to counteract. As enshrined in Article 2 of the ASCM, the specificity test is to capture governmentally preferential treatment conferred on certain enterprises or a group of enterprises. Therefore, the economics of the open-access problem in the fishery sector generally shields the underpriced fishing rights from the anti-subsidy scheme.

A delicate existence of the market-based allocation of fishing rights

The central obstacle to the employment of green CVDs against underpriced fishing rights is finding a market benchmark. Because the anti-subsidy instrument's rationale is to use market values as the gage for finding the existence of a distorted subsidy, we can logically infer that the failure of a comparable market value for fishing rights could mean a collapse of the countervailing proposal. The nonexistence or exceedingly rare existence of market-based fishing rights means that a market-based value of fish cannot be found with respect to the fishing rights factor. Practically, the policies toward market-based redistribution of public fishing rights, such as quota auctions, are currently under the trial-and-error stage. The market-based allocation of fishing rights is limitedly employed in a minority of "environmentally friendly" countries like New Zealand, Australia, and Iceland (Huppert, 2005). According to John Lynham (2014), fish auction accounts for just 3% of the world catch share allocation. In addition, if an anti-subsidy against foreign underpriced fishing rights is initiated, the country should fear a mirror countermeasure against its fish exports.

Technical challenges from the subsidy rules

The heart of the subsidy question is whether the governmental provision of fishing rights can be a subsidy transaction (the financial contribution element). Existing jurisprudence requires the "reasonable proximate relationship" test to confirm whether the fishing rights transaction is a governmental subsidy, considering the complexity and uncertainty of the fishing activities. Unlike *in situ* resources (e.g., standing timber, mineral mines) with a certain degree of disposition, live fish are under the water and traverse across maritime areas, regions, or even

countries. The fishing activities are largely dependent on weather conditions with plenty of uncertainty and risks (Rezaee et al., 2016). Human behaviors, fishing methods, and fishing-supported technology contribute to the fish harvest's uncertainty (Gates, 1984). Therefore, the government's subsidy transaction by providing fishing rights might be very hard to demonstrate under the light of the existing jurisprudence.

Regarding the benefit calculation, the government monopoly in the allocation of fishing rights means to disuse of domestic fish prices for the benchmarking purpose. The investigating authority might rely on this situation to reject in-country fish prices in order to select an alternative benchmarking value, such as the world or foreign fish prices. However, to use such an alternative benchmark, existing case law demands that the investigating authority make necessary adjustments to the selected benchmark to reflect the prevailing market conditions in the subsidizing country. This requirement is undoubtedly very circumstantial and technical with respect to the fishing rights case. The harvest uncertainty, fishing costs, fishing techniques, and conservatory requirements are enormously diverse among countries or even among fish stocks (Nash et al., 2017); therefore, the adjustment obligation here may be too burdensome. Therefore, selecting an alternative benchmark for the fishing rights subsidy determination might be too legally risky in a WTO dispute.

All of the aforementioned obstacles demonstrate that the green CVDs proposal against below-market fishing rights is immature in practice. Is this green trade instrument for sustainable fisheries dead?

4.3. The very limited application

At least one corner of the fishing rights allocation should be captured by green CVDs: commercial fishing rights under a fishing access agreement. Distant fishing countries (mainly the European Union and China) usually pay for the right to access fishery resources in southern developing countries under a fishing sharing agreement. According to the OECD (2003), the inadequate remuneration of foreign fishing-access costs (rents forgone) may constitute a substantial subsidy to the distant fishing industry. For instance, the EU's total payments to its southern fishing partners (including the fishing access fees and other payments for fisheries governance) were around 135 million EUR in 2014 (European Commission, 2020). In this situation, the "hired" fishing rights are expected to be specifically allocated to a small group of distant fishing harvesters. This type of favorable treatment could thus fit the specificity requirement of the ASCM. Green CVDs could then be employed to "punish" these discounted distant fishers. However, the subsidy determination here may be examined under ASCM Article 1.1 (a)(1)(ii) – the government revenue forgone or not collected (government's payments for hiring fishing rights but not allocated to the recipient fishers) – rather than ASCM Article 1.1 (a)(1)(iii) – governmental provision of below-market goods.

In conclusion, unlike the forestry or mining sector which might embrace a strong demand for market-based allocation of resource exploitation rights, market-based allocation of fishing rights is not generally noticeable. There are at least three challenges to the green CVDs proposal as applied in the fishery sector. Among them, the current unclear trend toward market-based allocation of fishing rights might paralyze this green trade idea. Opening an anti-subsidy war in respect to fishing rights might be counterproductive to all fishing nations. However, the distant commercial fishery operating under an international fishing access agreement should be a "potential" target of this green anti-subsidy instrument. Therefore, the green CVDs proposal may have *very limited applicability* in the fishery sector to promote its sustainability.

5. THE APPLICABILITY OF THE GREEN COUNTERVAILING DUTIES PROPOSAL

The article recognizes a very limited application of the green CVDs in the fishery sector. By contrast, the U.S. countervailing practice has been evidenced against foreign allocation of *in situ* natural resources such as coal, minerals, or forests. This might raise the question of whether this green trade instrument can be effective for natural resource sustainability at large. Does this trade offsetting instrument have its own applicable limit? If so, what is the limit?

First, legal foundation for green CVDs can be unstable under the multilateral subsidy law. This instrument's legal basis relies on the judicial guidance of the WTO Appellate Body rather than explicit legal texts. Governmental provision of natural resource exploitation rights is not explicitly disciplined as a subsidy transaction under the ASCM. This means that the AB's interpretations might go beyond the textual limit of the current subsidy law. The WTO law also does not formally endorse the rule-making function of the WTO judiciary (WTO, 1994b, art 3.2); therefore, it is debatable whether relying solely on WTO jurisprudence can challenge a member country's natural resource allocation.

Although WTO jurisprudence is commonly recognized as having the precedent-setting characteristic, its *stare decisis* power is still debatable (Flowers, 2019; Bhala, 1999). A later case might rely on the previous jurisprudence for its adjudication, but it is not forced to do so (WTO, 1996, p 14). This means the current judicial permission to capture the governmental provision of underpriced natural resource exploitation rights as a countervailable subsidy might not be observed in a future natural resource subsidy case. This jurisprudence by the "past" WTO judiciary could be reversed by a future interpretation.

Second, the natural resource allocation practice creates confusion as to the applicability of the green CVDs. One rationale for the anti-subsidy mechanism is to protect the allocation of economic resources from the government's distorted intervention. As a result, green CVDs are sought to promote natural resource efficiency through the power of market principles. However, natural resources and their allocation are not necessarily congruent with market principles. Market principles are just one basis on which the government relies to construct its natural resource policies. The right to access natural resources involves various social–political dimensions which are distant from the market principles. A growing literature demonstrates that market principles are not always the best solution to achieve natural resource efficiency (Ostrom et al., 2012).

There might be a strong demand for market principles in allocating the exploitation rights of some "industrial" natural resources,[4] such as commercial timber or minerals. The natural resource underpricing concern has been solely against these industrial resources as observed through U.S. anti-subsidy practice. With vital roles in downstream manufacturing, the government's intervention in the upstream allocation of such resources may cause trade distortions. By contrast, in the case of "consumer" natural resources,[5] such as fish (fishing rights) or public grasses (grazing rights), market principles might not have strong acceptance. As discussed in the preceding section, public policy values and the open-access problem can shield

[4] According to the OECD, natural resources fall into four groups: mineral and energy resources, soil resources, water resources, and biological resources. See OECD. 2005. Glossary of Statistical Terms, search for "natural resources", https://stats.oecd.org/glossary/detail.asp?ID=1740 (accessed April 24, 2022). The term "industrial natural resources" should mean certain natural resources primarily used as inputs in industrial manufacturing, such as minerals, energy, and commercial logs under the OECD's classification.

[5] Compared to industrial natural resources, the term "consumer natural resources" is used herein to cover a group of natural resources primarily consumed by humans and/or attached to the agricultural culture, such as soil, water, or biological resources under the OECD's classification.

these public resources from any market-based redistribution. Therefore, the green CVDs can be applied to certain industrial resources but not to consumer resources.

6. CONCLUSION

The idea of using CVDs against weak environment policies as a type of harmful environmental subsidies had been intensely debated in the 1990s and has resurfaced recently. With the development of WTO subsidy law regarding natural resource exploitation, it is shown that a positive contribution to natural resource conservation can be made through the CVDs instrument. This means a WTO member can legitimately use countervailing duties against imports which are made with natural resource exploitation rights at below-market value, as observed in the U.S. practice, but not against a weak environmental policy as recently proposed by the United States. Nevertheless, the applicability of the green CVDs for natural resource conservation is limited. Its legal foundation may be unstable due to the judicial endorsement rather than an explicit textual basis. The instrument can be applied to certain "industrial" natural resources, such as minerals or commercial forests, but may be impractical for "consumer" natural resources such as fisheries or public grasses. However, this green trade instrument's exact applicability should be ascertained on a *case-by-case* basis.

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VIETNAMESE LAW ON LOGISTICS: SOME CHALLENGES FOR DEVELOPMENT

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Abstract

Viet Nam's logistics sector is seeing significant growth along with the country's expanding economy, manufacturing, and e-commerce sectors after a period of being affected by COVID-19 pandemic. The Government has recognised the strong potential and role of logistics sector in fostering the national economic development and proactively taken a number of moves to facilitate and boost the business in logistics sector in which completing legal framework are first in line. Logistics traders are expected to benefits from the new policies, laws, and regulations. However, the laws and regulations in general can also be a barrier for development of the logistics system. This article provides some legal issues related to the business activities in the logistics sector in Viet Nam, covering an overview on the legal framework, business conditions, resolution of logistics disputes and potential changes in legislation on logistics.

Keywords*: logistics, logistics providers, logistics dispute, law on commerce, Vietnam*.

1. INTRODUCTION

In Viet Nam, logistics services are provided in multiple pieces of legislation in which the 2005 Law on Commerce and Decree No. 163/2017/ND-CP are the major pieces of legislation in logistics sector. The 2005 Law on Commerce (Articles 233 to 240) generally provides the definition of logistics service, conditions for logistics service provision, rights and obligations of logistics providers, rights and obligations of customers, cases under which logistics providers shall be exempted from liability, limits of liability applicable to logistics providers, rights to lien on and disposal of goods, obligations of logistics providers in case of lien on goods. Decree No. 163/2017/ND-CP details some provisions of the 2005 Law on Commerce on logistics through which traders can find guidance on classification of logistics service, conditions for logistics service provision and limits of liability applicable tologistics providers.

Within the logistics sector, logistics providers must also be aware of and comply with special laws on the relevant sub sectors *e.g.* the 2015 Maritime Code, the Law on Civil Aviation enacted in 2006 and amended and supplemented in 2014, the 2017 Law on Railway, the 2008 Law on Road Traffic, the Law on Inland Waterway Navigation enacted in 2004 and amended and supplemented in 2014, Decree No. 87/2009/ND-CP on Multimodal Transport as amended and supplemented by Decree No. 144/2018/ND-CP, Decree No. 160/2016/ND-CP on conditions for sea transportation business, shipping agency services and towage services as amended and supplemented by Decree No. 147/2018/ND-CP, Decree No. 110/2014/ND-CP on conditions for inland waterway transportation business as amended and supplemented by Decree No. 128/2018/ND-CP, Decree No. 30/2013/ND-CP on air transportation business and general air operation as amended and supplemented by Decree No. 92/2016/ND-CP and Decree No. 89/2019/ND-CP, Decree No. 65/2018/ND-CP on detailed provision of some articles of the Law on Railway as amended and supplemented by Decree No. 01/2022/ND-CP, Decree No.

10/2020/ND-CP on Auto Transportation Business and Conditions for Auto Transportation Business as amended and supplemented by Decree No. 47/2022/ND-CP.[1]

2. TYPES OF LOGISTICS SERVICE

"*Logistics service is a commercial activity whereby a trader organises to perform one or more tasks including receiving goods, transporting, warehousing, storing, customs clearance, other formalities and paperwork, consultancy to customers, packaging, marking, delivery or other services related to goods as agreed with customers for remuneration*". (Article 233 of the 2005 Law on Commerce). In Viet Nam, according to Article 3 of Decree No. 163/2017/ND-CP, logistics service isclassified into:

a. Container handling services, except for services provided at airports;

b. Container warehousing services classified as auxiliary services for seatransport;

c. Warehousing services classified as all auxiliary services for multimodaltransport;

d. Courier services;

e. Freight transport agency services;

f. Customs agency services (including customs clearance services);

g. Other services including bill of lading inspection, cargo brokerage services, cargo inspection, sampling and weighing services; goods receipt and acceptance services; and preparation of transport documents;

h. Wholesaling auxiliary services and retailing auxiliary services including management of goods in storage, and collection, collation and classification of goods and their delivery;

i. Cargo transport services classified as sea transport services;

j. Cargo transport services classified as inland waterway transport services;

k. Cargo transport services classified as rail transport services;

l. Cargo transport services classified as road transport services;

m. Air carriage services;

n. Multimodal transport services;

o. Technical inspection and analysis services;

p. Other auxiliary services for transport.

q. Other services under the agreement signed between the logistics provider andcustomer according to fundamental principles of the Law on Commerce.

The logistics provider is the trader providing one or more mentioned services who can be a shipping line, airline, transport company, port or terminal operator, warehousing operator, customs agent, or other trader providing service related to goods between the point of origin to the point of consumption.

[1] In doing business in Viet Nam, individuals and legal entities also need to comply with general laws e.g., the 2015 Civil Code, the 2020 Law on Enterprises, the 2020 Law on Investment, the 2019 Labour Code. This article focuses on some notable legal issues related to logistics sector only and is not intended to cover issues of general application to business activities in Viet Nam.

3. CONDITIONS FOR LOGISTICS SERVICE PROVISION

There are at least two definitions in terms of business conditions logistics players should be aware of i.e. business investment conditions (business conditions) and market access conditions applying to foreign investors. "*Business investment conditions mean those which must be satisfied by an individual or organisation upon making business investment in conditional business lines*"[2]. "*Market access conditions applying to foreign investors mean those which must be satisfied by foreign investors to make investment in business lines stated in the Negative List for Market Access"*[3].

In accordance with Decree No. 163/2017/ND-CP, market access conditions applying to foreign investors in logistics are the business conditions for provision of logistics services plus additional conditions that apply exclusively to foreign investors in logistics which are mostly related to limitations on foreign ownership and key personnel in the enterprises. It is noteworthy that not every type of logistics service is regulated with business conditions[4] and market access conditions and there is no single set of general conditions that applies to all types of logistics service. For the specific business conditions, here are some pieces of legislations logistics players may refer to:

- Sea transport service and inland waterway transport service: Decree No. 160/2016/ND-CP on conditions for sea transportation business, shipping agency services and towage services as amended and supplemented by Decree No. 147/2018/ND-CP.
- Rail transport service: Decree No. 65/2018/ND-CP on detailed provision of some articles of the Law on Railway.
- Road transport services: Decree No. 10/2020/ND-CP on Auto Transportation Business and Conditions for Auto Transportation Business as amended and supplemented by Decree No. 47/2022/ND-CP, Circular No. 12/2020/TT- BGTVT on organisation and management of auto transport operations and supporting services for road transport as amended and supplemented by CircularNo. 02/2021/TT-BGTVT and Circular No. 17/2022/TT-BGTVT.
- Air carriage service: Decree No. 92/2016/ND-CP on conditional business sectors or activities in the civil aviation industry as amended and supplemented by Decree No. 89/2019/ND-CP.
- Multimodal transport service: Decree No. 87/2009/ND-CP on Multimodal Transport as amended and supplemented by Decree No. 144/2018/ND-CP.
- Customs agency service: The 2014 Law on Customs, Official Dispatch No. 19046/BTC-TCHQ guiding the implementation of provisions of the 2014 Law on Customs.
- Bonded warehouse and container freight station: Decree No. 68/2016/ND-CP on conditions for duty-free business, warehouses, locations for customs clearance, commodity gathering, customs inspection and supervision as amended and supplemented by Decree No. 67/2020/ND-CP.
- Locations for customs clearance, commodity gathering, customs inspection and

[2] Clause 9 Article 3 of the 2020 Law on Investment

[3] Clause 10 Article 3 of the 2020 Law on Investment

[4] A complete list of conditional business lines can be found in Appendix IV of the Law on Investment.

supervision: Decree No. 68/2016/ND-CP on conditions for duty-free business, warehouses, locations for customs clearance, commodity gathering, customs inspection and supervision as amended and supplemented by Decree No. 67/2020/ND-CP.

While the specific business conditions in respect of each type of logistics service are regulated in multiple pieces of legislation, the specific additional conditions applying to foreign investors in respect of each type of logistics service can be found in Decree No. 163/2017/ND-CP[5] as follows:

a) For cargo transport services classified as sea transport services (except for inland transport):

- The foreign investor may establish companies operating vessels flying Vietnamese flag or contribute capital, purchase shares or stakes in another enterprise, provided the holding of the foreign investor in such company does not exceed 49%. Total number of foreign seafarers working on the vessel flying Vietnamese flag (or registered in Vietnam) under the ownership of these companies in Vietnam shall not exceed 1/3 of the vessel's personnel. Captain or first mate must be a Vietnamese citizen.
- The foreign sea transport company may establish an enterprise or contribute capital, purchase shares or stakes in another enterprise.

b) For container handling services classified as auxiliary services for sea transport (some areas may be used exclusively for provision of services or procedures for issuance of licenses may be completed in these areas), the foreign investor may establish an enterprise or contribute capital, purchase shares or stakes in another enterprise, provided the holding of the foreign investor in such company does not exceed 50%. The foreign investor may establish a commercial presence in Vietnam under a business cooperation agreement.

c) For container handling services classified as auxiliary services for multimodal transport, except for services provided at airports, the foreign investor may establish an enterprise or contribute capital or purchase shares or stakes in another enterprise, provided the holding of the foreign investor in such company does not exceed 50%.

d) For customs clearance services classified as auxiliary services for sea transport, the foreign investor may establish an enterprise or contribute capital or purchase shares or stakes in another enterprise which is invested in by a domestic investor. The foreign investor may establish a commercial presence in Vietnam under a business cooperation agreement.

đ) For other services including bill of lading inspection, cargo brokerage, cargo inspection, sampling and weighing services; goods receipt and acceptance services; and preparation of transport documents, the foreign investor may establish an enterprise or contribute capital or purchase shares or stakes in another enterprise which is invested in by a domestic investor.

e) For cargo transport services classified as inland waterway transport services or cargo transport services classified as rail transport services, the foreign investor may establish

[5] The investment restrictions in logistics sub sectors are also reflected in Viet Nam Schedule of Special Commitments in Services (WTOSSC). Regulations on limitations of foreign ownership in Decree No. 163/2017/ND-CP are in line with WTOSSC.

an enterprise or contribute capital or purchase shares or stakes in another enterprise, provided the holding of the foreign investor in such company does not exceed 49%.

g) For cargo transport services classified as road transport services, the foreign investor may provide such services under a business cooperation agreement or establish an enterprise or contribute capital or purchase shares or stakes in another enterprise, provided the holding of the foreign investor in such company does not exceed 51%. All drivers of the enterprise must be Vietnamese citizens.

h) For air carriage services, the foreign investor is required to comply with the laws on aviation. (Note from the author: In accordance with Decree No. 89/2019/ND-CP, a foreign-invested airline must satisfy the following conditions: (i) A foreign ownership shall not exceed 34% of the charter capital (ii) There is at least an individual or a juridical person with Vietnamese nationality holding the greatest charter capital and (iii) In case the juridical person with Vietnamese nationality has foreign investment capital, the foreign share of equity participation shall not exceed 49% of the charter capital of that juridical person).

i) For technical inspection and analysis services:

- Regarding the services provided to exercise authority of the Government, they may be provided by an enterprise which is invested in by a domestic investor after three years or by an enterprise in which foreign investment is not limited after five years from the date on which the private service provider is allowed toprovide such services.

- It is not allowed to provide vehicle inspection services and issue certificates to such vehicles.

- The provision of technical analysis and inspection is limited in the areas determined by the competent authority for national defence and security reasons.

In case of the foreign investor regulated by international treaties containing different regulations on conditions for provision of logistics services, the foreign investor may select to apply investment conditions specified in one of such treaties.

Within the logistics sector, Decree No. 163/2017/ND-CP also regulates that apart from satisfying the mentioned conditions, traders providing part or whole of logistic services on the Internet, cellular network or other open networks must comply with regulations on e-commerce.[6]

4. RESOLUTION OF LOGISTICS DISPUTES

Logistics disputes can be resolved through negotiation, mediation, arbitration, court. While the resolution through negotiation and mediation is mainly subject to the agreement and goodwill of the parties for the whole process, the resolution through arbitration and court may be carried based on the agreement of the parties and/or legal provisions.

As provided by the 2005 Law on Commerce, logistics service is a commercial activity and in principle, the parties may agree on the jurisdiction of local courts, domestic arbitrators or if there are foreign elements, foreign courts, foreign arbitrators to resolve current or future disputes. In

[6] The 2005 Law on E-transactions, the 2006 Law on Information Technology, the 2015 Law on Cyberinformation Security, the 2018 Law on Cybersecurity Law, Decree No. 52/2013/ND-CP on E-commerce as amended and supplemented by Decree No. 85/2021/ND-CP and the guidelines of these laws are some of legislation pieces logistics providers may refer to.

accordance with the 2015 Civil Procedure Code, Vietnamese courts shall return petitions/ requests or in the event they were enrolled, cease the resolution of the disputes with foreign elements in case the parties have agreed on the resolution by arbitration or foreign courts unless such agreements are void, inoperative or the foreign courts or arbitrators refuse to resolve the disputes.

In case the parties have not agreed on resolution by arbitration or foreign courts or the arbitration agreement or the agreement on choosing the foreign court is void or inoperative, one of the parties may bring the dispute to Vietnamese court if:

- The defendant is an individual who resides, works or lives for a long term in VietNam;

- The defendant is an agency or organisation which is headquartered in Viet Nam or the defendant is an agency or organisation which has a branch or a representative office in Viet Nam, applicable to cases related to the operation of the branch or representative office in Vietnam of such agency/organisation;

The defendant has properties in Viet Nam;

- The transactions are established, changed or terminated in Vietnam, objects of which are properties in Vietnam or acts performed in Viet Nam;

- The transactions are established, changed or terminated outside Viet Nam but involve rights and obligations of Vietnamese agencies, organisations and individuals or agencies, organisations and individuals that are headquartered or reside in Viet Nam.

In addition to the resolution methods and respective procedures, the merits of the disputes are the important matters to consider when resolution of disputes.

Firstly, for logistics disputes, unless there is not any foreign element, the parties need to identify the applicable law first since Vietnamese law is not always the law applicable to the cases with Vietnamese elements and there are certain differences in the regulations between the countries. In principle, the agreement of the parties on the applicable law shall be respected and the applicable law agreed by the parties shall apply to resolve the disputes unless the application of the foreign laws and/or the international practices agreed by the parties are contrary to the fundamental principles of Vietnamese law or it is not possible to determine the content of the foreign laws. Where the parties have not agreed on the applicable law, the law of the country having the closest connection with the contract shall apply. With respect to the logistics service contract, it shall be the law of the country in which the logistics service provider resides in the case of an individual or in which the logistics service provider was established in the case of a legal entity. (Article 683 of the 2015 Civil Code)

Secondly, in accordance with the 2005 Law on Commerce, the claims against logistics providers for loss of or damage to goods occurring during the provision of the logistics services shall be subject to the following time limits:

(i) Time limit to make complaint against the logistics providers: 14 days from the date of delivery of goods. Accordingly, the logistics providers shall not be liable for loss of and damage to the goods if they do not receive any notice of complaint within this 14-day period. (Point dd Clause 1 Article 237 of the 2005 Law on Commerce)

(ii) Time limit to initiate legal actions against the logistics providers: 09 months from the date of delivery of goods. Accordingly, the logistics providers shall not be liable for loss of or damage to the goods and the legal actions against the logistics providers shall

be time-barred if the logistics providers do not receive any notice of litigation or arbitration within this 09-month period. (Point e Clause 1 Article 237 and Article 319 of the 2005 Law on Commerce)

It is not uncommon that customers miss one or both mentioned time limits. In principle, the customers may still initiate legal actions after the mentioned time limits as these are the substantive matters, however, the logistics providers may request suspension, and the courts or arbitrators shall suspend the resolution of the claims upon the request of the logistics providers.

In case the claimants are not customers but are logistics providers or the claims are not related to loss of or damage to goods, the statute of limitation for initiating legal actions which is provided for general commercial disputes (i.e. 02 years from the time when the legitimate rights and interests are infringed upon or other time limits applicable to logistics sub sectors prescribed in the special laws shall apply). In fact, the logistics claims can be the claims of the customers against the logistics providers for loss of or damage to goods or for the failure to fulfil or delay in provision of the logistics service or the claims of the logistics providers against the customers for the failure to make payment or for loss or damage caused by insufficiency of instructions, packing, marking, insufficiency and/or inaccuracy of information on the goods.

Thirdly, lien on and disposal of goods and documentation related to goods are the important rights of logistics providers provided by law against the contractual breachof the customers.

- Grounds for lien and disposal: In accordance with the 2005 Law on Commerce, the logistics providers are entitled to lien on an amount of goods and documentation related to goods to request due payments of customers. Following the lien is the right to disposal of the goods if the customers still fail to make payment. In case the logistics providers are the carriers under the 2015 Maritime Code, the logistics providers may also exercise the right to disposal of goods if the consignees fail to take delivery of goods in compliance with the conditions and procedures provided in the 2015 Maritime Code, Decree No. 169/2016/ND- CP and Circular No. 203/2014/TT-BTC as amended and supplemented by Circular No. 57/2018/TT-BTC. It is noteworthy that the 2005 Law on Commerce provides the right to lien for the purpose of requesting due payments only and does not provide the right to lien on and disposal of goods for other cases such as mitigation of loss and damage caused by the failure or delay of customers in taking delivery of goods. Thus, there is a level of uncertainty as to the extent to which the disposal of goods is permitted and whether the logistics providers are allowed to destroy the goods to mitigate the loss or damage in case of dangerous goods or the logistics provider being unable to find end buyers for the goods. Unlike other common logistics providers, the carriers under the 2015 Maritime Code are provided with forms of disposal of goods e.g. sale through auction or if it is found that the goods may have adverse effects on the environment, safety and human health, they may notify the consignor and consignee and the relevant customs authority for handling and destruction.

- Notification: Upon lien on goods and/or documentation related to the goods, the logistics providers must notify customers in writing immediately. The logistics providers are only entitled to disposal of the goods and/or documentation related to the goods after the logistics providers notify the customers of the disposal but not earlier than 45 days from the notification of the lien and the customers still fail to make payment unless there are signs of damage to the goods. In case the logistics providers are carriers under the 2015 Maritime Code, they may have to follow stricter requirements on notification. To be specific, within 03 days from the date of arising the retention of goods, the carrier must notify in writing the shipper and consignee of the retention of the goods and the intention to sell the retained goods for debt recovery and the content of the

notice must contain at least the following information: name, type, quantity and weight of goods and time for unloading goods to retain, place of retention, estimated expenses and loss to be paid by the consignee and planned time of auction (if any). And yet, after 15 days from the day on which the notice is sent, if the carrier does not receive a response from the shipper and/or the consignee or the debts are not fully paid to the carrier, then the carrier shall announce the retention of goods on at least one of daily newspapers or on means of mass media of central government or governments of central-affiliated cities and provinces of the place where the goods is retained for 3 consecutive issues with time limit for publication of notice extendable for not exceeding 30 days from the date of notification to the shipper.

- Preservation of retained goods: The logistics providers are obliged to preserve and not allowed to use the retained goods unless otherwise agreed by the customers. The logistics providers shall be liable to return the goods if the conditions for lien on or disposal of the goods are no longer available and in case of causing loss of or damage to the retained goods, pay compensation to the customers.

- Handling the proceeds from the disposal of goods: The logistics providers are entitled to use proceeds from the disposal of goods to pay for debts owed to them by their customers and expenses related to lien on and disposal of goods. If the proceeds from the disposal of goods exceed the value of debts, the difference must be returned to customers. From that point of time, the logistics providers shall no longer be responsible for the goods or documents already disposed of. Still, based on the 2005 Law on Commerce, there is a level of legal uncertainty as to the handling of proceeds, especially the payment priority order, in case the proceeds from the disposal of goods are less than value of debts. In accordance with Decree No. 169/2016/ND-CP, the proceeds from the sale of retained goods shall be spent according to the following priority order: a) Taxes, charges and fees arising during the retention and sale of goods; b) Debts including the price of transport service and other expenses specified in transport invoices; if such amount has not been paid in advance, the expenses contributed in the general average and the salvage apportioned to goods in accordance with law; c) Cost of inspection and valuation of goods; d) Cost of organisation of auction; dd) Costs relevant to the consignment, storage and sale of goods, including cost of material handling, storage and displacement of goods; e) Debts owed to the custodian; g) Other related expenses incurred. However, it should be noted that the provisions of Decree No. 169/2016/ND-CP are designed to apply to goods retained by carriers at Vietnamese seaports only.

Fourthly, in addition to the case of expiry of time limits as already mentioned and the cases generally applicable to commercial activities[7], logistics providers may also enjoy the exemption from liability to loss of or damage to goods in the following cases:

- Loss occurs due to faults of customers or their authorised persons;
- Loss occurs as a result of the logistics service providers strictly following the instructions of customers or their authorised persons;
- Loss is attributed to defects of goods;

[7] In accordance with Article 294 of the 2005 Law on Commerce, the cases under which a breaching party shall be exempted from liability include:

a/ A case of liability exemption agreed upon by the parties occurs;b/ A force majeure event occurs;

c/ A breach by one party is entirely attributable to the other party's fault;

d/ A breach is committed by one party as a result of the execution of a decision of a competent state management agency which the party cannot know, at the time the contract is entered into.

- Loss occurs in the cases eligible for liability exemption as prescribed in other laws or practices if the logistics providers organise transportation.

Accordingly, in case of providing transportation service, the logistics providers may also enjoy the exemption of liability applicable to carriers provided in the 2015 Maritime Code[8] and the Law on Civil Aviation or its guidelines.[9] In addition to the exemption of liability, Vietnamese law also provides regime for limit of liability of logistics providers. In accordance with the 2005 Law on Commerce and Decree No. 163/2018/ND-CP, limit of liability is the maximum limit that a logistics provider is responsible for indemnifying customers for losses incurred during the performance of logistics services. In case the limit of liability of logistics providers is specified by a relevant law, such relevant law shall apply. In case the law is silent, the partiesmay agree on a limit of liability, or the following provisions apply:

- Where the customer does not have prior notice of the value of the goods, the maximum liability limit is VND 500 million for each claim.

- Where the customer has given prior notice of the value of the goods and confirmed by the logistics providers, the limit of liability shall not exceed the value of such goods.

The 2015 Maritime Code and the Law on Civil Aviation also provide for limits of liability and therefore, if the logistics providers are carriers, the limits of liability provided in the 2015 Maritime Code,[10] and the Law on Civil Aviation[11] may prevail.

In case a logistics provider performs multiple tasks on which different limits of liability are imposed, the highest limit shall apply.

Notably, different from other commercial contract disputes where the breaching party may be liable for losses or damages in respect of profits which the non- breaching party would have earned if the breach had not been committed,[12] logistics providers shall not be liable for the losses of profits which customers would have earned, or loss in respect of any delay or wrong address, for which they are not at fault.

Logistics providers shall not be entitled to enjoy the limits of liability if persons with rights and benefits to the goods prove that the loss of, damage to or delay in delivery of goods is caused by actions or inactions of the logistic providers with the intention to cause such loss, damage or delayed delivery or their actions or inactions are known to be risky, and they know that such loss, damage, or delay would certainly occur.

[8] The exemptions applicable to carriers of goods by sea are provided in Article 151 of the 2015 Maritime Code and are similar to those of the Hague Visby Rules. Viet Nam has not ratified the Hague Visby Rules yet, however, most of provisions of such rules were brought into Vietnamese law by the 2005 Maritime Code which was subsequently replaced by the 2015 Maritime Code.

[9] The exemptions applicable to carriers of goods by air are provided in Article 165 of the 2006 Law on Civil Aviation as amended and supplemented in 2014 and are similar to those of the Montreal Convention 1999. Viet Nam is a contracting party to both Warsaw-Hague Convention 1955 and Montreal Convention 1999.

[10] The limits of liability applicable to carriers of goods by sea are provided in Article 152 of the 2015 Maritime Code and are similar to those of the Hague Visby Rules.

[11] The limits of liability applicable to carriers of goods by air are provided in Article 166 of the 2006 Law on Civil Aviation as amended and supplemented in 2014 and Article 3 of Decree No. 97/2020/ND-CP of the Government and are similar to those of Montreal Convention 1999.

[12] In accordance with Article 302 of the 2005 Law on Commerce, the value of damages covers the value of the material and direct loss suffered by the non-breaching party due to the breach of the breaching party and the direct profit which the breaching party would have earned if such breach had not been committed.

5. RECOMMENDATIONS

Until now, Viet Nam has entered into 17 Free Trade Agreements (FTAs), including the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), Free Trade Agreement between the Socialist Republic of Viet Nam and European Union (EVFTA) and Free Trade Agreement between the Socialist Republic of Viet Nam and the United Kingdom of Great Britain and Northern Ireland (UKVFTA)[13] and the country is expected to conclude more FTAs in the future. These FTAs are the commitments between Viet Nam and other countries, aiming to facilitate market accesses through elimination of tariffs, non- tariff and technical barriers to mutual trade, investment, and other sectors between the countries. The logistics sector in Viet Nam can benefit from these FTAs through the potential increase of demand for shipping, other logistics services, simplification of customs clearance process and other administrative procedures.

In the Action Plan for improvement of competitiveness and development of Viet Nam's logistics services by 2025 approved by Decision No. 200/QD-TTg dated 14 February 2017 and amended and supplemented by Decision No. 221/QD-TTg dated 22 February 2021 of the Prime Minister, logistics is recognised as an important service sector in the overall structure of the national economy, playing the role in support, connection and improvement of the social – economic development of the whole country as well as that in each locality, and taking part in the improvement ofthe country competitiveness.

According to the Action Plan approved by the Prime Minister[14], there are 06 key objectives and 06 main groups of tasks to be achieved by 2025. The target figures are 5%-6% for the proportion of logistics sector's contribution to GDP, 15%-20% for the growth rate of logistics sector, 50%-60% for the rate of outsourcing logistics services, less than 16%-20% of GDP for logistics costs and 50th or higher in line ranked by the world LPI index.

Completion of policies and laws is first in line of the 06 main groups of tasks in the Action Plan. There are 10 detailed tasks with respective target results in this group as follows:

a. Complete the legal basis for logistics services: Researching and amending relevant legal instruments to create a favourable legal basis for logistics activities.

b. Review legal instruments and policies related to logistics: Proposing to amend and promulgate new policies and laws governing logistics sector and specific sub sectors (transportation, warehousing, freight forwarding, inspection, etc.).

c. Review and amend policies on taxes, fees and surcharges related to logistics: Applying service charges for using transport infrastructure and fees at ports in the direction of facilitating logistics activities

d. Revisit international commitments on logistics services at WTO, ASEAN and free trade agreements (FTAs): Proposing measures to ensure compatibility in logistics commitments at international forums, between international commitments on logistics and domestic laws.

[13] See https://moit.gov.vn/tin-tuc/hoat-dong/nganh-logistics-phat-trien-but-pha-vuot-qua-kho-khan-phuc-hoi-manh-me-sau-dai-dich-covid-19.html (Accessed on 16 October 2022)

[14] Decision No. 200/QD-TTg, dated February 14, 2017 of the Prime Minister approving the Action Plan to improve competitiveness and develop logistics services in Vietnam to 2025.

e. Develop a plan to negotiate commitments on logistics services at future FTAs: Logistics commitments in future FTAs need to be synchronised with existing commitments and domestic laws, paying attention to promoting the advantages of Vietnamese logistics service enterprises, making Vietnam a logistics hub in the region.

f. Disseminate and propagate about Vietnam's international commitments related to logistics services: Improving enterprises' understanding of international commitments related to logistics toapply these commitments.

g. Promote trade facilitation activities: Reforming customs procedures, reducing and simplifying specialised inspection procedures, standardising dossiers, implementing commitments in the WTO TradeFacilitation Agreement.

h. Promote the application of the National Single Window: Applying the National Single Window for all procedures related to import and export goods, in transit, people and means of transport on entry and exit, in transit.

i. Build Trade Portal: Supporting businesses to look up tax rates and import and export procedures related to each item.

j. Research and develop policies to support the development of logistics services in the locality: Developing effective policies to support the development of local logistics services, suitable to the socio-economiccharacteristics of each locality.

The implementation schedule is detailed as follows:

- 2020 - 2021: Reviewing the implementation situation and continuing to implement tasks to improve competitiveness and develop logistics services in Vietnam.
- 2022: Continuing to implement tasks to improve competitiveness and develop logistics services in Vietnam.
- 2023: Preliminary review and assessment of the results of the implementation of the Action Plan, preparing theoretical and practical bases to research and develop a strategy for developing Vietnam logistics services in the period of 2025 - 2035, with a vision to 2045.
- 2024: Continuing to implement tasks to improve competitiveness and develop logistics services in Vietnam. Organising to develop a strategy for the development of logistics services in Vietnam in the period of 2025 - 2035, with a vision to 2045.
- 2025: Summarising and evaluating the results of the implementation of the Action Plan. Implementing the Strategy for the development of logistics services in Vietnam in the period of 2025 - 2035, with a vision to 2045.

Until now, some pieces of legislation in logistics have been amended, supplemented, or replaced. It can be expected that more pieces of legislation will be reviewed to lift regulatory barriers to competition and improve the business environment in near future. To achieve the government objectives, the focus will likely be on the reduction of high administrative burdens, duties and costs, the increase of technology use, online databases of legislation and incentives for investment in logistics infrastructures. Meanwhile, relaxing foreign-equity limits in logistics and completing regulations on resolution of disputes and other legal issues in the logistics provider-customer relationship may get less attention.

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PREVENTING, AGAINSTING THE CORRUPTION IN HONG KONG FROM INSTITUTION AT VIEWPOINTS

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Abstract

Before starting to against the corruption work (1974), the corruption situation in Hong Kong could be summed up in a few words: "couldn't be more corrupt". Though before the British Government in Hong Kong had started to put the action of bribery in a group to sanction serious and improper acts since 1898, even in 1948, the British Government also issued a Charter against-corruption applies to Hong Kong. However, corruption is not only unchecked, but on the contrary is also increasing, to the point of prevailing as a way of life. It was not until Hong Kong established the Independent Commission Against Corruption (ICAC), that corruption was really tackled; Five years after ICAC, all kinds of corruption in the public sector were almost marvelously eliminated. Hong Kong made the whole world start to believe that, as long as it is on the right track, no matter how serious a country's corruption problem is, it can be controlled.

Keywords: *corruption, Hong Kong, anti-corruption, the institution, prevent and against-corruption.*

1. INTRODUCTION

We still constantly talk about Singapore like every time we talk about the success of anti-corruption from all perspectives, including the institution. Of course, typical Singapore with a desirable ranking in the ranking each year of the World Transparency Organization is something no one can deny. However, from an institutional perspective, Hong Kong still deserves to be a country with really spectacular changes when the starting point of corruption in Hong Kong was in the late 17th century and early 18th century like it couldn't be worse. At that time, it could be said that Hong Kong was the land of corruption. Corruption is rampant, public and organized; types of bribery are common in law enforcement agencies; especially the government's systematic protection of criminal gangs. So much so that Mr. Tony KWOK Man-wai, Former Deputy Commissioner and Head of Operations Independent Commission Against Corruption (ICAC) had to admit that Hong Kong was "was definitely one of the most corrupt places on earth".[1]

However, from 1980 to 2020, Hong Kong almost always held the top spot in the worldwide ranking of Economic Freedom. This is a ranking tied to indicators related to policies and institutions in each country; shows the positive relationship between investment, economic growth, income level and poverty rate with appropriate and open institutions in each country[2]. Currently, Hong Kong is the number 1 financial center in Asia and one of the top three financial centers in the world according to The Global Financial Centers Index (GFCI)[3]. In addition, the World Transparency Organization rated Hong Kong as a country with a low level of corruption in the world, ranked 11/179 countries; 2nd place in Asia (after Singapore) in the last 10 years.

[1] Tony KWOK Man-wai (2016), Effective measures to combat corruption in Hong Kong, 19th UNAFEI UNCAC training programme visiting experts' papers (page 99)

[2] James Gwartney, Robert Lawson, Joshua Hall, and Ryan Murphy (2022), Economic Freedom of the World 2022 Annual Report, page 6, 17, 88.

[3] The thirty-first edition of the Global Financial Centres Index (GFCI 31), 24 March 2022.

Those results are clear demonstrations of Hong Kong's amazing transformation after its efforts to control corruption, taking Hong Kong from the most serious level to the lowest level of corruption. This article will analyze the roadmap of change, the successes and difficulties in Hong Kong's anti-corruption journey from an institutional perspective.

2. TO CHANGE MINDSETS TOWARDS CORRUPT CRIMINALS

Though corruption is rampant and intense in all areas of social life, before the ICAC, the Hong Kong government considered corruption as other types of crime. The investigation of corruption cases or any case is under the jurisdiction of the police force. The responsibility to fight corruption is in hand, but the tragedy is that corruption exists most in the police force. Hong Kong police officers now not only accept bribes blatantly, but also actively offer monthly payments to protect gambling and drug businesses, etc. Increasing anger from the people towards the team of law enforcement and protection, but also the loss of confidence in the law, in the Government apparatus in running the country.

However, it is difficult to predict when the smoldering anger of the people against corruption would explode without the event of Peter Godber, a senior police leader in the process of being investigated. Corruption investigators fled back to England. Difficulties in the process of investigating, arresting and charging Godber at that time revealed many shortcomings of the legal institution and the way in which the state apparatus was organized, operated and divided. It was found that the investigation and arrest process for a corruption case could not be applied like other ordinary cases.

There should be a certain "privilege" for the investigating agency for corruption crimes, the need for "clean hands" to control the investigation activities, the need for a strong legal mechanism to empower the anti-corruption agency. . Especially, in the context that the public's trust in the police agency has completely dried up, the need to separate the Anti-Corruption Office from the police agency is extremely urgent. Along with the public protests demanding the Government take active action, extradite Godber to face guilt, and push back against a corrupt lifestyle, the Hong Kong Government is forced to change its thinking on corrupt crimes. This immediately led to the first institutional changes: An independent body for corruption affairs (ICAC) was born; a prestigious, determined and professional ICAC executive apparatus; a legal system that strongly empowers the ICAC, reducing the chances of official corruption and providing sufficient deterrence.

3. WORTHY SUCCESS THE RIGHT CHOICE

In addition to the demands from the government's practice and determination, the birth of ICAC marks the great merits of senior judge Alastair Blair-Kerr, who has been appointed directly in charge of Godber's case since the time. the point where he fled (June 1973). In the first reports, the judge expressed a clear view of the establishment of an independent anti-corruption agency: "responsible bodies generally feel that the public will never be convinced that the Government really intends to fight corruption unless the Anti-Corruption Office is separated from the Police…".[4]

Shortly thereafter, the Government decided to support this proposal and announced that there would be “an organization, led by men of high rank and status, which can devote its whole time to the eradication of this evil” (Governor Sir Murray MacLehose).[5]

[4] https://www.icac.org.hk/en/about/history/index.html

[5] https://www.icac.org.hk/en/about/history/index.html

In February 1974, ICAC was officially established with the sole mission of preventing and combating corruption and the first task was to arrest Godber for the crime. ICAC distinguishes itself from the previous police agency's Anti-Corruption Bureau (ACB) not only in its independence but also in the size and position of the head of the ICAC. The ICAC organization is three times the size of ACB and the head of ICAC is established by the principle of independence and equal status with the head of police in Hong Kong.[6]

With the independence of authority and status, especially ICAC is not subject to the intervention of any agency in its operation, including the Government, ICAC has achieved sustainable victories in the fight against the fight corruption in this country.

The first revolutionary victory was the quick extradition of Godber to serve a sentence in 1975. The 4-year prison sentence for two crimes, including Godber's crime of accepting bribes, created initial trust and support. of the public with ICAC. That foundation was really important for the subsequent success of ICAC.

After Godber, ICAC also continues to demonstrate its mission and determination to the end for the anti-corruption work when investigating and prosecuting the cases of high-ranking officials and corporations with great influence on Hong Kong's economy. Kong.

Typically, the investigation alleges that Donald Tsang, the former Chief Executive of Hong Kong, noticed his unusual connection with real estate investors during the process of these businesses applying for related documents. related to the promotion of their apartment products. Or the case of the arrest of Mr. Rafael Hui, former Minister of Administration of the Hong Kong Special Administrative Region, and Mr. Raymond and Mr. Thomas Kwok, co-chairman and controlling shareholder of Sun Hung Kai Properties in March 2012. These figures were then convicted of corruption with specific acts related to official decision-making for personal gain (conflict of interest) and communication. translated by unsecured loans in exchange for other benefits for the period 2000-2009[7]. Or the housing subsidy corruption case of Hong Kong's Minister of Construction, Mr. Mak Chai-kwong, took place shortly after (July 2012). Notably, Mr. Mak was arrested less than 2 weeks after taking the position of Minister...

It is not easy at all, but in fact, Hong Kong has quickly cleaned up corruption in the public sector, crony capitalism has been pushed back, and the problem of money laundering by officials is almost gone. In the public sector, police departments, civil service offices, and immigration departments in ministries and branches of the Government are the places that receive special attention in the fight against corruption. Then came businesses, financial groups... in the private sector.

In addition, Hong Kong is one of the first countries to attach great importance to fighting corruption in the private sector, especially corruption occurring in financial institutions. The Hong Kong government also identified the goal of building a fair, clean business environment with official legal protection to attract investment and promote development. In 2011, there were 213/283 (more than 75%) prosecutions from ICAC's investigation results in corruption cases involving the private sector[8]. Effective anti-corruption in the private sector is to stabilize the market and protect domestic and foreign investors.

In addition, from the attitude of accepting, tolerating, even compromising and taking

[6] Painter, Martin, Dao, Le Thu, Hoang, Manh Chien, and, Nguyen, Quang Ngoc(2012). *Comparating and analysing of international against-corruption legislation: Lessons on handling and enforcement mechanisms for Vietnam.* Research on joint against the corruption policy of DFID and UNDP, page 51

[7] Painter, Martin, Dao, Le Thu, Hoang, Manh Chien, and, Nguyen, Quang Ngoc (2012), Sđd, page 52

[8] Painter, Martin, Dao, Le Thu, Hoang, Manh Chien, and, Nguyen, Quang Ngoc (2012), Sđd, page 52

advantage of corruption, Hong Kong people now actively support the fight against corruption. They even officially denounce corrupt acts without fear of reprisal actions from the accused. In the past, due to the lack of trust and protection from the government, most corruption accusations were anonymous, now more than 75% of the denunciations clearly state the whistleblower's identity[9].

In short, the success of ICAC in particular and of the Hong Kong Government in general in the fight against corruption is not only about specific cases or numbers, but also about the sustainable values of strength from an international system. appropriate institutions and a solid foundation for the prosperous development of a country.

4. EXPRESS THE SUCCESS

There are many questions surrounding the success of Hong Kong. Especially why many other countries have also applied the model of independent agencies in charge of anti-corruption but still have not been successful. The answer lies not only in whether or not the model of an anti-corruption agency or ICAC's "three-pronged" strategy as everyone knows, it is also the determination and effort to change to the end of the Government. government, is the trust and support of the people. Most importantly is still the specificity of the institutional design of each country.

For example, a model of an anti-corruption agency set up by the Government, accountable to the Government, such as Hong Kong (or Singapore), will often operate effectively in countries with an executive branch. stronger than the legislative branch. Conversely, if the independent anti-corruption body under the Parliament, established by the Parliament and accountable to the Parliament, can only succeed when the legislative branch of the country is not only free from interference. control or influence by the executive branch, but also need to be strong enough to counterbalance and control the executive branch.

From an institutional perspective, Hong Kong's success in the fight against corruption cannot fail to include the following ways of organizing and designing the following spearheads:

4.1. To design a system of controling and balancing between agencies taking part in the proceedings

All regulations and institutions controlling and balancing between agencies participating in the proceedings are codified and associated with the principle of ensuring transparency of prosecution activities as stipulated in Article 63 of the Ministry of Justice. Basic Law (Hong Kong Constitution). This is in order that the agencies empowered to participate in the investigation and prosecution process can carry out their duties in the most independent and professional manner.

Therefore, though ICAC has been given great powers, Hong Kong still does not forget to establish power monitoring and control institutions such as Advisory Committees with members being typical citizens under the chairmanship of members. civilian staff to oversee the work of ICAC. In addition, the ICAC Complaints Committee is an independent watchdog that reviews all non-criminal complaints against ICAC or its employees. The ICAC Complaints Committee is composed of members of the Legislative Council and prominent members of the community appointed by the Chief Executive. In addition, the control of ICAC from the inside is assigned to the An internal investigation and monitoring unit. This institution is responsible for investigating employee discipline violations, allegations of corruption against ICAC employees, and non-criminal complaints against ICAC or its employees[10].

[9] Tony KWOK Man-wai (2016), sđd, page 100

[10] https://www.icac.org.hk/en/check/balance/index.html

In order to ensure a balance between the agencies involved in the proceedings, the Independent Judiciary institution obliges ICAC to obtain the approval of the Court when it is necessary to find a presumption, and requires the suspect to temporarily hand over documents of his or her discretion. themselves and freeze their assets. This mechanism is intended to ensure that ICAC is careful and does not abuse its power during the investigation process. In addition, Hong Kong awarded Separate Power of Prosecution to the Minister of Justice after ICAC completed its investigation. ICAC does not issue penalties or sentences on its own. The Department of Justice decides whether to proceed with the prosecution on the basis of the evidence obtained by ICAC with consideration of the public interest[11]. This separation of powers emphasizes that the ICAC, although it is given almost absolute power in the investigation process, cannot have full jurisdiction over any violation cases.

4.2. Making sure that the principle of independence and "return" in the prosecution process

Notwithstanding the fore codified in the Constitution and Law. However, how to implement these principles in practice is what Hong Kong people care about most. They always monitor and evaluate these "golden rules" in cases where there are signs and opportunities that may violate them. For example, in the 2003 case involving Mr. Antony Leung, the Minister of Finance, because he knew in advance that the car tax was about to be increased, he bought an expensive car for his wife just before the deadline. price increase. According to regulations, after ICAC finished investigating this case, the Minister of Justice was responsible for carrying out the prosecution of Mr. Antony Leung, without any interference. But in so as to avoid (“resentment”) biases that may actually occur because the Minister of Justice is a political colleague of the person in question, the Minister of Justice has authorized decision-making in the school. this case to the Director of the Public Prosecution Service. The authorization is made on the basis that the Director of Public Prosecutions, after making a decision, will explain the basis for that decision to the Minister, from which he will have the same explanation with others when request[12].

As such, ICAC has the power to conduct investigations, collect evidence, arrest and detain people suspected of corruption. The decision on how to conduct the prosecution process to ensure the principle of independence of the prosecution depends greatly on how the Attorney General handles it.

4.3. Legal system

Stemming from a change in mindset that does not view corruption as other common crimes, the Hong Kong legal system has developed both comprehensive and specific regulations to proactively deal with corruption.

The triple Prevention of Bribery Ordinance (POBO), Elections _Corrupt and Illegal Conduct (ECICO) and The Independent Commission Against Corruption Ordinance (The ICAC Ordinance) are excellent legal bases for fighting corruption.

In specially, POBO develops standards for civil servants and public officials to prevent bribery in the public sector and limits on trusts and commissions in business activities to prevent bribery in the private sector core[13]. The ICAC Ordinance is the legal document that empowers

[11] Corinna Wong, *Anti-corruption measures of the independent commission against corruption, Hong Kong special administration region, China and strategies and experience of its community relations department,* 21th UNAFEI UNCAC training programme visiting experts’ papers

[12] Painter, Martin, Dao, Le Thu, Hoang, Manh Chien, and, Nguyen, Quang Ngoc (2012), Sđd, page 52

[13] Prevention of Bribery Ordinance (https://www.elegislation.gov.hk/)

ICAC in law enforcement activities such as investigation, arrest, detention and release of bail[14]. ECICO governs all conduct related to an election, whether it is performed before, during or after the election. election or conducted at a location other than Hong Kong[15], ECICO ensures democratic and transparent elections between voters and candidates.

Moreover, the Hong Kong law also details that, in addition to the usual bribery offenses, there are three crimes that are only specified for corrupt criminal groups: (i) prohibiting public officials from accepting gifts, giving borrowing, discounting and exceeding a legally permissible limit, whether or not for corrupt purposes; (ii) public servants possess assets that are not commensurate with official income, all of which are considered to be the result of corruption. (iii) Violation of conflicts of interest: prohibiting public servants from abusing their powers in favor of others[16].

4.4. Professional staff

As considering the relationship between law and development, i.e. what role does law play in the prosperity and decline, wealth and poverty of countries, Max Weber emphasized the necessity of professional civil servants. He (Weber) said that the law can only be effectively implemented by a team of professional civil servants.

Law enforcement in againsting-corruption is probably even more difficult because of the specificity of the individual who commits the crime, that is, those with power, and the abuse of power for corruption is often very subtle and elusive. start.

Therefore, in addition to the position of an independent head and equal to that of the head of the police agency, ICAC pays special attention to building a staff that is both as specialized and versatile as possible.

The recruitment requirements and recruitment process in ICAC are publicly available on the official ICAC portal. In addition to the professional requirements (being experts in different fields and lawyers), foreign languages and law (fluency in English, Chinese and knowledge of the Constitution, the trio of laws, the executive order of the Chamber of Commerce and Industry). anti-corruption), candidates are even required to undergo a lot of direct physical exams for certain positions. Physical exams are not only to determine if they are fit for the task, but also to demonstrate that they have a healthy lifestyle and encourage it.

However, what is most important to professional civil servants is integrity and passion for the "againsting-corruption mission". As Tony KWOK Man-Wai, who has nearly 30 years of againsting-corruption experience and works in ICAC once said: "I have maintained a strong passion for anti-corruption mission".

In addition to the ICAC staff, prosecutors in charge of prosecuting cases investigated by ICAC are also carefully selected for both expertise and integrity. The judges in charge of adjudicating corruption-related cases ensure high expertise, fair trial but always uphold the spirit of againsting-corruption. That's one of the reasons why the conviction rate for cases ICAC investigates is up to 80%[17].

[14] The ICAC Ordinance (https://www.elegislation.gov.hk/)

[15] Elections (Corrupt and Illegal Conduct) Ordinance (https://www.elegislation.gov.hk/)

[16] Tony KWOK Man-wai (2016), sđd, page 101

[17] Tony KWOK Man-wai (2016), sđd, page 105

5. CONCLUSION

We have many reasons for countries failing to adopt the againsting-corruption agency model. The reasons as analyzed above may be due to the lack of deep understanding of the againsting-corruption agency, the inappropriate and effective design of the implementation strategy, the correlation between the two legislative and executive branches in the role of establishing and ensuring the operation of anti-corruption agencies. And there is another factor that is also very important to be able to build an effective againsting-corruption agency, which is the state funding for this agency.

Hong Kong uses 0.2% of the national budget for ICAC, and in most countries with corruption where the anti-corruption agency is not effective, the budget spent on this agency is always below. 0.01%[18]. This, by extension, is not only a matter of funding, but also that the political will of those Governments is not strong enough.

In short, Hong Kong's success in fighting corruption, in addition to concrete lessons, also gives us a strong value of faith in winning the fight against corruption. That is, even if the problem of corruption in a country has No matter how bad it is, it can hardly be more terrible than the starting point of Hong Kong, but if Hong Kong has succeeded, other countries can also do it if they are determined enough, understand and properly apply similar strategies, especially institutional reforms.

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[18] Tony KWOK Man-wai (2016), sđd, page 106

KIDFLUENCERS UNDER THE LAW: NOTHING TO PROTECT THEM FROM FINANCIAL EXPLOITATION

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Abstract

We are living in a digital transformation era, which affects nearly every aspect of daily life. Legal discussion is not exlusive. In this regard, current attention has been placed on an emerging type of exploitation: digital child labor.

This serves as a background to this paper's research question, which is simple and straightforward: Are there any Vietnamese laws protecting kidfluencers from financial exploitation? To answer this question, the paper will firstly look into some real-life situations where financial exploitation could occur. Next, two most prominent regulations in the field, namely the Labor Code 2019 and the Law on Children 2016 will be analyzed. The laws of the USA and France will also be examined to reach the final conclusion. The lack of current regulation, or to be clearer, the lack of a much more specific regulation, leads to a simple and straightforward conclusion: no, there are nothing under the law to protect kidfluencers from financial exploitation.

Key words: *kidfluencers, financial exploitation, child labor*

INTRODUCTION

Uploading stories and pictures, sharing daily experiences, working with international brands, getting PR packages, modeling, and making money. Today, thoudsands of kids all across the world find themselves using this job description.

Without giving it a second thought, we immediately label child labor when youngsters are employed. When we talk of child labor, we frequently picture lower-class, illiterate families who send their kids to work without realizing the harm that is being done to them. But, just like everything else in the world, the idea is changing.

Influencers, who are typically from upper-class and educated families, are now "sending their kids to work" from the convenience of their own homes and transforming them into "kidfluencers", a term used to colloquially caleld a child who is an influencer on social media, or who has large social media followings (Sundaravelu, 2022).

The first part of this paper discusses the financial exploitation facing kidsfluencers. The second part will then point out the absence of relevant legislation in Vietnam, by studying the USA and French legal regulations.

FINANCIAL EXPLOITATION FACING KIDSFLUENCERS

In the environment of social media, children run the risk of being used by both their parents and the businesses that support them. Every parent with internet connection has the potential—and possibly delusion—of making millions of dollars by commercializing their kids

on social media.[19]

Since there are no laws protecting their profits, kidfluencers are particularly vulnerable to financial exploitation. There is currently no method to give kidfluencers legal ownership of their revenues from social media content, unless their parents willingly let it. These young children, who are crucial to the success of their channels, are giving up their privacy and working long hours every week without being paid for it (Wong, 2019). Making a child a kidfluencer can have major long-term financial repercussions, especially if their social media work prevents them from thriving in school or acquiring other abilities, or even if it harms their reputation in a way that is generally known (Masterson, 2021).

Some influencers' parents claim that the children are merely having fun or vaguely aware of what they are doing. However, the line between parentally mandated employment and innocent childish play is extremely thin, especially in light of the fact that every dollar a child makes belongs to his or her parents since they don't even control their social media accounts. Many platforms forbid users under the age of thirteen from creating profiles, so no pre-teen celebrities possess the accounts to which the platform distributes a portion of advertising revenue. Influencer agreements, in which marketers pay influencers to upload a photo or video of themselves endorsing a product, are apparently negotiated by parents and take place off of platforms. It could even be said, then, that internet platforms are the modern mines in a provocative comparison.

In Vietnam, kidfluencers accounts are garnering more and more attention and have a significant impact on social networking platforms. A major portion of the kidfluencers community in Vietnam is made up of a group of kids who are younger than seven years old. A few kidfluencers under the age of seven can be named, including the account @annhien_boiboi on Tiktok, which has more than 10 million followers or @banhbaoxinchao, which has more than 2.5 followers on Tiktok, and the children of some well-known artists who have also found success on social media. It is understandable that these kidfluencers are able to win numerous advertising contracts from brands thanks to their influnence.

Recently, a kidfluencer-related incident occurred in Vietnam, sparking a contentious public debate. This case involves the scandal involving Hoang Huong Clinic and Be Phung Phinh, a 14-year-old child influencer. Be Phung Phinh, whose real name is Mua thi Dua, was born into a low-income family of an ethnic minority in a mountainous area in Ha Giang province. Hoang Huong clinic's owner saw potential in this youngster when her pictures went popular online, so Huong gave Be Phung Phinh's parents money so they could send her to Hanoi (PV, 2022). Huong released numerous videos of Be Phung Phinh's daily life in the city, and they received millions of views on Facebook, Tiktok, YouTube, and other platforms. The clinic owner then developed a livestream program with Be Phung Phinh to advertise the goods and services of Hoang Huong clinic. The Ministry of Health identified the Hoang Huong clinic's products as being unlicensed, and the clinic was punished for making false claims about its products (PV, 2022). Additionally, Hoang Huong informed the online followers that she was Be Phung Phinh's official sponsor and that with her support, this kidfluencer would have a better future. In the end, online comments and debates revealed the truth about the kidfluencer in the Hoang Huong clinic. Under pressure from the public, Hoang Huong posted on the clinic's Facebook fan page that the influencer's image had been removed, and she had stopped working with the kidfluencer.

[19] https://scholarship.law.upenn.edu/cgi/viewcontent.cgi?article=9726&context=penn_law_review

Among the controversies that have emerged, one of the most prominent concerns the profits derived from the use of Be Phung Phinh's images. The controversy naturally fell into a dead end because of the lack of relevant legal provisions to protect kidfluencer's interests, especially when it comes to financial matters.

THE SILENCE OF THE LAWS

It could be seen that *kidfluencers are not considered as employees under the* provisions of the Labor Code 2019. Article 3.1 of the Labor Code stated that: *"Employee means a person who works for an employer under an agreement, is paid, managed and supervised by the employer. The legal working age is 15, except for the cases specified in Section 1 Chapter XI of this Labor Code."*

In fact, there are almost no cases where parents contract with kidfluencers to use pictures of these children on social networks. It would often be argued that parents simply want to share pictures of their children on social networks, even if the sharing is profitable. Thus, it is very hard to conclude that kidfluencers are employed by their parents . Secondly, regarding the scope of employment, *Section 1 Chapter XI of the Labor Code 2019* is specified under Circular 09/2020/TT-BLDTBXH, which allows children to work in jobs relating to *"art performance"*.

Clauses 2 and 3 of Article 2 of Decree 144/2020/ND-CP on Performing Art Activities stated that: "*Art performance is an activity that showcases many sorts of performing arts such as theater, music, dance, and other traditional and modern forms of folk performance in Vietnam and throughout the world*."

In this regard, it could be argued that kidfluencers do not perform; instead, they record their actual life and upload the footage, which shows their genuine reactions and emotions. Kidfluencers "perform" in the comfort of their own homes rather than on a stage (Wong, 2019). On the basis of this, it may be claimed that kidfluencers' video filming and social media posting of their behaviors do not fall into the definition of performance art.

Conclusively, kidfluencers are not considered employees under the Labor Code 2019. As such, they cannot enjoy the protections provided under this Code.

This inapplicability of the Labor Code 2019 affects the effectiveness of the Law on Children 2016. Particularly, Article 26 of Law on Children 2016 stated that "*the child has the right to protection from all forms of labor exploitation*". However, as stated above, kidfluencers are not considered to be employees.

In this case, US law is relevant as a case study. Particularly, the Coogan Law provides a method of security for the child performers: Except for an employer of a minor for services as an extra, background performer, or in a similar capacity, as stated in paragraph (3) of subdivision(b) of Section 6750, the court shall require that 15% of the minor's gross wages under the contract be set aside by the minor's employer. According to Section 6753, these funds must be kept in a trust, saved up in an account, or otherwise safeguarded for the advantage of the minor. However, it should be noterd that no states currently require Coogan trusts for social media influencers (n.d.).

With that being said, Coogan trusts have been a leading example in the way that it makes sure that the child gets paid for their talent and work, even while they do little to stop bargaining inequities or underpayment (SULEIMAN, 2022). In particular, although it may not be clear to what extent authorities should regulate the creation of social media content, they can easily offer kidfluencers financial security through Coogan trusts. Normally, parents are responsible for

safeguarding their kids' finances, but when they stand to make millions off of their kids' social media posts, parental motivations turn twisted. Kidfluencers are shielded from the same financial hardship that numerous child stars before them experienced at the hands of their parents by requiring Coogan trusts (n.d.). Coogan trusts make sure that these kids get paid for their labor and for losing their privacy, which is what is required by inherent fairness.

In this situation, establishing a threshold amount at which Coogan trusts are necessary is suitable since it only governs children who are at danger of financial exploitation, reducing state interference in the family. That is to say, if a kidfluencer can make $500 or more off of a single post, it is likely that they have built up a following and a sizable online presence, raising the already highlighted concerns about financial exploitation and other ills. The criterion, however, excludes households that might use social media purely for recreational purposes and have not yet grown their business to the point where their children are significantly put at danger (Masterson, 2021).

Quite similarly, the French Labor Code has issued regulations to prevent child exploitation in several ways. One of which is the establishment of a separate fund for kidflunencers' income. Particularly, article L7124-9 of the French labor Code authorizes part of the minor's earnings to be made available to the child's legal representatives (Andree, n.d.). However, the surplus, which constitutes the nest egg, is paid to the Caisse des Dépôts et Consignations and managed by this fund until the child reaches the age of majority. In the event of not complying with the Laws, an individual will be given a fine of 3,750 Euro as written in Article L7124-25. The scope of article L7124-1 is extended to comprise children working for an employer "*whose activity consists in making audiovisual recordings of which the main subject is a child under the age of sixteen, with a view to distribution for profit on a video-sharing platform service*" (Andree, n.d.).

The example of the US and France can be leading examples for other countries, especially Vietnam to develop legal protections for kidfluencers.

CONCLUSION

With the development of "kidfluencers," a new type of work has emerged that is not covered by our state-based system of child acting laws. Children work for hours each day creating valuable content under the supervision of their parents with no other kind of financial or personal security except their parents' goodwill. Currently, the legal regulations in Vietnam related to protecting the financial interests of kidfluencers are almost absent. Therefore, it is necessary to consider the legal regulations of developed countries, such as the US and France, to build a more complete Vietnamese legal system.

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PART 3

ECONOMICS, ENVIRONMENT AND DIGITALIZATION

DISASTER ASSISTANCE AND MULTIDIMENSIONAL POVERTY: EVIDENCE FROM RURAL VIETNAM

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Abstract

The study applied the Alkire–Foster method to measure deprivation scores used to assess multidimensional poverty, based on the Vietnam Household Living Standard Survey 2018. Most multidimensionally disadvantaged households are concentrated in the South, including the Mekong River Delta and Central Highlands. The propensity score matching (PSM) method showed that receiving disaster assistance had a negative impact on deprivation scores in multidimensional poverty. For Kernel-based matching, if households received assistance, the deprivation score would be decreased by 0.017. It was a similar result for nearest-neighbour and radius matching, reducing by 0.016 and 0.015 scores in the deprivation scores, respectively. Moreover, the study showed that people who lived in North Central received the most assistance, accounting for 30.12% of the total assistance. This was followed by the Red River Delta, accounting for 23.68%.

Keywords: *disaster assistance, multidimensional poverty, deprivation score, Propensity score matching, Alkire & Foster method*

1. INTRODUCTION

In many countries, it is evident that poor people are disproportionately impacted by natural disasters. In fact, most of the poor are more vulnerable to shocks. For the poor, any effect on their assets or consumption threatens their subsistence and long-term prospects. Moreover, it is quite difficult for the poor to reduce risks or even cope with them because they have fewer resources (Hallegatte et al., 2020). Poor people and poor countries are significantly affected and are more vulnerable to natural disasters that damage property and livelihoods; in particular, they are vulnerable to waterborne diseases and pests during floods, drought, or even failure in cultivation (Hallegatte et al., 2016). Natural disasters can be cruel in terms of losses of human life and livelihoods (Sawada & Takasaki, 2017). In these circumstances, governments provide disaster victims with subsidies or even low-interest loans (Barnett, 1999). Governments often offer programs to help farmers restore their financial capability after natural disasters such as droughts and floods. It can protect crop producers from the inevitable risks associated with unfavorable weather (Shields, 2015).

Vietnam is a developing country exposed by natural hazards seriously. In fact, this country is heavily affected by riverine and coastal flooding, with approximately 70% of the population living in low-lying deltas and coastal areas (GFDRR, 2015; Bangalore, 2019). According to

Hallegatte et al. (2020), one-third of the population is exposed to floods in a 25-year cycle without the benefit of protection. Furthermore, it is predicted that climate change is increasing sea levels and the frequency and intensity of floods in Southeast Asia (IPCC, 2014; World Bank, 2014). The Central Steering Committee for Natural Disaster Prevention and Search and Rescue in Vietnam records many natural disasters. In 2018 the economic damage alone was estimated at 900 million USD. The three main types of disaster – storms, floods and droughts – have a negative influence on household income and expenditure. Hence, disaster assistance programmes allow households to access micro-credit and social grants and can help strengthen their resilience to natural disasters (Arouri et al., 2015). In short, disaster assistance plays an important role in the rehabilitation of livelihood and production.

This study contributes to the literature and the development of practice in several ways. First, this study explores the impact of disaster assistance on deprivation scores in multidimensional poverty by using the propensity score matching (PSM) method. Second, by using a dataset from the Vietnam Household Living Standard Survey (VHLSS) from 2014 to 2018, the study helps determine the impact of such assistance, not only for the country as a whole but also for the six economic regions. It identifies the specific effects for each area to support policymakers effectively. Third, the Alkire-Foster measure of multidimensional poverty is applied with several new sub-component indicators based on the poverty line in Vietnam; hence, it can identify the poverty rate more effectively and accurately.

2. POVERTY AND NATURAL DISASTER ASSISTANCE

Poverty is a measure of a household's level of happiness (or deprivation). It represents the household's lack of resources or its ability to meet current needs (Chaudhuri, 2003). People are considered poor if they were deprived in three or more of twenty-six possible areas of deprivation (Mack & Lindsay, 1985). Many studies related to poverty conducted in recent years are based on Sen (1976). However, while the principles from the Sen Index are understood by researchers, the index itself is not clearly expressed; this may be due to its association with the Gini coefficient, which means it cannot be decomposed. Moreover, there is no consistency across subgroups, which leads to limitations in some applications (Foster & Shorrocks, 1991). Hence, many studies develop alternative indicators to Sen's measure (Thon, 1979; Clark et al., 1981; Chakravarty, 1983; Foster, Greer, &Thorbecke, 1984; Foster & Shorocks, 1991). Most previous studies use the poverty line to measure poverty by income or expenditure (Foster, Greek & Thorbecke, 1984; Arpino, 2010; Arpino & Aassve, 2013; Amara & Jemmali, 2018).

However, the income or expenditure approach does not accurately reflect household poverty and is replaced by the multidimensional poverty approach. To give consideration to this problem, the Alkire–Foster method illustrates the multidimensional deprivation that the poor have to suffer through (Alkire and Foster, 2007). In particular, the Alkire–Foster multidimensional method (Alkire and Foster, 2007; Alkire & Foster, 2011a & 2011b) is commonly applied in recent studies because of the easy-to-understand method to calculate the MPI.

This is considered a useful tool for policymakers to accurately study and evaluate poverty across multiple dimensions such as education, housing, employment, and income. Furthermore, the commonly used method has a practical advantage; it can be computed with order or scale data (Alkire et al., 2017). It is applied to measure dimensional poverty by using measurements of health, education, and living standards (Ogutu et al., 2020) or indicators of living standards, health, employment, education, social protection and environmental context (Pinilla-Roncancio et al., 2020). Until now, measures of multidimensional poverty were based on counting methods

that are universally applied by policymakers because of the ordinal and dichotomous nature of the relevant data (Atkinson, 2019). In Vietnam, the Alkire–Foster method has been applied by the government for several years. Therefore, it is appropriate to use the method in this study to identify the deprivation score for households in Vietnam.

3. METHODOLOGY

3.1. Alkire–Foster method for multidimensional poverty measurement

Alkire and Foster (2007) use the cut-off method to identify who is poor in terms of multidimensional deprivation. This method is considered adaptable for different contexts and goals. Furthermore, it can be applied with different dimensions and indicators to become a suitable tool for various countries.

First, the headcount ratio (H) is computed by dividing the number of multidimensionally poor household (q) by the number of total household (n): H = $\frac{q}{n}$. This headcount ratio is considered a useful way to measure the percentage of poor people. However, this index does not increase when the person experiences more dimensional deprivation, and it does not allow for the separation and comparison of groups. Therefore, it is necessary to use other measures to analyse poverty.

The average deprivation share (A) is calculated. This average multidimensional deprivation is the ratio of the total weight of deprivations and the total number of multidimensionally poor people calculated as follows.

Let $A = |c(k)|/(qd)$; with $c_i(k)/d$ representing the possible poverty rate of a poor person *i*. This index conveys information related to multidimensional poverty, namely the proportion of possible dimensions of deprivation *d* that the average poor person endures. A household is identified as multidimensionally poor if the areas of deprivation are greater than the poverty line; that is, $c_i \geq k$. It is first necessary to determine the number of dimensions *d* in the multidimensional poverty analysis; each poverty dimension will be measured for the index with *k* components I_k.

Next, the gaps are identified for each component indicator. Once there is a gap in each component indicator, for each household *i*, the gap is estimated using the following formula: $c_i = \sum_{k=1}^{K} w_k I_k$ where w_k is the weight of the component index I_{ki}, I_{ki} is the value of the component index *k* of household *I*; and *K* is the total number of the component index. The I_{ki} component indices are defined as binary indices, with a value of 1 indicating the presence of a deficiency in that component. A value of zero means that there are no people suffering deprivation in that area. The weight of the component index depends on the number of dimensions and the number of component indices in each dimension. The total weight value is 1, or $\sum_{k=1}^{K} w_k = 1$, the higher the value, the larger the multidimensional deprivation. The deprivation scores range from 0 to 1; if the value is zero, a household is not deprived on any dimension. If the value is equal to 1, a household is deprived across all dimensions. A person is experiencing multidimensional poverty if the weight of total deprivation scores is equal to 1/3 or more (Alkire and Foster, 2011a; Alkire et al., 2018). The deprivation score is used to represent a household's multidimensional poverty in this study.

Finally, the MPI is computed. The MPI represents both the headcount ratio (*H*) of poverty and the average deprivation share (*A*). Specifically, H is the proportion of the population who are multidimensionally poor, whereas A is the average deprivation. The MPI is equal to the product of the multidimensional poverty rate H and the average deprivation share A: $MPI = H \times A$. The

MPI takes values from 0 to 1. The higher the MPI value, the greater the level of multidimensional poverty. The MPI is different from the headcount rate because it not only reflects multidimensional poverty but also illustrates the depth of that poverty (Alkire and Foster, 2007; Alkire et al., 2018).

3.2. Data

The results are based on Vietnam Household Living Standard Survey in 2018 (VHLSS) with a multi-stage probability sampling method. The number of the total observed rural households is 23,183 households, with cross-sectional data. Ten indicators are extracted from the data set to measure multidimensional poverty along three dimensions: education (years of schooling, school attendance), healthcare (access to health services, health insurance), and standard of living (quality of housing, housing area per capita, water source, toilet, telecommunication services and assets for access to information). These indicators are based on Decision No. 59/2015/QD-TTg of the Prime Minister promulgating the applicable multidimensional poverty levels for the period 2016–2020.

Table 1: Multi-dimensional poverty measurement

Dimensions of poverty	Indicators	Deprived if…	Wei-ght	Source
Education	Years of schooling	No household member (aged 10 or older) has completed five years of schooling	1/6	Alkire & Foster, 2011b; Alkire & Santos, 2014; Alkire et al, 2017b; Alkire et al, 2018; Santos & Villatoro, 2018; Decision 59/2015 / QD-TTg- Vietnam
	School attendance	Any school-aged child (5-14 years old) in the household is not currently attending school	1/6	Alkire & Foster, 2011b; Alkire & Santos, 2014; Alkire et al, 2017; Alkire et al, 2018; Santos & Villatoro, 2018; Decision 59/2015 / QD-TTg- Vietnam
Health care	Access to health services	Any adult or child in the household is so sick or injured that they had to lie in one place and had to be taken care of in bed, or even though they cannot participate in normal activities, they cannot go get a medical examination and treatment	1/6	Decision 59/2015 / QD-TTg-Vietnam
	Health Insurance	Any child (6 years old or older) who currently does not have health insurance	1/6	Decision 59/2015 / QD-TTg-Vietnam
Standard of living	Housing quality	People are living in a house that is not permanent or are	1/18	Alkire et al, 2018; Santos & Villatoro, 2018; Decision

	in a simple house		59/2015 / QD-TTg- Vietnam
Housing area per capita	Housing area per capita is less than $8m^2$	1/18	Decision 59/2015 / QD-TTg-Vietnam
Water	The household does not have access to safe water	1/18	Alkire & Foster, 2011b; Alkire & Santos, 2014; Alkire et al, 2017b; Alkire et al, 2018; Santos & Villatoro, 2018; Decision 59/2015 / QD-TTg- Vietnam
Toilets	The household does not use a hygienic toilet	1/18	Decision 59/2015 / QD-TTg-Vietnam
Telecommunications services	No members in the household use phone subscription and internet	1/18	Alkire & Foster, 2011b; Alkire & Santos, 2014; Alkire et al, 2017b; Alkire et al, 2018; Decision 59/2015 / QD-TTg- Vietnam
Assets for access to information	The household does not own more than one of the following: radio, TV, computer, and cannot hear the loudspeaker system of the commune / village radio	1/18	Alkire & Foster, 2011b; Alkire & Santos, 2014; Alkire et al, 2017b; Alkire et al, 2018; Decision 59/2015 / QD-TTg- Vietnam

Source: Alkire & Foster, 2011b; Alkire & Santos, 2014; Alkire et al, 2017b; Alkire et al, 2018; Santos & Villatoro, 2018; Decision 59/2015 / QD-TTg- Vietnam

Moreover, in this study, the propensity score method (PSM) is used to assess the impact of receiving disaster assistance on multidimensional poverty. Hence, in the first step, the reduced form of the Probit regression is shown below:

$$Y_i=\alpha_0 + \sum_{i=1}^{n} \beta_i x_i + \varepsilon_i$$

where Y_i is the binary dependent variable (household receiving disaster assistance= 1, otherwise 0); X_i indicates the hypothesized explanatory variables, and control variables consist of age, gender, ethnicity, illiteracy, no degree, primary, junior high school, high school, married, children, disability/sick, elderly/retired, unemployed, having income from agricultural activities, credit, poverty, farmland, renting land for production, Northeast, Northwest, Red River Delta, North Central, South Central Coast, Central Highland, Southeast, and $\varepsilon_i$is the error term. These variables also are extracted data from VHLSS 2018.

3.3. Propensity score matching (PSM)

To assess the impact of a household receiving disaster assistance on deprivation scores in multidimensional poverty, the average treatment effect on the treated (ATT) is used in this study through the propensity score matching (PSM) by Rosenbaum & Rubin (1983). The propensity score is considered the conditional probability of assigning a particular treatment to an observed covariate vector. Both large and small sample theories indicated that adjusting for the scalar propensity score is adequate to eliminate bias due to all observed covariates (Rosenbaum &

Rubin, 1983), the ATT is identified as follows:

$$ATT = \mathrm{E}\left[\mathrm{Y(1)_i} - \mathrm{Y(0)_i} | T_i = 1\right] \quad (1)$$
$$= \mathrm{E}\left[\mathrm{Y(1)_i} | T_i = 1\right] - \mathrm{E}\left[\mathrm{Y(0)_i} | T_i = 1\right]$$

where $Y(1)_i$ and $Y(1)_0$ denote the potential outcome variables (deprivation scores in multidimensional poverty) for treatment and no treatment (Abadie & Imbens, 2016) if a household receives disaster assistance or did not receive disaster assistance, respectively. The value T =1 indicates the farmer group receiving disaster assistance and 0 for otherwise. Hence, $E[Y(1)_i \mid T=1]$ is observable (actual outcome) while $E[Y(0)_i \mid T=1]$ is the outcome of these households that did not get disaster assistance or called counterfactual outcome (Caliendo & Kopeinig, 2008; Zhang et al., 2021). The PSM method consists of two stages: (i) estimating the propensity score of the household group receiving disaster assistance and (ii) constructing a control group through matching. To begin with, the propensity score will be estimated as follows:

$$p(X) = \Pr[T = 1 | X]; p(X) = F\{h(X_i)\} \quad (2)$$

where *p(X)* indicates the propensity score, *Pr* illustrates the likelihood of the household group receiving disaster assistance, and *T* is the treatment status. The term $F\{h(X_i)\}$ denotes the probability distribution in the model. In this study, the Probit regression is used to estimate the probability of the household group receiving disaster assistance.

In the next stage, a control group is set up by using a matching process based on the propensity score calculated from the first stage. There are several methods for a matching process (Hudson et al., 2014) including (i) Nearest-neighbour matching, radius matching, stratification matching, and Kernel matching. In this study, radius and Kernel matching are used in a matching process in the second stage. The radius matching uses all comparison units within a predefined radius. Moreover, it uses as many comparison units available within the radius and allows extra units to be used if good matches are not available (Shehu & Sidique, 2014).

Then, the impact of households receiving disaster assistance on deprivation scores in multidimensional poverty could be determined by the following formula:

$$ATT_{(PSM)} = E\left[E\left\{Y(1)_i | T_i = 1, p(X_i)\right\}\right] - E\left[E\left\{Y(0)_i | T_i = 0, p(X_i)\right\} | T = 1\right]$$

The term $Y(1)_i$ denotes the outcome variable, or the deprivation score of households who received disaster assistance, ranging from 0 to 1. The term $Y(0)_i$ shows the outcome variable of households did not receive disaster assistance. *T* reveals the household group with binary value, *T* =1 indicates the household group receiving disaster assistance, and 0 for otherwise.

4. RESULTS

4.1. Multidimensional poverty status quo

Between 2016 and 2018, there was a significant decrease in the shortage rate of all poverty dimensions in Vietnam; this contributed to a moderate fall in the number of multidimensional poor households in the country in recent years. Data show that lack of health insurance ranked first in all six economic regions, with a significant reduction from 55.12% to 39.04% in Southeast and 45.86% to 28.71% in Mekong River Delta. The same tendency was found in other regions. The shortage of sanitary restroom facilities ranked second, although it decreased rapidly by nearly a quarter in the Northeast and Central Highlands (Table 2).

Table 2: The shortage rate of dimensions in rural regions in Vietnam from 2016-2018 *Unit: %*

Provinces	Adult education level		Children's education level		Access to medical services		Health Insurance		Home quality		Housing area per capita		Water		Toilets		Telecom-munications services		Property for access to information	
	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018	2016	2018
Northeast	4.03	4.69	1.13	1.20	0.76	0.60	22.92	12.27	9.32	9.81	2.90	2.96	17.13	14.38	63.60	38.85	3.65	5.22	4.66	10.6
Northwest	6.36	6.83	2.78	2.96	1.19	0.87	15.90	6.35	12.92	8.77	11.93	9.98	35.59	23.84	69.78	46.80	5.37	7.80	6.96	16.4
Red River Delta	4.68	5.06	0.07	0.37	0.65	0.91	49.39	26.92	0.43	0.35	4.75	3.68	1.22	0.87	19.01	7.48	8.21	7.40	4.10	0.8
North Central	6.04	5.92	0.66	1.24	1.71	0.96	33.46	15.28	3.54	2.48	5.77	5.11	7.22	7.16	52.76	31.17	7.48	9.15	7.22	3.2
South Central Coast	13.38	11.56	1.62	1.46	1.18	1.00	32.79	20.12	2.21	1.34	6.91	5.15	7.79	4.34	29.26	18.09	9.71	9.98	5.00	3.5
Central Highlands	8.80	5.92	3.84	3.58	1.35	1.68	39.05	25.51	1.81	1.75	16.70	12.79	19.19	6.65	57.34	32.75	8.58	14.84	4.97	7.5
Southeast	7.08	8.27	1.12	1.82	0.74	2.19	55.12	39.04	3.35	1.50	4.84	4.20	2.23	0.75	24.77	8.08	3.54	3.88	2.42	3.5
Mekong River Delta	13.55	14.18	1.76	2.20	0.91	0.67	45.86	28.71	9.34	6.47	3.51	2.71	10.53	12.98	43.19	29.62	5.34	5.77	2.39	4.2

Source: VHLSS 2016 and VHLSS 2018

Conversely, the shortage rate of other dimensions in this region only fluctuated from 0.75% to 4.2%. Red River Delta had the lowest multidimensional poverty in comparison with other regions. Most of the region's shortage rates were under 1% for the dimensions of children's education, access to medical services, home quality, hygienic water, and assets for access to information. Moreover, these indicators were improved during this period (Table 2). The decreasing frequency of multidimensional poverty in rural regions of Vietnam from 2016 – 2018 is clear proof of the country's economic growth that resulted from renovation starting in the 1990s.

4.2. Distribution of the multidimensional poor households in Vietnam in the period from 2014 to 2018 by economic regions

4.2.1. Distribution of the multidimensional poor households by province

ArcGIS 10.8 was applied to illustrate the headcount ratio (H) of 63 provinces in Vietnam between 2014 and 2018. Figure 1 shows the multidimensional poverty rate in 63 provinces in rural areas of Vietnam and the change patterns in the period. In general, there was a significant decrease in the poverty rate from 8.7% to 3.36% over four years. Moreover, results show that the South of Vietnam is poorer than the North in terms of multidimensional poverty (Fig.1).

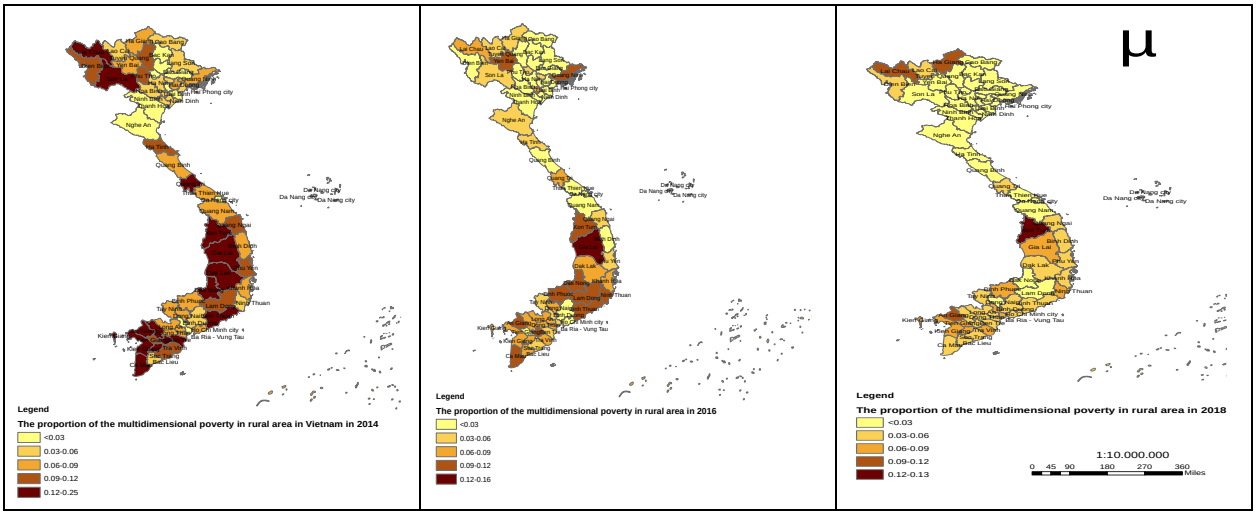

Fig. 1: The change in multidimensional poverty rate in Vietnam from 2014 to 2018

Source: VHLSS 2014, 2016, and 2018, ArcGIS 10.8

4.2.2. Multidimensional poverty index (MPI) by region in Vietnam in period 2014-2028

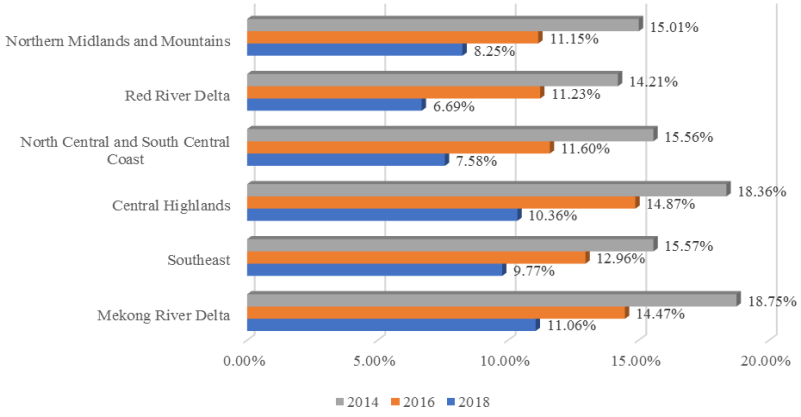

Fig. 2: The multidimensional poverty index (MPI) among six regions in Vietnam

Source: Calculated from VHLSS 2018

Figure 2 gives information about the value of the multidimensional poverty index (MPI) among regions in Vietnam. The value of MPI ranges from 0 to 1; the higher the value, the greater the depth of multidimensional poverty. The graph illustrates a pronounced moderate decrease in the trend of the MPI value for all regions in Vietnam from 2014 to 2018. Three Southern regions—Central Highlands, Southeast, and Mekong River Delta—had the highest MPIs and were, therefore, the poorest in terms of multidimensional poverty. Nevertheless, the MPIs among the regions in 2018 was not widely disparate.

Data reveals that approximately 45.78% of households (10,613 households) did not lack any dimensions. About 51% of households had deprivation scores ranging from 0.056 to 0.278. These results show that the percentage of households falling in the category of serious multidimensional poverty was relatively small, at only 3.34%.

4.3. The impact of disaster assistance on the multidimensional poverty levels of households in Vietnam

4.3.1. Descriptive statistics

The descriptive statistics of the variable used in the Probit regression are illustrated in Table 3 including the treatment group (households received assistance) and control group (households did not receive assistance). There were 342 households in the treatment group receiving disaster assistance, making up 1.48% of the total sample while 22,841 households did not receive such assistance. In general, for the treatment group, there were more households living in the drought-affected communes, while it was the opposite of the storm phenomenon. Most of the household heads in both treatment and control groups were male. The average age of the treatment group was higher, at 52.825 years old. However, there were more disabilities or sick members in the control group, it was the same thing for elderly or retired people. The majority of household head was Kinh people, at 73.10% and 76.96% for the treatment and control group, respectively. Meanwhile, the average of farmland area of households in the treatment group was much higher than that of the control group, at 8.495 thousand m^2 and 7.506 thousand m^2, respectively.

Table 3: Descriptive statistics

Variables	Treatment Group (HHs received assistance) (342 households)				Control Group (HHs did not receive assistance) (22,841 households)				
	(1) Mean	(2) Sd	(3) Min	(4) Max	(5) Mean	(6) Sd	(7) Min	(8) Max	(9) t-test
Living in communes affcted by floods (number of floods)	0.038	0.206	0	2	0.046	0.221	0	3	0.767
Living in communes affected by storms (number of storms)	0.018	0.131	0	1	0.044	0.227	0	3	2.088**
Living in communes affected by droughts (drought=1, otherwise =0)	0.023	0.151	0	1	0.004	0.066	0	1	-5.128***
Age (age of household head)	52.825	12.602	24	91	52.110	13.945	12	113	-0.942
Gender (gender of household	0.824	0.381	0	1	0.781	0.414	0	1	-1.935*

Variables	Treatment Group (HHs received assistance) (342 households)				Control Group (HHs did not receive assistance) (22,841 households)				
	(1) Mean	(2) Sd	(3) Min	(4) Max	(5) Mean	(6) Sd	(7) Min	(8) Max	(9) t-test
head)									
Ethnic (Kinh =1, otherwise =0)	0.731	0.444	0	1	0.769	0.421	0	1	1.691*
Illiteracy (Illiteracy=1, otherwise =0)	0.073	0.260	0	1	0.073	0.260	0	1	-0.011
No Degree (No Degree =1, otherwise =0)	0.123	0.329	0	1	0.181	0.385	0	1	2.761***
Primary (Primary =1, otherwise =0)	0.275	0.447	0	1	0.271	0.445	0	1	-0.153
Junior high school (Junior high school =1, otherwise =0)	0.436	0.497	0	1	0.315	0.464	0	1	-4.774***
High school (High school =1, otherwise =0)	0.088	0.283	0	1	0.123	0.328	0	1	1.968**
Intermediate and up (Intermediate and up =1, otherwise =0)	0.006	0.076	0	1	0.038	0.190	0	1	3.078***
Married (Married=1, otherwise =0)	0.862	0.345	0	1	0.806	0.395	0	1	-2.630***
Children (people)	1.000	1.058	0	6	0.927	1.032	0	7	-1.301
Disability/sick (people)	0.044	0.218	0	2	0.068	0.269	0	4	1.667*
Elderly/retired (people)	0.169	0.434	0	2	0.182	0.457	0	3	0.485
Unemployed (unemployed=1, otherwise =0)	0.085	0.279	0	1	0.127	0.333	0	1	2.341**
Income[a] (generating income from agriculture=1, otherwise=0)	0.997	0.054	0	1	0.789	0.408	0	1	-9.422***
Credit (participating in credit=1, otherwise=0)	0.239	0.427	0	1	0.197	0.398	0	1	-1.971**
Poverty[b] (poverty=1, otherwise=0)	0.140	0.348	0	1	0.120	0.325	0	1	-1.153
Farmland (1000m2)	8.495	15.903	0	180	7.506	24.687	0	2,824	-0.739
Renting land for production (renting=1, otherwise=0)	0.117	0.322	0	1	0.068	0.253	0	1	-3.507***
Northwest (Northwest=1, otherwise=0)	0.070	0.256	0	1	0.089	0.285	0	1	1.234

Variables	Treatment Group (HHs received assistance) (342 households)				Control Group (HHs did not receive assistance) (22,841 households)				
	(1) Mean	(2) Sd	(3) Min	(4) Max	(5) Mean	(6) Sd	(7) Min	(8) Max	(9) t-test
Northeast (Northeast=1, otherwise=0)	0.038	0.192	0	1	0.138	0.346	0	1	5.371***
Red River Delta (Red River Delta=1, otherwise=0)	0.237	0.426	0	1	0.232	0.422	0	1	-0.218
North Central (North Central=1, otherwise=0)	0.301	0.459	0	1	0.119	0.324	0	1	-10.255***
South Central Coast (South Central Coast=1, otherwise=0)	0.094	0.292	0	1	0.113	0.316	0	1	1.107
Central Highland (Central Highland=1, otherwise=0)	0.085	0.279	0	1	0.059	0.235	0	1	-2.039**
Southeast (Southeast=1, otherwise=0)	0.067	0.251	0	1	0.069	0.253	0	1	0.117
Mekong River Delta (Mekong River Delta=1, otherwise=0)	0.108	0.311	0	1	0.181	0.385	0	1	3.488***

Note: p-value denotes statistical mean differences between the treatment and control group (unmatched sample).

****p<0.01, **p<0.05, *p<0.1;* [a]*: Households generate income from agricultural activities in the past 12 months*

[b]*: Households with monthly per capita income of 700,000 VND or less*

Source: VHLSS 2018

Table 4: Determinants of households receiving assistance in 2018

VARIABLES	(1) Disaster assistance	(2) dy/dx
Living in communes affected by floods	-0.121	-0.00213
	(0.113)	(0.00201)
Living in communes affected by storms	-0.342**	-0.00602**
	(0.147)	(0.00269)
Living in communes affected by droughts	0.638***	0.0113***
	(0.200)	(0.00389)
Age	0.0052**	0.00009*
	(0.0022)	(0.00004)
Ethnic	-0.216***	-0.00381***

VARIABLES	(1) Disaster assistance	(2) dy/dx
	(0.0714)	(0.00136)
Gender	-0.0717	-0.00126
	(0.0853)	(0.00151)
Illiteracy[a]	0.545**	0.00961**
	(0.264)	(0.00473)
No Degree[a]	0.450*	0.00793*
	(0.255)	(0.00454)
Primary[a]	0.611**	0.0108**
	(0.250)	(0.00452)
Junior high school[a]	0.713***	0.0126***
	(0.249)	(0.00456)
High school[a]	0.466*	0.00821*
	(0.257)	(0.00457)
Married	0.182*	0.00320*
	(0.0958)	(0.00174)
Children	0.0207	0.000365
	(0.0235)	(0.000418)
Ederly/retired	0.0627	0.00110
	(0.0638)	(0.00113)
Disability/sick	-0.189*	-0.00333*
	(0.109)	(0.00196)
Unemployed	0.0140	0.000246
	(0.111)	(0.00196)
Income[b]	1.465***	0.0258***
	(0.272)	(0.00223)
credit	0.0634	0.00112
	(0.0548)	(0.000978)
Farmland (1000m2)	-0.000569	-1.00e-05
	(0.00147)	(2.60e-05)
Renting land for production	0.139*	0.00245*
	(0.0750)	(0.00137)
poverty	0.104	0.00183
	(0.0755)	(0.00135)

VARIABLES	(1) Disaster assistance	(2) dy/dx
Northwest[c]	-0.179	-0.00316
	(0.116)	(0.00209)
Northeast[c]	-0.511***	-0.00902***
	(0.122)	(0.00243)
Red River Delta[c]	0.129	0.00228
	(0.0837)	(0.00150)
North Central[c]	0.460***	0.00811***
	(0.0829)	(0.00183)
South Central Coast[c]	0.0649	0.00114
	(0.0963)	(0.00170)
Central Highland[c]	0.148	0.00260
	(0.106)	(0.00190)
Southeast[c]	0.378***	0.00667***
	(0.112)	(0.00214)
Constant	-4.497***	
	(0.402)	
Observations	23,183	23,183

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

[a]: compared to "high school and up" including Bachelor, Master, and PhD

[c]: compared to the Mekong River Delta region

[b]: Households have income from agricultural activities in the past 12 months

4.3.2. Determinants of households receiving assistance

Table 4 illustrates the Probit estimation of the determinants of households that received disaster assistance. There were sixteen variables that affected the receiving assistance including living in drought-affected and storm-affected communes, age, ethnicity, illiteracy, no degree, primary, junior high school, high school, married, disability/sick, income from agricultural activities, renting land for production, living in Northeast, North Central and Southeast region.

Agriculture is sensitive to drought as well as its associated social, environmental, and economic impacts. Hence, financial-based interventions help to support drought-affected farmers (Goodwin et al., 2022). Drought is considered a natural phenomenon, seriously affecting agricultural activities, people's livelihood, and human life (Phan et al., 2020). In this study, if the household lived in communes affected by drought, the likelihood of receiving assistance will increase by 1.13 percent.

The coefficient of the age variable is positive, which means that if a household head is older, the likelihood of receiving disaster assistance increases. Furthermore, if the head of

household is Kinh, the likelihood of receiving assistance will be reduced, by 0.381 percent. In fact, Baulch (2010) indicated that the poorest ethnic minority (e.g Northwest, Northeast, and Central Highland minorities) were more likely to receive social transfers and other supports. Similarly, recognizing the growing inequality of opportunity for ethnic minorities, recognizing the growing inequality of opportunity for ethnic minorities, the Vietnamese government has been expanding the social assistance system to cover ethnic minorities explicitly. In fact, overall social assistance spending sharply increased from 0.41 to 0.66 percent of GDP in the period 2008- 2013 (Dutta, 2022). The results also show that lower educational attainment has a positive impact on receiving assistance. For example, if the household head is an illiteracy, the probability of receiving disaster assistance will increase by 0.96 percent. In fact, fair distribution of recovery funds is often associated with higher unemployment and lower levels of education (Emrich et al., 2022).

Moreover, if households had income from agricultural activities in the past 12 months, the probability of receiving disaster assistance will increase by 2.58 percent. For households with rented land, which is seen as a barrier to sustainable agriculture (Carolan et al., 2004), hence, it increases the likelihood of receiving assistance. It is also considered as a vulnerable group due to a lack of productive resources.

People who lived in the North Central region received disaster assistance more than those who lived in the Mekong River Delta. In fact, research results show that North Central residents received disaster assistance at the highest rate, accounting for 30.12% of the total value of the assistance. In the North Central region, with 70% of the inhabitants living in coastal and delta areas, most of these residents' livelihoods are based on agriculture and fishing. However, climate change has been increasing natural disasters such as floods, storms, droughts, inundation, and saltwater intrusion in this area, seriously affecting their livelihood (Ngoc & Hanh, 2015). Similarly, Vo & Tran (2022) also showed that the North Central region often suffers from tropical depressions as well as floods, due to the unusual changes of weather and geographical position bordering the East Sea.

Distribution of Propensity Scores

To analyze the impact of a household receiving disaster assistance on deprivation scores, the propensity score matching (PSM) method is used in this study. Figure 3 shows the deprivation scores of the treatment group compared to that of the control group with identical propensity scores. It helps to reduce systematic differences between the treatment and control groups, which creates unbiased estimates. There are three types of matching are used in this study consist of nearest neighbour, Kernel-based matching, and radius matching. These methods are applied to identify the control group with a similar propensity score. In fact, there seems to be no difference between the two matching methods (Kernel-based matching and radius matching) with the same propensity score (Fig.3a, Fig.3b). Moreover, the distribution of propensity scores of the treatment and control (untreated) groups overlap together, which means that it satisfies the common support conditions for unbiased estimates.

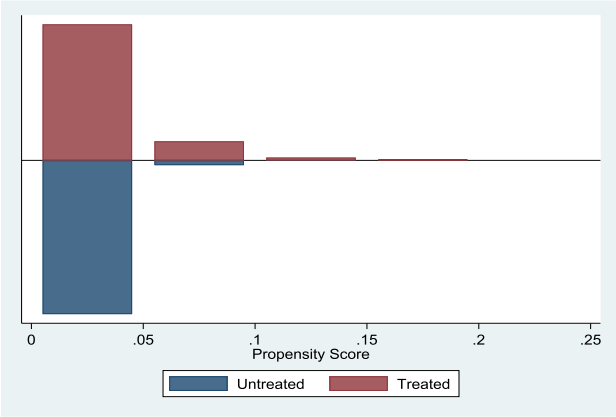

Fig.3a: Kernel matching

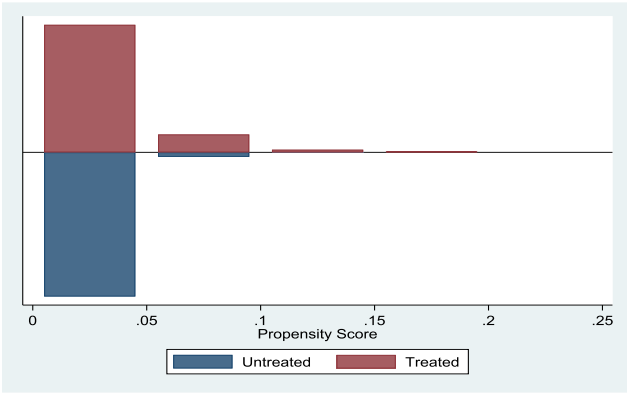

Fig.3b: Radius matching

The impact of natural disaster on deprivation score

Table 5: ATT estimates of the effect of disaster assistance on deprivation score in multidimensional poverty in rural areas in Vietnam

Matching method	ATT	S.E	t-Stat
Nearest Neighbour	-0.016	0.007	-2.183**
Kernel Based Matching	-0.017	0.0045	-3.781***
Radius Matching	-0.015	0.005	-3.123***

*** p<0.01, ** p<0.05, * p<0.1

The PSM method shows that receiving disaster assistance has a negative influence on deprivation scores in measuring multidimensional poverty. For nearest-neighbour matching, if households received assistance, the deprivation score would decrease by 0.016 scores. It was a similar result for Kernel-based and radius matching, reducing by 0.017 and 0.015 scores in the deprivation scores, respectively. Overall, these results are consistent with previous studies such as those conducted by: Qianwen & Junbiao, 2007; Sawada & Takasaki, 2017; Drakes et al., 2021; Sou et al., 2021. In fact, disaster assistance policies are considered an important safeguard aimed to restore the productive order of the community and minimize the loss of human beings and property (Xu et al., 2017). Similar to Sou et al. (2021), this study also showed that households mobilize resources, utilize their assets, and prioritize recovery to mitigate and adapt to four conditions: disaster support, public services, market condition, and employment and public financial support. In other words, receiving disaster assistance is a solution that reduces risks from natural disasters, helps communities restore production, and decreases the likelihood of falling into poverty.

For these reasons, local governments should provide subsidies based on the degree of disaster damage and set policy priorities for lower-income farmers (Qianwen and Junbiao, 2007). The relationship between disasters and poverty is central to poverty reduction and economic development. The results of this study and other research in the field show that well-targeted disaster assistance plays an essential role in promoting recovery. Therefore, alleviating possible persistent and unfavourable consequences of natural disasters should be a top priority in the policy-making process (Sawada & Takasaki, 2017).

5. CONCLUSION

In conclusion, using the propensity score method (PSM), the research results show that disaster assistance had a positive influence on the reduction of multidimensional poverty in rural Vietnam. In other words, rural households who suffer from natural disasters can easier mitigate problems and restore their livelihood with assistance. This aid will help them reduce the probability of falling into poverty. In particular, disaster assistance emphasizes the government's role in helping impoverished people overcome the economic and productive consequences caused by natural disasters. The disaster assistance should be well designed and targeted to meet the specific agricultural production characteristics of each region. Research results also show that people who lived in North Central received the most disaster assistance, making up 30.12% of the total assistance. This was followed by the Red River Delta, accounting for 23.68%.

It is important to note that the nature of multidimensional poverty differs among economic regions. Nevertheless, the most widespread deprivations are found in health insurance and housing conditions, where safe water and hygienic toilets are desperately needed. Therefore, the local authorities and central governments should promote more volunteer participation in health insurance and improve access to medical services. A call for help from the community and social organizations to improve housing conditions, especially improvements in safe water supply and hygienic toilets, would be useful for both health protection and multidimensional poverty reduction.

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BANKING - FINTECH: THE POWER COUPLE IN DIGITALIZATION ERA

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Abstract

The digitalization of banks is seen as the omnipresent challenge which the banking industry is currently facing. In this digital change process, banks are facing disruptive innovation that requires adaptation of almost all cooperative processes. One of the main changes in the banking industry is becoming digitalization which is witnessing a profound transformation to the banking system. The tendencies of applying the concepts coming from AI, together with the continuous increase of the volume, complexity and variety of the data that the banks collect, store and process have acquired the generic names of Fintech. The rapid growth of Fintech in recent years has made lot of changes in banking system including its way to do the business. The proactive and timely integration of Fintech into business has allowed banks to gain competition advantages. The research focuses on following a qualitative research process, including in-depth interviews with open-ended questions for a group of invited partners who are banking professionals in Vietnam. On the basis of result, the research will analyze the interaction relationship between Fintech companies and commercial banks in Vietnam in order to provide a new perspective on the current financial market. We also clarify positive impacts of Fintech on operations of finance-banking industry, so that give some recommendations for activities of Vietnam's Finance-Banking industry to meet in the digitalization era.

Key words: *Digitalization, Digital Transformation, Fintech, Banks, Cooperation.*

1. INTRODUCTION

Financial technology (fintech) is a combination of "finance" and "technology" (Hu, Ding, Li, Chen, & Yang, 2019; Thakor, 2020). Fintech is the term used to describe the use of technology in financial services (Nguyen, 2020; Nguyen, Dinh, & Nguyen, 2020; Thakor, 2020). Indeed, fintech plays a significant role in the development of the banking industry and it has gradually broken the traditional banking model, giving customers more options when accessing banking services with the lowest cost (Berger, 2003).

The advent of the industrial revolution 4.0 has created a strong impact in many areas of social life. For the financial - banking sector, when the rapidly growing wave of information technology, the application of modern technology to develop and expand banking products and services is a requirement inevitably with the focus on their customers.

Impact of the 4.0 industrial revolution on development of finance and banking system is increasingly clear with the launch of a series of new and innovative banking products and services, as well as introduction of new distribution channels for banking services based on financial technology platform (Fintech). Several domestic banks in Vietnam have 90% of their transactions conducted on digital platforms, surpassing the target of 70% set for 2025. Half of the country's banking services are expected to be digitalised and 70% of transactions will be carried out online by 2025. Vietnam's financial technology market could grow to US$ 18 billion by 2024. The country is a leader among ASEAN members in terms of the volume of financing

for fintech, second only to Singapore. Over 93% of all venture investments in the country are directed at e-wallets and the e-money segment. The total number of fintech companies has grown to 97 since 2016, an 84.5% increase. As OpenGov Asia reported, the market features high competitiveness and a high entry bar. Transaction volume has seen a 152.8% growth since 2016, with 29.5 million new fintech users. As a result, every second Vietnamese citizen uses at least one fintech service. Demand for digital services (transactions, payments, and wallets) in the country has increased. According to industry analysts, Vietnam's fintech sector is young and promising. The market valuation has increased from US$ 0.7 billion to US$ 4.5 billion since 2016.

Therefore, this research was conducted according to a qualitative research process including in-depth interviews with open-ended questions for a group of invited partners that are banking professionals in Vietnam. The results of the research will provide a systematized table to find out the answer about the motivations for the association between banks and Fintech companies in Vietnam based on the point of view of bankers to explain this relationship in the digitalization era. Our results are consistent with previous studies conducted in Europe and US (Romānova and Kudinska, 2016), Indonesia (Michael Siek and Andrew Sutanto, 2019), and Vietnam (Lien, Doan, Bui, 2020).

2. LITERATURE REVIEW

2.1. The digital financial and its transformation

Digital transformation changes the whole business landscape of any organization, regardless of industry, size, maturity, or market. Researchers and practitioners interpret the concept of digital transformation in different ways. While Westerman et al. refer to digital transformation as the "use of technology in order to radically improve performance or reach of enterprises" (2011, p 12), experts at Pricewaterhouse Coopers contend that this process "establishes new technologies based on the Internet with a fundamental impact on the society as a whole" (2013, p 25). Westerman et al. also believe that digital transformation is an "on going digital evolution both strategically and tactically" (2011, p 23). To maintain the banking industry's competitiveness, traditional banks should become more agile, embrace innovative culture, and focus on the simplification of providing services anytime in any place to potential clients (Mirkovi´c and Luki´ 2015).

Terms like 'digital innovation' or 'digital transformation' are used in numerous researches in order to try to identify innovations and disruptions. Digital innovation is defined as "a product, process, or business model that is perceived as new, requires some significant changes on the part of adopters, and is embodied in or enabled by IT" (Fichman, Dos Santos, & Zheng, 2014). Additionally, according to Guellec and Paunov (2017) "digital transformation is the digitization of previously analog machine and service operations, organizational tasks, and managerial processes". The crossing point between IT and finance is known as Digital Finance, which describes the digitalization of the financial industry (Gomber, Koch, & Siering, 2017). However, the Digital Finance field has experienced a continuous change, which Arner, Barberis, and Buckley (2015) explain in three different stages. During the first stage (1866 1967), globalization allowed financial interconnections, payments and other financial transactions to cross borders between countries. Furthermore, the stage ended in 1967 with the invention of the first ATM, where the world saw finance and technology combined for the first time. In the second stage (1967–2008), the first credit cards also appeared and SWIFT messages were created (system enabling interbank financial transactions), thus the first sign of online banking appeared. Finally, in the third stage (2008-onwards) the process of digitization rapidly changes into a path where

firms start to use innovative technology in their processes. Being technology the main driver, new start-ups start to appear in the financial industry, known as Fintech, as an alternative to traditional banking in response to the gap left by the banks during the 2008 financial crisis.

2.2. Fintechs

Nowadays, the use of technology is essential, but, what exactly is technology? Technology is a fundamental pillar for the economic, social and cultural development of the society. It is understood as the application of materials, tools and new processes to the different activities, which are daily done. A report conducted by the World Economic Forum (2015) stated that it is not possible to avoid innovation derived from technology.

In order to understand change in the financial sector in a more comprehensive view, Hanelt, Bohnsack, Marz, and Antunes Marante (2021) define digital transformation as an organizational and continuous change that can be triggered and shaped by the generalized diffusion of digital technology. This continuous change shows that recent technological activity in the financial industry has led to the entrance of new agents in the market, known as Fintech. Fintech appeared in the middle of the financial crisis, and they emerged as an alternative to traditional banking. Overall, the introduction of Fintech firms has led to an increase in economic growth and apparently in financial stability.

Fintech has appeared in Vietnam since 2017, but it will not be until 2020, especially in 2021, that the market will witness the growth in both quantity and quality of Fintech startups in this field. According to a study by Solidiance - a leading strategic consulting company, the Vietnamese Fintech market reached $4.4 billion in transaction value in 2017 and about $7.8 billion in 2020, equivalent to an increase in 77% within 3 years (Tuyet & Thuy, 2021). The number of Fintech companies in Vietnam is also increasing rapidly. According to the statistics of the State Bank of Vietnam (SBV) as well as the Vietnam Fintech Market Report 2021, the number of Fintech companies has increased four times, from 39 companies at the end of 2015 to more than 154 companies by the end of 2021. Among of Fintech companies in Vietnam, about 70% are startups. They have witnessed great leaps and bounds of the Vietnamese Fintech market as the Internet economy reaches a value of 21 billion USD, standing at 14/50 in Asia and 70th in the global rankings in 2021 (Le, 2022).

2.3. Collaboration between banks and fintech

According to Wheelen, et al (2015) the cooperation between business units or functions units in a firm, therefore the impact of that cooperation among them is able to increase company’s income higer than not developing a cooperation. Banks are seeking ways to benefit from deploying FinTech across their organizations.

By using fintech, banks will expand the scope of service provision to customers (Philippon, 2015; Nakashima, 2018). Therefore, fintech is not a simple combination of information technology and financial services, but a technology application for traditional services to expand the scope (Arner, Barberis, & Buckley, 2015). For customers, fintech creates many new experience opportunities and helps customers more convenient to transact (Devadevan, 2013). Indeed, fintech can help customers experience banking services on mobile devices, such as mobile phones and tablets. Therefore, customers can use banking services everywhere, instead of having to go to the traditional counter (Kim et al., 2016). Therefore, it can be said that fintech services play a very important role in the banking sector (Kim et al., 2016; Fuster, Plosser, Schnabl, & Vickery, 2019), and at the same time bring many customer benefits (Salmony, 2014; Chen, Wu, & Yang, 2019). To improve the quality of fintech services in the

banking sector, it is important to consider factors that affect customers' intention to use fintech services. Because, when increasing the intention to use fintech services of customers, banks will expand market share and improve operational efficiency. For the intention of the customer, this can be interpreted as the readiness of the service in the future. Unless banks and FinTech firms get better at working together, neither will reap the full benefits of innovation. They must partner, or they may perish.

Cooperation between Fintech companies and banks is still the mainstream trend in recent years in Vietnam, to make up approximately more than 90% of Fintech companies. In the field of payment intermediaries, 100% of Fintech companies were licensed by the State Bank of Vietnam for cooperating with banks (Son, 2020).

3. METHODOLOGY

The growth of fintech has been also fueled by the robust development of e-commerce which will see the number of users hitting 42 million by 2021 alongside the improvement of the country's regulatory framework. Moreover, established firms in IT sectors are striving to enter this scenario, acting as active financial service providers (OECD, 2018). Traditional banks have seen themselves in a position with augmented pressure where Fintech firms apply innovative technology to offer commercial and corporate banking products and services raising customer experience.

According to Yin (2009), we must select well-informed interviewees so that they can provide essential insights concerning our research questions. Therefore, the eligibility criteria for our study was that interviewees should hold a banker position with a minimum of 3 years of banking experience.

As a result, 10 senior bank officers and managers participated in the study. In particular, 60% of participants had more than seven years of working experience in the banking industry, and 80% worked at banks in the top 10, according to the Vietnamese report 2020. The list of the interviewees, their demographics, working experience, and positions in banks are presented in Table 3.1.

Table 3.1. Describe the statistics about the interviewees

ID	Age	Gender	Educational background	Working experience	Position
1	27	Male	Bachelor in Finance and Banking	5 years	Customer Relationtionship Manager
2	27	Male	Bachelor in Law	4 years	Customer Relationtionship Manager
3	26	Male	Bachelor in Finance and Banking	3 years	Customer Relationtionship Manager
4	25	Female	Bachelor in Economics	3 years	Customer Relationtionship Manager
5	30	Female	Bachelor in Business administration	8 years	Digital data analyst
6	30	Female	Master in Finance	8 years	Anti-money laundering manager

7	32	Male	Bachelor in Economics	9 years	Customer Relationtionship manager
8	30	Male	Master in Finance	8 years	Vice President of Banking Operations
9	29	Male	Bachelor in Finance and Banking	8 years	Customer Relationtionship manager
10	29	Female	Bachelor in Finance and Banking	8 years	Banking Service Manager

In this research, we followed a semi-structured format where participants were invited to add their personal opinion. Before every interview, we sent the interviewees informed consent with a confidentiality guarantee. The interviews were conducted online through Google meet. The interview process took an average of 30 minutes and was recorded with the interviewee's permission.

Regarding the data analysis, we used the approach of Nowell et al. (2017). First, we listened to the interview recording until we got familiar with the interview. In the second step, we transcribed and listed the data codes corresponding to each problem, opportunity, and challenge on the motivation for cooperation between Fintech companies and banks in Vietnam. In the following steps, we will filter and pay special attention to the overlap of topics. These themes were presented by comparing and noting the similarities and differences in the participants' opinions. The results of the interviews are shown in the following part.

4. EMPIRICAL RESULTS

- Opportunities for cooperation between banks and fintech:

The relationship between a bank and a fintech company can bring benefit both parties and one of them is improving client data. While fintech companies are provided with a well-established distribution network of banks for selling their technical solution services. On the other hand, the bank can receive additional income from the fee that the fintech company pays to the bank when using the banking platform for selling their service effectively and increasing their client trust. From most experienced bankers, these benefits are well recognized. Banks can "*rise their number of clients and service revenue when connect with fintech applications*" (ID1, ID3, ID5). Currently, this source of the client "*brings benefit for the both of them – bank and fintech*" (ID4). Finally, people used the bank's service who will be benefited from this cooperation "*client will have more service convenient*" (ID4, ID9).

In a different setting, most interviewees also stated that digital transformation and connection bring benefit the whole bank and significant benefits and advantages to the bank's staff. In particular, bank employees can decrease "*time to service a client, paperless and branchless*" (ID1, ID10) when client change their behavior from traditionally paying bills to "*using fintech application to pay bills, transfer money or investment*" (ID1). Another way, Fintech companies like "the extension arm for bank" (ID5) because "*Fintech applications can transfer money or payment faster than bank application so that it suitable for young clients*" (ID5).

On the other hand, the partnership between banks and fintech is also considered a good motivation for bank transformation and IT application. Banks have pressure from the competition with fintech from the application of technology. The internal organization of banks

that use "*core-banking to contain client data and information of bank*" (ID4), in many banks, apply "*online approval credit document*" (ID1 & ID3) and "*clients need to borrow debt for purchase house/flat that can use App name BIDV Home to scan personal documents, take a house picture,... and after that, the App send it to officers*" (ID1)

- Digital transformation challenges in banking:

Digital transformation is associated with a number of challenges, and there's no one correct path to choose. Elements of strategy and management, technology and regulatory, customer, and employee receive a high degree of attention within digital transformation. Further main barriers can be formed in the fields of market, knowledge and product. Each main barrier is characterized by several sub barriers with different importance for digital transformation of banks.

Employees: From a human resources point of view, employee availability plays an important role in digitalization. Since employees implement digitalization and make it possible in the first place, the general perception is that they are not available in sufficient numbers to enable a fast and holistic transformation. Insufficient or even missing employee qualifications also prove to be a disadvantage for understanding complex digitalization processes and upcoming changes "*The human resources have not yet met the digital transformation process*" (ID6); "*If bankers don't meet the quality requirement, they will be eliminated*" (ID1). Increasingly ageing employees are also seen as an essential factor that makes digitalization more difficult "*Older employees face some difficulties when using new systems and constantly switching too much separate software*" (ID1, ID3, ID4).

Customer: The customer is an essential factor in the digitalization process. They expect the permanent availability of technology and at the same time the possibility to be advised personally by a specialist if they wish. Acceptance and trust in an application/technology is also essential. However, the expectations are shaped by the age of the customer. "*The older customers have difficulty by using banking application*" (ID5, ID6, ID7). Furthermore, the ability of customers to use the technology is important, because only if customers are able to understand technology, they can use it. "*Customers are afraid to change because they are used to using old applications*" (ID1, ID3, ID5).

The last challenge that bank in digital transformation face is cybersecurity. The security risks such as fraud, customer fraud, cyberattacks on banking infrastructure and leaked user data are increasing. For customers, the issue of cybersecurity is a key factor in their decision when choosing a bank. Unlike fintechs and other new financial players, banks are subject to high security risks due to voluminous personal data and transaction records, which make it harder to execute changes while meeting compliance requirements "*Data security is one of the difficulties in digital transformation*" (ID4, ID5, ID6, ID7. ID8).

5. DISCUSSION

Our study analyzes the opportunities that Fintech companies brings to banks and the obstacles and challenges when implementing this innovation in banking operations. The results show that banks in Vietnam are particularly interested in innovative technological solutions in the digital era, which can be obtained from cooperation with Fintech companies, thereby serving as a basis for leading to the main cooperation incentives that motivate banks to attract more new customers, enhance their competitive advantage in the market and accelerate the banking innovation process.

Our results suggest some implications for policy-makers to promote and further develop the digital transformation at banks. Firstly, banks should provide proper onboarding, training, and support to your employees or end-users to empower them to use these systems better. A change in employees' perception is essential since they represent their banks to interact with customers and gain their trustworthiness. Second, a deep understanding of customer needs is a prerequisite. In the current era, the products and services that banks provide should be customized to suit the needs of each customer. Banks should carefully analyze and select application suitability and flexibility for each customer segment, providing convenience and adding value to their services. Third, in the context of the digitalization of the banking industry, banks need to cooperate with fintech companies to provide banking products through digital platforms as soon as possible. By partnering with a leading fintech organization, banks can reach more consumers, deliver a better customer experience, and bring their products and services to the next level.

6. CONCLUSION

Based on the research results, one of the weaknesses of the banks is the lack of flexibility in applying modern technology, leading to high transaction costs and failure to meet increasing customers' demand. Meanwhile, Fintech has the advantage of innovation and the ability to apply technology flexibly and effectively, helping to reduce transaction costs and improve customer experience. However, one of the significant challenges Fintech companies have to deal with is building customer trust in terms of security and safety or customer networks. The research refer the cooperation between Banks and Fintech which has brought positive effects to the two sides. Fintechs have created an additional stimulus for traditional banks to change and stay current with new technologies such as blockchain, cryptocurrencies, and artificial intelligence. Obviously, future growth and development of the banking industry is not possible without the integration of fintech technologies in traditional business lines and mutually beneficial partnerships between banks and fintechs. Hence a thorough analysis and selection of a fintech company as a partner and an optimal business model for banks are fundamental. It should be noted that choosing the wrong partners can damage a bank's reputation in the long run.

As this research has achived the goal, some limitations to the results exist. The research is still limited without considering several of other factors that may influence the cooperation between fintech and banking, such as information technology platform, customer preferences for financial products, risks when using the finance apps. On the other hand, the source of data on cooperation between fintech and banks has not been widely publicized in Vietnam, so the authors have not been able to collect. This is a major limitation of this research.

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ORIGIN AND DEFINITION OF DIGITAL NEOMERCANTILISM

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Abstract

All major economies make the promotion of technological innovation and digital processes a core government duty and support them. The authors have synthesized and analyzed to find out the origin, concept and characteristics of digital neo-mercantilism as well as predict its next development steps. AI and related technologies in order to attract investment capital, protect domestic trade, ensure national security, cybersecurity and superiority in technology and development. In this paper, we will discuss about the digital neomercantilism in the furture.

Key words: *Digital economic, mercantilism, neomercantilism, US, China*

1. INTRODUCTION

Since first coined in the mid-1990s, the definition of the digital economy has evolved, reflecting the rapidly changing nature of technology and its use by enterprises and consumers (United Nations, 2019). In 1994 three breakthroughs brought the Internet out of academia and into a much broader community. First, the US National Science Foundation, which effectively regulated the Internet, ended its ban on the commercial use of the Net. Second, low-cost computers and new software made it much easier and cheaper to access the Net. Third, the development of web browsers and web servers made it possible for people to navigate the Net more easily and for organisations to put richer content on to their web sites. Since 1994 the number of people connected to the Net has grown exponentially every year. By the end of 2007, there were over 1.3 billion users worldwide. Almost 70 per cent of the population were connected to the Internet in the USA in 2006. In Britain the equivalent figure was over 55 per cent, while in Germany, France and Italy it was around 1 in 2. Moreover, the amount of material on the web is increasing even faster than the number of users (Peter, D., 2008).

The digital economy continues to evolve at breakneck speed, driven by the ability to collect, use and analyse massive amounts of machine-readable information (digital data) about practically everything. These digital data arise from the digital footprints of personal, social and business activities taking place on various digital platforms. Global Internet Protocol (IP) traffic, a proxy for data flows, grew from about 100 gigabytes (GB) per day in 1992 to more than 45,000 GB per second in 2017. And yet the world is only in the early days of the data-driven economy; by 2022 global IP traffic is projected to reach 150,700 GB per second, fuelled by more and more people coming online for the first time and by the expansion of the Internet of Things (IoT). The economic geography of the digital economy does not display a traditional North-South divide. It is consistently being led by one developed and one developing country: the United States and China. For example, these two countries account for 75 per cent of all patents related to blockchain technologies, 50 per cent of global spending on IoT, and more than 75 per cent of

the world market for public cloud computing. And, perhaps most strikingly, they account for 90 per cent of the market capitalization value of the world's 70 largest digital platforms. Europe's share is 4 per cent and Africa and Latin America's together is only 1 per cent. Seven "super platforms" – Microsoft, followed by Apple, Amazon, Google, Facebook, Tencent and Alibaba − account for two thirds of the total market value. Thus, in many digital technological developments, the rest of the world, and especially Africa and Latin America, are trailing considerably far behind the United States and China. Some of the current trade frictions reflect the quest for global dominance in frontier technology areas (United Nations, 2019). Moreover, the COVID-19 pandemic has made the adoption of chip-based digital products and technologies a necessity of life. In terms of scale, by 2020, the added value of the digital economy in 47 countries around the world will reach 32.6 trillion USD, accounting for 43.7% of GDP. With the acceleration of the global digitalization process, the emerging industries represented are artificial intelligence (AI). AI, blockchain, cloud computing and big data have become the key of global competition in the digital era (Cai, C., 2022)

Neoliberal globalisation is now being reversed all over the world. Both left-wing and right-wing critics are pushing for a more bordered economy (Milton M., 2022). All major economies make the promotion of technological innovation and digital processes a core government duty and support them. It can be said that in the global competition in the digital age, the country is the main contestant. Now we can compare two main competitors is US and China. In February 2022, the U.S. House of Representatives passed U.S. Competition Act of 2022. In addition, the United States has successively issued the "Semiconductor Decade Plan" (2020), "American Chip Act" (2020), "American Competition and Innovation Act" (2021), etc., to promote investment in semiconductor manufacturing sector industry in the United States, as well as R&D and manufacturing related to semiconductor analog hardware, industrial electronics, and computers (Cai, C., 2022). China has also continuously introduced relevant policies in recent years to promote the development of digital economic. The Cyber Security Law, effective 1 June 2017, included for the first time a set of data protection provisions in the form of national-level legislation. The 2018 e-Commerce Law incorporated data privacy protections for consumers such as the 'right to be forgotten', similar to the EU's General Data Protection Regulation. China passed a new Civil Code in May 2020, Personal Information Protection Law and Data Security Law and took effect in 2021 (Winston, M., 2020).

2. LITTERATURE REVIEW

The term "digital neo-mercantilism" was first raised by Professor Milton Mueller from School of Public Policy, Georgia Tech in 2021. In his article "Why we need to start talking about neo-mercantilisim" posted on Internet Governance Project, he wrote "Our analysis uncovered a pattern in the way the U.S. and China are interacting in the digital economy. We call that pattern digital neo-mercantilism. The term is a mouthful and may seem obscurantist, so it is important to explain why we think it is appropriate and enlightening to use that label". He explain the reason the term "digital neo-mercantilism" was used, qouted according to the economic historian Magnussen called James Steuart was "the last mercantilist". Futher, he wrote "This fusion of the economy with the political and military interests of the state is the defining characteristic of mercantilism, and explains why we think the neo-mercantilist label fits the U.S. – China situation". In 2022, Milton Mueller co-authors with PhD candidate Karim Farhat (Georgia Tech) researched publication "Regulation of market access by the U.S. and China: Neo-mercantilism in digital services". Their paper noted that China's big platforms emerged from entrepreneurs in a competitive market and were not products of protectionist state industrial policy. They compared and contrasted the way both countries were tightening restrictions on entry into each other's

digital economy, noting that both based their restrictions on national security claims rather than trade policy. Digital neomercantilism was the label they attached to this fusion of trade, geopolitics, and national security.

But futher away, in 2007, Julie A. Hedlund and Robert D. Atkinson in study "The Rise of the New Mercantilists: Unfair Trade Practices in the Innovation Economy" used term "IT (information technology) mercantilism" and listed 10 countries worst IT mercantilist practices (China, European Union, France, India, Italia, Korea, Russia). They thought "although boosting domestic productivity (while raising domestic demand) is the royal road to prosperity, many nations would rather adopt mercantilist strategies to attract or grow high-tech jobs—particularly in the IT industry". Julie and Atkinson giave out five points of mercantilist policies: Forced R&D investment by foreign companies, Government procurement favoring domestic IT firms, Forcing foreign companies to give up intellectual property, Use antitrust policy as a competitive weapon for industrial policy, Funding development of domestic IT companies through targeted subsidies (Julie A. H. and Robert D. A., 2007, p.5). They described US was victim and vulnerable and they thought that while the array of IT mercantilist practices that countries have devised is extensive, they can be categorized into three main groups: 1) shifting the cost equation; 2) taking U.S. technology without paying; and 3) blocking or limiting U.S. access to their markets (Julie A. H. and Robert D. A., 2007, p.8). Beside, Jonathan E. Hillman (2018) with "The Global Battle for Digital Trade" divided three groups have emerged: liberalizers (as represented by the U.S.), regulators (the European Union), and mercantilists (China). Each group champions different degrees and types of government intervention, especially for cross-border data flows. The differences among these approaches, and various attempts to bridge them, could define digital trade rules in the coming years.

About Chinese authors, untill now "digital mercantilism" isn't used but they started realize globalization was end. In study "Sino-American Competition in the Digital Age", Yan Xuetong (2021) Cybersecurity concerns will push China and the United States to reduce their interdependence and digital technologies that make each vulnerable to the other's strategic actions. In addition, the two countries will work to prevent other countries from accessing their advanced technologies, while reducing their digital dependence on other countries. For example, Chinese leaders say: "If the core components are heavily dependent on foreign countries and the "gateway to life" of the supply chain is in the hands of others, it is like building a house on the foundation of a wall" of others, no matter how big or beautiful, can't stand the rain and wind. Cai Cui (2022) supposed "All sides launch a new round of competition" and "Given the importance of semiconductor chips in the production structure of the digital age, major economies have shown great interest in industrial policies related to industrial sectors of strategic importance. Stakeholders began to promote various measures, not only in terms of investment, but also a range of measures such as taxation, trade, supervision and antitrust to support the development of industries. their strategic business".

The "Fourth Industrial Revolution" is marked by emerging technologies that have flourished, bringing human society into the digital age, the fields of global digital industry, digital commerce, digital currency finance and digital sustainability, the interaction between the state and the market is facing a more complicated situation. In this context, narrow nationalism and populism spread rapidly, intertwined with protectionism in commerce, finance, industry and other fields, causing friction, disputes and even chaos in the world market. At the international level, with the help of the proliferation of online platforms, many problems in the economic field have gradually evolved into disputes over values such as freedom, democracy and human rights. Politicization has become one of the main features of today's world (Xu Xiujun, 2022).

3. METHODS

Digital neomercantilism is new subject, event some authors just stop at the beginning of research (Aleksandr Losev, 2107; Milton Mueller & Karim Farhat, 2021, 2022) or just talk about digital mercantilism (Julie A. Hedlund and Robert D. Atkinson, 2007) or have just studied asymptotically to mercantilism in the digital age (Yan Xuetong ,2021; Cai Cui, 2022; Xu Xiujun, 2022). Therefore, when learning about digital neo-mercantilism, the authors used qualitative research methods. Data is collected from studies on the digital economy (Brian, 2020; Guillaume, 2020), United Nations and East Asia Forum reports, especially studies from 2018 to date on digital neo-mercantilism. The authors have synthesized and analyzed to find out the origin, concept and characteristics of digital neo-mercantilism as well as predict its next development steps.

4. RESULTS

4.1. Origins of digital neomercantilism

Globalization is a years-long transformation of national economies and political relations among countries into an integral geo-economy. Globalization the American way has reached a natural limit for a number of reasons. The modern world economy is concentrated in three main mega-regions: North America, Greater Europe (the EU plus the area of the former Soviet Union), and Southeast Asia. Whereas just ten years ago the United States and the European Union were the indisputable leaders by their share in the global GDP (54%), now the East-Asian megaregion is already ahead of each of the remaining leaders by $1.5 trillion in terms of the nominal gross domestic product, with its share in the global GDP standing at 29%, while the EU and the United States jointly account for 46%. China's nominal GDP has grown from $3.5 trillion in 2007 to $11 trillion in 2016. In other words, the East Asian region, and particularly the "world factory" China, in 2016 became a new beneficiary of globalization, while the United States suddenly realized that the current geo-economic processes, should they continue, will weaken its hegemony. In fact, globalization the American style and the dominance of the neo-liberal doctrine are giving way to what can be described as neo-mercantilism, protectionism, neo-modernism and, possibly, some other generalizing term yet to be coined (Aleksandr Losev, 2017).

Nowaday, many authors thought the globalization closed when Donald Trump became US President, using the neo-protectionist, mercantilist and nationalist slogans "*America First*" and "*Make America Great Again*", Donald Trump has favored a more active intervention of his Government in the volume and level of the United States´ trade exchanges with the rest of the world. In many of his public statements, Trump blamed his trade partners of "taking advantage" of his country by "huge trade deficits", depredatory and unfair trade practices. The American Union´s "horrible deals" with states that "aren´t paying their bills" would have transformed it, on its detriment, in the "world´s major consumer". Actually, it all started in 2008. The 2008 economic and financial crisis and the fall-down of the sky-high home prices in the United States marked the "beginning of the end" of free trade as states exclusive commercial policy. In the periods of financial crises, the tides of capital are reversed, production shrinks, trade slumps and, consequently, the level of globalization goes sharply down. Moreover, globalization itself exacerbates the crisis and the negative effects for the entire world economy. In this regard, Trump´s Trade Policy is not a major cause, but a simple consequence of the exhaustion of commercial liberalization as a paradigm of International Trade Law. Trump is just a new and strong voice of many old problems of free trade in International Law.

Mercantilism dates back to the 15th century, and the name mercantilism was first proposed by Adam Smith in The Wealth of Nations. It embodies economic thought and political system during the early accumulation of capitalism, and is the source of modern economics. Along with the development of capitalism, the content of mercantilism also had new changes, to meet the needs of the bourgeoisie. The mercantilism theories all focus on the circulation process, taking the movement of commercial capital as an object of study, in order to protect the interests of the commercial bourgeoisie and increase gold and silver currency. It is emphasized that when conducting foreign trade, that country needs to continue to expand its trade surplus and collect foreign currency, and at the same time advocate that the country actively intervene in economic life, protect industry and commerce, promote foreign trade development.

Since the world has moved far away from the realities of the 18th century the modern doctrine of protectionism, re-industrialization of national economies and government intervention in the geo-economy can be called neo-mercantilism. The newly started processes of de-globalization and growing protectionism indicate that forces are regrouping around the world before a new confrontation in a manner more customary for the late 19th and early 20th centuries. The United States and the European Union will try to concentrate the main technological chains in their own territory in order to use the practice of establishing trade barriers more effectively (Aleksandr Losev, 2017). These principles of digital openness and freedom offered by the United States are quite appealing. However, when Americans start their own hegemony in the technological environment, these principles will be immediately revised and insurmountable boundaries and barriers will be built to contain competitors and protect American leadership. Even domestically, US tech giants' decisions to block and delete more than 70,000 accounts, including President Donald Trump's pages, look like blatant attempts to take away control from the government. Only in this case, the companies played for the political establishment against the unwanted "spoiler" of the system. The team of political, fi nancial and technological globalists is likely to continue to work together in the coming years to oppose the national industrial agenda in America and other countries.

China's techno-economic platform is smaller than the American one; still, its technological leadership claims are just as obvious. Its significant financial and human resources allow the Chinese ecosystem to remain closed to the outside world while administratively reallocating resources to those areas of technology that CPC Politburo deems the most promising. The Chinese were the first in the world to experiment with the autonomy of a number of engines and services, building the Great Firewall of China. Whereas the Americans provide the world with trial versions of their products, the Chinese model's competitiveness relies on the low cost of their offer and co-financing of other states' advanced projects. At the same time, China is playing a waiting game and does not react to US provocations. China rightly views America as a bigger and stronger player in this area. However, the pace of growth in the Chinese technology industry allows Beijing to think it is just a matter of time before it reaches a market position comparable with the United States. It is unlikely the Americans will be able to stop this process. World politics needs more pragmatism now, and heeding that need, an increasing number of America's allies – including in Europe – welcome China's proposals for digital cooperation. European countries' growing awareness of the importance of digital sovereignty can be potentially interesting for Russia. The key European nations – Germany, France, Italy, the Netherlands – fear dependence on the United States and China. France shows a special concern with developing a national technology platform. The Europeans are afraid of losing their identity in the global technological environment and ultimately fi nding themselves in a situation where their votes will not be counted. Russia and Europe are united by fears of becoming dependent on

leading players and losing their autonomy. At the same time, Russia, like some other European countries, has the competence to establish an independent pole of power in the digital sphere. Russia's arguments about the need to develop a data interoperability standard are more likely to be heard in Europe than in China or the United States. The latter two have a significant amount of data of their own that they are not ready to share with third countries. However, the political differences between Moscow and Europe can become an insurmountable obstacle to a broad collaboration, which is an additional motivator for Russia to build its own technology platform (Valdai Discussion Club Report, 2021)

4.2. Definition of digital mercantism

In his book An Inquiry into the Nature and Causes of the Wealth of Nations Adam Smith describes a "mercantile system" as one where nations try to enrich themselves through policies that constrain imports and encourage exports. In particular, Smith said that by these protectionist policies (e.g., favoring domestic goods and services), "nations have been taught that their interest consisted in beggaring all their neighbors. Each nation has been made to look with an invidious eye upon the prosperity of all the nations with which it trades, and to consider their gain as its own loss. Smith specifically criticized mercantilism because it had been the prevailing economic theory since the 16th century. Perhaps the lead practitioner of mercantilist policy was Jean Baptiste Colbert, King Louis XIV's finance minister, but England, Holland, and Spain all used various policies to promote their exports in order to build up their stores of gold and silver. These nations, including the United States after independence from Britain, saw trade as a zero-sum game in which one side wins, and the other loses. Conversely, in a market-based innovation economy, trade can be a positive-sum game in which everybody wins. Although Adam Smith helped to discredit mercantilism and many nations eventually abandoned it, he didn't destroy it. In fact, there are disturbing signs that many nations have turned the clock back, choosing to take their inspiration more from Colbert than Smith (Julie A. H. and Robert D. A., 2007). As a result, too many nations have turned to trade manipulation and distortion, particularly targeted at technology industries, as a way to get richer.

The digital concept is very simple. Something is digital when all its properties and information are stored as a string of zeros and ones. The smallest piece of this digital information is called a bit. All the text, pictures, music and videos seen on a computer screen or sent over the Internet are simply strings of bits. Digital devices that process bits are now all around us in the car, in the home, in digital cameras, digital TVs and digital telephones. Everything on the Internet is digital. The essence of the information revolution is this transformation of information into digital form where it can be manipulated by computers and transmitted by networks. Computers and digital devices are all built on semiconductors (or chips). The remarkable phenomenon about semiconductor production is the striking productivity gains that occur. Chips are becoming cheaper, smaller and more powerful at an amazing rate. The significance of this is that computing power has apparently boundless possibilities because of its power, cheapness and applicability. This feature was first codified by Gordon Moore, founder of Intel, into what is now accepted as an equation of enormous power. Moore's Law states that every 18 months, computer processing power doubles while cost stays constant. Every 18 months, you get twice as much power for the same price, or the same power for half the cost. Moore's Law has proved to be remarkably accurate for the past 30 years, and most scientists expect it to hold for the next 30 years too. It means computing power is becoming almost free. It also means that storing, processing and communicating information becomes incredibly cheap (Peter, D., 2008).

Mercantilism is another name for Keynes's theory of international trade. Keynes's theory

of international trade is based on the idea of pursuing a trade surplus and the principle of multiplier. A trade surplus can directly or indirectly increase investment, and ultimately national income through a multiplier effect, thereby stimulating the economy and expanding employment. In The General Theory, Keynes criticized the flaws of the traditional free trade theory, namely the unrealistic assumption of full employment, and the neglect of the effect of trade surplus on capital flows, lower interest rates, increased investment and employment expansion and the opposite effects of the trade deficit. At the same time, Keynes asserted that "the theory of mercantilism contains elements of scientific truth", and believed that mercantilism knew that the interest rate is determined by flexible and quantitative preferences scarcity of money causes monetary stress and slow demand and scarcity of money has become the cause of unemployment. These problems are the root cause of the current prolonged recession of the British economy. Only by lowering interest rates and increasing investment can the problem of depression be solved. To achieve this goal, Keynes advocated that the state should intervene in foreign trade, implement a policy of reward and restriction on entry, strive to achieve a trade surplus to promote domestic economic development and open up the country employment expansion. Because Keynes' theory of international trade has a strong mercantilism and extreme protectionist nature, it is called neo-mercantilism.

The digital economy is a term that captures the impact of digital technology on patterns of production and consumption. This includes how goods and services are marketed, traded and paid for. The term evolved from the 1990s, when the focus was on the impact of the internet on the economy. This was extended to include the emergence of new types of digitally-oriented firms and the production of new technologies. Today the term encompasses a dizzying array of technologies and their application. This includes artificial intelligence, the internet of things, augmented and virtual reality, cloud computing, blockchain, robotics and autonomous vehicles. The digital economy is now recognised to include all parts of the economy that exploit technological change that leads to markets, business models and day-to-day operations being transformed. So it covers everything from traditional technology, media and telecoms sectors through to new digital sectors. These include e-commerce, digital banking, and even "traditional" sectors like agriculture or mining or manufacturing that are being affected by the application of emerging technologies. Understanding these dynamics has become non-negotiable. The digital economy will, soon, become the ordinary economy as the uptake – and application – of digital technologies in every sector in the world grows (Brian, A., 2020). In its most basic term, mercantilism is an economic regime that provides every advantage to the dominant or hegemonic country while victimizing the "colonized" nation or target economy. What is little recognized is that there are modern forms of mercantilism, such as digital mercantilism. Digital mercantilism constitutes the competition unfolding in the digital economy for influence (William Laraque, 2016)

Neomercantilism is a regime that uses trade restrictions (limiting imports) as a means of increasing domestic income and employment. Neo-mercantilism calls attention to the way trade and investment in technology and national industrial policies are related to national security and the relative power of the state. In contemporary policy dialogues, trade policy, tech policy, foreign policy, military strategy, cybersecurity and industrial policy are distinct areas of expertise for a dominant role in the global order. It is a digital neomercantilism because technologies such as 5G telecommunications, semiconductors, social media platforms and artificial intelligence capabilities are at the centre of the competition. These policies are becoming more common in the digital economy, especially between the U.S. and China. In 2019, the U.S. blacklisted **Huawei**, restricting it from doing business with domestic firms such as

Google. This continues to significantly hamper the company, which was once the world's largest smartphone manufacturer. In China, a similar story is unfolding. Data restrictions and other regulations have famously driven out American tech firms such as **Uber** and **Yahoo (Henrich Foundation, 2022)**, (Milton, M., 2022). Thus digital neo-mercantilism fuses the power and security of the national state with economic development in the digital economy. Policymakers represent information flows and digital technologies in domestic policy discourse as critical to the security and relative power of the state, and pursue various forms of industrial policy, data localization, trade protectionism, or exclusion of foreigners as a result. Both the United States and China are following this policy (Milton, M. and Karim, F., 2022).

Conclusion, digital neomercantilism is the embodiment of protectionism, an attempt to politicize the economy in which the government of nations defy economic rules and use political power promulgate policies on rare earth, chips, semiconductors, big data, internet of things, AI and related technologies in order to attract investment capital, protect domestic trade, ensure national security, cybersecurity and superiority in technology and development.

4.3. Future of digital neomercantilism

According to Marxist "economic epochs differed not in what they differed, but in how they produced with what means of labor". The structure of the digital economy: the centre of the digital economy is a "digital core". This includes the providers of physical technologies like semiconductors and processors, the devices they enable like computers and smartphones, the software and algorithms which run on them, and the enabling infrastructure these devices use like the internet and telecoms networks. This is followed by "digital providers". These are the parties that use these technologies to provide digital products and services like mobile payments, e-commerce platforms or machine learning solutions. Lastly, there are the "digital applications". This covers organisations that use the products and services of digital providers to transform the way they go about their business. Examples include virtual banks, digital media, and e-government services (Brian Amstrong, 2020). Especially, the digital economy is fuelled by – and generates – enormous amounts of data. The digital industry companies have one thing in common: the use of the user's personal data through technology to gain competitive advantage. Spotify, Amazon, eBay, Apple, Google Play: these corporations have reached a level of product and service customization never seen before. Spotify's algorithm offers you artists and playlists based on your age, gender, location and listening history. Google uses AdSense to collect the personal data of their users in order to monetize them to third parties, generally for advertising purposes. Similarly, Google benefits from offering services at no cost, because the more consumers use its services, the more information it collects about them.

Means of production are the necessary material conditions for the organization of production, including means of labor and objects of labor. Therefore, data is product of digital econnomic or currency of digital age that's role of object of work; chip, semiconductors and rare earth is the means of work; computers and smartphones, the software and algorithms (5G, 6G, AI, virtual reality…) is tool of work. So when the main coutries begun their neomercantilism policies they use data is is the main front mean who control data is the person keep "capital" and production materials. The mercantilist camp prioritizes industrial policy and security objectives. Mercantilists place restrictions on data flows, mandate data localization, and require technology transfers and source code disclosures, among other protectionist measures. These regulations are often justified on industrial or national security grounds, and they have the effect of undermining foreign competition. Many in this camp do less to protect intellectual property, which is often

stolen through digital means. The European Union leads the regulator camp, the General Data Protection Regulation, a new data privacy regime could greatly constrain the EU's ability to agree to more ambitious rules with its trading partners. The EU's development of an ePrivacy regulation may further constrain data flows. The second is China, China's Personal Information Protection Law (PIPL) went into effect on 1st November 2021. With the Cybersecurity Law and the Data Security Law, the PIPL is the third of three Chinese laws designed to provide a comprehensive approach to cybersecurity, data security and data privacy. Notably, China's political environment and strict internet censorship regulations are both drastically different from those of many western nations, which will almost surely affect the way the PIPL is implemented. While U.S. and European data privacy laws such as the GDPR are largely grounded in fundamental rights and consumer privacy, China's PIPL is closely linked to national security interests, depend on how the Chinese government decides to implement and execute these provisions and on the interests that are driving the government's actions.

The next round of great power competition is chip and semiconductor. That's mean 5G, 6G network is cover, core of digital neomercantilism is chip, who control chip technology control the game. Current, European capacity in the global semiconductor manufacturing sector has fallen from 24% in 2000 to 8% today. To change this shortcoming, in March 2021, the European Commission released "Digital Compass 2030: The Road to a Digital Decade in Europe", proposing that semiconductors advanced products made in the EU must account for 20% of total global sales output value by 2030, while reducing external supply. In February 2022, the European Commission published the "Chip Act", which requires the EU to invest 43 billion euros by 2030 to support chip design and production and strengthen Europe's leadership in technology. In response to this call, in March 2022, chip giant Intel announced that it would invest 80 billion euros over the next 10 years to build a comprehensive chip industry chain from design to production in Germany, France and other countries. In February 2022, the U.S. House of Representatives passed the nearly 3,000-page U.S. Competition Act of 2022, which will provide $52 billion in deductions and grants for U.S. semiconductor research and manufacturing to address automotive and computer components, and provide $45 billion to strengthen the technology product supply chain. In addition, the United States has successively issued the "Semiconductor Decade Plan" (2020), "American Chip Act" (2020), "American Competition and Innovation Act" (2021), etc., to promote investment in semiconductor manufacturing sector industry in the United States, as well as R&D and manufacturing related to semiconductor analog hardware, industrial electronics, and computers. Driven by U.S. policies, May 2020, TSMC global semiconductor foundry (TSMC) announced the construction of five more foundries in Arizona, USA, and in early 2022 Intel also announced that it will invest $20 billion to build two new semiconductors in Ohio, USA factory. At the same time, the United States is actively lobbying Korea, Japan and Taiwan, to try to form a chip alliance to control the global semiconductor industry chain. China has also continuously introduced relevant policies in recent years to promote the development of the domestic semiconductor industry. In 2020, the State Council issued "A number of policies to promote the high-quality development of the microchip industry and the software industry in the new era", once again encouraging research and development chip and integrated circuit industry from tax and financial support aspects. The 14th Five-Year Plan for National Economic and Social Development of the People's Republic of China and Vision Outline for 2035" is also written in integrated circuit content that is relevant to the issues, and accelerates the pace of independent innovation.

In short, with the current development, in the coming time, the great powers of digital neo-

mercantilism will compete fiercely at the core, providers and applications of digital economic.

5. CONCLUSION

In this paper, the authors have synthesized and analyzed to find out the origin, concept and characteristics of digital neo-mercantilism as well as predict its next development steps. In conclusion, current developments will see the digital neo-mercantilist powerhouses fiercely competing for the cores, providers and applications of the upcoming digital economy.

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THE IMPACT OF PUBLIC CHOICE DOCTRINE ON COMPETITION LAW: THE CASE OF VIETNAM'S COMPETITION AUTHORITY

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Abstract

The article studies the application of the theory of public choice and its manifestation in the field of competition law, which will be demonstrated through a case study of the Vietnamese competition authority. This authority is established by the Law on Competition of 2018, and so far, there has not yet been a Decree detailing its organization and operation. The involvement and impact of interest groups in the field of competition law are demonstrated by the activities of sectoral regulators, which in Vietnam, are the former governing ministries and now the ministries and level-ministerial agencies carrying out state management in the industrial sectors. These acts target enterprises, including state-owned enterprises operating in these sectors, and directly affect the formulation of laws and policies regulating these sectors. This issue has led to a dilemma for the National Competition Commission (NCC), partly due to its current status under the Competition Law as a sub-unit under the Ministry of Trade and Industry. As a result, it leads to inefficiency and uniformity in competition law enforcement. The article argues that the legal regulation for the operation of the NCC needs to be perfected to ensure its real power, initiative, central role, and especially, its independence.

Keyword: *public choice, interest group, competition law, National Competition Commission.*

1. THE DOCTRINE OF "PUBLIC CHOICE" AND ITS IMPACT ON COMPETITION LAW ENFORCEMENT

1.1. The "Public choice" doctrine

Public choice is an economic theory of politics introduced by J. Buchanan in 1975 (Buchanan, 1975). Using the tools of modern (neoclassical) analysis, it tries to analyse political processes and the interaction between the economy and the polity. It explains the workings of political institutions and the behaviour of governments, parties, voters, interest groups, and (pub1ic) bureaucracies (Bruno, 1983). The core idea of this theory is that governments are not free in following their choices but depend on that powerful interest groups. Hence, government behaviours will not be separated from the interests of those groups and this will affect the decision making (Ana, 2004). Government becomes subject to political capture by national interest groups engaged in rent-seeking activities. Similarly, rent-seeking and hidden political interests can undermine domestic constitutive rules (Martyn, 2006).

In the developmental lines of public choice theory, the idea that regulation of the government is influenced by special interest groups that provide financial and political support in exchange for favoured legislation was developed by Stigler in 1971 (Stigler, 1971). Special interest groups often seek for political favours in the form of legislation adoption and to do this, they often lobby those parties whose programmes and policies favour their interests and offer them contribution to convince uniformed or easily impressed voters then they can be succeeded

in the election (Bert, 2007). In that case, governments seem to become the tools of rent seekers who can intervene in the competition process and the allocation of resources.

The motivation for interest groups in engaging in the influence of political choices is explained by the pursuit of their own interests. Individuals and particular groups that they belong to tend to use political influence to enhance the well-being of their members and the competition among these pressure groups for political influence will determine the equilibrium structure of taxes, subsidies, and other political favours (Bert, 2007). On the contrary, governments, characterised by individuals working for the governments and also pursuing their interests, must also seek the support of such interest groups as the prolonged term of the government is the condition for their achievement of interests.

1.2. Impacts on the application of competition law

Taken from the idea that special interest groups and individuals in these groups can influence the making political choices of governments, it is assumed that such activities can affect the application of competition law. This presumption can be viewed through some of the aspects as bellows:

Interest groups can play an active role in the process of formulating substantive rules of competition law. Their activities can advocate or defend the transplantation of competition rules into domestic legislation to maintain or facilitate their competitive advantages. This is illustrated in the case of the European community when large firms in some countries have defended the transplantation of the EC rules into national competition laws (Roger & Peter, 2001). For example, large export firms in Sweden requested that the uniformity between EC law and national law should bring an advantage for export businesses since the same rules will operate in the Common Market and at home. Similarly, Dutch large firms are concerned about a competitive struggle in the European market with the view that American firms may be tempted to use the possibility of initiating legal proceedings with the European Commission or national judges as a competitive weapon. In the set down of thresholds for merger control, a lower rate was favoured by European Industry and advised by the Economic and Social Committee with the view that controls by different national authorities would increase uncertainty (Advice 94/C 388/09).

Interest groups can take advantage of their influence on the legislation and decision making by lobbying for the support of legal barriers for market entry. They can also demand enjoying more privileges and exemptions, justified by such reasons as carrying out public services. The Korean Chaebols can provide a good example. On one hand, Korean chaebols were initially characterised by the collusion and close ties with the state management bodies for their development. When they had become powerful, chaebols turned to influence and distorted activities of state management bodies (Huan, 2002). On the other hand, the military government of Korea must rely on chaebols and used them as the key strategy in getting rapid development of Korean economy in the 1960s.

2. VIETNAM'S COMPETITION AUTHORITY: A CASE STUDY

2.1. An overview of Vietnam Competition Authority

2.1.1. Law on Competition 2004 (LoC 2004)

According to the *LoC 2004* and the Government's Decree No. 06/2006/ND-CP defining the functions, tasks, powers and organizational structure of Vietnam Competition Agency and the Decree No. 05 /2006/ND - CP on the establishment and regulation of functions, tasks, and

organizational structure of the Competition Council, the task of implementing competition law in general and controlling economic concentration, in particular is assigned to two agencies.

Specifically, Vietnam's Competition Administration Department (VCAD) is an agency directly under the Ministry of Industry and Trade performing the function of state management of competition issues. The VCAD has the function of advising and assisting the Minister in performing state management and organizing law enforcement in the field of economic concentration control. According to Article 2(2) of Decree 06/2006/ND-CP, this Department is responsible for (i) Investigating competition cases and (ii) Handling unfair competition acts. Meanwhile, the Competition Council is an independent agency that handles anti-competitive practices. Unlike the VCAD, the legal status of the Competition Council is not clear. The Decree 07/2015/ND-CP defines the Council as an independent competition agency carrying out competition procedure, which was established by the Government, having the function of organizing the handling and settlement of complaints about anti-competitive practices. This Decree and the *LoC 2004* do not define clearly the legal position of this agency in the state apparatus (Quang, 2011).

2.1.2. Law on Competition 2018 (LoC 2018)

According to Article 46(1), (2) of the *LoC 2018*, the National Competition Commission is an advisory body to assist the Minister of Industry and Trade in performing the state management of competition as well as conducting competition proceedings and controlling economic concentration, deciding on the exemption of a prohibited competition restriction agreement and settling complaints about the decision on handling a competition case... Unlike the *LoC 2004*, there is only one competition agency in Vietnam: National Competition Commission.

According to Article 46(1) of the *LoC 2018*, the National Competition Commission (NCC) is an agency under the Ministry of Industry and Trade - the governmental agency performing the state management of competition, which is similar to the *LoC 2004*. With this position, functions, and duties, the NCC is having its legal position at the same level as a general department or a committee under the Ministry, such as the General Department of Market Management under the Ministry of Industry and Trade or the State Securities Commission under the Ministry of Finance, thus it is not an agency of the National Assembly or the Government.

Although the *LoC 2018* has taken effect, this regulation raises certain concerns about the independence, objectivity and capacity of the NCC.

2.2. In the interrelation with sectoral regulators

Not only does competition law regulate anti-competitive practices and unfair competition acts, but there are other legal documents that also regulate these acts. Currently, specialized laws such as the Law on Intellectual Property, the Law on Credit Institutions, the Law on Postal Services, and the Law on Insurance Business all have separate competition regulations that regulate unfair competition practices. The existence of legal provisions co-regulating with competition law leads to the participation of specialized regulatory agencies, also the leading agencies responsible for developing such specialized laws. This inevitably gives rise to a conflict of regulations between specialized laws and competition laws and the possibility of conflicts of authority between competition authorities and industry regulators, especially when considering and adjudicating the same competition case or, more broadly, in examining the impact of a competition-related matter, such as the consideration of an economic concentration (EC) case.

Therefore, competition authority with the function of enforcing competition law will

work in tandem with the industry regulatory agencies carrying out the state management and technical regulation in industries which are entrusted by the state in related economic sectors. The nature, position, function, role, approach, and method of intervention in the market of these two agencies are different. However, there are overlapping areas between these two agencies, they exist and complement each other, but this can also lead to conflicts, especially when the interests of the industry and the common interests of society conflict with the choice of intervention measures to overcome the negative effects on competition conducted by the competition authority.

Sectoral regulators are often empowered to make regulations governing competition in specialized sectors (Tuam, 2015). In addition, countries also promulgate separate regulations of industries along with the establishment of sectoral regulatory bodies to manage and regulate related industries, especially related industries which are concerned with the provision of essential services for society. These regulations are related to the issue of ensuring and promoting/restricting competition in those industries. Sectoral-regulating legislation and respective sectoral regulators are often the first important tools for controlling market constraints in the first place, characterized by the question of market entry. For example, under Article 31(1) of the Electricity Law 2005, the retail electricity tariff was approved by the Prime Minister. The Electricity Regulatory Authority shall assist the Minister of Industry in formulating the electricity retail price list and submitting it to the Prime Minister for approval. In addition, the electricity regulatory agency assists the Ministry of Industry and Trade in various tasks, including the issuance, modification and revocation of electricity licenses; preparing retail electricity tariffs; and resolving complaints and disputes in the electricity market. Sectoral regulators can also perform the function of ensuring fair competition in their respective specific industries. Sectoral regulatory agencies have a close relationship with enterprises operating in the areas they regulate, not only in the performance of their assigned state management functions but also related close relationships, mutual influence, and binding for common and private interests in the development of the industry.

In Vietnam, since the Doi Moi (Renovation) period, and especially the process of state-owned enterprises (SOEs) reform, sectoral regulators were formerly known as governing ministries and branches. As long as SOEs still exist and are given the leading role, and account for a large proportion of the Vietnamese business community, the sectoral regulators are still considered as the line ministries of these enterprises. the reality of Vietnam still shows the close connection between enterprises (mostly SOEs) and sectoral regulators, despite the trend to remove the such mechanisms.

Up to now, the concept of SOEs in Vietnam has significantly changed. According to Article 4(11) of the Law on Enterprises of 2020, SOEs are limited to enterprises in which the State holds more than 50% of charter capital. Along with the process of equitization and restructuring of SOEs, the scope of SOEs operating in Vietnam only accounts for a small proportion. However, such questions about the possibility of sectoral regulators to dominate the operations of SOEs, the capability to "sponsor" these enterprises, and the ability to "intervene" in different forms to help enterprises to escape from competition law…continues to be a matter of concern.

2.3. In the application of competition law to state-owned enterprises

In Vietnam, since the implementation of the Doi Moi process, the role of sectoral regulators has been changed from "governing agency" to "sponsor" for SOEs operating in the field of their own industries, and some of them later became monopolistic SOEs. SOEs in

general, as well as state monopolies in particular, play an active role as "interest groups", influencing the activities of the regulatory authorities, which can act alone or in the form of partnerships. trade associations organized or headed by leading state-owned companies. This is explained by the ownership of large amounts of capital and assets in strategic sectors of the economy. Meanwhile, sectoral regulators now become their "representatives", acting in the name of the sector' interests, a characteristic of an interest group.

Therefore, the characteristics of Vietnamese enterprises show a close connection between SOEs and sectoral regulators. This is explained by the origins of these enterprises in the pre-Doi Moi period and later in the equitization stage, which is state-owned units and enterprises directly under the line ministries, as well as the assignment of personnel into the management apparatus in enterprises later, as well as the lack of transparency in the policy making process.

The current status under the Ministry of Industry and Trade is not, and cannot guarantee the position of the NCC in investigating and handling competition cases regarding SOEs' practice.

First, this status causes concerns to the business community and society about its independence and objectivity, including the reason that the Ministry of Industry and Trade is the line ministry of large enterprises and economic groups of Vietnam. SOEs in Vietnam still hold many of the key sectors of the economy. Investigating and handling a case related to SOEs will also lead to concerns about objectivity due to the notion that state agencies "play football while blowing whistles" (Tuan, 2015). Therefore, the independence of the competition authority is very significant, because only in an independent position the competition authority can perform its tasks properly.

Second, this status cannot secure the place of the NCC in investigating the acts of the state management agencies which are prohibited under Article 8 of the *LoC 2018*,.and cross-border anti-competitive acts. With the current organizational structure, it is difficult for the NCC to investigate and handle violations of state management agencies at the same level. The current status does not also guarantee the NCC to evaluate and consult competition policy for ministries and branches.

Competition law, especially those dealing with anti-competitive practices, is related to many different legal provisions. The consideration and assessment of the effect of eliminating, reducing, distorting or hindering competition in the market of an act should be based on the analysis of the NCC on the market share of enterprises participating in the agreement, the advantage or market share of enterprises in a dominant position, barriers to entry and market expansion, including institutional barriers, the capacity of enterprises to access and hold essential infrastructure, the ability to control other specific factors in related industries and fields... These issues need to be based on the reference to regulations on sectoral regulations and regulations of a technical nature.

The question is whether the NCC will be able to cope with the anticompetitive behavior of SOEs? Can the NCC handle effectively with anti-competitive acts, or apply effective measures to the economic concentration carried out among SOEs, when they are backed by support for sectoral policies? As analyzed, SOEs, besides economic goals, can be assigned important tasks related to political goals, public policies, etc. Therefore, the adjustment of the behavior of these enterprises is considered very carefully, it is necessary to evaluate the positive and negative impacts on the market, as well as other public interests. The merger between EVN Telecom and Viettel is an example of the difficulties faced by the competition authority in receiving and

handling the case of economic concentration between two state-owned enterprises. It is worth mentioning that, in addition to assessing the impact of the economic concentration case, Vietnam Competition Authority must also rely on the viewpoints and policies of the Communist Party and implement it on the basis of the Government's opinion to merge a number of state-owned enterprises. to operate more efficiently

2.4. In the control of economic concentration

Economic concentration cases sometimes are implemented through administrative decisions, rather than "economic concentration" in the true sense. In this case, economic concentration decisions may be made by superior authorities, ignoring the standards on economic concentration control in the competition law, by the possibility of applying for exemption, or by allowing economic concentration to be conducted where such concentration is carried out by administrative orders, or may be directed by the Government. Notably, the conduct of economic concentration is related to the interest groups of related ministries and branches... which leads to the possibility of interference, domination or influence from such interest groups. Therefore, the issue of controlling economic concentration has an impact, and therefore, requires the independence of the competition authority. Similarly, in considering the case of economic concentration, the NCC needs to refer to different legal provisions, including regulations on enterprises, investment, securities law, etc.

In Vietnam, the process of controlling economic concentration under the Competition Law 2018 involves some industry regulators in different fields. For example, in the field of investment and enterprises, there is a relationship between the Ministry of Planning and Investment and the Department of Planning and Investment (DPI) of the provinces and cities. These are agencies having the function of appraising and granting permits for investment projects; changing business registration license due to merger, consolidation, acquisition or joint venture; encouraging foreign direct investment through investment promotion programs, improve the business investment environment. In the field of securities investment, under Article 69 of Law on Securities 2006, there is the participation of the State Securities Commission. This is the agency having the right to accept the merger and consolidation of securities companies and fund management companies. In the financial sector, under Article 4(2) of the Law on State Bank 2010, there is the participation of the State Bank, whereby the State Bank has the authority to approve in writing the merger and consolidation of credit institutions. This inevitably leads to the need to form a coordination mechanism between the NCC and competent state agencies for the enforcement of specialized law.

However, there is not yet a uniform regulation on cooperation, coordination of activities and information exchange mechanism between the NCC and management agencies in related fields. This creates a limitation in the capture of information and data for analysis and assessment of the impact on competition of the NCC. The NCC mainly relies on information sources: from enterprises implementing economic concentration, domestic and international media, and the cooperation of some DPIs at central and local levels. In addition, in the control of economic concentration, there are currently no provisions of specialized laws that refer to the provisions of the *LoC* 2018 on the competence of the NCC.

3. CONCLUSION AND RECOMMENDATIONS

3.1. Requirements for a competition authority

The main task of a competition authority is to ensure the enforcement of the competition law, and more broadly, an important step in the enforcement of competition policy. The

effectiveness of enforcement and application of competition law depends on the performance of the authority itself. In Vietnam, to be able to perform properly its functions, it is argued that such a competition authority needs to be designed to ensure the following important criteria (Ministry of Industry and Trade, 2017)

First, to ensure *the legality*, that is, it is necessary to define clearly the position of this agency in the system of state agencies related to competition.

Second, ensuring *the independency*, which includes mutual relationship: organizational independence; financial independence, and independence in internal management. This is very important to ensure that competition authority has the right to make its own decisions during the entire investigation and handling of competition case; the ability to eliminate interference, lobbying, the impact of interest groups, and to ensure that the authority always acts on the basis of serving the interests of the public, society, business community and consumers;

Third, to ensure the real power of the competition authority, that is, this body must be given full authority and be able to exercise its powers in practice.

Fourth, to ensure transparency, which means that competition authority needs to be under the supervision of the executive body, the Government, and also before the society; at the same time will be accountable to the National Assembly and the Government for their activities.

Fifth, ensure professionalism, which is the criterion for ensuring the quality and accuracy of investigation activities and handling competition cases; and finally, ensure *the consistency* in dealing with competition cases, which will give the confidence of society and the business community in the application and enforcement of the competition law.

3.2. Recommendations for Vietnam's NCC

3.2.1. On the functions and powers of the NCC

The competition authority should be considered the lead body for the implementation and enforcement of the national competition policy. To do this, it is necessary to provide the NCC with the following duties and powers:

First, on the legal consultation mechanism, the NCC should have an actual important role in consulting on the promulgation of laws, rather than having the consultative function for the adopted documents (Tuan, 2017). The NCC should actively participate in the drafting of legal documents to ensure consistency between competition policy and other policies and laws.

Second, as earlier mentioned, policies introduced by sectoral regulators are likely to have short-term effects on market structure, factors of competition or related barriers. market... as well as to cause what the business community is concerned about is the integration of "group interests" in these policies. For that reason, it is necessary to have a specific regulation on a mechanism that allows the NCC to consult the sectoral policies that the regulatory agencies put forward before they are issued to ensure that such policies are appropriate with competition principles in particular, and competition policy in general. It is also necessary to emphasize the responsibility of sectoral regulators to consult the impact assessment of the NCC before approving these policies.

Given the position and importance of the competition authority in implementing competition policy and in its interrelation with sectoral regulators, it is necessary to legalize the active role of the NCC in the consultations for upcoming legislation, or in the period before Government agencies plan to enact or amend laws and regulations affecting competition; or

before sectoral regulators adopt policies or administrative measures that are likely to have an impact on competition, or the issues which are relevant to the achievement of competition policy objectives. This is significant to avoid the influence of interest groups on competition enforcement.

3.2.2. On the cooperation mechanism between the NCC and sectoral regulators

In relation to sectoral regulators, the NCC should hold a central position, and this mechanism should be specified. This is justified by the following reasons:

First, assessing the competitive impact of an economic concentration case is a specific activity of the law controlling economic concentration, and is carried out by the competition authority. Therefore, this activity needs to be conducted independently, without overlapping with specialized legal processes, such as the issuance of investment certificates, approval of offers, and the grant of license of reorganization in the fields of investment in other branches of economic management. For example, procedures for granting investment certificates, permitting mergers, consolidation, acquisitions, etc. can only be carried out after going through the impact assessment and appraisal procedures of the competition authority. The procedures for controlling economic concentration should be considered as a prerequisite procedure, and will therefore have to be carried out before proceeding with other procedures specified in the relevant sectoral legislation. On the contrary, if the economic concentration case is prohibited, it will be a prerequisite to terminate the management licensing procedures and processes under other specialized laws.

Second, the *LoC 2018* has provisions related to the consultation of the NCC. Specifically, Article 19 stipulates consultations during the consideration of dossiers of application for exemption from anti-competitive agreements, and Article 40 on consultations during economic concentration appraisal. However, if the consultation issue of the NCC during the appraisal of economic concentration is quite specific, the problem of consultation with sectoral regulators in controlling anti-competitive agreements is unclear. For the issue of economic concentration control, the coordination mechanism for verification and control between the sectoral regulators and the NCC is an important new point. With this provision, the NCC has the right to request the sectoral regulator concerned for comments before it can apply further measures. This is necessary to help the Committee have an accurate and comprehensive assessment of the impact of a particular economic concentration case if this economic concentration case is related to the industry development orientation in particular, and the general objectives of the national competition policy in general.

For anticompetitive agreements, such a consultation mechanism with sectoral regulators is limited, and therefore, it should be specified. It is also important because this will help the NCC to make an accurate assessment and consider the common interests of the economy, positive impacts on competition and development, and the interests of a particular industry. Specifically, the NCC has more grounds to determine that an agreement act falls into the case of an anti-competitive agreement but offers benefits to consumers, and has more positive effects than negative ones on the competition. Such positive effects are considered, whether it may promote technical and technological progress, improve the quality of goods and services; enhance the competitiveness of Vietnamese enterprises in the international market, or promote the uniform application of quality standards and technical norms of product categories. Therefore, the provisions on consultation with sector regulators in Article 18 need to be supplemented and regulated in more detail. In addition, the coordination and sharing of information and policies between the NCC and sectoral regulators are also necessary to be specified.

In sum, in perfecting the implementation of competition policy and law, the central issue is the removal of limitations on the independence of the competition authority, together with giving greater powers, and specifying a central position in the enforcement mechanism of national competition policy. This is due to the potential for conflict between competition policy, which is a general policy that applies to all sectors of the economy, and industry policy, which is a policy for a particular sector. The NCC needs to be able to restrict sectoral regulators from engaging in lobbying activities that affect competition to gain favor of their industry. through the enforcement of competition laws. Moreover, there must be provisions limiting the ability of sectoral regulators to intervene, through the issuance of administrative management documents, and to influence market regulation activities to benefit certain industries.

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SUSTAINABLE URBAN AGRICULTURE DEVELOPMENT MODEL IN DIGITAL TRANSFORMATION IN HO CHI MINH CITY

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Abstract

Digital transformation are often seen as an opportunity to enable sustainable futures in agriculture. However, this digital transformation process is not inherently good as it impacts on many aspects, such as: economic, environmental, social, technological, institutional and human resources. In recent years, Vietnam's agricultural sector has faced a number of problems due to urbanization, population growth, and climate change, requiring restructuring to adapt. Digital transformation and technology application in the agricultural production process are expected to help the industry improve production productivity, adapt to climate change, ensure income for farmers and food security. However, the approach of this paper will present a theoretical model of sustainable urban agricultural development in the context of digital transformation, discuss the impact of digital transformation on agricultural development in Vietnam in the future. context of the fourth industrial revolution.

Keyword: *digital transformation, agricultural development, sustainable urban agriculture, agriculture 4.0.*

1. INTRODUCTION

Digital transformation in agriculture and rural areas is a policy priority at global level (Trendov et al., 2019; World Bank, 2019). Digital transformation includes phenomena and technologies such as big data, internet of things (IoT), augmented reality, robotics, sensors, 3D printing, systems integration, ubiquitous connectivity, artificial intelligence, machine learning, digital twins, and blockchain among others (Alm et al., 2016). Digitization is expected to change production processes in agriculture and related food, fiber and bioenergy supply chains and systems (Smith, 2018). Digitalization in agriculture is extremely expected to provide technical optimization of agricultural production systems, value chains and food systems. Moreover, it is generally accepted that digitalization may help address societal concerns around farming, including provenance and traceability of food (Dawkins, 2016) and the environmental impact of different farming practices (Balafoutis et al., 2017).

In Vietnam, agriculture is an industry with a particularly important position in the economy, helping to ensure food security and create jobs for farmers. Although the share of agriculture in GDP is not high compared to industry and services, agriculture still plays an important strategic role in the long term. The agricultural sector increased by 3.18%, contributing 0.29 percentage points to the growth rate of total added value of the whole economy (GSO, 2021). In the context of international integration, especially the fourth industrial revolution, digital transformation in agriculture is an inevitable trend, the "key" for the sustainable development of Vietnam's agricultural sector.

The content of digital transformation applied in sustainable urban agriculture leads to innovation and automation in the production and business process. Through the automatic

collection, integration, and analysis of data (from different sources) and the use of 4.0 technologies, it is possible to generate knowledge and support the farmer in decision-making processes, to increase the profitability and economic, environmental, and social sustainability of agriculture. This paper will synthesize issues related to research content such as content and impact of digital transformation in agriculture and solve research issues through the following questions:

- What is the theoretical framework for sustainable urban agricultural development in the context of digital transformation?

- Does digital transformation have an impact on agriculture? And what is the impact?

To answer the above questions, from the synthetic point of view, the author aims to develop a comprehensive analytical framework based on the theoretical synthesis (Li.C, 2013), which is helpful for capturing the complexity of digitalization.

2. LITERTURE REVIEW AND METHOD

2.1 Literture review

In 2011, the fourth industrial revolution originated in Germany with a high-tech application strategy to promote extensive digitalization of computers and production innovation (Bauer and et al, 2015). And this revolution connects machines, work and technology through the Internet of things as well as the link between the real world and the virtual world to do work intelligently and efficiently. In industry as well as in agriculture, the Internet of Things (IoT) represents the interconnectedness of the system of computing devices, mechanical and digital machines or people involved. with each other and the ability to transmit data over a network without requiring human-computer interaction. And the typical manifestation of the industrial revolution 4.0 is the emergence of qualitatively breakthrough new technologies such as artificial intelligence, 3D, bigdata (K. Schwab, 2015). Hashem and et.al (2015) defines big data as complements of techniques that require integration forms to distinguish unrecognized values from large scale, various and complex data sets. Using IoT in agriculture will improve the functionality of existing tools by making the physical world a part of the information system through advanced networked innovative systems. By bringing together information from different sensors, IoT has unlimited potential application areas from monitoring of greenhouses to animals and agricultural machinery (Kaloxylos and et al, 2012). Therefore, for digital transformation, it is necessary to stress the integrated development of each part. Only when all technology departments closely link and cooperate for development, can digital agriculture be built.

In this article, I use the terms “digital transformation” and “digitalisation” in line with Rijswijk and et al (2021). Therefore, digital transformation as a fundamental and ongoing sociotechnological change process in which digitisation and digitalisation increase overtime. Digitalisation describes the process of converting analogue information into digital form. In contrast, digitalisation refers to the sociotechnical processes surrounding the use of digital technologies that have an impact on social and institutional contexts (Katrin Martens & Jana Zscheischler, 2022).

When studying the "digital transformation economy", there are many defining approaches, in which it is considered as a set of markets operating on the basis of information and communication technology, and as an industry closely related to digital transformation. with the creation of the element base, hardware and software to implement the information society model, both as a public relations system, formalized with the help of information technology and digital communications, and as a combination of electronic technologies to organize business processes

and manage them, and as a way to achieve transformational effects when transitioning to information technology. new information and communication, and as a kind of virtual environment that complements reality in terms of improving the efficiency of production, exchange, distribution, and consumption (Babanov, 2017).

Urban agriculture is the economic activities that specifically refer to the cultivation and raising of livestock in or around a large city, take advantage of the spatial gaps where some cities may have arable land, some may have hilly land, and some may have water between cities to provide fresh agricultural products, tourism products and entertainment for cities. (Smit et al., 1997). The characteristics of urban agriculture in developing countries will be suggested by Hubert De Bon and et al (2009): (i) Agricultural activity will continue to be a strong contributor to households city; the social role of urban agriculture in relation to urban population growth; (ii) Agricultural production in urban areas includes aquaculture, livestock and food crops for the city; the economic functions of urban agriculture and the emergence of its optimal function; (iii) limitations and risks when developing an urban agriculture serving people. According to Do Kim Chung and et al (2009), sustainable urban agricultural development is the process of ensuring the harmony of three groups of economic, social and environmental goals, satisfying the current needs of agriculture without compromise the ability to meet future needs. Meanwhile, Harwood (1990) argues that sustainable urban agriculture is an agriculture in which the activities of economic organizations from planning, implementing and management of agricultural production and business processes is aimed at protecting and promoting the interests of people and society on the basis of maintaining and developing resources, minimizing waste to efficiently produce agricultural products and limit environmental harm, while maintaining and continuously increasing incomes for the agricultural population.

In the current context, digitalisation allow for precision farming that may attenuate the environmental externalities of agriculture while enhancing efficiency, productivity and profitability for farmers ;moreover, blockchain management provides more transparency along value chains and may increase trust from consumers (Pfeiffer. J and et al, 2021). In other words, digital transformation agriculture, also known as information-based agriculture model, places the processes of providing processing and interpreting digital data based on the agricultural production and management systems (Zhang, 2011). According to Lesly Goh (2021), the digital transformation of agriculture involves the adoption of digital technologies such as mobile/internet connectivity, artificial intelligence, machine learning, cloud computing, the internet of things, and blockchain to enable new business models that can help agricultural yields, efficiency, incomes, and profitability. Or to put it another way, digital agriculture means the using of computer and communication technologies to increase profitability and sustainability in agriculture.

Digital transformation is going to bring outstanding benefits and be an important contributor to the sustainable development of Vietnam's agricultural sector, which is demonstrated through the following key roles:

- Digital agriculture is the use of new and advanced technologies, integrated into one system, to enable farmers and other stakeholders in the value chain to improve their products and processes (UN, 2019). Moreover, the transition to digital agriculture creates an opportunity to spur sustainable economic growth and development by addressing agriculture’s biggest challenges.

- It was frequently mentioned that farmers would be able to work more precisely and increase their efficiency with new digital solutions. The creation of digital platforms is expected to reduce administrative work, costs and time. The application of blockchain technologies and

the measurement of agricultural activities are expected to increase transparency for consumers, prove compliance with laws and show possible successful outcomes of measures. It was argued that digitalisation could also help create a fairer subsidy system that is no longer primarily based on agricultural land but instead is focused on ecosystem services (Katrin Martens & Jana Zscheischler, 2022). The table 1 provides an overview of the research issue through the "opportunities" and "challenges" of digital transformation in agriculture. The table shows that the participants not only many opportunities but also a handful of challenges.

Table 1: Overview of digital transformation opportunities and challenges in agriculture

Opportunities	Challenges
- Improve the sustainable performance of the agricultural sector to enhance competitiveness; - Increases societal appreciation for farmers and food production. - Makes the sector more resilient; - Increases transparency for consumers; proves law compliance; enables fairer subsidy system; - Enables the use of better predictive models to improve farm work accuracy, productivity and efficiency - Decreases administrative burdens on farmers; reduces costs, working hours and administrative efforts; - Makes the farming profession more attractive to younger generations;	- Unequal access to broadband connection across regions; - Adaptation requirements: new skills and qualifications; - Loss of "traditional" farmers' knowledge; - Perceived risks of user disempowerment; - High number of stakeholders and their interests; - Digital divide due to high costs and unequal financial power; - New global players with high financial power; - Legal and technical challenges; - Constant sociotechnological evolution and data diversity;

Source: Research synthesis by author

Digital transformation in agricultural development uses electronic information and other digital technologies to collect, process and analyze spatial and temporal data, and to combine them with agricultural technologies exactly for the purpose of the target actions (Lowenbergde Boer & Erickson 2019). Moreover, digital transformation in agricultural development is the process of integrating and applying digital technology (big data, cloud computing, internet of things, etc.) into the entire industry's activities, changing the way management, production and consumption of products from traditional to modern and smart. Therefore, the promotion of digital technology and services is an inevitable trend in the development of agricultural modernization, the basis for the development of digital agriculture, and an important means of intelligent agriculture.

2.2 Method

Research is based on the study and synthesis of scientific approaches to the study of the development of digital economy and the use of digital transformation in sustainable urban agriculture. The author uses the method of synthesizing existing knowledge on urban agriculture. There is no single approach to assess the sustainability of urban agriculture; however, the approaches that informed our investigation: (i) the Food and Agricultural Organization's framework for the evaluation of sustainable land management to openspace urban agriculture (Drechsel et al., 2008); (ii) spatio-temporary dynamics of urban agriculture (Drechsel and

Dongus, 2010); (iii) a methodological assessment of urban agriculture (Nugent, 1999); and Structural equation modeling for indicators of sustainable agriculture (Apurbo Sarkar and et al, 2021). This approach emphasizes factors for sustainable urban agriculture including: environmental, social and economic. Further, sustainable agriculture approaches are becoming a highly useful means of gaining competitiveness and enhancing economic efficiency, provided that competitiveness is no merely amongst particular farms because competition should exist between sustainable farming approaches.

3. RESULT AND DISCUSSION

Digital transformation in the agricultural sector is considered as one of the necessary and very important contents in the process of international integration, especially in accompanying the government to achieve the set goals of the national digital transformation program. Technological progress is applied in various ways in the agricultural sector in developed economies through increased use of technology and automation in production to increase productivity or through the use of ICT (information and communication technology) as a tool to support farmers in making decisions (indirect contribution). Recently, Vietnam has taken steps to create a more favorable environment for digital agriculture through infrastructure development and financial support. In early 2018, the Prime Minister approved the national Broadband plan, which aims to have 95% of residential areas covered by 4G networks by 2020, provide 25 Mbps service to 60% of people who used the Internet, and offer Broadband services at all public access points (BSA, 2018). This plan will improve communication capabilities and enable more efficient cooperation among value chains stakeholders.

3.1 Building a set of criteria for choosing a sustainable urban agriculture model

Based on an overview of the theory and practice of sustainable development in urban agriculture, the literature review has 22 indicators affecting sustainable development in agriculture as follows (Fig.1):

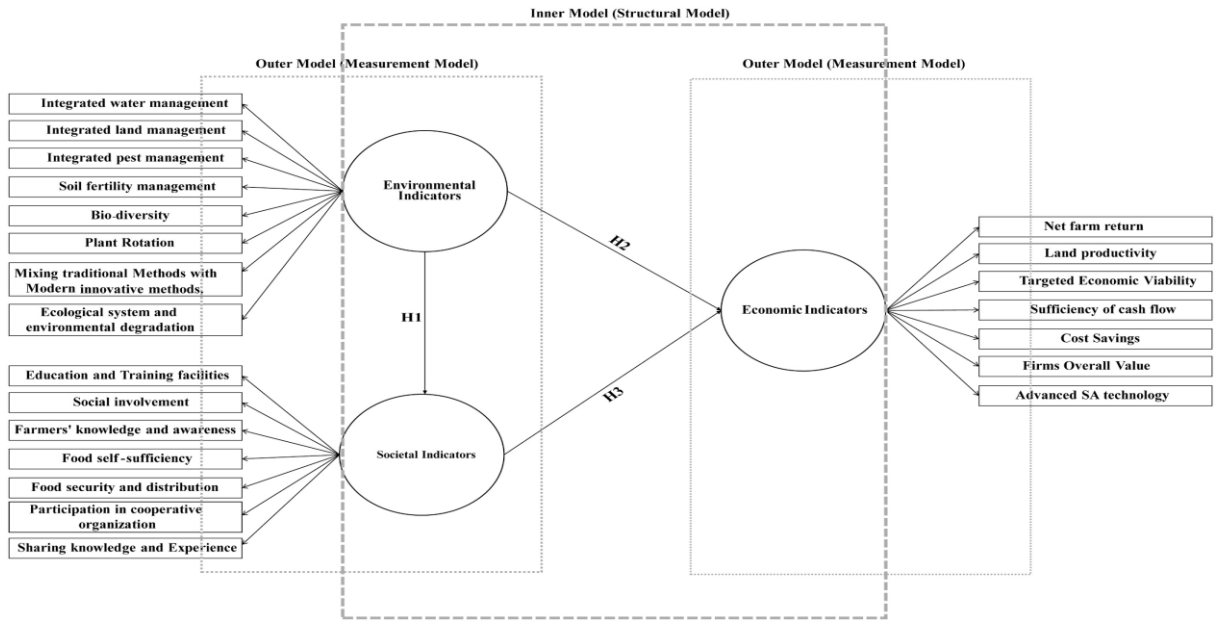

Fig.1: *The Conceptual model of sustainable urban agriculture*

Source: *Apurbo Sarkar and et al, 2021*

H1. Environmental and Economic indicators are significantly interconnected for

facilitating sustainable agriculture approaches.

H2. Environmental and Social indicators are significantly interconnected for facilitating sustainable agriculture approaches.

H3. Economic and Social indicators are significantly interconnected for facilitating sustainable agriculture approaches.

Therefore, in order to develop sustainable urban agriculture, it is necessary to focus on the following criteria:

- Economic objectives: focus on production value, added value, growth rate, labor productivity, profit from production of national key products...; Material prices, export prices; Infrastructure (Irrigation), Mechanization, Science and Technology, CNC, Cooperatives, production links…; Invest in rural agriculture; Create market linkages (between farmers, businesses, consumers, mass organizations local, scientist).

- Environmental objective: focus on Forest Coverage Rate; GHG emissions from agricultural production activities; Ecological agriculture development (VietGAP application area and equivalent, organic production area, certified forest area, payment for forest environmental services...); Damage caused by natural disaster; Reduce the use of chemicals (pesticides, herbicides,) and fertilizers.

- Social objectives: focus on the proportion of agro-forestry-fishery workers, the proportion of trained workers in agriculture...; building new rural areas (communes, districts, provinces, newly enhanced rural areas, model new rural areas...); food safety, use hygienic water; Ensuring quality and safety for consumers, helping to improve the health of local communities.

In conclusion, sustainable urban agricultural development is the totality of activities aimed at protecting and promoting the interests of people and society on the basis of maintaining and developing resources, minimize waste to efficiently produce agricultural products, limit environmental harm, maintain and continuously improve incomes for the agricultural population.

3.2. Current status of urban agriculture development in Ho Chi Minh City

In 2021, the agricultural sector will focus on implementing the Agricultural Development Program for the period of 2019 - 2025 in the direction of restructuring and accelerating agricultural restructuring and implementing the program on development of plant varieties, animals and industrial agriculture. high technology in the period 2020 - 2030. However, due to the heavy influence of the Covid-19 epidemic, the value of agricultural production and agricultural product exports decreased sharply, trade promotion support activities for organizations, Enterprises, cooperatives and farmers face many difficulties. As a result, the GRDP of agriculture, forestry and fisheries was estimated at VND 8,086 billion, down 13.68% over the same period (increasing by 2.06% in the same period), the production value was estimated at VND 18,674.7 billion (down 13.71% over the same period, up 1.68% in the same period). The average production value per hectare of agricultural land is estimated at 498 million VND/ha (down 9.7% over the same period). Labor productivity is estimated at 138.2 million VND/person/year (down 8.5% over the same period). The production value of key agricultural product groups (vegetables, ornamental flowers, dairy cows, pigs, brackish water shrimp, ornamental fish - potential products) reached 12,444.9 billion VND, accounting for 66.6% compared to the total value of agricultural production.

The main products of the agricultural industry, including the group of plants (vegetables, flowers, ornamental plants); livestock products group (dairy cows, pigs); aquatic products (brackish water shrimp); potential product group (ornamental fish). With the group of main agricultural products produced in 03 fields of cultivation, husbandry and aquaculture, all increased, specifically:

- Cultivation and vegetables: the cultivated area is estimated at 15,779 ha, up 4.1% over the same period, the output is estimated at 416,136 tons, up 5% over the same period; flowers and ornamental plants: the area was estimated at 2,071 ha, an increase of 5.4% over the same period (in which, orchid cultivation area 340 ha, up 3% over the same period; ornamental - bonsai 575 ha, up 0.9% over the same period; apricot blossom 750 ha, up 13.6% over the same period; background flower cultivation area 406 ha, up 0.2% over the same period);

- Animal husbandry: the total herd of cows is estimated at 85,406 heads, down 8.5% over the same period; in which, the herd of beef cattle was 41,213 heads, down 6.5% over the same period; dairy cows 44,193 heads, down 10.3% over the same period; milking cows 27,195 cows, down 9% over the same period; fresh cow's milk production was estimated at 136,493 tons, up 1.5% over the same period. increased by 1.9% over the same period. Pigs: the total herd was estimated at 171,229 heads, up 3.4% over the same period. Live pork output 25,933 tons, up 6.7% over the same period

- Permaculture farming: total fishery production was estimated at 39,830.85 tons, down 5.1% over the same period; in which, aquaculture output is 26,596 tons, up 8.2% over the same period; mining output 13,235 tons, down 0.5% over the same period; the farming area is 6,667 ha, up 0.2% over the same period; ornamental fish is estimated at 79.7 million fish, down 13.2% over the same period.

3.3. Positive impact of digital transformation in sustainable urban agriculture

Digital transformation will promote sustainable development. As urbanization spreads, farmers need to manage their land well. Furthermore, digitalisation is also seen as an opportunity to improve production and working conditions for farmers. Digital transformation brings a number of positive effects as follows:

- In terms of revenue, the impact of digital transformation on the profitability of agriculture will depend on various factors, including the cost of adoption, the profit obtained and the degree of reduction in input costs. Current adoption of digital technologies has been shown to increase productivity, input efficiency and availability (OECD, 2016). When digital transformation in agriculture will help to maximize the expected profit or utility or minimize the expected loss at a given point in time.

- Regarding the environment, with the changing climate conditions and increasing pollution, it is difficult for farmers to determine the right time to sow seeds. With the help of artificial intelligence, farmers can analyze weather conditions using weather forecasts to help them plan what crops can be planted and when to sow. In addition, digital transformation increases the efficiency of resources, such as water, fertilizer and soil, which have the potential to conserve water and fertilizers lead to less pollution per unit area of land. This leads to technology that can reduce greenhouse gas emissions (Balafoutis and et al, 2017; Kempenaar and et al, 2018).

- The digitization of the entire process, from production and harvesting to warehousing and distribution, is enhancing communication between different stakeholders in the agricultural system. Digitization has also enhanced visibility along the supply chain for different actors,

making the process more transparent and more efficient.

- Applications of digital transformation contribute to increase productivity and quality of crops and reduce investment costs compared to traditional methods. Artificial intelligence products and the trend of software application, sensor chips in high-tech agricultural production management systems, from germination, seeding to harvesting and preserved according to standard procedures, will promote automation of the process of cultivation, husbandry and seafood.

- For agricultural products, IoT technology is going to move from the traditional distribution system to online trading and connect consumers with producers, analyze and forecast demand to make production decisions. In addition, IoT technology will help increase the efficiency of traceability and food safety control.

- Big Data helps to improve the quality of forecasting the effects of climate change for decision-making on agricultural production, applying large amounts of data to help farmers use predictive analytics techniques to plan and execute in accordance with weather conditions, consumer needs. How will this data help farmers understand how the world around them affects the farming industry? What plants should they plant? What is the best time? Will material prices increase? And what will the profit be? In particular, the combination of IoT and big data will completely change the supply chain in the near future.

3.4. Negative impact of digital transformation in sustainable urban agriculture

Digital transformation has both positive and negative effects and we all have to embrace it whether we like it or not. It has some undesirable effects, such as:

- Regarding the labor issue, when implementing widespread transformation, robot technology and artificial intelligence to replace humans make a huge redundant labor force forced to move to other production areas. This is not only the challenge of Vietnam but the whole world is facing. Working in a special digital transformation application environment requires highly disciplined employees. Most operational decisions are not made by humans. Therefore, the human resource needed in this field will decrease. In particular, spending on skilled labor may increase while spending on unskilled labor may reduce.

- In terms of capital, by providing accurate and timely data, the technical technologies applied in digital transformation increase input production costs and affect revenue. Technology adoption can lead to greater spending on machinery and equipment as these technologies are capital intensive. Machine costs are higher than labor costs, and these costs are often irrecoverable if production is stopped. However, outsourcing service providers also imposes additional costs. Therefore, this aspect increases the financial risk of applying digital in agricultural production (Madhu Khanna, 2020).

- In terms of technology, digital transformation poses the problem of costs and benefits when using equipment in agricultural production. At the same time, technology also requires farmers' ability to adapt and use in the production process. In addition, digital transformation also depends on the characteristics of technology as well as the heterogeneity of the farm and the use behavior of farmers as well as the availability of new technology to meet the production process.

- Besides, digital transformation in agricultural development suffers other negative effects, such as: poor ability to use technology leading to difficulties related to use (Aleico and et al, 2012) because of lack of technical skills digital or by education level (Van Deursen & Van Dijk,

2014); data loss due to improper use or causes due to cyberattacks (Duc & Chirumamilla, 2019) because of poor Internet connectivity or lack of digital infrastructure (Townsend and et al, two thousand and thirteen); deviations in the calculation of algorithms (Kaye, 2018) because it may depend on technological innovation or technological lag (Fulton & Port, 2018);…

4. CONCLUSION

Traditionally, technology in digital transformation has been seen as an asset that can offer solutions to the food problem: it can enhance both the quantity and the quality of the produced food, simultaneously offering farmers increased incomes and better working conditions. Nonetheless, digital transformation is not magic wands that can transform agrifood production without negative consequences. The table 2 gives information about the impact of digital transformation in agriculture.

Table 2: Potential positive and negative impacts of sustainable urban agriculture digital transformation

Positive impacts	Negative impacts
- Production and revenue increase; - Time savings; - Improvement of products quality; - Increase in global food production; - Reduction of environmental pollution and and climate change; -Improvement of farmers' decision-making capacity; - Facilitation of "intelligent" farm management; - Improvement of farm efficiency.	- Cost increase; - Data loss due to improper use - Limited ability of low-skilled farm workers to adapt to the new conditions; - Increase the rate of farmers losing their jobs; - Ability to apply technology and use new technology; - Farm specialization that may lead to: + reduction of biodiversity, + loss of traditional crops, + degradation of on-farm resources.

Source: Research synthesis by author

Agricultural development applying digital transformation is an inevitable and objective trend towards urban, modern and sustainable agriculture. This development solves all problems related to the production and business system in the agricultural sector of the people in order to bring about optimal economic efficiency. This study also discovered some challenges in technology, data, human resources. Through the research, the author also recommends some solutions to help planners, researchers design and build to promote the application of digital technology for agricultural development:

- Firstly, policy solution: to build a system of policies and laws on digital transformation in agriculture in line with the socialist-oriented market economy institution. The government should issue supportive regulations and policies to ensure agricultural development, specifically: deploying the application of AI, IoT and modern digital technologies, establishing transparent regulations through information, data; especially, give priority to credit support packages for agricultural development with digital transformation applications.

- Secondly, human resource solution: focus on developing training plans to improve the quality of human resources to meet the requirements of people, cooperatives and businesses applying digital transformation technology in sustainable urban agriculture development. Training to improve the ability to use technology for farmers in the process of using.

- Thirdly, market solutions: organizing, searching and expanding the consumption market. Encourage the implementation of the value chain linkage model between: farmers - scientists - businesses - banks - the state.

- Lastly, focus on large-scale agricultural production, improve the quality, added value and competitiveness of agricultural products, develop clean agriculture, and organic agriculture in association with the development of agro-processing industry, adaptation to climate change.

Therefore, digital transformation research and development is urgently needed to determine how these technologies can be used not only to provide private benefit, but also for the public good.

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IMPACT OF THE COVID-19 PANDEMIC ON RESIDENTIAL LAND PRICES IN TU SON CITY, VIETNAM

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Abstract

The study aimed to determine the impact level of the COVID-19 pandemic on residential land prices compared to other factors. The study researched the factors that might affect residential land prices by investigating 241 officials, real estate investors, appraisers, and brokers. Research results have shown 13 groups with 45 factors affecting the price of residential land. The impact rate of the factor groups is from 1.43% to 23.65%. The group of factors COVID-19 pandemic has the most substantial impact on land prices, followed by other groups of factors, including upgrading administrative units; formulation and implementation of the planning; real estate market; financial economics; Credit; real estate brokerage; the infrastructure; the location of the parcel of land; special elements; legal factors; environment and social security. To harmonize the interests of the State, investors and land users when valuing land need to pay attention to factors that strongly affect land prices first, and then to smaller factors.

Keywords: *Affecting factors, residential land prices, Tu Son city, Vietnam.*

INTRODUCTION

In Vietnam, the land price is understood as the value of land use rights of an area unit at a specific time and in a specific location (National Assembly, 2013). The land price is one of the legal bases for calculating land use levy, land rent, taxes, fees, charges, and other financial obligations related to land such as purchase and sale of land use rights, and land lease, mortgage, capital contribution, compensation for land when the State recovers land, etc. Land prices are influenced by many different factors and also vary in specific locations and at certain times Agarwal, 2003; Bórawski et al., 2019). Factors that affect land prices are those that increase or decrease the land price of specific parcels of land (Jiang et al., 2013; Kagel and Levin, 1986). Factors affecting land prices are classified into groups according to their characteristics. The traditional groups of factors that can affect the land price include the group of legal factors, the group of factors, the location of the land plot; a group of individual factors; a group of economic factors, group of social factors, environment, etc (Dirgasov et al., 2017; Downing, 1973; Hultkrantz, 1991; Le, 2017; Pham, 2021; Ersoz et al., 2018).

There have been several studies that have evaluated the impact of each factor on land prices, for example, land tax, legal regulations on land use, changing political institutions, urbanization, or the time required to create land banks (Agarwal, 2003; Bórawski et al., 2019; Han et al., 2020; Jahangir, 2018; Mera, 1992; Wang et al., 2019; Ping and Hui, 2010). According to Nguyen (2010), groups of factors affecting land prices include a group of individual factors, a group of legal factors, a group of infrastructure factors, a group of socio-economic factors, a group of location factors, a group of legal factors, a group of neighboring factors, a group of real estate supply and demand factors. According to research by Hai and Huong (2017), there are 4 main

factors affecting the price of residential land: location, area, the width of frontage, and security of the land plot. Research by Phan et al. (2017) also pointed out four groups of factors affecting land prices, namely neighboring, individual, and socio-economic factors. Ho et al. (2020) studied the influence of factors on land prices and pointed out 6 groups of influencing factors, including infrastructure, individual, economic, location, social and legal factors. According to Nguyen (2017), land prices were also affected by many factors, including urbanization.

According to (Huang & Du, 2020) in urban areas, high-speed railway increases land prices in suburban areas of the city due to convenient transportation, so the demand for land in suburbs increases, causing land prices to increase. Besides, economic, financial, environmental, and demographic factors also affect residential land prices (Kheir & Portnov, 2016; Mitsuta et al., 2012; Scott, 1983; Trung & Quan, 2019).

The above studies have shown several traditional groups of factors affecting land prices, including the location of the land plot, the group of social factors, the group of legal factors, the group of economic factors, the group of particular factors, the group of infrastructure elements, etc. Each factor group usually has 3 to 6 specific factors. However, no studies have assessed the impact of other factors affecting land prices, including real estate brokerage, administrative unit upgrade, planning, and COVID-19 pandemic factors. Therefore, assessing the impact of factors affecting land prices in this article aims to answer the questions: *What factors are affected by land prices besides traditional factors? What are their levels of impact on land prices? What are the policy proposals related to land prices to harmonize the interests of the State, investors, and people in the process of land management and use?*

The study focused on assessing the factors affecting the residential price in the 2017-2021 period in Tu Son city because Tu Son city is 15 km from the capital of Vietnam and it has had a high rate of urbanization and industrialization in recent times (Fig. 1), and residential land prices were simultaneously affected by many factors, including real estate brokerage factors, the administrative unit upgrade factor, the planning element, and the COVID-19 Pandemic factor.

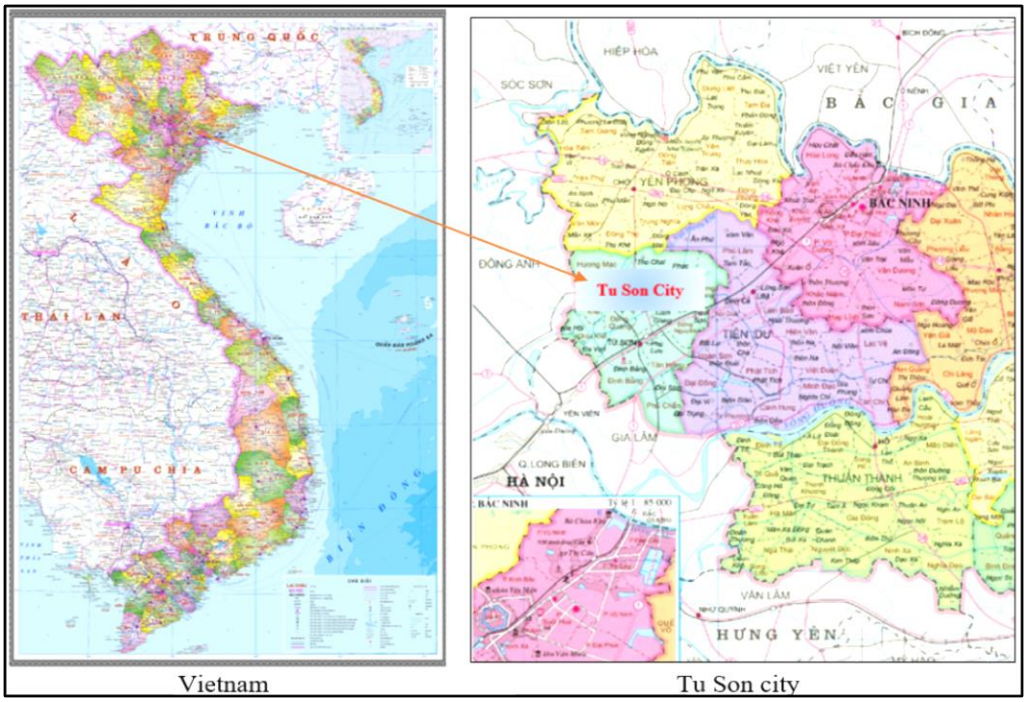

Fig. 1. *Geographical location map of Tu Son city, Vietnam*

DATA AND METHODS

1. Research steps

The study was carried out through 7 main steps (Fig. 2) to determine the influencing factors, their impact rates, and impact levels of each factor group on land prices. Step 1 was to study the research results of the authors on factors affecting land prices to synthesize groups of influencing factors. Step 2 collected secondary data on natural, and socio-economic conditions of Tu Son city related to land prices. Step 3 was to survey and collect data on factors that may affect residential land price using printed questionnaires. Step 4 processed the collected data and builds a research model assuming the factors affecting land prices. Step 5 investigated for the second time to determine the impact of each hypothetical factor on land prices according to the 5-level Likert scale. Step 6 verified the collected data using SPSS24.0 software to remove the factors that did not satisfy the test conditions. Step 7 determined the level of impact of the groups of factors and conducted discussion and proposed policy implications related to land prices.

Fig. 2. *Steps to research factors affecting land prices*

2. Data collection and hypothetical research model

Secondary data on natural, socio-economic conditions in the 2017-2021 period were collected at state agencies in Tu Son city. Primary data on factors affecting residential land prices were collected in July 2022. First, the study carried out a survey using questionnaires of 241 people to grasp the factors affecting the price of residential land in Tu Son city, including officials directly related to residential land prices, real estate investors, land appraisers, and real estate agents. The questionnaire contains basic information about survey respondents and 42 hypothetical factors affecting residential land prices inherited from previous studies, including groups of infrastructure, legal, and personal factors; distinctive, environmental, socio-economic factors, etc. Each factor had 2 corresponding options (*affecting and not affecting the price of residential land*) for respondents to choose one of the two. In addition, respondents were also asked to add other factors that might affect the price of residential land according to their

assessment. The results of data processing using SPSS24.0 software showed that 56 factors probably affected land prices, of which 14 factors were added (*distance to administrative centers, supermarkets, workplaces, etc.*) to 42 elements already available.

To ensure the reliability of the data, the study selected 47 factors with a rating percentage greater than 50% of the total number of respondents, the 9 remaining factors (taste of land buyers, the distance to historical sites, land tax, traffic density, etc.) with a percentage less than 50% were disqualified. The selected elements were classified according to their properties into 13 groups. Each group was considered as a latent variable or an independent variable and had 3 to 6 factors. The factors belonging to the groups were called observed variables (Table 1). Some additional factors that might impact residential land prices included the magnitude of the impact of the COVID-19 pandemic, its prevention, and control measures, its repetition cycle; factors related to real estate brokerage, administrative unit upgrading, land use planning, etc (Table 1). The model that assumed factors affecting the price of residential land was shown in Fig. 3.

Table 1: Groups of factors affecting residential land prices

Factor groups	Factor groups
H1. Group of COVID-19 pandemic factors (CO)	Distance to entertainment facilities
Impact of the pandemic	Distance to fitness and sports centers
Measures to prevent and combat the pandemic	*H7. Group of security and social order factors (SO)*
The cycle of the pandemic repeats	People's knowledge of the law
H2. Group of administrative unit upgrade factors (AD)	Obey the laws of the people
Urban upgrading policy	Security and social order management
Urban upgrading plan	*H8. Group of environmental factors (EN)*
Carrying out urban upgrading	Smog
H3. Group of making and implementing planning factors (PL)	Noise
Socio-economic development planning	Waste collection and treatment
Land use planning	*H9. Group of legal factors (LE)*
Construction planning	Legal status of the land plot
H4. Group of infrastructure factors (IN)	Restrictions on construction planning
Transportation system	Restrictions on land use rights
Energy power supply system	*H10. Group of economic and financial factors (EC)*
Water supply and drainage system	Income-generating ability of the land plot
Communication systems	Land finance
System of education and health facilities	Land buyer's income level
System of cultural, physical training and sports facilities	*H11. Group of credit factors (CR)*

H5. Group of particular factors (PA)	Loan interest rate
Area of the land plot	Loan procedure
The shape of the land plot	Amount borrowed
Facade width	*H12. Group of real estate brokerage factors (BR)*
The length of the parcel of land	Real estate brokerage form
The direction of the land plot	Professional qualifications of brokers
H6. Group of factors of land plot location (LO)	The broker's sense of compliance with the law
Distance to the city center	*H13. Group of real estate market factors (RE)*
Distance to markets and supermarkets	Real estate supply
Distance to schools	Real estate demand
Distance to medical facilities	Forecast of real estate supply and demand

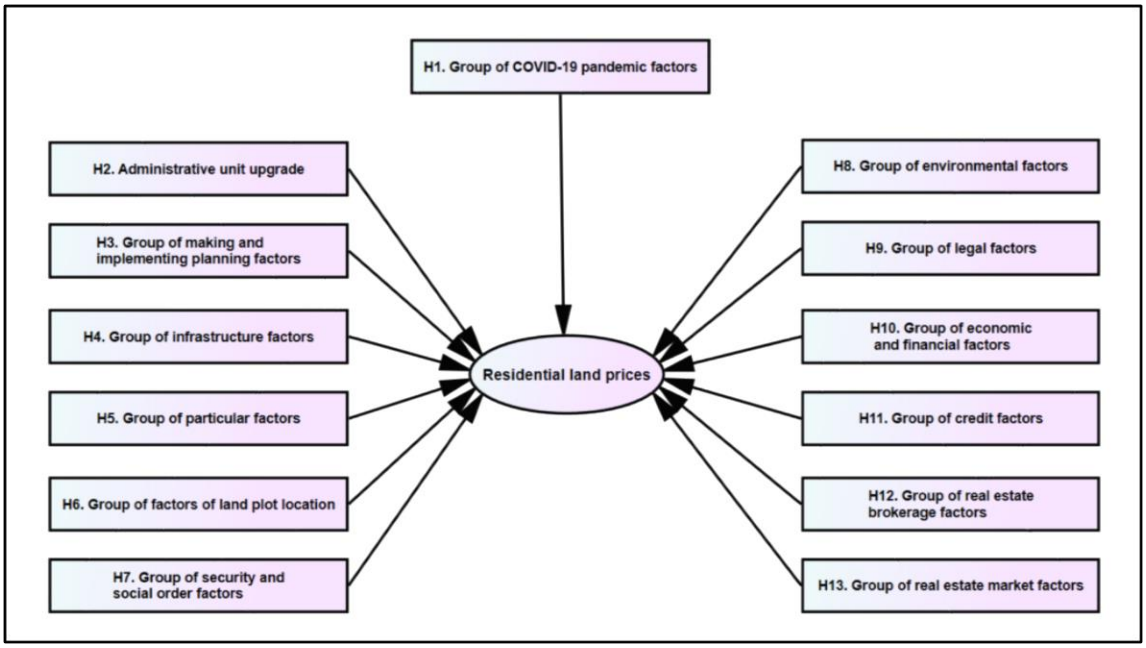

Fig. 3. *Hypothetical research model of factors affecting residential land prices*

The equation evaluating the factors affecting residential land prices is shown in formula 1.

$$Y = \beta o + \beta_1 * CO + \beta_2 * AD + \beta_3 * PL + \beta_4 * IN + \beta_5 * PA + \beta_6 * LO + \beta_7 * SO + \beta_8 * EN + \beta_9 * LE + \beta_{10} * EC + \beta_{11} * CR + \beta_{12} * BR + \beta_{13} * RE + \Epsilon \quad (1)$$

Where Y: The dependent variable representing the price of residential land; βo: Constant; β1; β2; β3; β4; β5; β6; β7; β8; β9; β10; β11; β12; β13: The regression coefficients of the independent variables including the following groups of factors: COVID-19 pandemic; administrative unit upgrade; formulation and implementation of the planning; the infrastructure; particular factors; the location of the land plots; social security and order; environment; juridical; finance and economics; Credit; real estate brokerage and real estate market. CO; AD; IN; PA;

LO; SO; EN; LE; EC; CR; BR, RE: Independent variables, respectively COVID-19 pandemic; administrative unit upgrade; formulation and implementation of the planning; the infrastructure; particular factors; the location of the land plots; social security and order; environment; juridical; finance and economics; credit; real estate brokerage and real estate market. Ɛ: impact value of unknown factors and random error.

Next, to have data for testing the hypothetical research model, the study conducted a survey using a printed questionnaire of the people who responded to the survey in the previous step. The content of the questionnaire consisted of 47 factors selected in Step 1. Each factor has 5 corresponding ratings according to the Likert scale (*very impactful - 5 points, quite impactful - 4 points, medium impactful). – 3 points, little impactful – 2 points, very little impactful – 1 point*) (Likert, 1932) for respondents to choose 1 out of 5 levels for each factor. In addition, respondents were also asked to write down comments to clarify the impact of factors on residential land prices.

According to Hoang & Nguyen (2008), the number of survey samples was determined based on the requirements of Exploratory Factor Analysis (EFA) with at least 5 observations for 1 measurement variable ($n_1 = 5* p$). Therefore, with 47 measuring variables belonging to 13 groups of factors, the sample size was $n_1 = 5*47 = 235$. According to Tabachnick & Fidell (1996), for multivariate regression analysis, the minimum sample size that was necessary to be achieved was $n_2 = 50 + 8*q$ (q was the number of latent variables/factor group - q = 13), so the minimum number of survey samples was $n_2 = 50 + 8*13 = 154$. To ensure both requirements for the exploratory factor analysis and multivariable regression analysis, it was necessary to have a sample of at least 235 (the max of n_1 and n_2). To increase the reliability of the data, the study selected a sample equal to 241 (equal to the number of people who answered the first survey).

The hypothetical research model was tested through testing criteria including Cronbach's Alpha coefficient, KMO coefficient, Bartlett test, and Eigenvalues coefficient. The reliability of the scale was tested by Cronbach's Alpha coefficient (Cronbach, 1951). The scale can be used when the Cronbach Alpha coefficient is greater than or equal to 0.6 and the variables have a total correlation coefficient greater than 0.3 (Hoang & Nguyen, 2008; Hair et al., 2009). The exploratory factor analysis (EFA) is used to shorten many measurement variables into a set of variables (factors) to make them more meaningful but still contain most of the information of the original set of variables. The EFA was assessed through KMO appropriate coefficient, Bartlett test, Eigenvalues coefficient, total explanatory variance, and factor loading. Variables are only accepted when KMO is in the range from 0.5 to 1.0 and its weight factors in other factors are less than 0.35 (Igbaria et al., 1995). According to Hair et al. (1998), with a sample size of about 250, weights of 0.35 should be chosen, so for a sample size of 241, in this study, a load weight must be greater than 0.35. Besides, the scale is only accepted when the total variance explained is greater than 50%; Barlett's coefficient with Sig significance level less than 0.05 to ensure the factors are correlated with each other; Eigenvalue coefficients must be greater than 1 to ensure the groups of factors are different.

The impact level of each factor on land prices is determined according to the value of the impact index according to 5 levels (Very impactful - *the impact index ≥ 4,20*; quite impactful - *the impact index 3,40 ÷ 4,19*; medium impactful - *the impact index 2,60 - 3,39*; little impactful - *the impact index 1,80 ÷ 2,59*; very little impactful - *the impact index < 1,80*) (Likert, 1932). The impact index of each factor is determined according to formula 2 (Nam and Yen, 2022).

$$G_i = \frac{1}{n} * \sum_{i=1}^{q} \sum_{j=1}^{n} x_{ij} \quad (2)$$

Where G_i is impact index of the i factor; n: number of respondents; q: number of impact factors; x_{ij}: the j[th] respondent's score for factor i. The impact index of k[th] factor group is determined according to formula 3 (Nam and Yen, 2022).

$$Gav_k = \frac{1}{p} * \sum_{k=1}^{m} \sum_{z=1}^{p} G_{kz} \quad (3)$$

Where Gav_k is average impact index of k[th] factor group; m: number of factor groups; p: number of factors of group k; G_{kz}: the impact index of the z[th] factor in the k[th] group. The general impact level on land prices is determined by formula 4 (Nam and Yen, 2022).

$$Gav = \frac{1}{m} * \sum_{k}^{m} Gav_k \quad (4)$$

Where Gav is the average impact index of all the factor groups (*general impact level on land prices*); m: number of factor groups; Gav_k: average impact index of the k[th] factor group.

RESULTS AND DISCUSSION

The results of assessing the reliability of the scale through Cronbach's Alpha coefficient for 13 groups of factors showed that Cronbach's Alpha coefficient ranged from 0.709 to 0.915 (Table 2). The correlation coefficient of most of the observed variables was greater than 0.3, satisfying the test conditions, except that the variables for distance to the city center and the market had values less than 0.3 (Table 2). Therefore, these two observed variables were excluded and the second test was performed. The results of the second test showed that the test criteria met the requirements (Table 3). Thus, the scale that was used to evaluate the factors affecting the price of residential land was reliable and suitable for further analysis. The suitability test of EFA was carried out through the KMO suitability coefficient. The KMO was equal to 0.893 and satisfied the condition 0.500 < KMO < 1.000, so exploratory factor analysis was appropriate with actual data. Besides, the results of the Barlett test indicated that the Sig value was equal to 0.000 and less than 0.050 (Table 4). This proved that the measured variables were linearly correlated with the representative factor.

Table 2. Results of the first analysis of the scale reliability

Groups of factors and Cronbach Alpha	Total variable correlation	Groups of factors and Cronbach Alpha	Total variable correlation
H1. Group of COVID-19 pandemic factors (CO – Alpha=0.837)		Distance to entertainment facilities (LO5)	0.772
Impact of the pandemic (CO1)	0.867	Distance to fitness and sports centers (LO6)	0.803
Measures to prevent and combat the pandemic (CO2)	0.768	H7. Group of security and social order factors (SO -Alpha=0.709)	
The cycle of the pandemic repeats (CO3)	0.672	People's knowledge of the law (SO1)	0.792
H2. Group of administrative unit upgrade factors (AD-		Obey the laws of the people (SO2)	0.837

Groups of factors and Cronbach Alpha	Total variable correlation	Groups of factors and Cronbach Alpha	Total variable correlation
Alpha=0.810)			
Urban upgrading policy (AD1)	0.739	Security and social order management (SO3)	0.774
Urban upgrading plan (AD2)	0.881	H8. Group of environmental factors (EN - Alpha=0.792)	
Carrying out urban upgrading (AD3)	0.764	Smog (EN1)	0.893
H3. Group of making and implementing planning factors (PL -Alpha=0.844)	0.769	Noise (EN2)	0.741
Socio-economic development planning (PL1)	0.864	Waste collection and treatment (EN3)	0.834
Land use planning (PL2)	0.871	H9. Group of legal factors (LE - Alpha=0.856)	
Construction planning (PL3)	0.793	The legal status of the land plot (LE1)	0.783
H4. Group of infrastructure factors (IN - Alpha=0.738)		Restrictions on construction planning (LE2)	0.829
Transportation system (IN1)	0.758	Restrictions on land use rights (LE3)	0.761
Energy power supply system (IN2)	0.843	H10. Group of economic and financial factors (EC - Alpha=0,915)	
Water supply and drainage system (IN3)	0.805	The income-generating ability of the land plot (EC1)	0.857
Communication systems (IN4)	0.837	Land finance (EC2)	0.794
System of education and health facilities (IN5)	0.775	Land buyer's income level (EC3)	0.692
System of cultural, physical training, and sports facilities (IN6)	0.882	H11. Group of credit factors (CR-Alpha=0.854)	
H5. Group of particular factors (PA-Alpha=0.861)		Loan interest rate (CR1)	0.783
Area of the land plot (PA1)	0.834	Loan procedure (CR2)	0.792
The shape of the land plot (PA2)	0.761	The amount borrowed (CR3)	0.881
Facade width (PA3)	0.798	H12. Group of real estate brokerage factors (BR - Alpha=0.871)	

Groups of factors and Cronbach Alpha	Total variable correlation	Groups of factors and Cronbach Alpha	Total variable correlation
The length of the parcel of land (PA4)	0.801	Real estate brokerage form (BR1)	0.847
The direction of the land plot (PA5)	0.864	Professional qualifications of brokers (BR2)	0.872
H6. Group of factors of land plot location (LO - Alpha=0.851)		The broker's sense of compliance with the law (BR3)	0.763
Distance to the city center (LO1)	0.130	H13. Group of real estate market factors (RE - Alpha=0.840)	
Distance to markets (LO2)	0.298	Real estate supply (RE1)	0.877
Distance to schools (LO3)	0.874	Real estate demand (RE2)	0.739
Distance to medical facilities (LO4)	0.674	Forecast of real estate supply and demand (RE3)	0.815

Table 3. Results of the second analysis of the scale reliability

Groups of factors and Cronbach Alpha	Total variable correlation	Groups of factors and Cronbach Alpha	Total variable correlation
H1. Group of COVID-19 pandemic factors (CO – Alpha=0.847)		Distance to fitness and sports centers (LO6)	0.805
Impact of the pandemic (CO1)	0.793	H7. Group of security and social order factors (SO -Alpha=0.893)	
Measures to prevent and combat the pandemic (CO2)	0.834	People's knowledge of the law (SO1)	0.892
The cycle of the pandemic repeats (CO3)	0.726	Obey the laws of the people (SO2)	0.847
H2. Group of administrative unit upgrade factors (AD-Alpha=0.861)		Security and social order management (SO3)	0.853
Urban upgrading policy (AD1)	0.805	H8. Group of environmental factors (EN - Alpha=0.847)	
Urban upgrading plan (AD2)	0.847	Smog (EN1)	0.817
Carrying out urban upgrading (AD3)	0.711	Noise (EN2)	0.892
H3. Group of making and implementing planning factors (PL -Alpha=0.873)	0.802	Waste collection and treatment (EN3)	0.766
Socio-economic development planning (PL1)	0.853	H9. Group of legal factors (LE - Alpha=0.831)	

Groups of factors and Cronbach Alpha	Total variable correlation	Groups of factors and Cronbach Alpha	Total variable correlation
Land use planning (PL2)	0.860	The legal status of the land plot (LE1)	0.805
Construction planning (PL3)	0.752	Restrictions on construction planning (LE2)	0.683
H4. Group of infrastructure factors (IN - Alpha=0.705)		Restrictions on land use rights (LE3)	0.854
Transportation system (IN1)	0.796	H10. Group of economic and financial factors (EC - Alpha=0,884)	
Energy power supply system (IN2)	0.878	The income-generating ability of the land plot (EC1)	0.722
Water supply and drainage system (IN3)	0.821	Land finance (EC2)	0.840
Communication systems (IN4)	0.893	Land buyer's income level (EC3)	0.701
System of education and health facilities (IN5)	0.772	H11. Group of credit factors (CR-Alpha=0.813)	
System of cultural, physical training, and sports facilities (IN6)	0.793	Loan interest rate (CR1)	0.659
H5. Group of particular factors (PA-Alpha=0.830)		Loan procedure (CR2)	0.771
Area of the land plot (PA1)	0.857	The amount borrowed (CR3)	0.860
The shape of the land plot (PA2)	0.705	H12. Group of real estate brokerage factors (BR - Alpha=0.860)	
Facade width (PA3)	0.888	Real estate brokerage form (BR1)	0.872
The length of the parcel of land (PA4)	0.826	Professional qualifications of brokers (BR2)	0.819
The direction of the land plot (PA5)	0.873	The broker's sense of compliance with the law (BR3)	0.842
H6. Group of factors of land plot location (LO - Alpha=0.871)		H13. Group of real estate market factors (RE - Alpha=0.798)	
Distance to schools (LO3)	0.775	Real estate supply (RE1)	0.775
Distance to medical facilities (LO4)	0.843	Real estate demand (RE2)	0.826
Distance to entertainment facilities (LO5)	0.776	Forecast of real estate supply and demand (RE3)	0.790

Table 4. Results of KMO Test and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.893
Bartlett's Test of Sphericity	Approx. Chi-Square	739.671
	Df	197
	Sig. value	0.000

The load factor coefficients of the components were all greater than 0.60 (Table 5), so the EFA analysis had practical significance, and the independent variables ensured accuracy.

Table 5. Weight of rotation matrix

Groups	Factors	Weights	Groups	Factors	Weights	Groups	Factors	Weights
H1. Group of COVID-19 pandemic factors (CO – Alpha=0.837)	CO1	0.689	H5. Group of particular factors (PA Alpha=0.861)	PA1	0.776	H9. Group of legal factors (LE - Alpha=0.856)	LE1	0.773
	CO2	0.784		PA2	0.825		LE2	0.834
	CO3	0.841		PA3	0.876		LE3	0.794
H2. Group of administrative unit upgrade factors (AD- Alpha=0.810)	AD1	0.834		PA4	0.897	H10. Group of economic and financial factors (EC - Alpha=0,901)	EC1	0.881
	AD2	0.749		PA5	0.762		EC2	0.673
	AD3	0.804		LO3	0.830		EC3	0.820
H3. Group of making and implementing planning factors (PL - Alpha=0.844)	PL1	0.755	H6. Group of factors of land plot location (LO - Alpha=0.851)	LO4	0.719	H11. Group of credit factors (CR - Alpha=0.854)	CR1	0.864
	PL2	0.817		LO5	0.697		CR2	0.839
	PL3	0.846		LO6	0.781		CR3	0.792
H4. Group of infrastructure factors (IN - Alpha=0.738)	IN1	0.694	H7. Group of security and social order factors (SO - Alpha=0.709)	SO1	0.776	H12. Group of real estate brokerage factors (BR - Alpha=0.871)	BR1	0.845
	IN2	0.782		SO2	0.864		BR2	0.764
	IN3	0.837		SO3	0.839		BR3	0.679
	IN4	0.687	H8. Group of environmental factors (EN - Alpha=0.792)	EN1	0.867	H13. Group of real estate market factors (RE - Alpha=0.840)	RE1	0.815
	IN5	0.694		EN2	0.724		RE2	0.743
	IN6	0.770		EN3	0.739		RE3	0.681

According to Table 6, the Sig Pearson correlation of independent variables CO, AD, PL, IN, PA, LO, SO, and EN with dependent variable Y was less than 0.05, so there was a linear relationship between the independent variables and the dependent variable. CO variable and Y variable had the strongest relationship with an r coefficient of 0.821. SO variable and Y variable had the weakest relationship with an r coefficient of 0.253. This ensured eligibility for multiple linear regression analysis.

Table 6. Correlation between the dependent variable and independent variable

		Dependent variable (Y)	CO	AD	PL	IN	PA	LO	SO	EN
Dependent variable (Y)	Pearson Correlation (r)	1	0,821**	0,503**	0,746*	0,379**	0,470**	0,392*	0,253*	0,249**
	Sig. (2-tailed)		0,000	0,000	0,024	0,000	0,000	0,028	0,027	0,004
	N	241	241	241	241	241	241	241	241	241

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The results of the multivariate regression analysis in Table 7 showed that the Sig coefficients were all smaller than 0.005, so the regression model was significant, and the independent variables had an impact on the dependent variable Y. The adjusted R^2 value equal to 0.873 showed that the independent variables included in the regression affected 87.3% of the change of the dependent variable (residential land price), the remaining 12.7% were due to variables outside the model and random error. Besides, the Durbin Watson coefficient had a value of 1,859, ranging from 1.5 to 2.5, so no first-order sequence autocorrelation occurred (Table 7). The variance inflation factor (VIF) of all variables included in the model was less than 2, so the research model did not have multicollinearity. In addition, the variables included in the study were all statistically significant (Sig. was less than 0.05). Thus, all 13 groups of factors in the research model affected the price of residential land.

Table 7. Results of multivariable regression analysis

Independent variables	Standardized regression coefficients	t	Multicollinear Statistics		Impact order
			Error (Sig.)	VIF	
CO	2.968	4.389	0.000	1.452	1
AD	2.563	5.347	0.001	1.293	2
PL	1.364	4.674	0.000	1.371	3
IN	0.586	5.347	0.002	1.284	8
PA	0.404	6.247	0.000	1.336	10
LO	0.444	7.398	0.003	1.641	9
SO	0.179	6.149	0.000	1.295	13
EN	0.350	5.346	0.002	1.179	12
LE	0.383	4.243	0.000	1.467	11
EC	0.814	6.214	0.000	1.536	5
CR	0.806	3.347	0.000	1.672	6
BR	0.695	4.783	0.001	1.325	7
RE	0.993	5.346	0.000	1.478	4
βo	5.762				

Sig. F = 0.000**;** Coefficient R^2 = 0.985**;** Corrected R^2 coefficient = 0.873**;** Durbin-Watson = 1.859

From the normalized regression coefficients (Table 7), the study determined the regression equation of the following form:

$$Y = 2.968*CO + 2.563*AD + 1.364*PL + 0.586*IN + 0.404*PA + 0.444*LO + 0.179*SO + 0.350*EN + 0.383*LE + 0.814*EC + 0.806*CR + 0.695*BR + 0.993*RE + 5.762 \quad (5)$$

The impact indexes of factor groups and each factor on residential land prices were shown in Table 8. Of the 13 factor groups, 4 ones had the strongest impact on residential land prices, including a group of COVID-19 pandemic factors, a group of factors for upgrading administrative units, a group of economic-financial factors, and a group of credit factors. Four groups of factors had a medium impact on residential land prices, including infrastructure, individual, and land plot location factors. Three factor groups had an average impact on land prices including the group of factors for planning and implementing the plan, the group of factors for social security and order, and the group of real estate brokerage factors. Two groups that had little impact on land prices included environmental factors and legal factors.

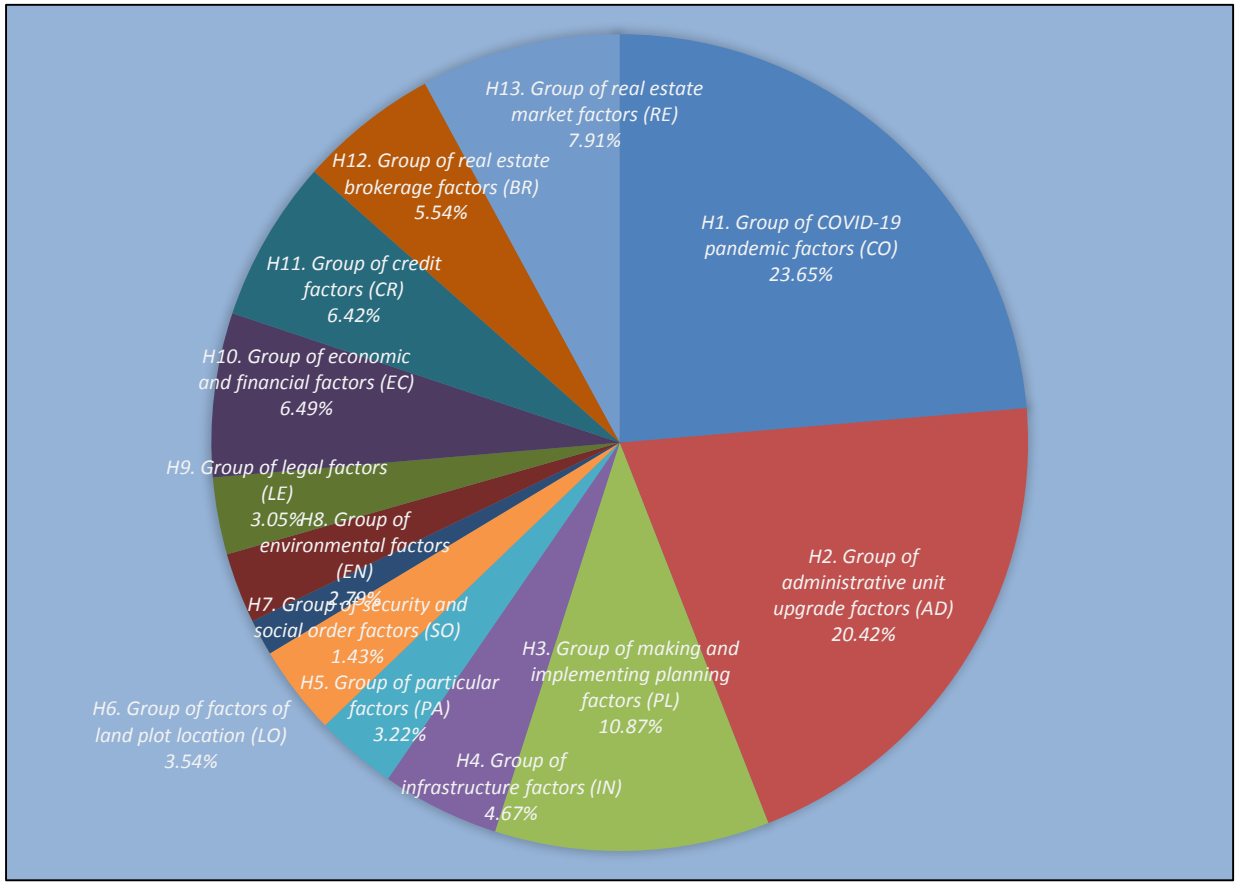

Fig. 4. *Impact rates of groups of factors affecting the residential land*

The impact index of individual factors ranged from 1.20 to 4.96. The most influential factor was the impact of the COVID-19 pandemic, the smallest influential factor was the form of real estate brokerage (Table 8).

Table 8. Impact indexes and impact levels of factor groups

Groups of factors	Impact index	Impact Level	Average impact index	Average impact level	Groups of factors	Impact index	Impact Level	Average impact index	Average impact level
H1. Group of COVID-19 pandemic factors (CO)			4.50	VI	Distance to fitness and sports centers	3.77	QI		
Impact of the pandemic	4.96	VI			H7. Group of security and social order factors (SO)			3.27	MI
Measures to prevent and combat the pandemic	4.34	VI			People's knowledge of the law	3.02	MI		
The cycle of the pandemic repeats	4.21	QI			Obey the laws of the people	3.21	MI		
H2. Group of administrative unit upgrade factors (AD)			4.40	VI	Security and social order management	3.57	QI		
Urban upgrading policy	4.65	VI			H8. Group of environmental factors (EN)		NI	2.07	LI
Urban upgrading plan	4.55	VI			Smog	2.22	LI		
Carrying out urban upgrading	4.01	QI			Noise	1.93	LI		
H3. Group of making and implementing planning factors (PL)		NI	3.09	MI	Waste collection and treatment	2.05	LI		
Socio-economic development planning	3.98	QI			H9. Group of legal factors (LE)			2.25	LI

Groups of factors	Impact index	Impact Level	Average impact index	Average impact level	Groups of factors	Impact index	Impact Level	Average impact index	Average impact level
Land use planning	4.11	QI			The legal status of the land plot	2.45	LI		
Construction planning	4.27	VI			Restrictions on construction planning	2.33	LI		
H4. Group of infrastructure factors (IN)			3.47	QI	Restrictions on land use rights	1.96	LI		
Transportation system	3.56	QI			H10. Group of economic and financial factors (EC)			4.41	VI
Energy power supply system	3.11	MI			The income-generating ability of the land plot	4.04	QI		
Water supply and drainage system	3.65	QI			Land finance	4.66	VI		
Communicati on systems	3.41	QI			Land buyer's income level	4.52	VI		
System of education and health facilities	3.79	QI			H11. Group of credit factors (CR)			3.75	QI
System of cultural, physical training and sports facilities	3.28	MI			Loan interest rate	4.32	VI		
H5. Group of particular factors (PA)			4.15	QI	Loan procedure	3.32	MI		
Area of the land plot	4.03	QI			Amount borrowed	3.61	QI		
The shape of	4.22	VI			H12. Group of	3.04	MI	3.04	MI

Groups of factors	Impact index	Impact Level	Average impact index	Average impact level	Groups of factors	Impact index	Impact Level	Average impact index	Average impact level
the land plot					real estate brokerage factors (BR)				
Facade width	4.43	VI			Real estate brokerage form	1.20	NI		
The length of the parcel of land	4.1	QI			Professional qualifications of brokers	4.32	VI		
The direction of the land plot	3.96	QI			The broker's sense of compliance with the law	3.61	QI		
H6. Group of factors of land plot location (LO)			3.49	QI	H13. Group of real estate market factors (RE)	3.70	QI	3.70	QI
Distance to schools	3.54	QI			Real estate supply	3.56	QI		
Distance to medical facilities	3.71	QI			Real estate demand	3.51	QI		
Distance to entertainment facilities	2.95	MI			Forecast of real estate supply and demand	4.03	QI		

Abbreviation: VI - very impactful, QI - quite impactful, MI - medium impactful, LI - little impactful, NI – very little impactful

The results in Tables 3 and Table 8 show that residential land prices are affected by 55 factors belonging to 13 groups of factors. Compared with the results of previous studies, this study showed more factors and more groups of factors. Groups of factors that are different from the previous groups of factors include the group of COVID-19 pandemic factors; the group of real estate brokerage elements; a group of administrative and planning elements. Some weak groups have the same name, but their factors can also be similar to and different from those pointed out in previous studies, including real estate market factors; a group of economic factors; a particular group of factors. The research results also show that the impact rates of factors on land prices are also different and also different from the impact rates of the groups of factors that have been shown in previous studies. The group of COVID-19 pandemic factors and the group of real estate brokerage factors are both new and have the highest impact rate (Table 8).

Moreover, their factors also have a strong impact on land prices (Table 8). This is the difference compared with the research results of (Tra et al., 2020) because the infrastructure factor had the largest impact rate. Nguyen's research (2017) showed that the distance to political centers, schools, hospitals, etc has the strongest impact on land prices. According to Phan et al (2017), regional factors had the strongest impact. The main reasons are that the studies were carried out in different locations with different natural, socio-economic and disease conditions.

The impact rates of 13-factor groups on land prices range from 1.43% to 23.65% (Fig. 4). The group of COVID-19 pandemic factors has the largest impact, followed by the group of real estate brokerage factors, the group of urbanization factors, industry, handicrafts, and other groups of factors. The group of individual factors including the area of the land plot, the shape of the land plot, the width of the facade, etc. has the smallest impact ratio because the land plots have the same area, shape, and width as the facade and meet the requirements. meet the needs of land users. The average impact indexes of the groups of factors are also different and range from 2.07 to 4.50 (Fig. 5). The group of COVID-19 pandemic factors has the largest impact index, and the group of environmental factors has the smallest impact index because Tu Son city has good environmental conditions. Thus, the group of COVID-19 pandemic factors has both the largest impact rate and the largest impact index on residential land prices.

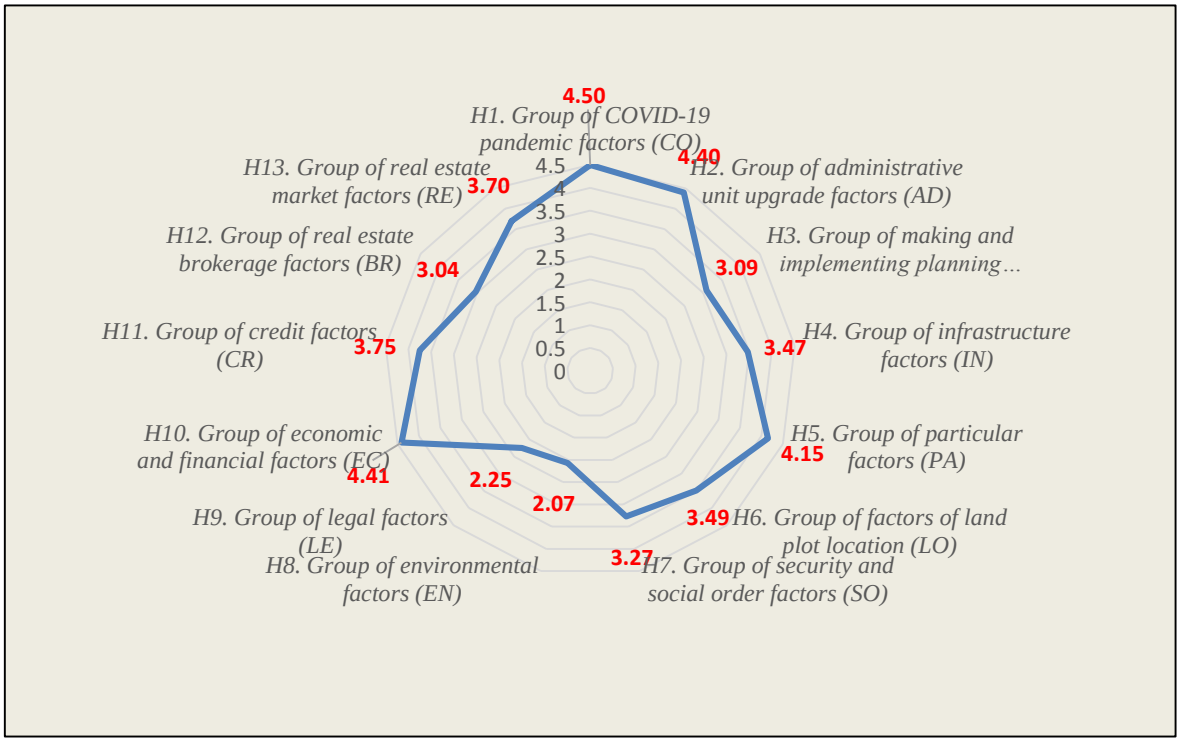

Fig. 5. *Average impact indexes of factor groups*

CONCLUSION

The price of residential land in the study area is affected simultaneously by 45 factors belonging to 13 groups of factors. the group of COVID-19 pandemic factors has the strongest impact (impact rate of 23.65%) on residential land prices. The group of social order and security factors has the smallest impact (rate of 1.43%)on residential land prices. The impact indexes of factors on land prices range from 1.20 to 4.96. For the price of residential land to be more suitable for the interests of the State, individuals, and organizations, it is necessary to pay attention to the impact level of the factors when determining the land price. First, it is essential to pay attention to the groups of factors that have the most substantial impact on land prices, then

the groups of factors with smaller impact rates. In particular, when planning financial policies on land, the State needs to pay attention to epidemic factors and prevention measures to have solutions to ensure appropriate budget revenue and achieve the set plan. The research method in this article can be used as a reference when studying issues related to residential land prices. The study has not assessed the factors that cause the residential land price to change, so this issue needs to be further studied.

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THE LIVELINESS OF SIDEWALKS IN HOCHIMINH CITY

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Abstract

In most countries around the world, sidewalks are usually for pedestrians for a long time. However, it was said that HCMC's sidewalks were not mingled with any urban cities in the world. The HCMC's sidewalks are possible to generate more liveliness, by commercial activities and social activities to occur in the sidewalks frontage of the house during day-time and night-time. This paper based on social perspectives. This research applied the mixed-method research that is a combination to qualitative and quantitative methods to calculate the liveliness index. The author uses the observation participant method blended with the visual method to collect data to the five activity categories including sidewalk vending, domestic use, communal, store spillover, transportation. The results of the first essay show the estimated value of the liveliness index of 270 sidewalk-segment as a quality standard to consider sidewalk as public space in HCMC. Most of the sidewalk-segments in District 5 have a higher level of liveliness than others.

1. INTRODUCTION

In most urban studies, the sidewalk derives from the proper allocation of transportation such as pedestrians, automobile, or parking lot and at the same time provides space for various modes of transport within the city (Gehl, 1987; Mitchell, 1995; Tiesdell and Oc, 1998; Amin, 2008; David et al., 2002; Dempsey, 2009). Historically, the first sidewalk emerged in what is now Turkey, around 2000 BC. Haussmann's large boulevard in Paris separated the pedestrians from the horses on the streets that were filtered to provide great protection and pedestrians (Loukaitou-Sederis and Ehrenfeucht, 2009). Moreover, Jacobs (1961) first emphasized the social role of sidewalks in New York City and the author argues that sidewalks are not only used for pedestrians, but must be recognized as public spaces through life street and social interaction. Primarily, sidewalk studies focus on particular element in terms of social interaction and property rights or regulations (Montgomery, 1998; Farida, 2013; Kim, 2012; Mehta, 2014). Sidewalks are an additional typology of public space undervalued within the public space discourse (Deacon, 2013). However, few comprehensive sidewalk studies exist to establish that sidewalk as public space.

Jacob (1961) considered the sidewalks and street are an important part of open public space and the most important symbols of the public realm in a large of major cities around the world. People depend on sidewalks for social interactions, recreational activities, and commercial activities (Mehta, 2014; Banerjee, 2001). Sidewalks serve as public space for the city as groups of people migrate through sidewalks exchanging social interaction (Deacon, 2013). Some scholars argue that sidewalks are a social space, not just a place for transportation or pedestrian (Jacobs, 1961; Gehl, 1987; Loukaitou- Sederis & Banerjee, 1998; Hass-Klau et al., 1999). However, not all sidewalks have the same function for social and economic activities. Some sidewalks will certainly be more lively and busier than others.

Sidewalk in HCMC can become public space because there occur diversity activities, not just for transportation, and therefore attracts a large number of people come on. It is said that HCMC 's sidewalk was not mingled with any urban cities in the world (Kim, 2012) and people in HCMC use sidewalk for daily life. The HCMC's sidewalk exhibits clearly the diverse urban features with vibrant rhythm from early morning to late night (Kim 2012; Drummond, 2000; Harms, 2009). Rama (2018) points out the Vietnam's sidewalks tell a lot about the nature of urban life from the infrastructure to the relationship between people. Especially, HCMC 's sidewalks do not only serve as a place to accommodate the need of pedestrians, parking lots for motorcycles. They also accommodate activities of household which commonly performed inside home such as men playing chess, children playing, and women talking with others, etc. (Kurten, 2008; Kurfurst, 2012; Koh, 2007). These specific activities make HCMC's sidewalk lively.

This paper objective measures the quality of sidewalk in HCMC by capturing sidewalk liveliness as a quality dimension. The focus is to specify and construct a commonly used measure of quality for sidewalks - the liveliness index of sidewalks on mixed-use neighborhood. Based on social perspectives and public space definition, this study only focused on the concept of access and use, this study does not mention the concept of ownership and control of sidewalk. In terms of access and use, the study applyes the theory based on environment settings combined with behavioral analysis of usage and sets of activities on the same location or area through mixed-method using qualitative and quantitative methods. This research is conducted in HCMC by examining 270 sidewalk-segments in front of single-family houses in mixed-use neighborhoods. By employing participant observation and survey, the author will record physical characteristics of the sidewalk, uses and activities on sidewalk.

2. EMPIRICAL REVIEWS OF PUBLIC SPACE AND SIDEWALK IN HCMC

2.1. Public space and sidewalks in Vietnam

Public space and sidewalk in Vietnam have some salient points. Several scholars have noted that a unique aspect of Asian urbanism is that the primary public space is the street and sidewalk rather than the open squares and plazas commonly assumed in Western literature (Koh, 2007; Heng, 1999; Sassen, 2011). Meanwhile, in Vietnam, public spaces are regularly used for private household activities while the private spaces of homes are regularly used for commerce (Drummond 2000).

Concerning the household activities on sidewalk, it is not surprising and very common in other Asian countries, when some activities that are supposed to take place inside the home or domestic space, but the reversal is that of eating, drinking, cooking, bathing, and washing activities takes place outside the house and in public space (Edensor, 1998; Yasmeen, 1996). Because many people live in crowded houses and apartments, for example, each person's living space for the center of Hanoi is less than 5 square meters (Seo, 2017). Even when meals are cooked in the home, parents often let children eat outsite their home while playing with friends. Moreover, due to the lack of room in most Vietnamese families and due to the lack of large open public space, people often cook outside and gather together on sidewalks and sidewalks and in parks and cafes to socialize (Kurfürst, 2012; Helmisaari, 2015). A number of activities involving caring for children and the elderly are also conducted in public spaces. Young children sometimes use the sidewalk while playing, or even use the sidewalk to urinate. In some residential areas, households often use water pipes to discharge directly on the sidewalk. As a result, sidewalks appear to be used for all purposes of the people to meet the needs of daily life, such as cooking, eating and washing (Kurfürst, 2012).

Concerning commercial activities, some studies added to the property value along the sidewalk (Deacon, 2013; Loukaitou-Sideris & Ehrenfeucht, 2009; Rupa, 2015). During the use of public spaces and sidewalks, users consider these spaces as part of their own property (Drumond, 2000). Although sidewalks are not owned by any individual, most Vietnamese may think that they can use the sidewalk for their own purposes. Therefore, the owner usually uses of sidewalk in urban area for commercial activities. The appropriation of public spaces for commercial activities is noticeably widespread in cities and sidewalks considered as a nominal public space that small businesses can occupy and conduct business activities on these spaces. The main types of business activities on the sidewalk such as cooked food stalls, hair salons, street vendors, tea counters, or possibly all small-scale services or products imaginably. Another form of the property exist in expanding the range of diverse displays of goods or activities on the sidewalk. The Pham Ngu Lao landscape is outstanding picture which is recognizable HCMC' s sidewalks activities at night such as bars and terraces are lighted by numerous signboards, ashy neons or red lanterns, that indicating the erotic dimension of the neighborhood (Gibert and Peyvel, 2016). Moreover, Kim (2012) found that stores and sidewalk vendors considered themselves to be selling complementary goods, such as restaurants in buildings that can accommodate customers by seats on the sidewalk and supply appetizers and desserts, and sidewalk cafes do the same thing.

Furthermore, it should be noted that the significant contribution of the curb or sidewalk in front of the house that considering the property value in Vietnam, as people could accessable and used not only for domestic activities but also for business activities (Garnett, 2008; Loukaitou-Sideris & Ehren-feucht, 2007). For limited private space, typically crowded housing area, people tend to crowd on the street and occupy curbs and sidewalks as public spaces for commercial purpose. For this reason, these local businesses are key components to sociability on the street as they also contain characteristics that enhance sociability, such as being a place for social conversations and networking. The independent businesses have more personalized and distinctive street frontage with shop sign decoration and ornamentation; and they can further attract a large of people attention by commercial or events activities occurring on these streets. Parking space for motorcycles and bicycles in urban sidewalk also seem to be prevalentspaces.

On the other hand, public space and sidewalk in Vietnam have fulfilled the social function (Koh, 2007; Nguyen & Han, 2017; Drummond, 2000; Kurfürst, 2012). Public spaces for leisure activities including parks, museums, sports facilities (managed by different levels of the government) and squares such as the area in front of Ho Chi Minh Mausoleum, as well as public spaces like sidewalks also used for recreational activities, especially sports (Drummond, 2000). If public space are also civic spaces (meaning spaces for the people), then these spaces where kinds of people meet to buy, sell, eat, drink and sit down to discuss things. It is where society meets regularly for sorts of purposes. In the context of Vietnam, the everyday life from early morning until midnight happens on the busy sidewalks and many social interactions are carried out on sidewalk. The sidewalk offers a platform for a wide range of social interaction and experience as well. Moreover, the sidewalk in Vietnam's urban life also provokes social exchange, since it offers places forwalking and interactive chatting.

From household, commercial, and social activities on public space and sidewalk are discussed above, contributing to create a vibrant and lively of HCMC possible through a mixed-use sidewalk (Kim, 2012). A sidewalk using a mixture is both collaborative and livable if planners combine time into planning space to expand the sidewalk flexibility and if local society can enforce the new legal on the sidewalk. According to this study, the difference is the extent to which sidewalk living is rife and varies in HCMC. Sidewalks are places to eat, shop, and entertain, as well as motorbike parking lots and store spillover not just in specific streets or

neighborhood.

A salient aspect of urban sidewalk in Vietnam is the fact that people of different genders, ages, and diverse social groups can access easily and everywhere. For example, Hanoi city allowed retirees whose pensions were not sufficient to sustain them to sell lottery tickets on sidewalk stalls and motorists could stop at their stalls freely without being harassed by policeman (Koh, 2007). Street vendors walk or locate to the HCMC' s sidewalk neighborhood to sell cigarettes, newspapers, food in different time a day, etc. The right to settle in front of a house or on the sidewalk has to negotiated with owners and the police (Gibert and Peyvel, 2016). Gender and age are relevant to understand stakeholders: most of them are women, sometimes young people with little formal education; others are older women desperately searching for a salary. Moreover, Harm (2009) studies Vietnam's civilizing process from the public space on the Turtle Lake in HCMC in the period between 1997 and early 2003. The author pointed out that this area proved a perfect place where he could meet friends from social classes, ranging from poor rural migrants and economically strapped university students to business professionals and university professors.

In conclusion, from empirical studies in Vietnam, we can suggest that sidewalk as public space in neighborhood. At the same time, there are many activities in the sidewalk such as household activities, commercial activities, and social activities, so mixed-use sidewalk in neighborhoods are necessity activities that created sidewalk liveliness. Also, the sidewalk is public space so there is no limit to any citizen in urban that can access it easily.

2.2. Liveliness – the main dimension of HCMC sidewalks

Liveliness of the public space based on activities is related two separate concepts as vitality and diversity (Jacobs, 1961; Montgomery, 1998). Vitality refers to the numbers of people in and around the public space across different times of the day and night, the number of cultural events and celebrations over the year. Vitality could be distinctive feature to distinguish successful area from the others. Diversity means to the various of activities on the public space. While vitality can be measured through human flow and movement in the uptake of physical settings of public, the term of diversity is the increase in activities (Comedia, 1991). Therefore, the place is the presence of an active people' daily life and diversity in activity generated by people movement, and generally the extentto which a place feels lively.

Lynch (1960) identified vitality – as one of the performance liveliness dimension of urban public space and described it as the degree to which the form of places supports the functions, biological requirements and capabilities of human beings. It tends to show how the physical form and the functions that they accommodate, influences the pattern of use and behavior in the public space. The vitality in the urban is an important quality dimension of urban design. This vitality will control the amount of crime, increase the benefits of commerce, enhance or make use of the efficiency of a street landscape, and encourage social regarded as an important measure of its health (Jalaladdini and Oktay,2011).

The generators of diversity are necessary for the lively of public space (Jacob, 1961). Mixed-use neighborhood needs an enormous diversity of ingredients. The fact is that big cities are natural generators of diversity and prolific incubators of new enterprises (variety of size) and ideas of all kinds. They have that power because of concentrating in the various efficient economic and social activities based on the physical characteristics setting. A city scene is lively largely due to its enormous collection of small elements (Jacob, 1961).

The HCMC sidewalks is possible to generate more liveliness, by programming events,

commercial activities, and social activities to occur in the sidewalks frontage of house during day-time and night-time. These sidewalks can encompass both vitality and diversity. The best sidewalks are including diversity of physical characteristics, economic and social activities, and the duration of activities on them is longer, thus contributing to making them more important and more safety (Jacobs, 1999). In order to attract more users to the sidewalk frontage of the house, there is direct relationship between the property use, the activities and products provided need to be emphasized (Shuhana et al., 2004).

The flow of people movement and diversity of activities is illustrated to the HCMC sidewalk. Flow is on the sidewalks frontage of the house during daytime and nighttime. Most of the flow is for pedestrians, sometimes during rush hour or traffic jam, motorbikes drive on the sidewalk. The houses adjacent to the sidewalks are for specific commercial activities, such as homeowners often occupy a small space for displaying goods, placing advertising signs, and making parking for motorbikes. They even use sidewalks for domestic use such as bathing, washing, eating, sleeping and shelter activities. In addition, cafes is also where older men play chess and play cards, children often gather to have fun together. The flow of people gathered on the sidewalks are mostly local residents, street vendors, people shopping or interacting with each other. Besides, the HCMC sidewalk has a variety of functions and is often considered in the context of mixed-use neighborhood including residential areas, shops, offices and restaurants. The main use of HCMC sidewalks is commercial and social activities due to the small number of shops and sidewalk vendors but the space is also a popular gathering space for local residents. Diversity is an important attribute in an urban environment through a mixture of different things that provide the level of choice and scope of use available to everyone (Bentley et al., 1985). Due to a relatively high population density, the HCMC sidewalks can attract enough people to support diversity.

Based on the definition and literature review of HCMC sidewalks, liveliness dimension seems to cover other dimensions already. Therefore, this research objective use liveliness as a qualities dimension to explain why HCMC sidewalk can become public space through flow of people movement and participate in economics and social activities, and diversity activities on the sidewalk in day-time and night-time.

3. METHODOLOGY

3.1. Mixed-method research design

A mixed-method research design matrix in Table 1 was used to guide this research. Table 1 indicates an overview of data requirement, data collection methods and data analysis techniques to answer the research questions in a bid to achieve the research main objective.

Table 1. Data requirement and methods

Questions	Data collected	Source	Methods
What are the physical characteristics of sidewalk?	Observed physical characteristics of sidewalk	field observation	Comparativeanalysis
What are the uses and activities on the sidewalk?	Observed sidewalk uses and activities	Primarysource	Field observation, photos, and videos
Do activities vary at difference time of the day?	Number of activities	field observation	Mapping

Where are of commercialand social activities?	Activities on sidewalk-segments	field observation	classification and mapping
What impact does physical chacteristics quality has on resident's usage of sidewalk?	Number of activities	field observation	Inductive

Participant observation

Participant observation method is a method used to test non-verbal emotions, determine who interacts with whom, capture how participants interact with each other and check how much time they spend on different activities (Schmuck et al., 1997). In recent years, researchers have used this method to collect data related to participant attributes, psychological activities and developments. A prominent feature of this method is that focusing on analyzing the participants' behaviors and discussing more later on problems that occur during the survey, more than rely solely on participants' explanations of what they do and why they did it.

Video recording – visual method

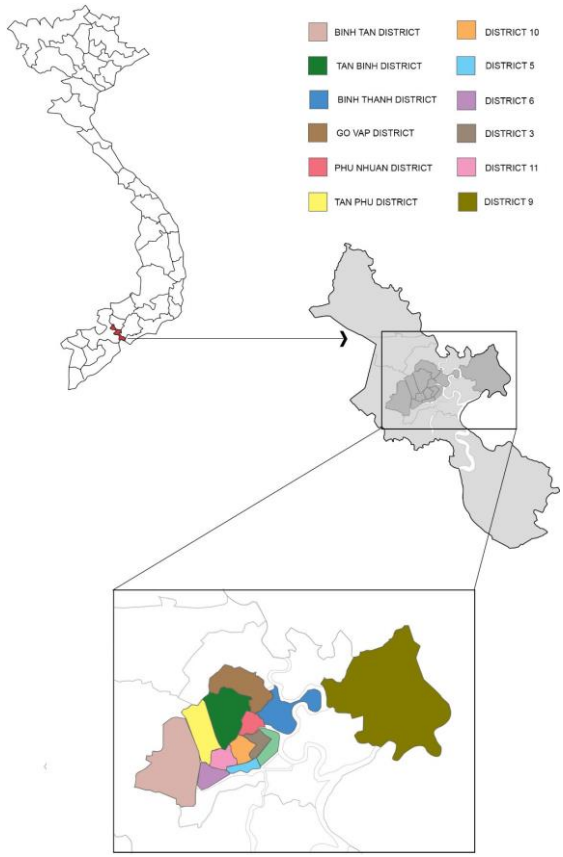
In qualitative research, video recording is a link between qualitative analysis and conversational analysis or recorded activities (Hindmarsh & Heath, 1998). This method is used by researchers to evaluate the nonverbal sequence of detailed behaviors of the conversation occurred, and nonverbal activities or behaviors that are difficult to observe in the reality. An important point before implementing the video recording, the researcher connects the relationship with the participants to observe and record. Researchers may not be present at the time of data collection; however, research assistants must be experienced and able to capture the participant behaviors and interests.

This study emphasizes visual research in field research. The images used in the study were taken by the researchers themselves. Such images may be generated by the social researcher (typically still photographs or videotape today) or uncovered by them in the archive or during the course of fieldwork, thus combining both approaches.

3.2. The study areas and data collection

The study areas

This study focuses on sidewalks in front of house in mixed-use neighborhood in 13 districts of HCMC. There are 24 districts in HCMC, however, the author chose these 13 districts based on the history of sidewalk formation and use. The characteristics of each district are different in terms of sidewalk characteristics, population, transportation, and other urban amenities. The sidewalk in front of the house is the main roads in a mixed residential and safety area. They are well served by major transit and are relatively better places for people to walk in the neighborhood, shopping, dining and finding other entertainment. The mixed-use neighborhood occurs that most neighborhoods have some type of retail at the street level to serve daily needs, shophouse, and some office space is usually in upper-floor buildings. There is a variety of commercial establishments, some small independently owned or local chains, and some chain stores.



Data collection

The sidewalks were divided into segments of approximately 50 meter in length, which "sidewalk-segments". The collected data totals 270 sidewalk-segments in front of single- family houses on mixed-use streets. Those houses may have the first floor having mix use of residential and/or commercial purposes. Some of the typical commercial activities may include clothing stores, shoe stores, jewelry stores, bakeries, supermarkets, sidewalk cafés, restaurants, and other types of food outlets. The 50 meters sidewalk- segment was selected to allow the researcher to observe on-going activities at any time of the day. Based on the physical characteristics variations to determine the exact size of each sidewalk-segment. Field surveys are conducted without integral maps, photos and videos. The characteristics documented included the ground-floor uses, sidewalk width, sidewalk surface, sidewalk material, locations of planters, trees, lighting, recycle bin and public or private seats. Where are those segments? How did you sample them?

For each of the 270 sidewalk-segments, to record the number of people engaged in commercial and social activities, the specific location, the kind of activities, flow of people, and its relationship with the physical characteristics on sidewalk need to behavior mapping of ongoing activities. The recording of sidewalk activities is based on walk-by observations, photos, videos and field notes step by step and is performed simultaneously by two participants to ensure greater accuracy and reliability. The author also is collected to 1418 photos and 548 videos in this study. During the observation, the two participants slowly walked along each sidewalk-segments, one observer took snapshots to record patterns of activity along the edge, while others recorded counting and field notes.

Observation Period

Data were collected on days from beginning January through late June in 2019. While the cloud cover and wind conditions varied during the observations, no observations were made

when it was raining. Because when it rains and does not good weather, most activities on the sidewalk do not take place and there are few people left on the sidewalk. Observations were carried out between 6:00 AM to 5:59 PM in the day-time, this is also the time for activities to take place during the morning and afternoon, and 6:00 PM to midnight in the night-time that time is when night activities take place during the evening. Data spread out on weekdays and weekends. Streets and sidewalk-segments were surveyed randomly. Each segment was observed for 5-10 minutes. Structured direct observations were used to record the location and number of people, to identify the activities they engaged in various sidewalk-segments. Unstructured direct observations were used to identify how people engaged with the characteristics of the sidewalk.

3.3. Data analysis methods

Behavioral mapping

Behavior mapping included walk-by observations and direct observations. Mapping commercial and social activities of people, this is an effective method based on previous studies to understand where people choose to go and the type of activities they engage in public spaces (Francis, 1984; Ittelson et al., 1976; Mehta, 2013). Therefore, providing a spatial model and evidence of the location of the priority activity, in this case, the author conducted observations and assisted GPS to mark the location of the activity. Mapping activities cover the 270-selected sidewalk-segments, during the period between 6:00 AM to 5:59 PM in day-time, and 6:00 PM to midnight in night-time spread out on weekdays and weekends; the number of people involved in such activity was recorded.

Walk-by observations

Walk-by observation is used to record commercial and social activities. The research participants slowly walk through the each of the sidewalk-segment in the study area and records the total number of people standing, sitting, lying on the sidewalk, their specific locations, the activities they have participated in. Activities were recorded under the categories shown in the result and were described in detail where required.

Direct observations and field notes

Direct observation is an important technique used to collect information about human behavior. Study environmental or physical behavior related to the scale of molar behavior because it involves observing people in their environment. Direct observations were made to document molar behavior including details of the types of activities, human interactions with the physical characteristics of the environment and their involvement.

The purpose of behavioral mapping to capture and measure the indicators related to physical characteristics of sidewalks. At the same time, the author made direct and walk- by observation of users' activities. Following Gehl (1996), the author observed the flow of people and calculated it for strategic locations such as the intersection and the street entrance to catch people entering the street. This relates to the number of 5-10 minutes of both pedestrians and the number of people inside the traffic at different times of the day.

Categories developed from inductive coding

The intended outcome of the process produces a number of key categories suggested from the literature reviews and the researcher's point of view. These main categories based on the synthesis of collected data and researchers have grouped and classified according to research objectives. Inductive coding is a process that begins with reading text or viewing a recording and examining the multiple meanings that inherent in the text. Next, the researcher will segment

the text containing the main topics that can be grouped and label the newly specified category. Finally, a researcher can develop initial meanings and descriptions of lists and write notes about them. Categories may also be linked to other categories in different relationships, such as networks, hierarchy of categories, or causal chains.

3.4. Calculating liveliness index

Characteristics of the liveliness index

Liveliness of sidewalk is measured based on Montgomery's terms including two concepts which are vitality and diversity. Vitality is the number of people in and around the sidewalk, pedestrians flowing through different times and days. If more people come sidewalks to do, there is a strong vitality. Diversity refers to the complexity of the functions and the number of activities taking place on the sidewalk. As sidewalks gather a mix of functions and activities such as communal, domestic use, store spillover, or merely pedestrians and transportation means, more and more people are attracted to this place, including the existence of the day-time and night-time activity.

For the purpose of this study, a liveliness of sidewalk is measured as a sidewalk in the presence of a number of people engaged in some of the activities that take place on that sidewalk, in addition to the user's behavior. Therefore, the background of characteristics of physical settings, the Liveliness index is determined based on the firstly is flow of people (vitality) participate in necessary, optional, social activities, and the secondly is the number of activities (diversity) taking place on each sidewalk-segments. The specific types of activities covered in this study are those related to commercial and social aspects.

Formula to calculate liveliness index

The indicator of the vitality and diversity of the sidewalk environment contributed to the index. Firstly, the vitality of use was determined by calculating the number of people engaged in some social and commercial activity at the sidewalk-segment. Secondly, the temporal diversity of use was determined by calculating the use of the sidewalk over the duration of the day. Thirdly, the diversity of activities was determined by calculating the number of types of activities at the sidewalk-segment. In addition, the theoretical model of Gehl (1987) mentioned the duration of stay variable, however, the author fixed the observation time for each sidewalk-segment to be the same from 5-10 minutes. Therefore, it can consider duration of stay to be the same for each sidewalk-segment. Besides, the diversity in age and gender of the users do not measure because everyonecan access and use all sidewalks in HCMC in social perspectival.

A sidewalk unit score is calculated when each person participates in social and commercial activities on a specific sidewalk-segment. Using Simpson's diversity index to calculate the temporal diversity of use and diversity of activities. All three measures have been standardized and are equally important in determining spatial responsiveness and comfortable a space to its users, so each measure is equal weighted in calculating the liveliness index.

Simpson's diversity index (Simpson, 1949) is used to calculate diversity and is often used in ecological studies to measure species diversity, regarding to the quantity of something as well as its abundance. However, this index is also applied in a number of studies related to the geospatial space diversity. The formula for calculating the value of the index(D) is

- ni is the number of individuals displaying ith characteristic;
- Z is the number of characteristics in each segment.

- N = $\sum_{i\#\$}^{Z} n_i$ is the total number of all individuals of all characteristics.

The value of D will always fall between 0 and 1, where 1 represents compel diversity and 0 represents complete uniformity. An index value is, itself,.very low so researchers often use it to compare it with another index value so that it makes sense.

Liveliness index of sidewalk variables and measurement method, comprising:

(a) Vitality of use

This variable is explained by the number of people engaged in activities on each sidewalk-segment, with formula: is the average number of people involved in all activities (1,2,...,N_s) occurred in sidewalk segment s, and

- M_s = max{$a_{s\$}$, a_{s+}, … , a_{sN_S}} is the maximum number of people involved in all activities occurred in sidewalk s.

(b) Temporal diversity of use

This variable is measured based on the distribution of activity that occurs in a period of observation in each sidewalk-segment. There are two period in day including day- time and night-time. This variable was measured by using the method of Simpson's diversity index. In each sidewalk-segment, data collected is the number of activitiesavailable at each observation period.

Table 2. Calculating of temporal diversity of use

No.	Observation period	n_i	$(n_i - 1)$	$n_i (n_i - 1)$
1	Day-time	n1		
2	Night-time	n2		
				$\sum n_i(n_i - 1)$
	Total	N = $\sum n_i$ = n1 + n2		

where, n is the number of activities on sidewalk-segment in observation period.

(c) Diversity of activities

This variable is measured from the variety of activities. This variable was measured by using the method of Simpson's diversity index. Data from this assessment is the number of diversity activities.

Table 3. Calculating of diversity of activities

No.	Activity categories	n	(n-1)	n(n-1)
1	Category 1	n1		
	Category 2	n2		
3	…			
	…			$\sum n_i(n_i - 1)$
	Total	N = $\sum n_i$ = n1 + n2 + …		

where, n is the number of people on sidewalk-segment in each activity category.

In each sidewalk-segment, the liveliness index is calculated by the average of the three measures in formula because these were standardized and given equal weighting in determining the liveliness index. The author then ranked the liveliness index among sidewalk segments by scale from 0 to 10. The liveliness index was reported as a value from zero to ten where the higher the score the more intense and unique the sidewalk- segment. Specifically, value as 0 is the sidewalk-segments that does not have liveliness, value as 5 is the sidewalk-segments that has average liveliness, and value as 10 is sidewalk-segments have high liveliness. The high liveliness index mean that these segments were able to support social and commercial activities where there was some variety in the activities as well as some diversity in the use of the day.

4. FINDINGS AND DISCUSSIONS

For data analysis purposes and to be able to measure the quality of sidewalk in HCMC by capturing sidewalk liveliness as a quality dimension, each of the 270 sidewalk segments is assessed for the physical characteristics of sidewalk and user's behavior refers to the number of people participating in commercial and social activities that research focuses on. In particular, for the each of the sidewalk segment, the sidewalk width is recorded in meters, and the types of activities taking place on it. The study was conducted in the following analysis. Firstly, the research analyzes the impact of the physical characteristics of the sidewalk on the number of people involve to the sidewalk. Secondly, the study performed behavioral mapping over the activities taking place on the sidewalk-segments during the day-time and night-time and compared the differences between them. Thirdly, the author calculates the liveliness index based on three main parameters as vitality of use, the temporal diversity of use, and diversity of activities on each sidewalk-segments, and according to different districts. The computation of the Liveliness index takes into account the quality of each sidewalk-segment and by different districts. Finally, the author analyzes the relationship between the physical characteristics of sidewalk and liveliness index.

4.1. Descriptive statistics of physical characteristics of sidewalk

The observations conducted confirmed that physical characteristics play an important role in attracting many people to the sidewalk.

Sidewalk width (SW_width)

In the survey sample, sidewalk width is divided into 3 different groups according to Decision No. 74/2008/QD-UBND dated 23 October 2008 about Promulgating the Regulation on management and use of roads and sidewalks in HCMC. In 270 sidewalk-segments, the large number of the sidewalk width is from 1.5-3 meter, accounting for 50 percent, and also attracts the most of number people with 45 percent.

Sidewalk surface quality (SW_surface)

The sidewalk-segments have paved surface accounting for 78 percent, and the trend of residential people prefer to these places with 81 percent more than the sidewalks are not invested paved or serious damage.

Each sidewalk-segment has a width ranging from 1.5 - 3 meters or over, and a paved sidewalk could attract commercial and social activities on the sidewalk, and thus increase the presence of people on the sidewalk. Examples of activities observed for sidewalk encroachment include the creation of seating on the sidewalks of shophouse, buying and selling activities. Commercial seating involves arranging external seats and tables by food stores and cafes, this is

one of the most popular on the sidewalk. In addition, sidewalks are also places to display products of stores that occupy sidewalks for trading, business activities, and through the presence of sidewalk vendors.

Sidewalk surface material

According to the collected data, the common material paved on the on-sidewalk surface is brick, and also attracting people come on. Brick material is commonly used for sidewalks in HCMC and create a coherent expression in space.

Sidewalk furniture (SW_furniture)

Sidewalk furniture is a critical characteristic to increase safety and security, especially lighting street during night-time against crime (UN-Habitat, 2013). In addition, people opt for interacting in a clean environment, and public seats also consider valuable to facilitate social interaction (Gehl, 2008; Mehta, 2013; Whyte, 1980).

4.2. Behavioral mapping of people and activities

Category of activities on the sidewalk-segment

The common activities considered during the observation process are commercial and social activities taking place on the sidewalk and based on environment settings that can become public spaces. The observed behavioral activities reflect on the quality and physical characteristics of sidewalks.

Data sample consists of 1484 photos and 548 videos of 270 sidewalk-segments. Corresponding to each photo, the author performs text codes of all kinds of activities. Then, the author performs categories by process at Figures 3.2 (Creswell, 2002). Finally, the authors grouped the common activities taking place on the sidewalk HCMC with 5 different categories.

Based on data collected on different sidewalk-segments, the author categorized activities into five analytical categories including sidewalk vending, domestic use, communal use, store spillover, and sidewalk occupancy of pedestrians and transportation means activities, based on the commercial and social activities. There are five activities occurring along the 50 meters on the sidewalk front of house in day-time (6AM-before 6PM) and night-time (after 6PM-midnight) including: (1) Sidewalk vending: vendor on the sidewalk in front of the house (not the homeowners); (2) Domestic use: activities of homeowners or households on the sidewalk in front of the house such as eating, drinking, bathing, sleeping; (3) Communal: community activities or mixing-social activities on the sidewalk in front of the house such as exercise, conversation, meeting, event organization; (4) Store-spillover: business activities of homeowners or renters on sidewalks in front of the house such as seating for customers, setting board-signs; display of goods and services; parking for customers; (5) Sidewalk occupancy of pedestrians and transportation means: pedestrian for walking, driving on sidewalks, stopping or parking (not homeowners).

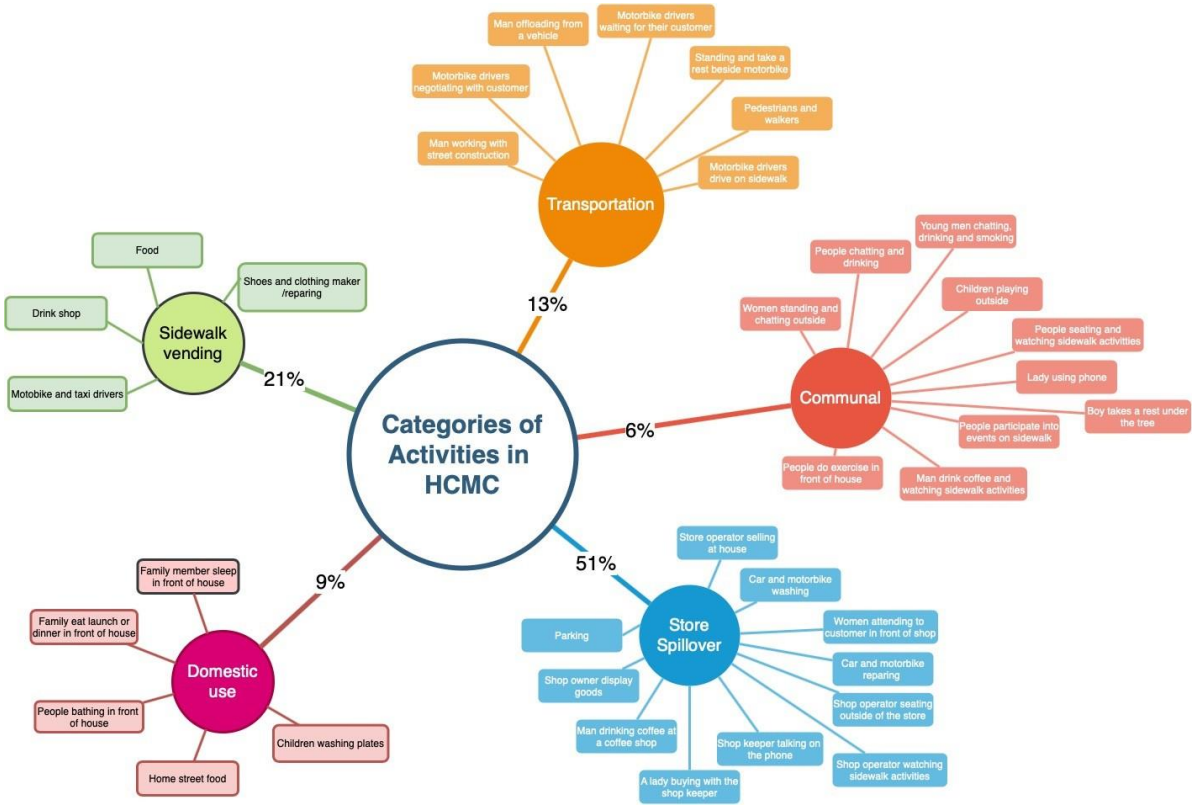


Figure 1. *Categories of activities on sidewalk in HCMC*

Figure 1 indicates observed activities, which were regrouped into analytical category. The figure shows that 51 percent of observed activities were store spillover use, such activities will occur regardless of the sidewalk quality. This is an important activity for the ground- floor of single-family house that directly adjacent to the sidewalk located in mixed-use neighborhood. The next is sidewalk vending activities account for 21 percent of the observed activities, this is also a common activity on sidewalks in HCMC. Following the majority of people who use personal motorbikes to travel and to meet the convenience of the people, most sidewalk vendors are still their choice such as selling breakfast food, beverage shop. The following activities respective are sidewalk occupancy of pedestrians and transportation means, domestic use, and communal activities. The researcher found a unique result when analyzing observed activities for sidewalk-segments in HCMC is domestic use activities, such as eating, drinking, sleeping, bathing, family activities take part in the sidewalk in front of the house. More details about the types of activities that the author has coded before categories can be found in Appendix B.

Descriptive statistics of activity categories and sidewalk width

Figures 2 and 3 illustrate the relationship between activities taking place on the sidewalk in five categories and the sidewalk width is distinguished by day-time and night-time. Most activities take place on sidewalks in the sidewalk width of 1.5-3 meter and store spillover is the main activity, but activities occur in the evening were usually more exciting than day-time.

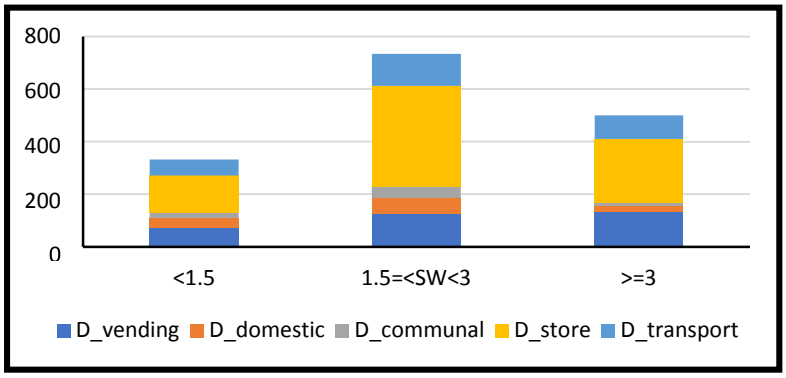


Figure 2. *Day-time activities with sidewalk width*

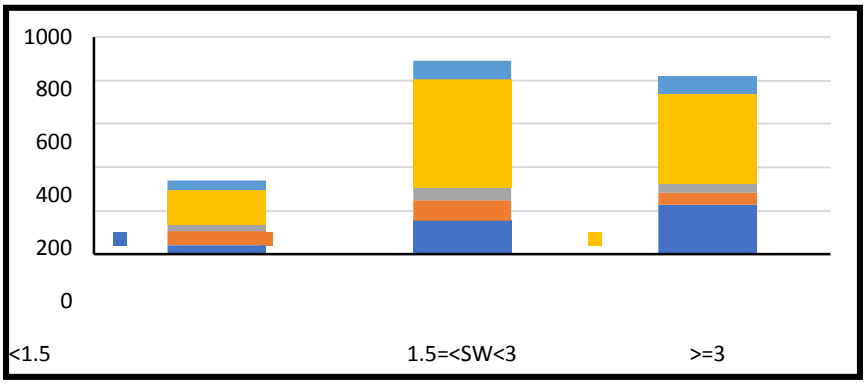


Figure 3. *Night-time activities with sidewalk width*

ACTIVITIES MAPPING

Map in Figure 4 and 5 show day-time activities (6:00AM-5:59PM) and night-time activities (6:00PM-midnight). This indicates location, main category activities resident is involved. This study uses two map in the form of space syntax to show the density of people participating in activities on the each of the sidewalk-segment. The main category activity taking place on the sidewalks in HCMC is store spillover activities.

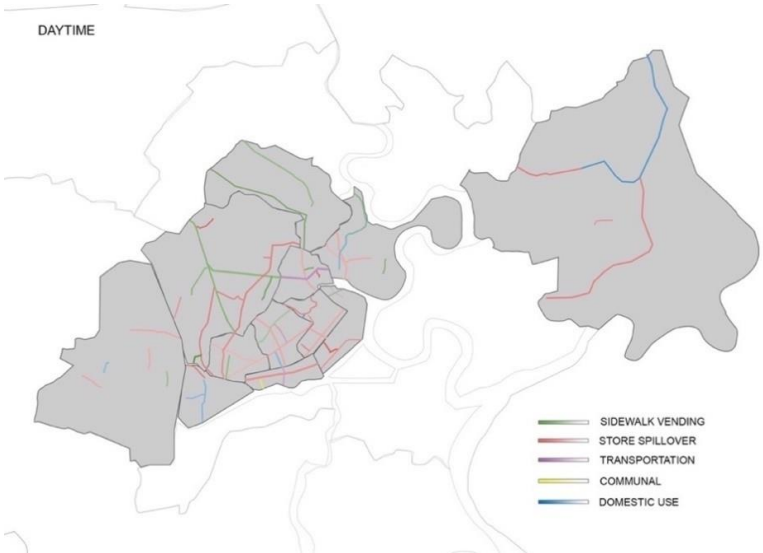


Figure 4. *Day-time activities*

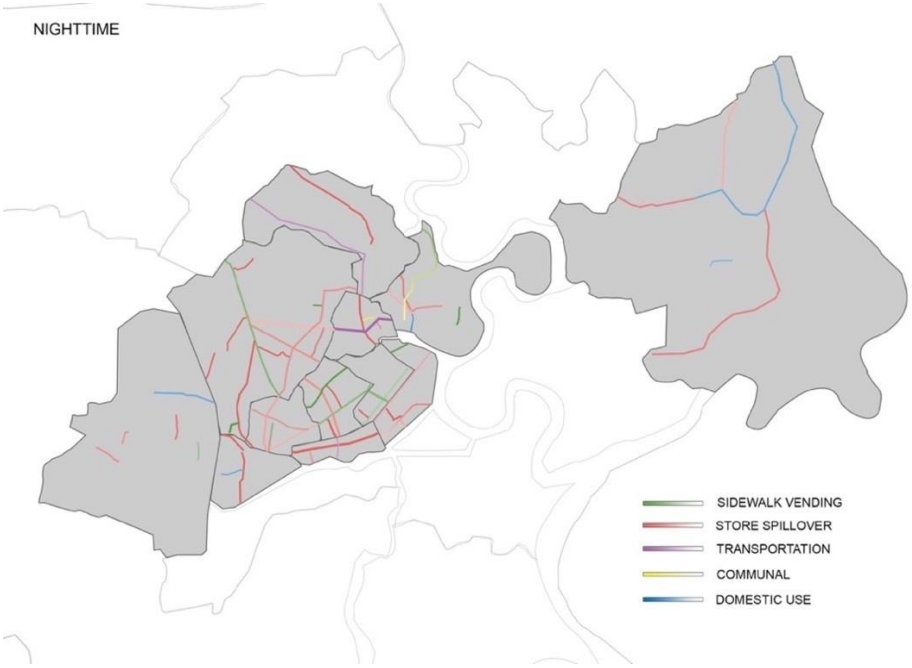


Figure 5. *Night-time activities*

The 270 sidewalk-segments on 13 districts with a wide variation in the number of people engaged in five categories activity were also revealed on the number of activities occur in the each of the sidewalk-segment. The results show the number of activities of 270 sidewalk segments on structured direct observations on day-time and night-time highlighted the difference five categories as sidewalk vending, domestic use, communal, store spillover, and sidewalk occupancy of pedestrians and transportation means. The more active sidewalk segments that take place, the more diverse the sidewalk-segment is.

Calculating of liveliness index

Liveliness index in each sidewalk-segment

Liveliness index was calculated for each of the 270 sidewalk-segment by using the results of observation of flow of people involving in sidewalk vending, domestic use, communal use, store spillover, and sidewalk occupancy of pedestrians and transportation means activities. Each sidewalk-segment is approximately 50 meters in length in a mixed-use neighborhood.

The Liveliness index was determined for each of the sidewalk-segments and each district by aggregating the score for: (1) the vitality of use as the number of people involve in five category activities including sidewalk vending, domestic use, communal use, store spillover, and sidewalk occupancy of pedestrians and transportation means activities at the physical settings; (2) the temporal of diversity of use, and (3) the diversity of activities in each of five category activities. The three measures were standardized and given equal weighting in determining the Liveliness index.

Liveliness index in each district

The liveliness index is also calculated for each of the 13 surveyed districts so that the sidewalk liveliness in each district can be compared based on flow of people and number of occurrences. The table 3 show that the sidewalks in District 5 have the highest Liveliness level than that of the other districts.

Table 3. Liveliness index for district level

District	Liveliness index
District 5	10.00
District 1	9.26
Tan Binh	8.42
Tan Phu	6.60
Binh Thanh	5.77
Phu Nhuan	4.88
District 11	4.79
Go Vap	4.42
District 10	4.37
District 3	3.86
District 9	3.12
District 6	2.42
Binh Tan	2.28

5. CONCLUSIONS

From the literature review, there is a significant association between physical characteristics and user's behavior through commercials and social activities on the sidewalk in mixed-use neighborhood. In the large sidewalks' width becomes more useful and meaningful for people when there are community gathering places and a variety of stores that support use and activities, and vice versa. Moreover, with the spacious sidewalk, it is also possible to attract more people there and focus on the variety of activities that take place, and this has made the sidewalk livelier and can become a public space.

Based on the number of participants and the number of activities on sidewalks, the author estimated the Liveliness index in each sidewalk-segments, corresponding to each segment with different indices.

PART 4

INTERNATIONAL RELATIONS AND PUBLIC POLICY

UPGRADING STRATEGIES IN THE GLOBAL VALUE CHAIN FOR DEVELOPING COUNTRIES: THE PERSPECTIVE FROM THE NATIONAL INNOVATION SYSTEM OF ASIAN NEWLY INDSUTRIALIZED ECONOMIES

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Abstract

Research purpose and Research motivation

This study intends to investigate the National Innovation System of Asian Newly Economies and its applications for the developing countries in the new context of globalization of R&D and emergence of industrial revolution industries 4.0.

Research design, approach, and method

The paper presents its findings by using systematic literature review approach to analyze the current academic and practical papers to gain the targets.

Main findings

The paper has found that the model of Asian Newly Economies is still suitable to the developing the economies of developing countries from the perspective of government intervention and regulation. At the same time, the industrial revolution 4.0 industries even necessitate these regulations to upgrade the developing countries in the global value chain with the reference to the national innovation system approach.

Academic contributions and managerial implications

Our paper motivates the need for developing countries to attract R&D FDI from multinational enterprises in other that they can address the issues related to the limitations and drawbacks of their weak national innovation systems. With the presence of the R&D multinational enterprises, the local firms can get the advantages in terms of technology spillovers and other motives to promote innovation activities in order to upgrade in the global value chain.

Keywords: *National innovation systems, Asian Newly Industrialized Economies, R&D FDI from MNEs, developing countries in the new context.*

1. INTRODUCTION AND THE NECESSITY OF THE RESEARCH

Economic growth and long-term economic development depend on innovation. How to innovate and strengthen their competitive position in an increasingly globalized world is an open question for developing nations, given that many of these nations continue to be characterized by a lack of human capital, technological capabilities, and appropriate institutional and business

environments. The significance of studying advanced countries has long been underlined due to their limited domestic technology resources and capacities (Hobday, 1995). Researchers have demonstrated that companies can gain knowledge through various means, including labor mobility, technology licensing, reverse engineering, information and knowledge exchanges with suppliers and customers, exporting, and the spillover effects of foreign direct investment (FDI) (Navaretti & Venables, 2004).

The competition between the countries in the region to become the manufacturing and innovation destinations for businesses has recently increased due to globalization, especially the movement of high-tech production from Western and advanced Asian countries to emerging Asian ones (Ernst, 2008). The phrase "national innovation system" is used frequently in policy circles around the globe and may be found in various social science and engineering fields. The idea is based on the presumption that systemic characteristics may account for different countries' innovation patterns: The innovation system's components vary and are connected to one another in various ways. These variations in economic structure and institutional framework are mirrored in the pace and direction of innovation. Regarding the relative relevance of domestic technological capacity and the results of participation in global value chains (GVC), the two streams of thought disagree once again.

In research on catching up in six sectoral innovation systems, Malerba and Nelson (2011) found that industries vary in terms of how they collaborate with foreign businesses. Access to foreign technology was essential in some examples of successful catching up (such as the Korean automobile industry). However, in other cases (such as software, semiconductors, and agri-food), multinational corporations operated as customer-led businesses in international value chains. However, once more, they discovered that it is required to connect the analysis of sector performance to the features of the national innovation system (NIS) to explain success and failure in catching up, a phenomenon referred to as sectoral upgrading.

However, other strands of research suggest whether and how firms involved in GVCs (as well as industrial clusters, regions, and countries) innovate; scholars should not focus entirely on GVC characteristics and the role of lead firms. Still, they also should consider domestic technological capabilities at the firm- (Morrison et al., 2008), industrial cluster/regional- (Pietrobelli & Rabellotti, 2007), and local innovation system levels (Pietrobelli & Rabellotti, 2011).

While these countries shared similarities with many other developing nations in that they were all relatively late industrializing nations in the global economy, the case of the Asian Newly Industrialized Economies (NIEs) also highlights some interesting features with the success stories in the process of upgrading their economies (Hikino & Amsden,1994). Regarding the development of high-tech industrial capability, indigenous firms from these nations typically face two challenges: first, they are typically remote from the critical markets for end users in North America, Europe, and Japan; second, they are also remote from and disconnected from the critical sources of technological innovation in developed nations. Despite these drawbacks, however, three Asian NIEs - South Korea, Taiwan, and Singapore - have grown their high-tech industries much more quickly than any other emerging nations over the past three decades (Wong, 1999). By the late 1990s, numerous domestic companies in these three nations had impressively "caught up" in technology and, in some cases, had even surpassed market leaders from the more developed OECD nations.

The above success stories of Asian NIEs in combination with the emergence of critical industries in the Industrial Revolution 4.0 have motivated us to conduct this research to examine

the application of the Asian NIE model in this new context.

2. LITERATURE REVIEW

2.1. Literature Review on Global Value Chain

According to www.globalvaluechains.org (2013), the value chain is the set of activities that the firms and workers do to bring a product from its conception to end use and beyond, including activities ranging from design, production, marketing, distribution, and support to the final customers. Accordingly, the GVC is concerned with added values assigned to several firms with activities allocated in a widespread geographic sphere. In the context of globalization, the role of GVCs has improved significantly in many countries, especially the developing countries that consider the ability to successfully participate in the GVCs a necessary condition for their development (Gereffi & Fernandez-Stark, 2011). However, Humphrey and Schmitz (2001) supposed that approaching the developed markets increasingly requires actors to participate in the global production networks of the lead firms who create the standards and parameters that the smaller ones must follow. Similarly, UNCTAD (2013) pointed out that GVCs are usually regulated by transnational corporations (TNCs); and that approximately 60 percent of global trade comes from the goods assembled from various components made separately from many stages and geographic spheres. Besides, for players in developing countries, participation in a GVC offers new markets for their products and gives them convenient access to knowledge and enhanced learning and innovation (Pietrobelli & Rabellotti, 2010).

It seems that to increase competitiveness and maintain development, it is vital for enterprises from developing countries to participate in the suitable activities (stages) of the GVCs. However, becoming a significant member of the chain is not an easy job when Kaplinsky (2000) pointed out three key elements of value chain analysis, including barriers to entry and rent, governance, and systemic efficiency. Kean (2008), on the other hand, differentiated the traditional GVC approach from the non-traditional GVC approach to help the analyses recognize the patterns of the trends:

Table 1 KEY CHARACTERISTICS OF NON-TRADITIONAL AND TRADITIONAL GVC'S

Non-traditional GVC	Traditional GVC
Less actors, larger production units • Standards to adhere to in production • Technology transfer (information, processes) • Some processing • More direct relations between nodes • 'Quasi-hierarchical' governance • Buyer driven	More actors, smaller production units • Lack of standards to adhere to in production (or at least, standardised product) • No information on product or processes • No processing • 'Arms-length' relations • 'Market' based governance • International trader driven

Source: KEAN (2008, PP8)

The application is based on the GVC approach that can be traced back to the Global commodity chain (GCC) developed by Gereffi and Korzeniewicz (1994), who analyzed the GCC from four dimensions, including input-output structure, geographical coverage, the form of governance, and institutional framework. Gereffi and Fernandez-Stark (2011) developed a way to analyze the GVC components based on these four main dimensions. These include Dimension 1 - Input-output structure; Dimension 2 - Geographic Scope; Dimension 3 - Governance: and Dimension 4 - Institutional Context.

2.2. Literature Review on Upgrading Process in Global Value Chains

The primary literature in the paper is on the terminology of upgrading, which is defined as "the process by which economic actors – firms and workers – move from low-value to relatively high-value activities in global production networks (Gereffi et al., 2005, p171), or "the possibility for (developing country) producers to move up the value chain, either by shifting to more rewarding functional positions or by making products that have more value-added invested in them and that can provide better returns to producers" (Gibbon & Ponte, 2005, p87-88). There are five types of upgrading, which include process upgrading, which is to make the production process more efficient; product upgrading, which is conducted by introducing more advanced product types; functional upgrading, which is implemented by promoting the current activities toward the higher value-added tasks; and chain upgrading that requires players to move to a more technologically advanced production chain (Barrientos et al., 2011, p323-324). Specifically, based on the dynamic perspective of the above analysis, Gereffi (1999, p52) developed the trajectory of upgrading that begins from the assembly; followed by original equipment manufacturing (OEM); and then by original brand name manufacturing (OBM); and finally, by original design manufacturing (ODM) (Table 2):

2.3. Literature on National Innovation System

2.3.1. National Innovation Systems: Definitions

A national system of innovation has been defined as follows:

• "… the network of institutions in the public and private sectors whose activities and interactions initiate, import, modify and diffuse new technologies." (Freeman, 1987)

• "… the elements and relationships which interact in the production, diffusion, and use of new, and economically useful, knowledge ... and are either located within or rooted inside the borders of a nation-state." (Lundvall, 1992)

• "... a set of institutions whose interactions determine the innovative performance ... of national firms." (Nelson, 1993)

• "... the national institutions, their incentive structures, and their competencies, that determine the rate and direction of technological learning (or the volume and composition of change generating activities) in a country." (Patel and Pavitt, 1994)

• "... that set of different institutions which jointly and individually contribute to the development and diffusion of new technologies and provides the framework within which governments form and implement policies to influence the innovation process. As such it is a system of interconnected institutions to create, store and transfer the knowledge, skills, and artifacts which define new technologies." (Metcalfe, 1995).

2.3.2. The Role of National Innovation System in Accelerating Technology Capacity

- **Joint Industry Activities**

One essential information flow in a NIS for OECD nations comes from technical collaboration among businesses and their more casual connections. R&D partnerships and strategic technology alliances are expanding quickly in many nations. Companies work together to share technological resources, realize scale economies, and benefit from the synergies between complementary human and technical resources. The informal connections and relationships between businesses that facilitate the transfer of knowledge and know-how are also significant but more challenging to measure. Examples include the connections between consumers and producers and the function of rivals as both a source of and a catalyst for innovation (OECD, 1997).

Table 2: UPGRADING TRAJECTORY

Assembly ⬇	The focus is on production alone, often following buyers' specifications and using materials supplied by the buyer. In the garments sector, this would be described as "cut-make-and-trim".
Original equipment manufacture (OEM) ⬇	The supplier takes on a broader range of manufacturing functions, possibly including the sourcing of inputs and logistics functions. The buyer is still responsible for design and marketing. In the garments sector, this would be described as "full package" production.
Original design manufacture (ODM) ⬇	In addition to manufacturing, the supplier carries out parts of the design process, possibly in collaboration with the buyer. In the most advanced cases, the buyer merely attaches its own brand, or "badge" to a product designed and made by the supplier
Original brand manufacture (OBM) ⬇	The supplier designs, produces and markets its own products under its own brand. It no longer relies on a buyer for these functions

Sources: HUMPHREY (2004, PP8) - TAKEN FROM VARIOUS SOURCES, INCLUDING HOBDAY (1995) AND GEREFFI (1999).a

- **Public/private Interactions**

The connections between the public and private research sectors are another essential source of knowledge transfer in NIS. Public universities and research institutions make up most of the public component on one side. Private businesses are on the other side. One of the most significant national assets for fostering innovation may be the public research infrastructure's caliber and its business connections. Government-funded research institutions and universities are the primary producers of available research and provide the industry with new techniques, tools, and valuable skills in addition to a body of fundamental knowledge. The research carried out at these institutions is increasingly sponsored by businesses that work with the public sector on joint technology projects, hire specific research, or provide funding for workers and researchers (OECD, 1997).

- **Technology Diffusion**

The spread of technology as new machinery and equipment may be the most conventional knowledge flow in the innovation system. In most cases, the diffusion of innovations is a long-term, gradual process. The rate of technology adoption varies significantly between industries, depending on the national context, as well as several firm-level factors. However, putting technology to work through utilizing inventions and goods developed elsewhere is becoming increasingly important for organizations to operate innovatively. Customers, suppliers, rival companies, government organizations, and competitors can all share their technological knowledge. Technology diffusion is crucial for conventional manufacturing and service sectors, which may not have their R&D teams or innovators (OECD, 1997).

- **Personnel Mobility**

A crucial flow in NIS is the movement of individuals and the knowledge they carry (sometimes referred to as "tacit knowledge"). Personal interactions, whether official or informal, play a significant role in the flow of knowledge within and between the public and private sectors of industry. Sometimes, the general approach to innovation and problem-solving skills are more crucial than the precise knowledge transmitted. A helpful knowledge asset is the capacity to find and recognize information and access networks of researchers and personnel. The skills and networking abilities of staff members are crucial for implementing and embracing new technology, according to most studies on the dissemination of technology. This "adoption capability" must be matched by investments in cutting-edge technology, primarily determined by the labor population's skills, general tacit knowledge, and mobility (OECD, 1997).

2.3.3. National Innovation System Perspective across the World with the Focus on Developing Countries

The OECD (1997) study on NIS had the most impact on the academic community out of all the studies on NIS. The idea of NIS, which is common in research done in developed countries, is based on the idea that improving the performance of technology requires an awareness of the relationships between the people involved in innovation. Innovation and technological advancement result from a complicated web of interactions between the people who produce, disseminate, and use diverse types of information. The link between these actors as components of a collective system of knowledge generation and deployment in conjunction with the technologies they use greatly influences how innovatively a nation performs. These actors are mostly private businesses, educational institutions, and public research organizations, as well as the individuals who work there (especially in advanced economies). The situation in developing nations is slightly different, though, as organizations that provide services for the

diffusion and extension of technology, such as metrology, standards, testing, and quality, as well as organizational and technical consulting or knowledge-intensive business services, are more critical (Pietrobelli & Rabellotti, 2010).

Intarakumnerd et al. (2002) used Thailand as a case study in another study on developing economies in technological catch-up. They concluded that, unlike developed nations, the level of Thailand's NIS development is unrelated to the level of its economic structural development and that as Thailand shifts from an agricultural to an increasingly industrial economy, its NIS continues to be weak and fragmented. To address the original flaws of NIS, Ernest (2002) proposed that emerging nations combine the various foreign and domestic sources of information.

Established nations have played the role of technology leaders in every historical epoch, while developing nations have taken a backseat. The secret to successful development is to close the "technological gap" by importing current technology and building the internal capacity to use and advance it. However, the development and application of technology capabilities necessitate significant financial and social infrastructure investments. Systems of Innovation for Development (SID), a concept introduced by Edquist (2001), emphasizes significant distinctions from the NIS method used in prosperous economies. According to him, SID differs from NIS in four key ways:

- Due to their impact on the final product's structure, product innovations are more significant than process innovations.
- More significant and feasible than radical advances are incremental ones.
- Diffusion (absorptions) is more significant than the creation of novel innovations.
- As opposed to high technology systems, low and medium technology innovations are more feasible.

The "absorptive capacity" of developing countries, or their "ability to [acquire, understand, and] implement the technology and associated practices of previously developed countries," has received significant attention from development academics (Dahlman & Nelson, 1995). Long-term industrial and economic development is dependent on the promotion of national absorptive capacity through various elements of the national innovation system, even though developing nations can either buy learning assistance or non-suit agreements from foreign businesses. With this emphasis on absorptive capacity, both passive and active learning becomes more critical for developing economies than invention. Active learners master "technology and its advances through a purposeful effort," as opposed to passive learners who "absorb the technological capacities for production, employing a kind of 'black-box' approach" (Juma et al., 2001). Viotti (2002) defines the case of learning in developing countries as "the process of technical change achieved by diffusion (in the context of technology absorption) and incremental innovation.

To put it another way, learning is the assimilation of already developed techniques, i.e., the assimilation of innovations created elsewhere and the creation of enhancements close to the skills gained (Viotti, 2002, p.6). Further highlighting the fact that industrial innovation in developing nations is mainly unstructured and not the result of adequately defined R&D operations is Arocena and Sutz (2000). Furthermore, these nations' dominant cultural tendencies devalue technological innovation and scientific knowledge.

2.4. Literature on the Case of Asian Newly Industrialized Economies (NIEs)

Ernst (2000) found in a study on the competition of small Taiwanese firms in the computer field that a variety of linkages have been developed to deal with the disadvantages of family-owned SMEs, such as peer group networks, loose cross-sectoral conglomerates, and sector-specific business groups. The firm-level upgrading, however, needs to happen concurrently with industrial linkages (Ernst, 2008b). Furthermore, Wong (1999) confirms that each economy has strategies and the NIS equivalent to catch-up in his examination of NIS and the state's role in latecomer businesses' technical catch-up tactics in Asian Newly Industrialized Economies (NIEs). For instance, where SMEs predominate, Taiwan uses the process specialist and the reverse value chain routes as their most preferred approaches. The reverse product life cycle path appears to be the most popular option in Korea, where numerous enormous conglomerates are known as chaebols after using the reverse value chain route. As a result of the popularity of FDI companies, Singapore views the reverse value chain and process specialist pathways as the most common ones. Thus, each nation has a unique plan for the advancement and catching up of technology.

2.5. Summary from the Literature Review and Research Gaps

In general, not many research initiatives focus on nations that are slower to adopt new technologies (Dahlman & Frischtak, 1993; Katz & Bercovice, 1993). To aid in the upgrading process in the high-tech GVC with the examples of NIEs, this study will explore ways to increase the competitiveness of NIS. Additionally, in an increasingly international world, the GVC approach may help us comprehend the limitations of national perspectives and innovation strategies (Ernst & Kim, 2002). Thus, the development of innovation of Asian NIEs is our paper's first question and objective. The next question is on the lessons learned from these cases. The final question is about the implication of these lessons to the case of developing nations in the context of industrial revolution 4.0 with their positions as the late comers.

3. METHODOLOGY

The paper will employ the qualitative study (systematic literature review - SLR) method to analyze the present literature. The research described in this paper has primarily been carried out via a desk-based study utilizing various types of literature as analytical sources, ranging from scientific papers, journals, articles, magazines, newspapers, business reports from companies, and consultants' reports. Throughout the development of this paper, the current state of scientific publications is regularly reviewed to identify any work undertaken in a similar focus area.

The SLR approach is used as an algorithm for recognizing, evaluating, and explaining all available literature associated with research objectives, the domain of study, or the rising phenomenon of interest (Kitchenham & Charters, 2007). Analyzing available research is a significant attempt in all areas (Webster & Watson, 2002). An SLR study should evaluate quality literature, offer a foundation for any investigation, develop the innovation of the research works, and suggest future studies and benefits (Chiasson et al., 2009; Dibbern et al., 2004). The critical steps within SLR include scoping, screening, planning, and identifying.

4. FINDINGS

4.1. The National Innovation Systems in the Stories of Industrial Upgrading in Asian Newly Industrialized Economies

4.1.1. The Case of South Korea: Independence from FDI

The Stage of Learning Technologies from Foreign Sources

Korea was lacking in science and technology in the 1960s. The National Defense R&D Institute, established shortly after the end of the Korean War, and the Korea Atomic Energy Research Institute, established in 1959, were the only two public institutions for scientific research and technical development. Less than 5,000 research engineers and scientists worked together in the public and private sectors.

R&D costs were maintained at $9.5 million in 1963. In 1962, Korea began implementing its First Five-Year Economic Development Plan. Korea was forced to rely nearly entirely on foreign sources of technology due to a lack of technological capacity. In this regard, Korea's policy plan was designed to encourage the importation of foreign technology while simultaneously building domestic capacity to absorb, assimilate, and advance the technologies received. By placing restrictions on profit ownership and repatriation as well as setting conditions for technology transfer and exports, the Korean government deterred FDI. The public's perception of multinationals as sustaining the nation's economic and technological dependence and supporting the unbalanced relationship between the industrialized and developing worlds made such a restrictive policy unavoidable.

The Stage of Building up Indigenous R&D Capability

The technological needs of Korean companies grew more complicated and sophisticated as industrial development continued into the 1980s, making it harder for Korea to obtain innovations through unofficial routes. The amount of FDI and foreign licenses did not significantly rise even after the government loosened its limitations. Many perceived the need to establish indigenous R&D capacity to sustain progress. The government implemented several policy initiatives to stimulate and facilitate private R&D operations, including tax incentives, financial support, procurement, and other promotions.

The Science and Technology Policy Institute (STEPI, 2005) found that the Korean government provided 259 programs to aid industrial R&D and innovation. Thirty percent of all assistance programs were allocated to R&D subsidies, 13 percent to technology transfer, and 11 percent to support human resource development. The government spent $3.3 billion on R&D subsidies and $3.4 billion on lending programs. In 2005, the tax income lost due to the tax incentive programs was $1.5 billion. In comparison, only 1% of the overall budget for that year went toward supporting programs for human resource development - actions, as well as the National R&D Program, which was established in 1982.

Conclusion of the Case of South Korea

Before 1980, Korea's science and technology policy prioritized encouraging learning from overseas sources while establishing a foundation for R&D and human resource development. After 1980, the focus turned to foster domestic R&D competence while simultaneously supporting and facilitating private industrial R&D. The changes in policy orientation and the government's engagement in research, technology, and innovation both contributed to this being a turning point for the Korean innovation system. Prior to the shift, the government set development goals, chose strategic technology, and provided funding for the execution of

development initiatives. As a result, the government served as both a lender and a planner during the early stages of growth. This was particularly true in the areas of R&D and innovation.

Only giant corporations with deep pockets, the ability to cross-subsidize within the conglomerate group, and access significant external financial resources through the state-controlled banking system can employ such aggressive strategies. Protecting the home market is another enabling state policy that made the strategy easier. Another is the early stage of Korean industrialization's use of the "export contest" as the primary method for allocating loans, which helped to create the massive chaebol structure in the first place (Wong, 1999).

4.1.2. The Case of Taiwan: The SME-based Model and Less Dependence on FDI

The Taiwanese government launched strong measures to promote investment by domestic and foreign businesses at the beginning of the 1960s. These regulations offered considerable tax incentives and established guidelines to make it easier for investors to purchase land for industrial use and access to utilities, following similar Korean initiatives. However, Taiwan's strategy was distinguished by four factors.

First, save from a few mining and utility industries, there were no restrictions on the number of companies in each industry category. Any domestic company might invest and get the same tax and other benefits. Due to the open policy, there was fierce domestic rivalry, which favored a varied industry structure.

Second, the government concerted in supporting the growth and modernization of Taiwan's SME industry. The earliest of these rules, the Rule for Promotion of Small and Medium Enterprises, was introduced in 1967 and later underwent multiple revisions as Taiwan's SMEs expanded. Government support for SMEs includes loans, market promotion, management rationalization, cooperation and alliance promotion, collaboration and technology upgrade, and labor training.

Third, discrimination against smaller businesses within the SME category did not exist. No company may participate and receive the same treatment regardless of size. This impartial stance served as a crucial cornerstone for the growth of Taiwan's sizable population of dynamic SMEs.

Finally, domestic, and foreign investment received nearly equal treatment, except for strict foreign exchange control laws for domestic enterprises and some regulations about foreign firms' majority shareholdings. This balanced strategy welcomed foreign investment without causing the "crowding-out" in Singapore, where domestic companies have played a minor part in the industrial sector.

In conclusion, Taiwan's growth approach produced both forward and backward linkage effects while depending on "market-augmenting" policies that decreased risk and uncertainty as opposed to market-repressing policies that grew fragmentation and rent-seeking. However, Taiwan's approach to policy was not static; as the needs for industrial upgrading varied over time, so did the kind of governmental intervention. This ongoing upgrading of industrial strategies has significantly characterized Taiwan's approach to knowledge development.

The availability of external economies becomes crucial when it comes to introducing the organizations to take on the duty of coordinating the Taiwanese industry once the policy focus moves to secondary import substitution. The Ministry of Economic Affairs created the Industrial Technology Research Institute (ITRI) in 1973. ITRI quickly expanded beyond its initial goal: to provide applicable industrial technology for vital parts and large-scale machinery. The construction of national infrastructure, the formation of specialized clusters of support sectors,

the scanning and acquisition of global technology, and the transfer of technology from foreign sources to the domestic SME sector, and these tasks were now equally significant. ITRI and its specialized divisions also served as a source of "migratory expertise" for the electronics and computer industries, constantly enticing top scientists and engineers to launch cutting-edge start-up businesses. UMC and Winbond are two typical examples of such spin-offs; these two companies are now fierce competitors in the integrated circuit market.

Conclusion of the Case of Taiwan

In any event, cutting costs has emerged as the industry's most pressing problem. This is particularly true for Taiwanese businesses that rely on OEM contracts. One choice would have been to engage in factory automation and update the domestic supply base in a situation where Taiwan's initial cost advantages have rapidly diminished.

While a quick increase in offshore manufacturing may assist to cut costs for the domestic production system, it cannot address the second main difficulty facing Taiwanese businesses: the requirement to expand their product offerings and boost their brand recognition. In contrast to Japan, the domestic production system has not been sufficiently deepened as foreign manufacturing has spread. When a nation is prosperous in creating an increasingly dense web of reasonably stable forward and backward linkages, a diverse range of organizational and technological capabilities, vital support industries for critical components, and close interactions between its R&D infrastructure and industrial production, this process is known as industrial deepening. It is difficult to argue against the fact that Taiwan's electronics industry still has significant flaws on each of these four fronts.

It makes sense that there is a size issue when SMEs cannot handle the significant investment and R&D costs required for constantly improving their product mix and production efficiency. Let us now discuss a second serious flaw, the "inverted production pyramid problem." Taiwan's electronics sector is nevertheless built on a shaky foundation despite its successes in finding the correct markets for finished goods. Taiwan continues to be largely dependent on imports for most of the crucial elements that influence its primary export goods' cost and performance characteristics.

4.1.3. The Case of Singapore: Different Stories from South Korea and Taiwan

Singapore chose a national innovation system approach that is best characterized as stressing government encouragement of multinational corporations (MNC)-induced technological learning, in contrast to Taiwan and Korea. The Singaporean government has consistently encouraged MNCs to upgrade their manufacturing processes and to introduce successive waves of new and more sophisticated products to be manufactured in Singapore since the government embarked on a strategy of encouraging foreign investment to jump-start industrial development in the 1960s. Research has shown that these MNC operations have spawned a sizable supporting industry in Singapore and induced substantial technological capability development among many local subcontracting and contract assembly firms, despite criticism that this MNC-led approach is stunting the growth of local firms (Wong, 1999).

Although the Singaporean government similarly aimed to create public research institutions to support the dissemination of process innovations to regional SMEs, it has likely made less progress than Taiwan in promoting the spread of product design know-how. The government founded the Singapore Institute for Standards and Industrial Research in the early 1970s to encourage SME technology upgrading, but the emphasis has primarily been on process rather than product. Numerous training institutions were also formed to prepare technical

workers for the many local supporting businesses in precision engineering, metal fabrication, contract manufacturing, and industrial automation. A Gintic Institute of Manufacturing Technologies was founded in the 1980s to promote R&D for manufacturing businesses as they advanced in sophistication locally. The Center for Microelectronics, another public research institute, was founded with a similar process technology focus.

Along with these technical support initiatives, the government unveiled a ground-breaking program in the early 1980s to aid local companies serving as MNCs' suppliers and contract manufacturers in "Learning by Transacting." The program, known as the Local Industry Upgrading Scheme, involved key MNCs with operations in Singapore in providing one of their technical managers to work full-time assisting local suppliers in upgrading their process skills.

In the 1990s, the emphasis shifted from encouraging technology transfer and process management expertise from MNCs to encouraging R&D collaboration between local businesses and the MNCs. A greater emphasis is being placed on fostering cooperation between regional businesses and MNCs through R&D consortia, and more public research institutes are being established. For instance, the Marine Technologies consortium and the Ball-Grid Array process technology consortium both sought to hasten the development of technological process capabilities among local businesses working with their MNC clients.

Conclusion of the Case of Singapore

Singapore acquired a high level of competitiveness in several service sectors, as opposed to Taiwan and Korea, which mainly relied on manufacturing export as an engine for economic growth. Singapore did this by establishing itself as an Asian center for commerce, communications, and finance. Thus, many Singaporean enterprises in the service sector also quickly upgraded their technology capabilities through the pursuit of pioneering application strategies, in addition to leveraging FDI in the manufacturing sector.

In addition, by making active investments in the quick adoption of new technologies to enhance public services, the public sector has played a significant lead-user role in technology. Particularly in the field of information technology, where the government has been among the most aggressive in the world in terms of investment in information and telecommunications infrastructure, this public policy focus on supporting the spread and acceptance of sophisticated technologies (Wong, 1999).

Despite this significant emphasis on application pioneering, it is still accurate to say that Singapore's national innovation policy focuses primarily on utilizing FDI to support the development of domestic technological competence. In contrast to Korea, Singapore's government did not actively encourage the growth of prominent local businesses to pursue technological catching-up by implementing the Reverse Product Life Cycle strategy (A strategy in that firms pursuing this strategy must pursue product and process technological learning simultaneously and they must compete directly at the end user markets from the beginning, often under their brand, albeit starting at the low-price end).

The government adopted a strategy of encouraging top MNCs from developed nations to build their high-tech manufacturing operations in Singapore rather than advocating for major local enterprises. Therefore, technical advancement primarily manifested as internal technology transfer from MNC headquarters to their local subsidiaries and as the encouragement of technological process growth among local SMEs serving as these MNCs' suppliers.

The departure of seasoned technical managers and professionals from MNCs to find their own contract manufacturing companies has also aided in the rapid expansion of local businesses

going down this path of process specialization. Some of these companies, including Venture Manufacturing and Natsteel Manufacturing, could expand swiftly and expand their operations internationally by going the process expert route. Singapore has become a significant electronics contract manufacturing hub globally, with 4 of the top 10 contract manufacturers being Singaporean companies. This is due to the heavy focus on the process specialist approach among local corporations.

4.1.4. Lessons Learned from Asian National Innovation System Models

Government's Active Role

Public policies generally play a significant part in the development strategies of Asian NIEs. According to Kim and Dahlman (1992), governmental policies that support science and technology are critical factors in developing nations. Three parts can be identified in public policies:

- Policies intended to increase science and technological capabilities on the supply side.
- Policies intended to increase market demand for technology.
- Policies intended to provide efficient linkages (technology transfer) between the supply and demand sides.
- Policies intended to encourage and ensure that innovation activities are technically and economically successful (Kim & Dahlman, 1992).

Technology Transfer and Development

A nation's NIS comprises a network of governmental and private institutions that support and conduct R&D, convert its findings into marketable inventions, and promote the adoption of new technologies. Asian NIEs' experiences have highlighted the importance of NIS in facilitating the internalization and application of technologies obtained from outside sources. Developing some "absorptive capacity" at the business and national levels is necessary to utilize external technology. The ability to comprehend a technology from an external source and use it inside is known as absorptive capability. Companies must maintain research capacity to achieve this (Mowery & Oxley, 1995).

The absorptive ability of the recipients is put under diverse demands by various technology transfer methods, including licensing, joint ventures, and direct transfer of a wholly owned subsidiary. Most technologies also include codified and implicit knowledge. Access to the implicit components of technology and those formally codified in a blueprint, license agreement, or data package is necessary for international (or local) technology transfer.

A developing nation would have to either import individuals who embody the expertise of another country or undergo technological learning through competitive intelligence and reverse engineering techniques. When international companies declined to license cutting-edge technologies to Korea, South Korea's public R&D facilities employed reverse engineering to create new technologies for the private sector, mainly responsible for the country's success in technology transfer (Kim, 1991).

Absorptive Capacity and Technological Learning

Understanding one's competitive advantage, strengths, and limitations are the first step in developing one's economy. It must comprehend how nations develop the ability to design, produce, and market novel products and manufacturing techniques. The NIS of developing

nations should be created first to increase the ability of local businesses to absorb, adapt, and use new technologies from around the world. NIS should eventually encourage the use of locally generated technology and technical know-how to produce goods, processes, and services that can successfully compete in global markets as businesses mature and indigenous innovation becomes more entrenched. The most challenging part of NIS has been increased absorptive capacity in science and technology (Roessner et al., 1992; Mowery & Oxley, 1995).

4.2. The Contemporary Context of Globalization, Free Trade, and Industrial Revolution 4.0: New Opportunities for Developing Countries to Catch-up

4.2.1. Some Discussions on Globalization of Trade and Innovation

Globalization is a process, not a one-time occurrence. Economic globalization denotes increased location and economic unit interdependence between different nations and regions (Narula, 2004). However, the word dependency in this context is hugely purposeful. Cross-border connections between economic actors indicate internationalization, not globalization. In a similar vein, trading activities may not always lead to interdependence. The expansion of FDI and transnational corporations is the new component of international commerce. We reach an essential divergence when we separate commerce, long-term capital flows, portfolio investment, and FDI. In the past, the growth of vertical links with a flow of commodities between places dominated international corporate activity in response to different supply and demand elasticities.

Transportation of raw materials from one area to another was followed by manufacturing and transportation to the third location for sale. Although the capital was relocated, the factors of production remained immobile, and there was little integration of operations in different locations under the management and control of the same people. Although the capital was relocated, it was capital in the form of flows rather than capital embodied in physical assets or personnel. Companies had an international presence but were not multinational or transnational. International trade and economic activity were extensive in that many products and capital were traded, involving many nations and players who relied on one another's patronage. However, it was not intensive because activities were not integrated across boundaries.

The globe is currently dealing with several universal problems, including climate change, pollution, the loss of natural resources, and potential pandemics. The term "global" alludes to two things: first, the fact that their reach extends beyond a single country or territory, and second, the reality that their solution necessitates cooperation among countries and regions to solve the issue. The term "globalization" itself, which is used to describe the "growing cross-border movements of information, knowledge, commodities, and capital" (Archibugie et al., 1999), but also of people, serves to emphasize the "global" scope and nature of the difficulties. Several nations and areas recognize addressing global difficulties as a significant motivator of international cooperation in research, technology, and innovation.

International cooperation in science, technology, and innovation is now more critical than ever because of all the above-mentioned developments, including altered knowledge transfer and innovation processes, altered innovation geography, and global issues.

Developing Countries in Globalization of R&D

High-skilled corporate functions like R&D are no longer immune to outsourcing and offshoring in the wake of the offshoring of manufacturing and services. Even though stronger international R&D ties might encourage faster technical progress and broader distribution of technological advancements globally, this has contributed to worries about the future of the

domestic knowledge base and the ensuing implications on competitiveness.

Due to the focus on global technology sourcing in multinational corporations' plans, R&D investment abroad has increased significantly. To tap into local expertise and provide sources for creating new technologies includes establishing networks of distributed R&D across the globe. R&D centers are increasingly being attracted to developing countries. However, these remain relatively minor globally, even though most R&D internationalization still occurs inside the OECD region.

Significant increases in international R&D spending in Asia, particularly in China and India, have garnered much attention lately. Given that these nations have a combination of somewhat inexpensive wages and an excellent educational system, which results in a sizable pool of researchers with the necessary training, it is reasonable to assume that this movement will continue to some extent. According to the FDI Market Database, 2,275 new FDI in R&D project announcements were made globally between 2003 and 2010, with Asia-Pacific accounting for 43% of those announcements (calculations based on FDI Markets database, Financial Times Group).

According to the World Bank (2010), Brazil, the Czech Republic, Hungary, Malaysia, Russia, and Thailand are the top countries for R&D-intensive FDI in developing nations, after China and India. Many times, FDI in large-scale manufacturing activities (market- or efficiency-seeking) naturally evolved to include, to some extent, knowledge-intensive and R&D activities (competence-seeking), as in the case of the automotive industry in Brazil, the electronics industry in China or Malaysia, or the pharmaceutical industry in the United States.

Given their inferior technological capabilities compared to the most technologically capable industrialized countries, developing countries are often more likely to attract demand-driven or efficiency-seeking R&D than supply-driven R&D. Accordingly, Thursby and Thursby (2006) demonstrate that the R&D activities multinational corporations engage in emerging countries typically involve familiar science (i.e., applications of science currently used by the firm or its competitors) rather than new science (i.e., novel applications of science), with the novel work remaining concentrated in the core developed countries. However, these are new opportunities for developing nations to get involved in a new technological and innovative development area to advance in the global value chain.

4.2.2. Some Discussions on Industrial Revolution 4.0

The term "industrial revolution 4.0" has become widely used in several sectors. According to Professor Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, these rising sectors are expected to impact many areas significantly. They will be able to present difficulties and possibilities to businesses and people (2016). For the supply side, breakthroughs and cutting-edge technology will be developed in various fields, predicts Professor Schwab (2016), opening new opportunities for meeting current client demands. When businesses have access to international Internet-based platforms through all corporate processes, including R&D, marketing, and other areas, new rivals may emerge, leading to a new way of arranging value chains. On the demand side, transparency, user involvement, and new consumer behavior trends can inspire fresh ideas for product design, marketing, and customer service. Consequently, it is anticipated that IR 4.0 will have a significant impact on business operations and corporate strategies. According to Capgemini Consulting in annual research, the IR 4.0 industries have critical impacts on numerous industries, from service to manufacturing (2014).

Opportunities for Developing Countries to Leapfrog?

The potential for developing countries to "leapfrog" to more advanced phases of industrial development without passing through intermediary states has been emphasized by some experts as a potential benefit of IR 4.0 industries. It is common to use the Taiwan Province of China and the Republic of Korea as examples of nations that jumped ahead in producing semiconductors and other high-tech electronic goods. Leaping forward in the industrial sector, however, is a complicated process that calls for the development of both production and innovative capacities. However, the evidence does not prove anything. Although adopters from the technological frontier benefit more from adopting innovations, data suggests that lesser capabilities impede innovation investments and the associated gains.

Due to the "paradox" of innovation that developing nations must overcome to profit from IR 4.0 fully, these nations will need to build up their production and innovation capacities while also creating a more comprehensive range of contextual enablers. The capabilities and institutions already in place limit technological applications' impact on sustainable development. Technology adoption without the necessary organizational adjustments, infrastructural upgrades, institutional reforms, and talent development has a limited impact and runs the danger of exacerbating the disparities already in place. An agent must activate the environment, capabilities, and motivations if local businesses are to learn, develop, and succeed. To construct their industries and investment plans that incorporate these new trends of globalization of R&D and the rise of IR 4.0, developing nations can take advantage of the opportunities presented by the trend of R&D globalization.

5. CONCLUSIONS: ASIAN NIE MODEL AND ITS IMPLICATIONS FOR LATE-COMERS IN THE CONTEMPORARY CONTEXT OF GLOBALIZATION, FREE TRADE, AND INDUSTRIAL REVOLUTION 4.0

A few essential ideas and prospective methods have been inferred to the developing nations by the Asian NIE models and the growing difficulties within the context of globalization of R&D to the emerging countries, particularly the advent of industrial revolution 4.0. First, there is a chance and a need to improve the global value chain because emerging nations now have direct access to high-value economies thanks to new technologies like AI, robotics, and IoT. These economies attempt to advance in the global value chain with the aid of the innovation system, but in a new context, this might be viewed as the Asian NIE model version 2.0.

The expansion of R&D into developing nations indicates that FDI in R&D from international corporations can be used to acquire the necessary technology. Similar to Asian NIEs, this situation calls for even greater coordination of resources and priorities from the authorities of developing nations, particularly in the early stages of development, to create the ideal environment for attracting FDI in R&D and lay the groundwork for the growth of the domestic industry. To compete not just with other developing nations but also with the world's top economies, it is necessary to prioritize resources, including human resources, financial subsidies, infrastructure improvement, and other financial and non-financial benefits. The pertinent concerns cannot be addressed by the market alone.

The globalization of commerce also suggests that our domestic enterprises will have access to overseas markets due to the opening of the domestic market to the rest of the globe. With the replacement of humans with robots and machine learning, over the long term, this trend, along with the rise of industrial revolution 4.0, can lead us to conclude that the competitive advantage based on labor cost will diminish. This presents a problem, but it also presents a chance for the

economies of the latecomers to catch up and surpass other countries thanks to their superiority in technology and innovation. Therefore, attracting R&D FDI is essential for developing nations to maximize the potential brought about by the globalization of R&D operations while minimizing the risks associated with business adventure (if they perform R&D activities themselves).

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GREAT POWER COMPETITION IN SOUTHEAST ASIA DURING THE COVID-19 PANDEMIC: AN ANALYSIS FROM THE PERSPECTIVE OF VACCINE DIPLOMACY AND IMPLICATIONS FOR THE POST-PANDEMIC ERA[1]

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Abstract

Recently, in response to the Covid-19 pandemic, Southeast Asian countries have been making efforts to implement vaccine diplomacy based on bilateral and multilateral relations to speed up domestic vaccination. In that context, the competition for influence of powers in Southeast Asia through vaccine diplomacy has been intensifying with many complicated developments that need furthur explaining. Stemming from this reason, the article focuses on clarifying vaccine diplomacy as a short-term competitive aspect of the major powers, espically China and the US, in Southeast Asia and draws some implications for the post-pandemic Southeast Asian region in general and Vietnam's foreign policy in particular.

Keywords: *power competition, Southeast Asia, Covid-19, vaccine diplomacy, implications*

1. VACCINE DIPLOMACY: CONTENTS, HISTORY, AND STATUS-QUO

There have been various ways of defining vaccine diplomacy. On the global scale, vaccine diplomacy "is one of the branches of global health diplomacy, which refers to both a system of organization & means to communicate as well as negotiate processes that help to shape the sphere of health that provokes its determinants in the sector of the global policy environment. Vaccine diplomacy is predominant for the use and delivery of vaccines among different global locations" (S.K. Varshney & N.K. Prasanna, 2021, p.112). From the stance of national foreign policy, "at its most basic, vaccine diplomacy is the strategic use and distribution of vaccines as a means of creating influence in other countries or of strengthening and improving diplomatic relationships as a whole" (Arianna Garcia Guerrero, 2021, p.9). Combining these two perspectives, we define *vaccine diplomacy as all of the interactions and relations among international actors to achieve national interests in vaccines and to solve the relevant international issues.*

Historically, "the first vaccines diplomacy was in 1801, when the White House physician, Edward Gantt, vaccinated Native American diplomats against smallpox on their visit to Washington, DC" (Fajar Bambang Hirawan, 2022, p.33). This diplomatic aspect gradually became a notable topic in international relations as of the later decades of the 20th century (S.K. Varshney & N.K. Prasanna, 2021, p.111). Entering the 21st century, following the common flow

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of globalization and multilateralism, vaccine diplomacy has not only been confined to national foreign policies but also added to the global agenda, referring "to almost any aspect of global health diplomacy that relies on the use or delivery of vaccines and encompasses the important work of the GAVI Alliance, as well as elements of the WHO, Gates Foundation, and other important international organizations" (S.K. Varshney & N.K. Prasanna, 2021, p.111). Breaking out at the end of December 2019, the Covid-19 pandemic, with many dangerous mutations, has become one of the biggest challenges facing humanity since the beginning of the 21st century so far. Countless sudden pressures have pushed many countries across the globe into gearing their resources for ensuring vaccine security. It was in this context that vaccine diplomacy emerged in recent international relations as a top effective solution to deal with the huge threat called Covid-19.

Depending on the actual situation, vaccine diplomacy is implemented in different ways. During the Covid-19 pandemic, in addition to direct diplomacy and other efforts at national level, *international organizations and mechanisms* have also acted as complementary channels to support access to vaccines. Positively, "collaboration and partnership between nations and global organizations may lead to an extreme increase in the utilization of vaccine diplomacy and vaccine science diplomacy in foreign policy. Given the strong legacy and power of international scientists, vaccine developers, government officials, and global health practitioners joining their hands together for the same goal can improve health everywhere in the world" (S.K. Varshney & N.K. Prasanna, 2021, p.112). In the case of the Covid-19 pandemic, co-founded by the World Health Organization (WHO), the Coalition for Epidemic Preparedness Innovations (CEPI), and the Global Alliance for Vaccines and Immunization (GAVI), from April 2020, ***the COVAX*** *(Covid-19 Vaccines Global Access)* has emerged as a global effort to commit to the development, production, and equitable distribution of vaccines worldwide. With the participation of 190 countries (including such leading countries as the United States and China) and the United Nations Children's Fund (UNICEF) as a distribution partner, this mechanism has supported about 2 billion doses of vaccines and 1 billion syringes to be produced and delivered the world over by the end of 2021 (UNICEF, 2021).

Furthermore, for major powers (such as China, the US, Russia, etc.), vaccine diplomacy is also a specific channel for them to express and strengthen their position and influence in a number of strategic competitive regions, including Southeast Asia. One scholar recently asserted that "the increased criticism and accusations against Russia and China for engaging in these soft power tactics, ignore the fact that these countries have provided aid in areas of need and secured those deals earlier than the United States. Vaccine diplomacy, therefore, is not just a humanitarian intervention, it isn't just another term synonymous with 2020, and it isn't just a phase in the general evolution of the world. Vaccine diplomacy has emerged as a mirror revealing a new world order" (Arianna Garcia Guerrero, 2021, p.14). In line with this opinion, David Sanger – Chief Washington correspondent for The New York Times "argues that coronavirus has re-ordered the competition for global power, and the country that wins the race for the vaccine and the treatment of Covid-19 will become a new kind of power able to spread that vaccine around the world" (Fajar Bambang Hirawan, 2022, p.33). Apart from the bilateral channel, these major actors also focus on promoting vaccine diplomacy through such multilateral international mechanisms as the COVAX to limit doubts and criticisms about the real motives behind it.

2. GREAT POWER COMPETITION ON VACCINE DIPLOMACY AGAINST COVID-19 IN SOUTHEAST ASIA: POLICIES, IMPLEMENTATION, AND RESPONSES

2.1. Pre-pandemic regional background

With or without the emergence of the Covid-19 pandemic and vaccine diplomacy, the movement of international political relations in Southeast Asia has been following some major trends in general. Accordingly, influenced by power relations between the major powers at the global level, especially the circumstance of US-China relations, the political relations are facing many complicated fluctuations in the Asia-Pacific region in general and Southeast Asia in particular.

Specifically, because the Asia-Pacific is the key region that China prioritizes to assert its position in the long-term competing with the US and its regional allies, "if a multipolar order is taking shape on the global scale, the changes in comparative forces in the Asia-Pacific region lead to a 'two superpowers and multi-power order' […] The force of mobilization is stronger, with the US on the one hand and China on the other hand, due to the great powers' drastic promotion of strategic initiatives" (Tran Ngoc Quan, 2020, p.66). Therefore, "both the Belt and Road Initiative (China) and the Strategy of A Stable and Prosperous Indo-Pacific (US) aim to re-establish 'a rules-based international order' in its own way" (Trinh Thi Hoa & Le Quang Manh, 2022, p.106).

Looking deeper into Southeast Asia, it is undeniable that "ASEAN has also proven its role in harmonizing interests among countries, including great powers. ASEAN is not a 'security buffer zone' located in the 'periphery' but plays a 'central role in the evolving regional structure'" (Le Dinh Tinh, 2020, p.98). However, this actor is likely to face more challenges in the next period due to increased pressure from great power competition. In fact, while "ASEAN is one of China's biggest interests as the region controls the maritime sea roads that China has been demanding" (Aizatul Anis binti Zuhari, 2022, p.1313), as standing at the geopolitical locus of the Indo-Pacific region, "the United States, South Korea, Australia, India, and Taiwan have been forging economic, diplomatic and social ties within the region" (Bui Hai Dang, 2022, p.253). From another direction, instead of a donor-recipient relationship, the EU also furthur develops the extensive relations with Southeast Asia, "regarding ASEAN as an equal partner – an important power to ensure peace, prosperity, security, and safety in the region and the world" (Lam Phuong, Huu Lap, 2022, p.86). Overall, the competition between these forces "has brought about a shift in Southeast Asian countries since 2010. While some mainland ASEAN countries like Laos and Cambodia view the Sino–Japanese competition as beneficial to their countries regarding economic capacity-building, some maritime ASEAN countries like the Philippines and Indonesia are more concerned about major-power dynamics, especially Sino–US relations" (Aizatul Anis binti Zuhari, 2022, p.1314).

However, this process of gathering forces does not take place in an absolutely negative direction for ASEAN countries. Although the pressure from the US-China strategic competition is incremental, "the rising force mobilization of US-China in the recent period has not been enough to coerce the parties concerned to choose their 'side'. Moreover, although the US-China force gathering is multi-dimensional and mounting, the remaining countries still have a lot of space to act" (Le Dinh Tinh, 2020, p.98). In general, the situation of political relations in Southeast Asia continues to follow these tendencies. However, it should be noted that the devastating extent of the Covid-19 pandemic and the complex consequences stemming from the Russia-Ukraine conflict may generate new risks, thereby further exacerbating some unresolved conflicts in the region.

2.2. Key developments and regional countries' responses

Although the heat of vaccine diplomacy has recently waned along with the general backdrop of the pandemic, there is no denying that it took a very special place in the extremely complicated international area throughout 2020 and 2021. Therefore, looking back at the process of competing for influence through vaccine diplomacy among great powers in Southeast Asia will help us better understand the current status and prospects of regional political relations.

First and foremost, it can be affirmed that what has been happening in Southeast Asia needs to be placed in the setting of great power competition on vaccine diplomacy around the world. This overall landscape can be relatively illustrated in the table below:

Table 1. Origin and popularity of some Covid-19 vaccines in the world
(by August 15, 2022)

No.	Types (used in at least 2 countries)	Main origins	Number of countries used	Notes
1.	Oxford-AstraZeneca	The UK	185	On the EUL of WHO and distributed by the COVAX
2.	Pfizer-BioNTech	The US	164	
3.	Moderna	The US	109	
4.	Johnson & Johnson	The US	98	
5.	Sinopharm-Beijing	China	74	
6.	Sinovac	China	41	
7.	Gamaleya (Sputnik V)	Russia	38	
8.	Novavax	The US India	32	The Novavax vaccine is manufactured in two different facilities. In Europe, this vaccine is manufactured under the trade name *Nuvaxovid*. In India, this vaccine is manufactured by the Serum Institute of India under the trade name *Covovax*. Both of the Nuvaxovid and Novavax vaccines (both referred to as Novavax) On the EUL of WHO and distributed by the COVAX.
9.	Bharat Biotech (Covaxin)	India	30	On the EUL of WHO and distributed by the COVAX
10.	CanSino	China	25	
11.	Sputnik Light	Russia	6	
12.	Abdala	Cuba	4	
13.	Sinopharm-Wuhan	China	3	
14.	Soberana 02	Cuba	3	
15.	QazVac	Kazakhstan	2	
16.	Vector Institute (EpiVacCorona)	Russia	2	

Source: The New York Times (Josh Holder, 2022) and WHO (WHO Team, 2022).

The table shows that, with the exception of Cuba and Kazakhstan, the countries that produced and have Covid-19 vaccines used in at least two countries are all regional and world powers, namely the US (4 types), China (4 types), Russia (3 types), India (2 types), UK (1 type). Among them, *only the US, China, and the UK have been providing the vaccines included in the WHO's Emergency Use List (EUL) and distributed by the COVAX mechanism* (WHO Team, 2022). Furthermore, *the US and China* are the only providers of more than one EUL vaccine. This is an important indicator because of showing that these vaccines not only are distributed through direct and bilateral diplomatic channels, but also meet the common standards to be used widely throughout the world via the official international institutions supported by WHO. Regrading the number of countries used, the five well-known EUL vaccines of the US (Pfizer-BioNTech, Moderna, Johnson & Johnson) and China (Sinopharm-Beijing, Sinovac) ranked only after Oxford-AstraZeneca as the most popular one (used in 185 countries) respectively. Notably, since the outbreak of the Covid-19 pandemic, the US and China have only used vaccines produced by domestic manufacturers without using each other's vaccines as well as others, including AstraZeneca. Concerning the effect of asserting and expanding great powers' prestige and influence sphere, this data should be significant and need to be further analyzed. It also somewhat reinforces the agreement that the US and China are still the two most significant forces in the recent race of vaccine diplomacy; and vaccine diplomacy is even a temporary but highly noticeable front in the fierce strategic competition between them.

Returning to Southeast Asia, appearing from the end of 2020 in India, entering 2021, the Delta variant quickly spread and caused a stressful epidemiological situation in a series of regional countries, causing the number of cases and deaths from Covid-19 to be continuously high, and, at the same time, causing many painful problems that cannot be completely resolved in the near future. Although Omicron has gradually become the dominant variant worldwide since the beginning of 2022, it cannot equal the Delta variant in terms of danger. This put Southeast Asian countries under tremendous pressure for most of 2021 to speed up vaccination. According to many scholars, "when the world is in the sprint period of researching vaccines against Covid-19, Southeast Asia will become the focus of external powers wishing to win the support of the region" (Khanh Minh, 2020). ASEAN countries' need and ability to access vaccines through diplomatic channels, combined with their status as one of the hubs where most major powers want to establish influence, make Southeast Asia a place witnessing a complicated vaccine diplomatic competition among many great powers (such as the US, China, Russia, EU countries, the UK, Japan, Korea, etc.). Therefore, it would be one-sided to judge that this is a private game of any party. However, as far as the possibility of expanding influence through vaccine diplomacy is concerned, the countries that can simultaneously produce and supply large quantities of vaccines accepted by the international community (typically the US and China) will have many advantages. These conditions, coupled with the strategic significance of Southeast Asia, have prompted the United States and China to emerge as the major opponents of each other in competing for influence through vaccine diplomacy in the region recently despite not claiming directly.

On the Chinese side, under the leadership of President Xi Jinping, China's ambition to become the most dominant power in Southeast Asia has been very evident in recent years through such policies as *the Maritime Silk Road*, massive investments in infrastructure, loans, bilateral cooperation agreements, and free trade agreements in the region, sovereignty claims in the East Sea, etc. (Tu Uyen, 2021) With such a background, plus an effective anti-epidemic capacity, in 2021, China shown its active and pioneering vaccine diplomacy in Southeast Asia so as to continue affirming and increasing influence throughout the entire region as well as some

key regional countries. Hence, "China moves ahead than U.S. itself. China, along with Russia, have aggressively marketed their candidate vaccines to low-income and middle-income countries, resulting in the signing of advanced purchase agreements with several countries […] In China, seemingly controlled pandemic situation and allows Beijing to play vaccine diplomacy to repair or strengthen ties with its Asian neighbours and other developing countries including Africa and South America offering vaccines as a global public good with a fair and reasonable price" (Fajar Bambang Hirawan, 2022, p.33).

First of all, in order to increase the coverage of Chinese vaccines here, by mid-2021, "Southeast Asia is a key target for China's vaccine diplomacy, accounting for 29% of its total aids and 25.6% of Chinese vaccine sales worldwide" (Chieu van, 2021); by mid-September 2021, China had provided approximately 190 million doses of vaccines to ASEAN countries. The top ASEAN receivers of China's vaccines are Myanmar, Indonesia, Cambodia, and the Philippines, followed by Malaysia, Thailand, Vietnam, Singapore, etc. Along with that, China also prioritized vaccine diplomacy for several countries with huge roles in the ASEAN Community. The most obvious case study here is Indonesia, whose national synergy has often been rated as the leader in Southeast Asia. As the largest economy and one of the most severe epidemic areas in the region last year (with over 4.2 million infections and 142,000 deaths till early October 2021), Indonesia suffered very serious devastation by the pandemic, inciting its sudden high demand for vaccines. Against this backdrop, China quickly played a role as the biggest supplier of most Indonesia's vaccines in its large-scale vaccination campaign, helping Indonesia become the first Southeast Asian country to reach 100 million doses by early September 2021. Specifically, "Indonesia has received more than 200 million doses of vaccines until August 23, of which 80% are vaccines provided by Chinese pharmaceutical company – Sinovac and the rest are vaccines from Sinopharm, AstraZeneca, Moderna and Pfizer" (Thai Ha, 2021). For Thailand, despite its efforts to diversify its suppliers, about 50% of the vaccines used by the country by mid-2021 had been produced in China. Moreover, China was also actively increasing vaccine diplomacy with Southeast Asia by transferring technology step by step to support regional self-sufficiency in vaccines (e.g. technology support from China's Walvax Biotechnology to Indonesia's Etana Biotechnologies), creating a huge advantage for China at the early stage of vaccine diplomacy.

Digging more deeply into it, since the second half of 2020, China, ahead of many other powers, had quickly approached Southeast Asian countries through numerous diplomatic channels to discuss anti-pandemic cooperation, in which high priorities were given to bilateral meetings. A series of meetings between Chinese Foreign Minister Wang Yi and his Southeast Asian counterparts (Indonesia, Malaysia, Philippines, Singapore) in early April 2021 was a very specific example. Similar events with Vietnam also took place regularly from the beginning of 2021 with the notable meeting between the two sides hosted by Vietnamese Deputy Prime Minister Pham Binh Minh and Chinese Foreign Minister Wang Yi on September 10, 2021, at which the Chinese side pledged to provide an additional 3 million doses of vaccine to Vietnam (increasing the total number of Chinese vaccines donated to Vietnam to 5.7 million doses) (Hai Minh, 2021). This fact is consistent with China's approach to Southeast Asia for many years, which has been concentrating on building relations and resolving disputes with each Southeast Asian country instead of a unified Southeast Asian group in the ASEAN Community. Moreover, China's moves related to the East Sea in 2021, especially the announcement of the revised Maritime Traffic Safety Law in April 2021 (effective from September 1, 2021), with the ambition to "internalize" some provisions of UNCLOS for disputed waters, still exposed the duality of China's diplomatic activities. Therefore, it can be assumed that "undoubtedly, China

has a great contribution to the development of ASEAN from the economic and socio-cultural aspects. As one of ASEAN's important dialogue partners, the commitment to build regional peace and stability is a priority for both. As mentioned earlier, in the Covid-19 pandemic situation, China has committed to supporting the availability of vaccines for ASEAN countries. Indeed, this contribution gives an impact in tackling the pandemic to build ASEAN resilience regarding this health issue. However, despite this mutual cooperation, China's aggressive behavior and activities in the South China Sea have damaged the good perception that has been built so far" (Welly Puji Ginanjar, 2022, p.37). Keeping cautious about Chinese policies, despite accepting Chinese vaccines, "Vietnam remains vocal with regard to its continuing territorial disputes with its giant neighbor" (Bui Hai Dang, 2022, p.252).

For all its slower departure, the presence of vaccine diplomacy by the US has definitely had a big impact on Southeast Asia. There are many reasons for the relatively slow deployment of vaccine diplomacy by the US compared to China, of which a number of issues should be noted. First of all, the US must place weight on solving the domestic pandemic status because it still had been the world's largest pandemic zone by the first half of 2021, "the U.S. owing to the "America First" policy and Washington's Operation Warp Speed (OWS) that primarily aims to meet local demands" (Fajar Bambang Hirawan, 2022, p.33). In addition, American politics must scrutinize the 2020 presidential election and a lot of serious internal turmoil at the end of the Trump presidency. Not only that, the new administration of President Biden must deal with foreign affairs that more directly affect US security (reinforcing the relations with allies, ending the war in Afghanistan, etc.). However, to affirm the image of a responsible supper power and its determination to compete with China in the Indo-Pacific region, since the second half of 2021, the US has strived to spread its vaccine diplomacy in Southeast Asia through a sequence of activities, e.g. handing over the AstraZeneca vaccine production line to Thailand, quadrupling its commitment to Covid-19 prevention funding for Southeast Asia (from US$18 million to US$77 million), becoming the largest donator country (by monetary value) for the region, US Vice President Kamala Harris's symbolic visit to Singapore and Vietnam at the end of August 2021 with millions of doses as direct aid vaccines, to mention a few.

In order to compete more effectively with China in the new phase of vaccine diplomacy, the US has placed greater emphasis on technology transfer to support some Southeast Asian countries to self-produce vaccines (for instance, the US pharmaceutical company Dynavax Technologies signed a memorandum of understanding on the development of Covid-19 vaccine with the Indonesian company BioFarma, the US pharmaceutical company Arkturus Therapeutics cooperated with Vietnam's Vingroup to research and produce mRNA vaccines). Although it is still not possible to confirm the level of effectiveness with specific data, these steps have helped the US improve its position in vaccine diplomacy compared to China in Southeast Asia.

Although they do not directly declare the profound purpose for many delicate reasons, the above actions of China and the US in Southeast Asia have relatively demonstrated their greater ambition in affirming their regional influence. See the table below for a better illustration:

Table 2. The Covid-19 vaccines used in Southeast Asia
(by mid-September 2022)[2]

No.	Location	Source	Last observation date	Vaccines
1.	Brunei	WHO	Aug. 26, 2022	**Johnson&Johnson, Moderna,** Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing**
2.	Cambodia	WHO	Aug. 26, 2022	**Johnson&Johnson, Moderna,** Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac**
3.	Indonesia	Government of Indonesia	Aug. 28, 2022	**Johnson&Johnson, Moderna,** Novavax, Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac**
4.	Laos	WHO	Aug. 11, 2022	**Johnson&Johnson,** Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac,** Sputnik Light, Sputnik V
5.	Malaysia	Government of Malaysia	Sep. 12, 2022	**CanSino,** Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac**
6.	Myanmar	WHO	Jun. 18, 2022	Oxford/AstraZeneca, **Sinopharm/Beijing**
7.	Philippines	Department of Health via ABS-CBN Investigative and Research Group	Aug. 26, 2022	Covaxin, **Johnson&Johnson, Moderna,** Novavax, Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac,** Sputnik Light, Sputnik V
8.	Singapore	Government of Singapore	Sep. 5, 2022	**Moderna,** Novavax, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac**
9.	Thailand	Government of Thailand	Sep. 12, 2022	**Moderna,** Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing, Sinovac**
10.	Timor Leste	WHO	Aug. 28, 2022	Oxford/AstraZeneca, **Pfizer/BioNTech, Sinovac**
11.	Vietnam	WHO	Aug. 18, 2022	Abdala, **Moderna,** Oxford/AstraZeneca, **Pfizer/BioNTech, Sinopharm/Beijing,** Sputnik V

Source: Ourworldindata.org (Our World in Data, 2022)

[2] The names of vaccines from the US and China are bolded by us. Regarding the case of Vietnam, we temporarily keep the original data from Ourworldindata.org.

The table shows that, by mid-September 2022, 13 out of around 16 Covid-19 vaccines used in at least 2 countries have appeared in Southeast Asian countries. However, by origin, only Chinese vaccines (3 types) appear in all 11/11 countries in the region, second is the US vaccines (3 types) with 10/11 (similar to the Oxford/AstraZeneca vaccine). The others (including Novavax, Sputnik Light, Sputnik V, Covaxin, and Abdala) still have been used by some. The data from the case of Vietnam also has its part in depicting this race between the US and China. Accordingly, from March to the end of December 4, 2021, "Vietnam has received 150,623,444 doses of vaccine [...] By type of vaccine: AstraZeneca: 48,688,076 doses; Pfizer and Moderna: 46,576,370 doses; Sinopharm: 48,700,000 doses; Abdala: 5,150,000 doses; Sputnik V: 1,508,998 doses" (Ministry of Health, 2021). Thus, along with AstraZeneca, the vaccine quantity from the US and China to Vietnam is relatively close to each other and outnumbers the rest. Although the pandemic situation in Vietnam has been improving dramatically, the recent batches of vaccines from China (April 8, 2022, the 3rd with 3,000,000 and the 4th with 500,000 doses of Vero Cells respectively) and the US (April 18, 2022, with 1.7 million doses of Pfizer-BioNTech) showed that these countries still maintain their commitment to vaccine diplomacy.

As pointed out, apart from China and the US, several powers (such as EU countries, Russia, the UK, Japan, South Korea, etc.) have also participated in vaccine diplomacy in Southeast Asia. However, due to resource constraints and strategic priorities, they tend not to view vaccine diplomacy as a competitive channel or tilt the vaccine support towards a few regional countries with dominant roles rather than trying to broaden vaccine coverage for all. Despite being the most popular vaccine in the world, due to the diversity of manufacturing facilities and supply, and the openness in technology transfer, the Oxford/AstraZeneca vaccine seems not to be mentioned as part of an effort to expand the UK influence. Although Russia was one of the pioneers in vaccine diplomacy, its vaccines have only appeared on a limited scale in a few Southeast Asian countries such as Vietnam, Laos, and the Philippines. On the EU side, despite not being publicly declared, it is not a coincidence that Vietnam was the leading Southeast Asian country in terms of vaccines provided by the Union. By September 2021, the EU had donated or pledged to aid a total of about 2.6 million doses to Vietnam (Hai Đang, 2021). As the EU's largest trading partner in Southeast Asia, Vietnam's early recovery would certainly bring practical benefits to Europe. On the grounds of the alliance with the US and much traction gained in Southeast Asia as a humanitarian aid donor, Japan, along with the US, stepped up vaccine assistance to the region, thus making China lose the first-mover advantage as the major vaccine to some extent (Bui Hai Dang, 2022, p.254).

Generally speaking, confronting these developments, Southeast Asian countries have responded by diversifying vaccine supplies to soon control the pandemic situation and effectuating other policies simultaneously to reduce their dependence on vaccines and unpredictable risks behind the great powers' support. For example, "Indonesia's vaccine diplomacy deemed it necessary to remain strategically neutral to prevent Indonesia from being one side of the global power […] Thus, Indonesia has been careful not to depend on one country during the pandemic […] As the first Southeast Asian country who join the WHO Solidarity Trial for developing Covid-19 vaccines, with twenty-two hospitals participating, Indonesia maintained its independence on contested issues between China and the U.S" (Fajar Bambang Hirawan, 2022, pp.33-35). In Vietnam, instead of passively receiving external support, vaccine diplomacy was soon considered and realized as a spearhead diplomatic front during the pandemic, paving the way for the very proactive actions of the Government. As the result, "through the diplomatic route, from a country with slow access to Covid-19 vaccines and the lowest vaccination rate in the region, Vietnam has turned the situation around, becoming one of

the countries with the highest and fastest vaccination in the world, basically achieving herd immunity earlier than planned. More importantly, this is the premise for one of the openest economies in the region like Vietnam to be reopened gradually." (Huong Giang & Tuan Dung, 2022). Besides this overall trend, the distinctions in conditions and circumstances will inevitably lead to different levels and results in response to great power competition in vaccine diplomacy among Southeast Asian countries.

3. IMPLICATIONS AND CONCLUSIONS

The above analyses provide several remarkable implications:

First, in the context of increasing great power competition in the Asia-Pacific region, vaccine diplomacy is not only a medical and humanitarian aid in its traditional sense but also a competitive front that is essential, in spite of being short-term, for the parties concerned to expand their sphere of influence. However, the difficulties brought about by the pandemic and many other problems have recently made this race mainly encompass the US-China competition, which is considered to shape international politics in the 21st century both regionally and globally. Much of the data collected by this article justifies this claim.

Second, despite being weaker than the US regarding overall technological capacity, China can still mobilize its resources to compete directly with the US in a number of strategic areas and aspects. The recent developments in vaccine diplomacy show that, though China has been inferior to the US when it comes to vaccine production technology and worldwide coverage, its huge production capacity, and many other advantages still helped the Chinese vaccines arrive earlier and have wider coverage than the US vaccines in Southeast Asia – one of the most important strategic zones of both. However the comparisons between Chinese vaccines and those of the US are, being recognized by WHO and the COVAX still ensures the legitimacy for some key vaccines that China has been offering.

Third, although the major powers' vaccine support plays a markedly important role, it should be affirmed that the majority of anti-pandemic rewards in Southeast Asia have been reaped by proactive and accurate policies by many regional countries, including Vietnam.

Fourth, an exaggeration about the role of vaccine diplomacy needs to be carefully treated. The case of China shows that a large proportion of investment in vaccine diplomacy is not obviously supportive of addressing complicated foreign affairs. Accordingly, "the primary reason why China's vaccine diplomacy generated different results was pre-existing bilateral economic and political relations. When there is pre-existing close economic cooperation and high degree of political trust, vaccine diplomacy tends to be effective. However, when the pre-existing relationship is characterized by deep structural distrust or politicized by a hostile national leader, vaccine diplomacy would unlikely be successful" (PengHao Wang, 2021, p.156).

For Vietnam, the contents, manners, and attitudes of countries towards vaccine diplomacy are the basis for clarifying the major powers' political calculations, the coherence of the regional system, the partners' level of trust, etc. To illustrate, despite the hardship during the pandemic, Cuba was still ready to support Abdala vaccine for Vietnam, contributing to proving that this is still one of the best bilateral relations Vietnam has ever built in the international arena. Returning to Southeast Asia, regional countries' attitudes to vaccine diplomacy from the major powers are the things that Vietnam needs to scrutinize. Correspondingly, while Vietnam maintained a cautious stance, "Cambodia and Laos are the most welcoming to China's public health diplomacy, including vaccine diplomacy, Thailand and Myanmar are also hospitable towards China's support" (Nguyen Thi Phuong Hoa, 2022, p.49). In the coming time, Vietnam, on the

one hand, still needs to be wary of the fact that some partners may fluctuate in their stance on disputes related to Vietnam after receiving a huge amount of anti-pandemic aid from several powers. The lessons from ASEAN's failure to issue a joint statement at the 45th ASEAN Foreign Ministers Meeting in 2012 are starkly nuanced in this regard. On the other hand, the fierce vaccine diplomacy race between the US and China in Southeast Asia proves that "the US-China strategic competition persists in all areas and perspectives". (Vo Hai Minh & Đinh Cong Hoang, 2021, p.17). Therefore, it is crucial for Vietnam to "have a strategy and plan to both capitalize on the favorable conditions and positive impacts and minimize the adverse effects from the US-China strategic competition" (Trinh Thi Hoa & Le Quang Manh, 2022, p.110).

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THE ACCESSIBILITY TO SUPPORT POLICY OF SMALL & MEDIUM ENTERPRISES TO RESPOND TO COVID-19 PANDEMIC IN VIETNAM

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Abstract

Small and medium-sized enterprises (SMEs) make up the majority of businesses operating in many countries and play an important role in the economy. Due to its characteristics, SMEs are vulnerable when the economy encounters shocks that disrupt production and business activities. The study focuses on analyzing the context of the Covid-19 pandemic based on Keynes' economic theory (1936) to examine the country's fiscal & financial policies for business groups and especially focuses on examining the accessibility to policies of SMEs. Finally, the study makes some recommendations to improve the efficiency in the implementation of future policies for SMEs.

Keywords: *Accessibility, SMEs, Policy, Covid-19*

1. INTRODUCTION

1.1. Small and Medium Enterprises

SMEs make up the vast majority of businesses operating in the economy. In most large economies such as Japan, France, and the United States, the percentage of SMEs is over 99% (https://cdn.advocacy.sba.gov). In Malaysia, according to statistics released by the Department of Statistics Malaysia (DOSM), the proportion of SMEs accounts for 97.2%. In Vietnam, according to the General Statistics Office of Vietnam, by the end of 2020, the percentage of SMEs is about 98.15%.

In both developed and developing economies, SMEs are recognized as the mainstay of inclusive growth since their quick response to the market, flexibility in providing products and services to the community at a low price (Kasseeah, 2013). Practice shows that SMEs have been known to be the growth engine of economies in many countries and the fastest-growing business sector (Savlovschi & Robu, 2011). In Vietnam, SMEs have emerged as an engine of economic development since the government started economic reforms. In addition to the characteristics of flexibility and quick adaptation, Vietnamese SMEs also play an important role in creating jobs for local people, taking advantage of existing resources, promoting innovation, and making contributions to the growth of the economy in general (Nguyen Thanh Huong, 2017).

However, with its small scale, limited financial, technological, and human resources, SMEs need to receive support from the government, domestic and foreign organizations in promoting, create products and services that are competitive in the world market (Munoz và cộng sự, 2014). In particular, in crises and the shocks of an epidemic, it is necessary to have the government's support through fiscal and financial policies (Keynes, 1936), to help businesses partly overcome difficulties and maintain production. In fact, in the past time, under the impact of the SARS-Cov-2 (COVID-19) flu pandemic, which has caused the world economy to decline, the global economic growth in 2020 is -4.2% (OECD, 2020). To support businesses to maintain production, governments of countries around the world have issued policies to help businesses and people overcome the pandemic.

2. KEYNESIAN ECONOMICS THEORY

The theory of Keynes (1936) emphasized the role of government in fighting recession and overcoming economic crises caused by epidemics and natural disasters. He criticized the classical view of the self-regulating market economy because of the fact that, in a market economy, crises, unemployment and recessions still occur frequently. According to Keynes, government intervention in the economy through fiscal and financial policies to change aggregate demand, so that the economy can quickly recover, is necessary. Regarding fiscal policy, Keynes's theory holds that the government can change tax policy, increase government spending, thereby increasing aggregate demand. Regarding monetary policy, the government can change the monetary supply policy, loosen credit and interest rate policies, thereby helping to increase investment, create jobs, and increase output. Investment and growth. However, he also pointed out the risks that can be encountered when using fiscal and financial policies. For example, expansionary fiscal policy, stimulus, tax reduction will cause budget deficit and debt burden. Meanwhile, expansionary monetary policy can be the cause of inflation in the economy.

Many economists also point out the limitations of these fiscal and financial policies. Robert Barro (2009) argues that tax cuts or transfers by the government now will have to be returned to the government in the future. According to the author, individuals, companies, and local governments are all aware of this, so they will save and cut expenses to prepare for the upcoming repayment. This is also consistent with the classical economists' view that fiscal stimulus in the form of tax cuts or transfers will not spur spending by households, businesses or local governments. Martin Feidstein (2009) also opposed the policy of accepting budget deficits to stimulate demand and help the economy recover because he feared that Keynesian theory would destroy fiscal discipline. Then politicians will use it as an excuse to increase spending leading to increased risks in government debt management and in particular, this will increase the burden on future generations.

However, recent studies show that the combination of fiscal policy and monetary policy is considered effective to regulate the macroeconomy. The government implements policies to increase public investment, tax exemption and reduction, subsidies for disadvantaged workers, support for bank interest rates, credit easing, etc. is considered a necessary policy in the period of economic recession and stagnation (Romer, 2021). The policy concept of “combined” is used by many researchers to support countries in dealing with economic downturns, including the dual health crisis caused by the influenza pandemic and the pandemic economics (Blanchard et al., 2021; Chudik et al., 2021). According to the IMF (2020, 2021), in many countries around the world, the strong fiscal-monetary stimulus policy combined with the vaccination program against COVID-19 has been effective in dealing with the pandemic epidemic and regaining the driving force of economic growth for the following years.

3. IMPACT OF COVID-19 ON SMEs

The Covid-19 pandemic has been having very serious impacts on all areas of socio-economic life in all countries around the world. For the economy, the pandemic has caused a serious economic recession when many factories have had to close, global supply chains have been broken and fragmented, and many economies have been almost completely paralyzed, especially in highly open economies. As a result, many countries around the world fell into a state of negative economic growth.

On a global scale, the Covid-19 pandemic has caused an operating disturbance to the economies of countries. According to a report from the OECD in July 2020, SMEs are among

the hardest hit by the impact of Covid-19 prevention policies. In China, from February 2020, up to 80% of SMEs could not return to normal operations and it is forecasted that 1/3 of these businesses will not be able to resume business in 1 month; the other 1/3 businesses will stop in the next month. In Korea, the proportion of affected SMEs surveyed was 61%, and among them, 42% of them were worried that they would not be able to continue operating after 3 months. Another example from a country outside Asia, where there are different approaches to pandemic prevention policy is the US, from May 2020, 81% of companies have experienced or are expected to be negatively affected; Of these, up to one-fifth of small businesses are temporarily closed, and one-third are expected to cease operations entirely within two months.

In Vietnam, business activities began to decline from January 2020 (World bank, 2020) when the Covid-19 pandemic began to break out. According to a quick survey of the World Bank, SMEs are greatly affected in production and business activities and especially service enterprises. Meanwhile, SMEs related to agricultural activities can still maintain their operations.

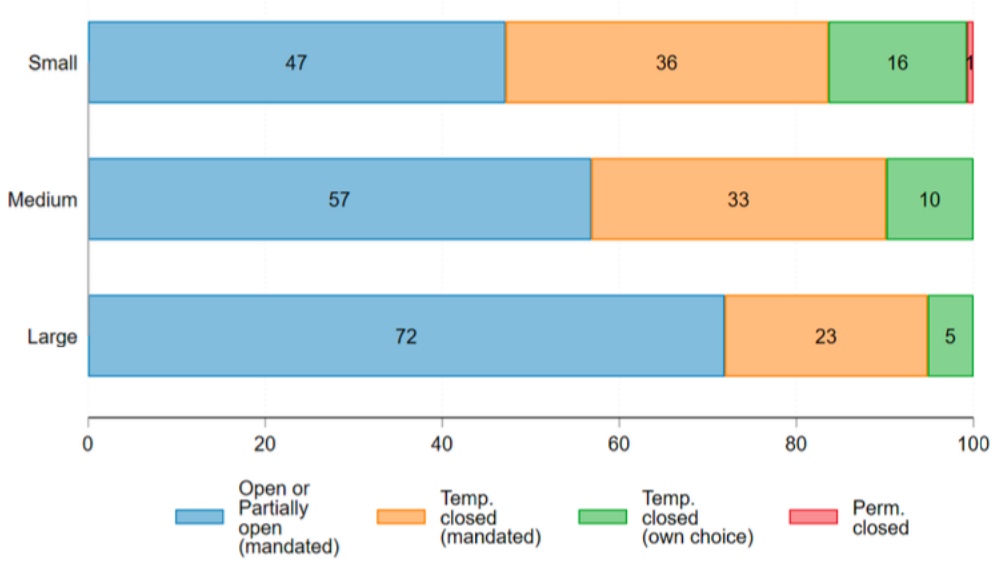

Figure 1. *Operational situation during the lockdown period (April 2020) (Source: World Bank: Impact of Covid-19 on businesses in Vietnam)*

Figure 1 shows that the size of a business is directly proportional to its ability to withstand events that occur in business activities. Up to 53% of small businesses in Vietnam did not resume business activities (temporarily or permanently) when the Covid-19 pandemic occurred. This figure for medium-sized enterprises is 43% and for large-scale is 28%.

The mechanism of the impact of the Covid-19 pandemic on SMEs is explained through an analysis of two aspects of supply and demand. On the supply side, the Covid-19 pandemic has had a heavy impact on SMEs due to the sudden decrease in labor or input materials. According to the OECD, some countries like China, with pandemic prevention and control policies such as restricting movement and transporting goods between countries, have caused a sudden decrease in supply for SMEs and many businesses. Some of these businesses have not been able to recover from the pandemic. On the demand side, the sudden change in demand for products and services is also the reason why many SMEs around the world cannot maintain their operations. For example, in some industries with a high concentration of SMEs, such as tourism or the hotel business, restrictions on movement have had an immediate impact on their operations. SMEs often have a small capital size, so prolonged financial shocks have caused these companies to stop business activities.

4. GOVERNMENT POLICIES

In order to help SMEs overcome difficulties caused by the pandemic, as well as contribute to helping the economy overcome the recession and recover growth, many fiscal and financial policies are used by the governments of countries. Reducing operating interest rates is the policy that most central banks of countries around the world apply, while national governments also increase government spending to stimulate demand.

The US and Europe are the two developed economic regions that are most affected by the Covid-19 pandemic in many aspects: health, economy, and society. In response to this effect, the US Government's fiscal and monetary policy response is considered unprecedented in terms of scale, scope and speed of implementation (Clarida et al., 2021). As of the second quarter of 2021, the total value of fiscal support and stimulus packages is up to $5.8 trillion (28% of the US GDP in 2020), nearly $3,000 billion in 2020 alone. The countries of the European Union (EU) have fiscal responses at two levels: national and regional. At the regional level, the European Commission (EC) provides three packages of emergency financial assistance in April 2020 totaling EUR 540 billion to workers, businesses and member states. Next, in July 2020, EU leaders agreed to allow the EC to mobilize EUR 750 billion (at 2018 fixed prices) in the international capital markets and distribute them to member states in the form of grants (EUR 390 billion) and on-lending (EUR 360 billion) to implement seven long-term investment programs to drive growth and maintain the competitive strength of the regional economy (IMF, 2021).

Similar to other major economies, Vietnam and ASEAN countries soon had a monetary and fiscal policy response to support workers and businesses to overcome the difficulties of the pandemic. Specifically, Table 1 summarizes some key policies that governments/regions have adopted as follows:

Table 1: Summary of some fiscal and financial policies of ASEAN countries

	Policy / Countries	Vietnam	Indonesia	Philippines	Malaysia	Thailand
	Financial Policy					
1	Central Bank cuts operating interest rates	X	X	X	X	X
2	The policy of reducing reserve requirements	X	X	X	X	
3	Credit easing policy	X	X		X	X
4	Debt restructuring	X		X	X	X
5	Intervention in the foreign exchange/government bond market	X	X	X		
6	Lower loan interest rates/reduce the cost of accessing loans	X				X
7	Establishing a business support fund			X	X	X
	Fiscal policy					

	Policy / Countries	Vietnam	Indonesia	Philippines	Malaysia	Thailand
1	Direct cash support for low-income	X	X	X	X	X
2	Corporate income tax reduction (with conditions attached)	X	X	X	X	X
3	Business household tax-free	X	X			
3	Change in personal income tax rate	X	X			
4	Support/reduction for essential items (electricity, water, transportation, accommodation)	X				X
5	Reducing and suspending payment of some types of social security funds	X				
6	Allow businesses to owe VAT and corporate income tax	X				
7	Quick payment social insurance				X	

The financial policies applied by ASEAN countries are quite similar in terms of interest rate cuts, reserve requirement ratio reduction, credit easing, debt restructuring, etc. Some countries have intervened in the foreign exchange market, setting up support funds for businesses. Fiscal policies are somewhat more diversified. In addition to the cash support policy, tax reduction is applied by most countries, the rest depends on many factors such as the epidemic, the budget, and countries with different fiscal policies.

Although there are many policies to support businesses to overcome difficulties when production and business activities are interrupted, for these policies to reach businesses in difficulty is a story that needs attention.

5. POLICY ACCESSIBILITY OF SMEs

The Vietnamese government has spent a lot of resources and issued many policies to support businesses to cope with the difficulties of the pandemic. However, research by scholars and reports from organizations have shown difficulties and barriers in accessing these support policies. Regarding the causes, the common opinion shows that difficulties and barriers come from procedures; Size and industry of companies; access to policy information; and the practicality of the policies.

Policy accessibility

Although the government has many policies to support businesses to overcome difficulties caused by the Covid-19 pandemic, it seems that businesses are still struggling with the issue of accessing support policies. According to Hung (2022), the ability of enterprises to access policies is difficult due to the influence of complicated procedures and processes. For example, according to the State Bank of Vietnam's Q3 2020 report on a support package of 16,000 billion VND providing 0% interest loans for employers, only one enterprise is eligible to borrow and this enterprise also self-balanced their finance to pay wages for their employees. After nearly a year of implementation and many times to remove difficulties, the supporting policy is still difficult to access when only 245 employers receive support with a total amount of 41.8 billion VND

(0.26% of the total size of the support package) (Chien & Duan, 2021). According to the report of VCCI & World Bank (2020) on the level of convenience in accessing support policies, some policies have high accessibility related to procedures for businesses such as extending the time for CIT payment, VAT. However, the benefits of financial support packages such as 0% interest loans for companies are very difficult to access.

There are differences in the accessibility to policies of SMEs regarding size and their industry. In addition to the cause of problems related to administrative procedures, the World Bank's No. 1 report in September 2020 on the impact of Covid-19 on Vietnamese businesses listed the size and field of operation also impact on accessibility to policy. According to the report, only about 20-30% of SMEs have access to supportive policies. Because of their small size, SMEs are also less likely to receive high levels of support because they cannot accept administrative burdens compared to large-scale organizations. On the other hand, businesses in some fields also have difficulty accessing the Government's support packages. VCCI & World Bank's survey (2020) of businesses classified by industry also shows that most businesses associated with direct production activities will feel more favorable when accessing support policies. Specifically, for the private sector, some industries such as the manufacture of electrical equipment, apparel, and rubber are more accessible to support; for the FDI sector is a group of enterprises related to agriculture or fisheries. Thus, small and medium-sized enterprises account for a large proportion of the total number of enterprises and are particularly resilient but have difficulty in participating in support packages due to the specificity of their size and industry.

The lack of information also becomes a barrier for SMEs in accessing support packages. According to a survey by the World Bank (2020), up to 30% of enterprises of all sizes do not know about support policies. Another study by Hung (2022) also shows that the problem of accessing the information on policies is the main reason why small and medium enterprises are limited in receiving government support packages. Difficulties in accessing information are also associated with the characteristics of SMEs, which are often limited in obtaining information about policies compared to large enterprises and are the reason why many SMEs cannot maintain and be able to operate their activities during the time when the epidemic disrupts activities.

Perceived the usefulness of the policy

Another perspective on the status of enterprises' access to policies is to consider their expectations for the support policies that have been issued. According to a report from VCCI & World Bank (2020), the policies that are considered the most useful for businesses include VAT payment extension, corporate income tax payment extension and land rental payment extension. The above results are similar to another study by Hung (2022) when most of the respondents (70%) said that fiscal support policies are the most useful for them. Although the access to 0% interest loan packages for small and medium enterprises is still limited, the respondents have high expectations with this policy. Specifically, for small and medium enterprises in the natural sector, the rate of evaluating the usefulness of the preferential loan package is 77% (VCCI & World Bank, 2020). Meanwhile, for the FDI sector, the rate of useful evaluation of the support package of small and medium enterprises is 70% and 65%, respectively. In addition, according to this report, there seems to be a link between the accessibility of information and the perceived usefulness of policy. The more businesses have access to specific information about policies, the more they will feel the value that businesses receive from the influence of policies. As mentioned, with limited access to information, a large part of SMEs will not feel the level of usefulness of support policies.

6. POLICY IMPLICATIONS

From the above analysis of barriers to policy access, we offer some implications in the implementation of supporting policies for SMEs as follows:

Firstly, ***it is necessary to improve procedures and processes and procedures***. The difficulties raised in the context of the Covid-19 pandemic will be the basis for the authorities to consider making improvements in the direction of openness, creating favorable conditions for businesses in difficulty. Government support activities are needed to help businesses with low resilience to continue to maintain their operations and contribute in return to the general welfare of society. Supportive policies need to reduce regulations that are too strict, which can limit the ability of many businesses to access policies. For example, the Minister of Labour, Invalids and Social Affairs (Minh Phuong, 2020) talked about the difficulties in the regulations on accessing interest-free loans for businesses with very high criteria such as enterprises must not have any revenue, no longer having a source of income, and have no money to pay salaries, then they will be beneficiaries. Too many regulations will make many companies inaccessible to policy. In addition, many supportive policies with too many administrative procedures and processes also hinder businesses with limited resources. Policies should reduce abundant procedures and apply more information technology in receiving and processing documents. Next, in the policy-making process, it is also necessary to have a process of reviewing the requirements policy to make it more feasible.

Second, ***it is necessary to develop policies for specific groups of businesses***. According to the General Statistics Office of Vietnam (Anh Nhi, 2022), in the first 6 months of 2022, for the first time, the number of enterprises registered for new establishment and return to operation exceeded 100,000 enterprises (117 thousand enterprises). The increasing numbers show that the business environment in Vietnam has had a strong recovery after the pandemic. The number of operating enterprises is very large and is facing many difficulties when the economy is still recovering, the political situation in the world fluctuates, the price of input materials fluctuates. From the reality of support policies during the Covid-19 pandemic, it shows how small and medium enterprises, especially in the service sector such as tourism and hotels, have difficulty accessing support packages from the government. Supporting policies for businesses should consider the level of impact and resilience of enterprises regarding size and industry to have separate policies for each group. The classification of policies for each type and field of business will make it easier for businesses to access when the policy reduces the spread and equivalence of support levels for all businesses.

Third, ***strengthen communication and information provision***. The ability to access information between enterprises is not equal, large enterprises have an advantage in capturing business information. In order to help the policies achieve the main goals, it is necessary to strengthen communication activities. Applying information technology in various communication channels such as newspapers and social networks in addition to the official communication channels of the Government is a solution that can bring effectiveness. Communication activities need to be transparent about the conditions, processes, etc. of policy beneficiaries. The transparency of information facilitates narrowing the access gap between small and medium enterprises when new policies are issued.

Fourth, ***develop support policy packages associated with following the practical needs of businesses***. The business perspective on the usefulness of policies affects whether businesses are "interested" in participating or not. In addition to adjusting policy groups according to the size and field, the practicality of the policy is a decisive factor contributing to the effectiveness of the

policy. Accordingly, many businesses expect the Government's support policy in difficult periods of operation, the flexible combination of fiscal and financial policies should be based on the actual economic situation. at each point and can focus on major business concerns (VCCI & World Bank, 2020) such as taxes, fees, access to credit. On the other hand, in order to increase the usefulness of the business, it is also necessary to fully implement the previous recommendations related to the improvement of processes and procedures to create a business environment and reduce administrative burdens; review the suitability of the key for businesses, and increase the prevalence of access to information.

Fifth, ***the Government needs to promote programs to support digital transformation and e-commerce applications in production and business activities as well as strengthen innovation and creativity capacity for SMEs***. Analysis of the impact of Covid-19 has shown that the breakdown and fragmentation of the supply chain have caused a lot of damage to businesses in production and business activities. Similarly, during the period of isolation due to the pandemic, many businesses had to be suspended because they did not have the capacity to set up an online model, while some businesses had investments in digital technology, innovation and creativity can still maintain business operations. When the lack of information has made it difficult for businesses to access government policies, it is also evidence of the need to promote digital technology applications in general in business activities. Meanwhile, SMEs are small businesses with limited resources, so they face many difficulties in implementation and need the government's support in terms of orientation, consistent policies and resources to promote business development. strengthen digital transformation and innovation activities. This is also a favorable time for promoting the government's digital transformation program because in the process of dealing with the epidemic, SMEs have realized the necessity of digital transformation in their operations as well as in the economy in general.

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E-GOVERNMENT IN THE CONTEXT OF COVID-19 PANDEMIC: A COMPARATIVE STUDY OF KOREA AND VIETNAM

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Abstract

E-government and the implementation of Information and Communications Technology (ICT) have been at the center of interest for a few recent decades, especially in the context of the COVID-19 pandemic and worldwide lockdowns. Therefore, not only is the E-government an official and crucial tool for enhancing citizens' quality of life but also it is a medium for the exercise of other human rights. Although the previous researches bring certain values and contribute to providing an overview of E-government and its significance in the COVID-19 context, they only focus on specific models of certain countries instead of a comparative perspective among different countries, especially Korea and Vietnam. As a result, by applying the methods of analysis, synthesis, comparison, statistics, comparative jurisprudence, proof, and practical research, the Article aims to take a thorough look at the case of Korea and Vietnam in the implementation of E-government, to determine whether and to what extent the Korean and Vietnamese governments have adopted similar and different practices and initiatives, allowing the use of E-government services to citizens in a the health sector during and post COVID-19 pandemic. The comparative study shall provide a comprehensive perspective regarding the subject of E-government in the two countries in the context of the COVID-19 pandemic and similar diseases in the future, and some commentaries of the authors for the development of E-government not only for the two countries but also other nations.

Keywords: *(at least 5 keywords) E-government, COVID-19 pandemic, Korea, Vietnam, Comparative Study*

I. INTRODUCTION

The Coronavirus 2019 (COVID-19) pandemic is exceedingly complicated and measures to control and prevent it, including lockdown and isolation, have had extremely serious and far-reaching repercussions all around the globe. This crisis has brought modern requirements for government digital services and more demand for existing services. Government developers have built new digital tools, systems, applications, and more broadly the concept of E-government.

The E-government concept originated at the beginning of the 21st century. In the early stage of its development, E-government follows the evolutionary E-business evolving model[1], which in particular means that in the early days of E-government evolvement, primary focus of the e-services was the simple appearance of graphic user interfaces with no possibilities of interaction.[2] Thus, in the context of COVID-19 pandemic, E-government can be understood as an

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information technology system developed by the government to improve public services by giving people choices to get favorable access to public information regarding the disease status and prompt preventative measures. The final core of this concept is applied with the aim that the relationship between the government both with the community and with business people can take place efficiently, effectively and economically.[3] This is not only an urgent response to a single epidemic, but a foundation to promote digital transformation in the health sector as well as the general awareness of digital transformation for the citizens in the dynamic movement of society, which should be adjusted within each nation.

Korea and Vietnam are two of the typical examples in Asia which have built and flexibly developed E-government in the context of COVID-19. Specifically, Korea actively uses ICTs and takes various innovative approaches to control this infectious disease by developing AI-based testing kits promptly, tracing and monitoring confirmed patients with GPS, managing and monitoring patients and people confirmed positive for the disease via mobile applications, and quickly providing information by opening public data, thus ensuring transparency. [4] Simultaneously, in Vietnam, national and local administrative authorities and units, the national center for technology for COVID-19 prevention and control in collaboration with many information technology enterprises including the group of technical infrastructure and the group of platforms and tools, in which electronic medical declaration, QRCode management platform, sampling support platform and test results are compulsory platforms for uniform application nationwide.[5]

On the other hand, at present, scientific research has been in great global progress and the trend of harmonization among contents is increasingly evident. Not out of that trend, comparative study in general and comparative study of E- governments in particular also need attention. Therefore, the comparative research on this subject need to be focused on developing and conducting in a more serious and thorough way in order to have an open and complete perspective, creating new and far-reaching perceptions rather than building a comprehensive theoretical system of E-government. As a result, the following comparative study has two main sections including specific similarities and differences between E-Government in the context of the COVID-19 pandemic in Korea and Vietnam and commentaries regarding E- government in the context of the COVID-19 pandemic.

II. SIMILARITIES AND DIFFERENCES BETWEEN E-GOVERNMENT IN THE CONTEXT OF THECOVID-19 PANDEMIC IN KOREA AND VIETNAM

2.1. Policies on E-Government in the context of the COVID-19pandemic

Outbreaks of new and resurgent infectious diseases in the past such as MERS, avian influenza, and Melioidosis gave rise to Korean government actions aimed at improving public health and preventing diseases. The Korean government announced the Informatization Plan for

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[5] Sơn, T., Thảo, L., & Toản, V. (2022). Công nghệ chống dịch sẽ chỉ còn là câu chuyện một thời. . . (*Anti- epidemic technology will only be a story for a while.*) Nhan Dan Newspaper. https://nhandan.vn/cong-nghe- chong-dich-se-chi-con-la-cau-chuyen-mot-thoi-post684566.html

the Prevention and Management of Infectious Diseases in 2013 and established "The Integrated Information Support System for Monitoring and Control of Infectious Diseases" as the implementation of the master plan in 2015. This information support system integrates and enables the management of seven activities in a single screen of the application dashboard: monitoring of patients, monitoring of pathogen and medium, diagnosis of pathogens, epidemiological investigation, vaccination, management of patients and people having contact with them, and quarantine management. It displays dashboards for users to check the status of infectious disease cases at a glance by linking data with other ministries and agencies, which is appropriate for preventing COVID-19 disease.

Although there has not yet been a predictive vision as Korea in developing policies to adapt to the outbreak of new and resurgent infectious diseases, the Vietnamese government also has promptly and flexibly provided directions in E- government against the global pandemic. According to the Directive, on March 7, 2019, the Government issued Resolution No. 17/NQ-CP on a number of key tasks and solutions for the development of e-Government in the period of 2019 - 2020, with a vision toward 2020. 2025. Next, the Prime Minister issued Decision No. 749/QD-TTg on June 3, 2020, approving the National Digital Transformation Program to 2025, with orientation to 2030; Decision No. 942/QD-TTg on June 15, 2021 approving the e-Government development strategy toward digital government in the period of 2021 - 2025, with orientation to 2030.

On April 26, 2022, the Prime Minister issued Directive No. 02/CT-TTg on developing e-Government towards the E-government, promoting national digital transformation. The implementation of the Government's Resolutions and the Prime Minister's decisions over the past time has achieved many positive results such as Basic technical infrastructure to meet the needs; the national database on population, a national database on business registration, and a national database on insurance have been completed, gradually exploited and used effectively; the exchange of electronic documents has come into order; many public services have been provided online level 3, 4; improved E-government national ratings; awareness of digital transformation has been enhanced, clearly demonstrating the important role in socio- economic development during and after the COVID-19 pandemic. Even though these policies and implementations were adopted by Vietnam only after the outbreak of COVID, it does not affect the performance of the country. Vietnam has been ranked as one of the countries with the best coping system for the outbreak of COVID-19.

It is obvious that Korea and Vietnam both have proposed complete policies to promote the development of E-government in the digital era. While Vietnam only issues the general policy directions, Korea provides more details on the development of each specific aspect in the health sector and especially during the pandemic, outlining each step in the prevention, control, and response to outbreaks. The policy of Korea, which was introduced in 2013 and 2015 shows a higher strategic vision; however, the policy of Vietnam that is adopted later will be more suitable for the development of the times and more flexible.

2.2. E-government in Screening and diagnosis stage

The Korean E-government created several systems, including a smart quarantine information system, an international traveler information system (ITS), and a self-health check app for entrant's subject to special entry procedures for screening and diagnosis. The Korea Centers for Disease Control and Prevention's (KCDC) smart quarantine system is a national quarantine system built on an ICT-based network connection between the Ministry of Foreign Affairs' (MOFA) Passport Information Comprehensive Administration System (PICAS), the

Ministry of Justice's (MOJ) Immigration Information System (IIS), and DUR (a system that connects the information of medical institutions and pharmacies throughout the country to pre-existing databases).

This system closes gaps in airport quarantine procedures. Data from MOFA, HIRA, and other related agencies are shared and used to check information from entrants from countries affected by infectious diseases, and text messages are sent to the entrants to report any potential infection. This system also shares data with medical institutions in order to track potential patients during the incubation period following their entry into Korea. Using the smart quarantine information system allows for the collection of information on arrivals from countries where infectious diseases have occurred as well as those entering through a third country, as well as the trackingand monitoring of infectious diseases during the incubation period.

The ITS of Korea is used to provide international travel data on entrants to medical institutions three times a day via the DUR of HIRA. Based on the information shared through ITS, medical institutions can check patients' overseas travel history, promptly screen those suspected of infection during the consultation if they visited contaminated areas, take proper and preemptive measures, and provide selective treatment. The ITS allows for checking patients' travel history, thereby ensuring an agile and early response to infectious diseases introduced from overseas. Medical institutes do not have to rely on patients' subjective statements to identify if they have visited areas affected by epidemics, and they can mobilize a thorough disease control process by precise fact-checking. Through the public information sharing system, the ITS collects patients' travel history to countries with infectious disease outbreaks from relevant institutions, combines it with DUR data from the HIRA service, and makes it available to medical institutions and pharmacies.

At this first stage, Vietnam has also developed systems such as Vietnam Health Declaration, Bluezone, and NCOVI. Unlike the system of Korea, the efforts of Vietnam are based heavily on the voluntary and honest declarations of its people. There has not been an international traveler information system and for entrants into Vietnam, the only E-government application is Vietnam Health Declaration. Medical declaration for people entering through the VHD application is mandatory. The declared information will help authorities in controlling the health status of people on entry, improving the effectiveness of disease prevention and control

In order to fill out the Vietnam Health Declaration, inviting units and organizations to make a list of entrants to Vietnam (full name, date of birth, passport number, nationality, number of COVID-19 vaccinations, recovered from COVID-19 disease), address, phone number, email, the purpose of entry, time of entry and place of stay). They have to have a written commitment to be responsible for ensuring safety for COVID-19 prevention and control when inviting people to enter Vietnam and committing to pay for treatment costs in case of being infected with COVID-19. Develop plans, working plans, places of accommodation, specific means of transportation, and plans to ensure safety in the prevention and control of COVID-19 during the working process must be provided and submitted to the Provincial People's Committees for approval. Persons entering the country must provide A negative test result for SARS-CoV-2 before entry; A valid certificate of international health insurance or a commitment to pay the treatment costs of the inviting unit or organization in case the entry is infected with COVID-19. However, completing all these documents seems to be hard to meet requirements. The applicants are required to be absolutely honestor the documents shall not have effectiveness.

Along with the international information system, a self-health check app was developed for those who enter Korea through special entry procedures (filling out the special quarantine

declaration form, checking body temperature, and reporting place of stay and contact information) for continuous health monitoring after their quarantine declaration at the airport. The mandatory documents in this stage are quite similar to the Vietnam Health Declaration. These entrants are required to do the following activities: 1) install the self-health check app upon their arrival; 2) mandatorily upload their personal information such as passport number, name, contact number, and address in Korea; 3) go through a self-health check once a day for 2 weeks from the day of arrival; and 4) check if they have any of the major symptoms of COVID-19. If they have any symptoms, the app automatically connects them to 1339 (the call center number of the KCDC) or the nearest COVID-19 screening station.

Unlike Korea, Vietnam did not have a self-health check app was developed especially for those who enter Vietnam through special entry procedures. However, there has been a mandatory application that the entrants must install upon arriving like in Korea, which is PC-COVID. PC-COVID is an epidemic prevention application developed and put into operation from the end of September 2021, based on the synthesis of features of previous epidemic prevention applications such as Bluezone,NCOVI, and VHD... and redesigned to be most convenient for users.

Under the latest instruction of the Vietnamese Government, entrants coming to Vietnam only have to install PC-COVID and update their health condition on this application. PC-COVID has the following main features: Issuing and managing personal QR codes and locations; Scan QR codes; Health declaration; Declaring domestic movement; Reflections of the people; Vaccination information, testing information... As of the end of 2021, the PC-COVID application has more than 29.1 million users nationwide.

2.3. E-government in Epidemiological investigation stage

The COVID-19 epidemiological investigation system and the global epidemic prevention platform for digital tracing are two Korean E-government systems in the epidemiological investigation stage. Using the person's location data and credit card transaction history, the epidemiological survey support system quickly identifies the movement of confirmed COVID-19 cases and assists in the analysis of transmission routes. The MSIT, the Ministry of Land, Infrastructure, and Transport (MOLIT), and theKCDC collaborated to create this system.[6]

When the KCDC or other epidemiological investigation agencies request data about confirmed cases from telecommunications networks and credit card companies, the data is entered into the system after being authorized by relevant agencies such as the National Police Agency and is visually checked within the system. This system's improved version includes additional functions such as data uploading, network analysis among confirmed individuals, and the ability to predict areas at risk of an infection outbreak (Ministry of Science and ICT, Korea, 2020).

The COVID-19 epidemiological investigation system automates contact tracing for confirmed COVID-19 patients. This system easily visualizes geospatial information about confirmed patients' travel routes on a map embedded in the platform and provides related statistical data. To that end, the system employs smart city technologies that collect and process large-scale city data sets, such as the 'Smart City Data Hub' analysis tool. The existing big-data analysis platform can automate the process of tracing COVID-19 patients' contacts. The system requires information from individuals about the time, travel routes, and location of confirmed patients, as well as public data about public transportation and the status of screening stations (Ministry of Science and ICT, Korea, 2020).

[6] Ministry of Science and ICT, Korea. (2020). *How We Fought COVID-19 : A Perspective from Science & ICT*. https://www.mofa.go.kr/viewer/skin/doc.html?fn=20200805065801768.pdf&rs=/viewer/result/202209

The global epidemic prevention platform for digital tracing identifies infectious disease transmission routes and individuals at risk of infection by using mobile location data both at home and abroad. This platform first traces individuals' travel routes based on mobile phone data usage within Korea and under international roaming services, and then combines them with maps showing areas with local and international confirmed cases of infectious diseases to determine each individual's potential virus exposure. The Korean government uses the platform to send text alerts to all Korean citizens about the risk of infection, and medical institutions can use DUR to check their patients' potential infection. Contact tracing allows quarantine authorities to track the travel routes of confirmed patients and identify the source of infection.

Even though the Vietnamese E-government system in the context of COVID- 19 has not yet reached the international level and utilized credit card transaction history like Korea. However, the local applications and platforms of Vietnam have all the features that are mentioned in the Korea E-government system. Since the beginning of the COVID-19 outbreak, Back in March 2020, contact tracing efforts had begun in earnest in Vietnam, and the demand for mobile versions of the apps had increased. By March 9, the MIC and MOH had launched two mobile-phone apps — NCOVI and the Vietnam Health Declaration — to help health care providers and officials trace suspected cases of COVID-19. While both apps were designed to encourage symptom logging, the NCOVI app was intended for voluntary use by the Vietnamese public, and the Vietnam Health Declaration app was mandated for all travelers entering Vietnam. In just three weeks, the technology firm Bkav had developed and received an official endorsement from the government to launch Bluezone, a low-energy Bluetooth app that alerts users if they have been in close contact with people who tested positive for COVID-19, but it does not collect, use, or share location data for its users. There have been various systems that are developed at the time, but after a while, the only mandatory application is the aforementioned PC-COVID.

In Vietnam, there has also been a system for recording arrivals/departures at public places (QR Code), which is similar to the ‘Smart City Data Hub’ of Korea but is more inactive than the system of Korea. Public places such as offices, hospitals, schools, supermarkets, media markets, accommodation establishments, and restaurants... all have to carry out medical control for incoming and outgoing guests with QR Codes and require people to make medical declarations by scanning QR codes when visiting those public places through the Smartphone application. Through the system, people will be promptly warned and supported with professional measures to prevent and control the epidemic if an outbreak is related to the places that the person has been to. The tracing and zoning of the spread of the authorities will also be done faster, more accurately, and more efficiently thanks to the data recorded fromthe system.

Other apps include Hanoi Smart City, which helps authorities track and monitor people who have been infected and quarantined, sending a notification to the heads of districts if the patient moves more than 98 feet from the designated quarantine area, and the Vietnam Health Declaration, a mandatory multilingual tracking and tracing app designed for domestic and international travelers entering Vietnam. Together, these innovative digital surveillance apps have played a critical role in Vietnam’s ability to contain COVID-19.

2.4. E-government in Patient and contact management stage

In the patient and contact management stage, Korean E-government systems include various systems such as the self-quarantine safety protection app, patient management information system, and AI-based automatic response. The self- quarantine safety protection app effectively supports and manages self-quarantine monitoring. This app assists both self-

quarantined citizens and assigned caseworkers. A citizen uses the app to perform a self-health check twice a day, and the results are automatically delivered to the assigned caseworker. In addition, GIS is used to manage information about the citizen's location. If the user leaves the quarantine area, an immediate notification is sent to both the user and the assigned caseworker, allowing the caseworker to respond to and handle the situation as soon as possible.

The patient management information system manages COVID-19 patients systematically to prevent further spread and to monitor their real-time status. The KCDC, local quarantine task forces in 17 cities and provinces, public health centers, community treatment centers, and medical institutions use this system to manage information on confirmed patients' allocation to monitoring organizations, illness conditions, hospitalization or transfer, isolation or release. Medical institutions review real-time patient updates from local governments to determine the current availability of negative pressure rooms and facilities in which to place COVID-19 confirmed patients. This system allows quarantine facilities to manage patient information such as severity, treatment progress, and release from isolation, allowing them to check the patient status in real-time. If patients are transferred to different institutions or re- infected with COVID-19 after release, the system provides timely management and treatment based on their isolation history.

Furthermore, Clova Care Call, developed by the Korean ICT company Naver, is an AI solution for telephone-based counseling and automatic responses to health inquiries via the company's Clova AI platform. Previously, public health centers called people who were under active monitoring to check on their daily health conditions. This AI platform monitors them by automatically calling them twice a day to see if they have developed any symptoms, and their health status is directly reported to local authorities.

Unlike Korea, Vietnam did not have a complete and clear information and managing application, along with an AI-driven system in patient contact and management. The Vietnamese Local People's Committee is implementing information technology applications in F0 management. Specifically, using F0 management software, creating QR codes, and well implementing the propaganda, instructions on epidemic prevention and control, and F0 self-care at home on Zalo software of F0 home care teams, Zalo between Ward health with the F0 at home.

For patients with mild symptoms, deploying Zalo software helps to connect with F0s faster, timely guide, and manage patient health. The Local People's Committee also maintains the use of information technology applications in management, administration, and deployment to ward officials in charge of fields, at the same time, maintaining information and exchange with target groups such as owners of food service businesses, groups of restaurants, groups of owners of non-public medical and pharmaceutical practice establishments, etc.

Not only Zalo but other social media platforms such as Facebook, and Instagram, etc. have also been put into use to create groups for managing patients. This, so far, is one of the most effective systems for the culture and nature of Vietnamese people. Information spread by word of mouth might be even faster than any system and the Vietnamese government saw the chance to make use of it. It is asuitable movement to tackle the COVID pandemic in Vietnam.

The number of quarantined people is increasing gradually, the number of concentrated isolation areas is increasing, and the number of cases being transferred to hospitals specializing in receiving suspected and COVID-19 infected people is also increasing, ... it is not easy and it cannot be fast when it comes to looking up information about a person being isolated to serve the

epidemiological investigation of disease prevention and control. That is also the reason why the Smart Operations Center of the Department of Health has urgently built and officially put into use the application software "Management system for quarantined people and COVID-19 patients". With the application software "Management system for quarantined people and COVID-19 patients", the entire manual data entry and retrieval of administrative information of medical staff in concentrated isolation areas is very difficult. which takes a lot of time and effort and the accuracy is not high in the past time has been completely replaced by working with the keyboard easily and quickly, accurately.

2.5. E-government in Prevention stage

In the prevention stage, Korean E-government systems include open public data on COVID-19, COVID-19 micropage, Corona Map service, Coronaita, and COVID-19 chatbot. One of the open data cases involving COVID-19 is the disclosure of information on face masks distributed to the public by the government, particularly during the early stages of the pandemic. The National Information Society Agency (NIA) converted raw HIRA data into open API and distributed it to the private sector, inspiring developers to build mobile apps and web-based services. Over 150 apps and web services based on open data have been released by private sector developers. Such apps and services had a high usage rate, with 670 million API calls on face masks recorded in the three weeks of rapid spread. People can easily check the remaining inventories of face masks in nearby drugstores and marts, and sellers can easily identify their inventory as well. As a result, civic complaints about mask supply and distribution have significantly decreased.

The MOHW and HIRA provided data on COVID-19 screening stations and designated National Safe Hospitals, which are displayed on the COVID-19 micropage, MOIS and NIA reprocessed it as open data via open API and made it available on the public data portal (data.go.kr). Individual citizens can use these apps and web services to easily locate nearby screening stations and designated National Safe Hospitals.

In addition to data on face masks, the Korean government actively made public data on confirmed COVID-19 cases in Korea and abroad. Citizens and businesses can generate and share public data with the rest of the world. The MOHW discloses and provides COVID-19 updates to the public data portal via open API, including confirmed cases in Korea and overseas cases.

The COVID-19 micropage (ncov.mohw.go.kr) is an integrated information platform launched by the Central Disaster Management Headquarters and the Central Disaster Control Headquarters to quickly and conveniently provide the public with important and relevant COVID-19 information. This website promptly makes available to the public a wide range of information, including the number of COVID-19 cases in Korea, the routes taken by confirmed cases, details on the quarantine system, daily official briefings, fact checks on fake news, countermeasures of related organizations, and useful media resources. The COVID-micro package is divided into six sections: COVID-19 information, the most recent updates, news and issues, media resources and FAQ, damage support policy, and notices. Users can also search for screening centers and national safe hospitals on the main page.

Coronamap (https://coronamap.site/) is a map service that helps prevent the spread of COVID-19 and shares the status of COVID-19 infections. Coronamap uses a map to provide contact tracing information from confirmed COVID-19 patients, such as the number of confirmed cases, the location of quarantined individuals, and travel routes and visitation points. Users can easily access geospatial information on confirmed cases based on their relative location using

Coronamap. This service visualizes confirmed COVID-19 patients' travel routes by location and time, allowing users to see overlapping movements between themselves and the diagnosed patients. The service also provides information on drugstores where users can buy face masks, as well as the number of masks currently available at each drugstore based on their relative location or selected destination.

Coronaita (coronaita.com) enables users to search and find information at a glance on locations in specific areas where COVID-19 patients have visited locations under lockdown or locations where disinfection has been completed. Corona provides two types of searches: 1) checking places where people who have been confirmed to have COVID-19 infection have visited; and 2) checking if disinfection has been completed in places where COVID-19 patients have visited, which includes searching for places to buy government-supplied face masks and connecting shop owners to disinfection service providers. Coronaita uses GIS-based locational data to provide information on COVID-19 patient routes, facilities where cleaning and disinfection are completed, and locations where users can buy government-supplied face masks andthe remaining inventory of the masks.

The COVID-19 chatbot (http://answerny.ai) provides the public with COVID-19 transmission routes and other related information as the disease spreads in Korea. This software as a service (SaaS) integrates public data from the KCDC and MOHW with a chatbot service. Unlike existing chatbots that only answer basic questions and provide information on confirmed cases, the COVID-19 chatbot provides information tailored to each user target, such as confirmed patients or people in self-quarantine. This chatbot enables government organizations to post links on their homepages that will assist them in providing dependable and seamless public services.

Even though Vietnam also uses open public data on COVID-19, COVID-19 microphage, Corona map service, and COVID-19 chatbot like Korea, this country seems to be fonder of spreading information on national media such as television programs for cultural and generational culture.[7] The Portals are deployed strongly, and all ministries and sectors affected by the COVID-19 epidemic have posted related information sharing information. The Ministry of Health with an easy-to-see interface for searchers to capture information from the government also easily captures information about cases. After checking the visits, the website of the health department increased by 100.5%, an impressive number of visits. Or about the bulletins of the Vietnamese national television station, the COVID news on the VTV24 News Center account has increased by 230% since the time of the outbreak in Hanoi, and the information shared has changed. The new content and form of transmission are also important factors to be noticed in the information sharing of the station. Information about fabrications, and interactive sentences through fabricated stories are also promptly shared so that people have an accurate view of the epidemic.

There has also been a COVID-19 Safety - Anti-Epidemic Map System: The system shows in real time the safety and prevention of epidemics in crowded facilities, first of all, schools and medical facilities. These units daily check and commit to completing tasks on epidemic prevention and control, and allow people to give feedback if they find any incorrect points. Each facility will use the Antoan COVID mobile app on a daily and regular basis to ensure that safety monitoring is carried outregularly, continuously, and transparently.[8]

[7] Đức, M., V., C. (2020). Nhìn nhận về thúc đẩy Chính phủ điện tử từ COVID 19 (Perspectives on promoting e- Government from COVID 19). *Authority of Information Technology Application Official Website*. https://aita.gov.vn/nhin-nhan-ve-thuc-day-chinh-phu-dien-tu-tu-covid-19

[8] Hanoi Department of Natural Resources and Environment. (2020). Áp dụng các giải pháp công nghệ trong phòng, chống dịch

III. COMMENTARIES REGARDING E-GOVERNMENT IN THE CONTEXT OF THE COVID-19PANDEMIC

3.1. Reasons for similarities and differences between E-Government in the context of the COVID-19 pandemic in Korea and Vietnam

Preventing the spread of the disease and protecting the health of all members of society are the common goals that all countries aim for in the fight against COVID-19. For Korea and Vietnam, the right to health care is more guaranteed when both countries have signed the ICESCR Convention. Therefore, policies on E-government in COVID-19 epidemic control and prevention between the two countries have certain similarities as analyzed to achieve common goals. However, the striking differences between the utility and development of the E-government of these two countries originated from political, economic, and lifestyle factors, which are different in each Korean and Vietnam. This affects the process of making as well as implementing thelaw.

Firstly, in terms of politics, it includes many factors, of which the Party's lines and policies stand out. Korea has a weakly institutionalized multi-party system, characterized by frequent changes in the arrangement of the Parties. Political parties have the opportunity to gain power alone. Meanwhile, Vietnam has a political system led by only one leader, the Communist Party of Vietnam. The stable and developed socio-political environment in the country creates favorable conditions for policy formulation and implementation because it strengthens people's confidence in the management and administration of the State, increasing the political stance and ideology of individuals who have the authority to establish and develop an E- government.

Secondly, in relation to the economy, digital transformation, as well as the development of E-government, depends on the economy. A developed, stable and sustainable economy will be a favorable condition for the implementation of E- government, positively impacting on improving the understanding and awareness of all people in the country. With economic development, material and spiritual life has been improved, and people of all strata have conditions to satisfy diverse and up-to- date information needs. Therefore, the construction and implementation of E-government in Vietnam is suitable to the developing economic conditions, which is different from the construction and implementation of E-government in a country with a developed economy like Korea.

Last but not least, lifestyle factors such as thinking, behavior, beliefs, etc. also contribute strongly to the implementation of E-government in these countries. This is reflected in people's reactions to disease control and prevention measures introduced by law in each country as analyzed above.

3.2. Concerns regarding Data Security and Privacy while applying E- government in the context of the COVID-19 pandemic

COVID-19 poses a top priority issue for Governments around the world regarding user data and privacy. Fast data access and extraction speeds can be important in fighting the outbreak, but loosening data security measures will lead to other problems. Big data, coupled with fast deployment, are attractive targets for malware. Cybercriminal groups can take advantage of this in a variety of ways, including collecting identifying information and selling it to underground organizations.

COVID-19 (Applying technology solutions in the prevention and control of COVID-19). https://https://snnptnt.binhdinh.gov.vn/ung-dung-cntt/1302-1302.html

Providing misinformation will also make it difficult for users to navigate the many uncertainties of the pandemic. Threat actors revolve around using misinformation to lure users into clicking on malicious attachments and links in fraudulent transactions. These scams will be sent through emails, fake apps, malicious domains and social media, purporting to provide fake health information, vaccines. Recently, there has been a phenomenon of spreading malicious code through an email disguised as a notice from the Prime Minister about the COVID-19 epidemic.

The work-from-home model not only poses challenges for regulatory agencies, but also poses many technical and technological risks such as security vulnerabilities such as zero-day or n-day. Meanwhile, application programming interfaces (APIs) are ubiquitous, but weak security also become targets that can be exploited. Cloud computing infrastructure applications can also cause risks if agencies, organizations and businesses do not pay due attention to safety when moving to this environment, and so forth.[9]

In Korea, the locations of infected individuals attracted extensive news coverage at times. For some cases, the general public engaged in profiling and unveiled or inferred embarrassing personal details. Reidentification allegedly took place on a few occasions. Some of these individuals were affected by unwanted privacy invasion and even became subject to public disdain. Restaurants, shops, and other business premises that infected individuals had visited often experienced abrupt loss of business. Concerns were raised regarding the uneven scope and granularity of disclosures by municipal and local governments.

On March 9, Korea's National Human Rights Commission issued a recommendation with a view to ameliorating privacy concerns, suggesting that the revelation of exceedingly detailed information was unwarranted. In response, on March 14, the KCDC issued a guideline to municipal and local governments, limiting the scope and detail of the information to be disclosed.[10]

In Vietnam, until the beginning of 2022, there were more than 50 applications developed by Vietnamese government to serve the prevention and control of COVID- 19 in their countries, not to mention the countless applications developed for each locality in the country, especially in countries where there is a clear decentralization of autonomy to localities (Sơn, T., Thảo, L., & Toản, V., 2022). First of all, despite the fact that localities have not synchronously applied technology platforms, the Ministry of Information and Communications soon established groups regular work between the Center and the Departments of Information and Communications and the Departments of Health of the provinces and cities to disseminate, propagate, combine with guidance and technical support for the enforcement team to approach and use proficiently use technology platforms in their business as quickly as possible, soon eliminate the "afraid to change" mentality, get used to the old paper-based processes. These groups have been operating very effectively, during the time of association, basically, 63/63 provinces have agreed to deploy 3 national epidemic prevention and control technology platforms, which are vaccination platforms and testing platforms. and manage access by QR code.

At the same time, the Ministry has applied technical measures to overcome the problem of out-of-sync data. The old data will be verified with the National Database on Population, and

[9] Lan, M. (2021). Bảo đảm an toàn thông tin trên không gian mạng trong đại dịch (Ensuring information security in cyberspace during the pandemic). *Communist Party of Vietnam Online Newspaper*. https://dangcongsan.vn/phong-chong-dich-covid-19/bao-dam-an-toan-thong-tin-tren-khong-gian-mang-trong-dai- dich-589677.html

[10] Sangchul, P., Gina, J., C., & Haksoo, K. (2020). Information Technology–Based Tracing Strategy in Response to COVID-19 in South Korea—Privacy Controversies. *JAMA, 323*(21), 2129–2130. doi:10.1001/jama.2020.6602

National Database on Insurance to ensure accuracy. For the data that is not enough information to authenticate with the Databases, a local verification implementation plan will be developed. Police forces and grassroots health workers will coordinate to verify the information. Deployment of a feedback channel for the people: those who check and do not see that there is an electronic certificate or that the information is wrong, can go to the COVID-19 vaccination portal at tiemchungcovid19.gov.vn to report. The reflected information will be transferred to the medical facility related to information confirmation and approval. While waiting for the medical facility to confirm, the injection information reflected by the people will be temporarily displayed on the application and the people are responsible for the declared information.

IV. CONCLUSION

As previously stated, E-government systems aided the Korean and Vietnamese governments in responding quickly and creatively to the COVID-19 crisis. E- government systems are critical to Korea's and Vietnam's national efforts to control COVID-19. This system has revolutionized the entire COVID-19 response process, including screening and diagnosis, epidemiological investigation, patient and contact management, and prevention. By sharing information with related ministries and agencies within each public sector, the basic principle of open government can lead to a more creative and innovative way of planning and implementing disease-driven crisis management. Prioritizing public values such as transparency and sharing encourages public-private collaboration and citizen participation in crisis-management efforts. Utilizing the potential of digital transformation creates an unprecedented opportunity for extensive information sharing and the creation of new meaningful information for society as a whole.

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RENEWABLE ENERGY POLICIES FOR SUSTAINABLE DEVELOPMENT IN VIETNAM

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Abstract

Renewable energy is a priority industry in Vietnam's industrial development strategy for 2030, with a vision for 2045. It is consistent with not only the trend of the energy industry in the world but also the sustainable development goals of Vietnam. In recent years, the renewable energy industry in Vietnam, specifically wind power and solar power, has made rapid development steps. The number of non-state enterprises operating in the field of renewable energy increased significantly. However, there are still many barriers for energy enterprises. The state-owned enterprise sector still dominates energy activities. The size and market share in the non-state enterprise sector are narrow. The competitive electricity market has not yet formed, so there is still a monopoly in stages such as buying, selling, and transmitting electricity to customers. Based on the analysis of the current situation, the authors have made suggestions on policies to develop renewable energy in Vietnam.

Keywords: *renewable energy, development policy, sustainable development, Vietnam*

1. INTRODUCTION

Energy plays a vital role in promoting economic growth and development. However, the energy industry also causes negative externalities, especially when exploiting fossil energy sources has depleted resources and polluted the environment. "Vietnam industrial development strategy to 2025, vision to 2035" was promulgated by the Government in 2014, and "Orientation for building national industrial development policy to 2030, vision to 2045" issued in 2018 by the Communist Party of Vietnam, identified the renewable energy industry as one of the priority industries for development. In the United Nations Human Development Report 2021-2022, experts also identified renewable energy as one of the three main areas that need to focus on investing in to achieve sustainable development goals. Therefore, the policy of considering renewable energy as a priority industry for development is consistent with the development trend of the energy industry in the world and the goal of rapid and sustainable development of the Vietnamese economy.

In this study, the authors review theoretical issues and review related studies on renewable energy development; analyze the development status of the energy and renewable energy industry in Vietnam. From the perspective of approaching a priority industry in line with future trends, the article offers some policy suggestions to promote the development of the renewable energy industry in Vietnam.

2. RENEWABLE ENERGY OVERVIEW

2.1. The concept of renewable energy

Renewable energy is energy that is generated from natural processes and continuously replenished. This natural source includes sunlight, wind, tides, geothermal heat, and other forms of biomass such as energy crops, agricultural and industrial waste, and municipal waste. These resources can produce electricity for all economic sectors, fuel transportation, and to heat buildings and industrial processes (Bull, 2001). The characteristic of these energy sources is that they are always supplemented by nature. These sources do not directly provide energy but they are easily converted into energy from (Twidell & Weir, 2015). Which, wind energy and solar energy are the popular energy sources in renewable energy exploitation in countries.

2.2. The role of renewable energy in economic development

Energy plays an essential role in human life because it brings more benefits than finite energy (Doe, 1997). The first industrial revolution in the late 18th century accelerated production and energy use. The process of industrialization has increased the energy demand in the world. In particular, fossil fuels are the key energy source for the global economy. However, overconsumption of fossil fuels not only rapidly reduces the rate of this fuel reserve but also negatively impacts the environment, increases health risks, and threatens climate change. global climate (Farhad, Saffar-Avval, & Younessi-Sinaki, 2008). Therefore, society is gradually moving toward finding more sustainable production methods by using new, cleaner, and more efficient energy sources, which are renewable energy. Developing a renewable energy system will help countries solve today's most important tasks, such as improving the reliability of energy supplies and saving organic fuels; addressing local water and energy supply problems; raising living standards and employment levels of local people; ensuring the sustainable development of deep-lying and remote areas in desert and mountain areas; fulfill the obligations of states towards the implementation of international agreements related to environmental protection (Zakhidov, 2008). Besides, renewable energy has the advantage that it can be exploited in a decentralized way to meet the energy needs of small-scale areas at an affordable price and is environmentally sustainable (Shaaban & Petinrin, 2014). Therefore, developing renewable energy projects in rural areas can create employment opportunities while reducing migration to urban areas (Bergmann, Colombo, & Hanley, 2008).

The world is facing the depletion of traditional energy, so it is necessary to research and develop alternative clean and renewable energy sources such as solar radiation, wind, geothermal, biomass, hydroelectric, tidal, current, wave, and other energy sources. As a result, many countries, especially industrialized countries, have developed public policies to promote the spread of renewable energy since the 1980s (Bersalli, Menanteau, & El-Methni, 2020). By 2000, emerging and developing countries also introduced supportive policies for renewable energy development.

2.3. Renewable energy development policies of several countries in the world

Among the countries, Germany is the leader in the renewable energy transition. Germany's Renewable Energy Law (EEG) has been in effect since 2000, which preferential prices for products from renewable energy. The objective of the EEG is to integrate environmental policy, economic policy, and technology policy (Huenteler, Schmidt, & Kanie, 2012). The EEG has also proposed a development roadmap for German energy to 2050 and a National Action Plan on Renewable Energy. Germany's renewable energy policy sets a target to reduce energy consumption by 50% by 2050; at the same time, renewable energy accounts for at least 80% of

electricity consumption (Lưu Quốc Đạt, Nguyễn Thị Phan Thu, & Nguyễn Đức Lâm, 2020). With the above action plan, Germany is expected to be the first industrial power in the world to use 100% renewable green energy and work towards the green goal by 2050.

Together with Germany, India has supported renewable energy since the late 1980s through the Ministry of Unconventional Energy Resources (MNES). India's renewable energy focuses on wind and biomass sources. The Government of India has supported the development of renewable energy through the following channels: guaranteed power purchase contracts; concessional loans according to specific regulations of the government. In addition, the government also has other tax incentives such as 100% progressive depreciation in the first year for wind power projects; exemption, or reduce import tax for imported equipment. Besides supported channels, India has also established the Indian Renewable Energy Development Authority (IREDA), a government agency under the MNES, to finance renewable energy projects. IREDA allows wind projects to borrow 100% of the capital to buy equipment, and limit the maximum loan to 75% of the Project. The loan period is ten years, and the grace period is one year. IREDA's lending rates are typically between 15% and 17%, but certain types of technology will receive lower interest rates. For example, for solar water heaters, interest rates are from 2.5% to 8.3%; biogas plants can be financed with interest rates from 4-10.5%; solar and wind battery projects for rural electricity generation from 2.5-8.5% (Nguyễn Thị Minh Phượng, 2015).

Besides Germany and India, Thailand is a country in Southeast Asia, with natural conditions and geographical locations quite similar to Vietnam, but Thailand's economic potential is stronger than Vietnam’s. Since 1992, Thailand has had national energy policies and plans in the Energy Efficiency Promotion Code (Sitdhiwej, 2016). In 2003, the Thai government approved the renewable energy development strategy. The goal is to increase the share of renewable electricity from 1% in 2002 to 8% by 2011. To achieve the goal, Thailand has implemented development support policies such as: Building a fund to support the purchase of electricity from renewable energy sources; Subsidies for grid-connected renewable electricity. With those policies, Thailand has achieved its goal of sustainable energy development (Kahintapongs, 2020). At the same time, to achieve the country's goals of energy security, economy, and ecology, the National Energy Policy Council of Thailand has issued five related plans, including the Phase Power Development Plan period 2015 – 2036 (PDP 2015); a 20-year energy efficiency development plan (EEDP 2011); Alternative Energy Development Plan 2015 (AEDP 2015); Gas Plan 2015 – 2036; and Oil Plan 2015 – 2036. Together with these plans are still solutions to support renewable energy, for example, equipment subsidies; tax, and interest incentives (Keyuraphan, Thanarak, Ketjoy, & Rakwichian, 2012).

In Vietnam, the energy demand is increasing. However, fossil fuel resources in the country are gradually depleting due to overexploitation and overuse. Vietnam needs to implement a long-term development strategy, in which renewable energy development is the right choice to meet the national energy demand and towards sustainable development. In the "Vietnam Industrial Development Strategy to 2025, with a Vision to 2035" issued in 2014, three groups of industries have been selected as priorities for development, including the processing and manufacturing industry; the electronics and telecommunications industry; and the New and Renewable Energy Sector" (Chính phủ, 2014). Resolution No. 23-NQ/TW (March 22, 2018) of the Politburo on orientations to develop national industrial development policies to 2030, vision to 2045 has identified several industries that need development priorities: information technology and telecommunications, electronics industry; clean energy industry, renewable energy, smart-energy system; processing and manufacturing industries serving agriculture to meet international

standards (Đảng Cộng sản Việt Nam, 2018). Thus, in Vietnam's industrial development strategy promulgated by the Government in 2014 and the Politburo's Resolution in 2018, renewable energy is identified as one of the priority industries for sustainable development.

3. CURRENT SITUATION OF RENEWABLE ENERGY INDUSTRY DEVELOPMENT IN VIETNAM

3.1. The development of the renewable energy industry in Vietnam

During more than 35 years of renovation, Vietnam's economy has grown faster than other Asian countries, with an average GDP growth rate of more than 6% per year. Access to a stable and low-cost energy source is critical to economic growth. The energy industry includes raw-fuel extraction and electricity generation. Vietnam's energy industry has made chief development steps and contributed to the country's economic growth. The energy industry is always in the group of major industrial products, accounting for a high proportion of GDP. Vietnam has a lot of potential for developing the energy industry, especially the electricity generation industry. However, the electricity production structure in Vietnam is mainly hydroelectric and thermal power. Facing warnings about environmental risks and disasters when exploiting thermal power, hydroelectricity, or nuclear power, Vietnam has moved towards researching, supplementing, and gradually replacing traditional power sources with renewable energy from wind, sun, and biomass. The expansion of renewable energy has made a breakthrough in ensuring national energy security, contributing to the conservation of energy resources, and minimizing negative impacts on the environment and climate change in electricity production. Since 2010, Vietnam has been interested in renewable energy production, so energy capacity from renewable sources has also increased significantly. The period 2015 - 2019 is a period of widespread solar power production. Statistics show that renewable energy production capacity in 2017 reached the highest value, with an output level of 15,578 KTOE. Since 2018, renewables have added nearly 10GW to the country's electricity generation capacity (excluding distributed solar power), accounting for about half of the total added capacity. Solar power accounts for the majority, while hydro, wind, and biomass combined only reach 1 GW (Marco Breu, Antonio Castellano, Jonathan Deffarges, & An Nguyễn, 2021).

By the end of 2020, the total capacity of renewable energy sources in Vietnam has reached about 6,000 MW, including 6,364 MWp of solar power, 500 MW of wind, and 325 MW of biomass power capacity. The total capacity of wind, solar, and biomass power has accounted for approximately 10% of the total installed capacity of the power system. Power output from renewable energy sources has increased gradually from an insignificant level of 320 million kWh, accounting for about 0.41% of the whole system in 2016, to about 8 billion kWh, accounting for 2.53% by 2020 (GSO, 2021). Renewable energy added to the national electricity source has helped Vietnam to access electricity for the entire population. In 2019, nearly 100% of rural communes in Vietnam had access to the national grid with a stepped electricity price. At the same time, many biogas systems have also been put into use. In the period 2019 - 2020, more than 100,000 rooftop solar power systems were connected to the grid (Koos Neefjes & Ngô Thị Tố Nhiên, 2021). The statistics show that the renewable energy ratio (including hydroelectricity) to the total primary energy supply reaches 14.6% – 21.7%. Compared to the total final energy consumption, this figure ranges from 21% to 28%. It is an encouraging figure. However, excluding hydroelectricity, this rate is still low, accounting for only 2.5%. It shows that Vietnam's energy is still supplied mainly from non-renewable sources. As these gases trap heat in the atmosphere, it accelerates global warming, thereby increasing per capita energy emissions.

Table 1. Several indicators of average energy consumption, 2015-2019

	2015	2016	2017	2018	2019
Total primary energy supply (KTOE)	66146,9	71426,6	71790,2	83773,77	96228,07
Total Final Energy Consumption (KTOE)	52961,7	56614,1	55470,4	62205,59	66396,38
Final energy consumption per capita (KgOE/person)	577,5	610,8	592,2	652,15	688,16
Total Primary Energy Supply/GDP (KgOE/1000 USD GDP)	498,6	512,8	492,3	542,23	594
Total Final Energy Consumption/GDP (KgOE/1000 USD GDP)	399,2	406,5	380,4	402,63	409,85
Electricity consumption per capita (Kwh/person)	1535,1	1698	1844,5	1981,11	2145,54
Electricity intensity/GDP (Kwh/1000 USD GDP)	1061,2	1130,1	1184,9	1223,09	1277,84
Power Consumption Ratio/Total Energy Consumption (%)	22,9	23,9	26,8	26,13	26,81
Total emissions from energy activities (Mega tons of CO2)	179,8	196,8	193,1	233,22	284,58
Energy emissions per capita (Kg CO2/person)	1960,5	2123,4	2061,4	2445,05	2949,46
Energy Emissions/GDP (Kg CO2/USD GDP)	1,4	1,4	1,3	1,51	1,76
The ratio of renewable energy (including Hydroelectricity)/Total primary energy supply (%)	19,9	19,1	21,7	17,94	14,64

Source: GSO (2021)

Vietnam is very vulnerable to climate change, so it is necessary to pursue short-term greenhouse gas (GHG) emission reduction targets at both global and national levels. Vietnam's energy policy has demonstrated a tendency to focus on renewable energy sources through the government's plans.: increasing the contribution of wind power from 1% to 22% from 2022 to 2045; increasing the proportion of solar power from 4% to 17% by 2025. The government's preferential policies have created incentives for businesses to invest in the field of environmentally friendly energy. As of June 2019, Vietnam had 98 renewable energy projects with a total capacity of 4,880MW put into operation, accounting for nearly 9% the total of power capacity, in which, there are 89 solar power plants with a total capacity of 4,440MW. In addition to increasing renewable energy production, Vietnam also updated its "Nationally Determined Contribution (NDC) to the United Nations Framework Convention on Climate Change (UNFCCC). By 2023, Vietnam expects to reduce its greenhouse gas (GHG) emissions more than its previously projected national self-determination (INDC) contribution (Koos Neefjes & Ngô Thị Tố Nhiên, 2021). Vietnam is heavily affected by climate change, so environmentally sustainable development can also be part of Vietnam's responsibility.

3.2. Barriers to renewable energy in Vietnam today

Recently, although electricity from renewable energy sources has grown impressively, Vietnam needs to solve many challenges. Besides the achievements, the energy industry still has several limitations, such as weak links, and barriers to entry, as follows:

Firstly, the internal limitations of the current energy industry and electricity market. The competitive energy market has not developed synchronously. The electricity generation market is already competitive, but the wholesale and retail electricity market is still monopolistically competitive. The energy price policy is still inadequate, and purchases and sales of electricity by entities in the market are not consistent with the market mechanism. It creates barriers to entry, especially investors in the renewable energy industry operating mainly in the production and supply of electricity will be at risk.

Secondly, wind power and solar power have high investment costs, so the price of electricity from these energy source is still high compared to other sources, especially coal and hydroelectric power. Therefore, the competitiveness of renewable electricity is not high, creating economic barriers in terms of cost and investment efficiency. Decision 39/2018/QD-TTG of the Prime Minister stipulates that for inland wind power: the purchase price of electricity at the power delivery point is 1,927 VND/kWh, equivalent to 8.5 UscentAscent/kWh (not included). VAT); for wind power at sea: the electricity purchase price at the power delivery point is 2,223 VND/kWh, equivalent to 9.8 Ascent/kWh (excluding VAT). This Decision is applied to wind power projects with part or all of the plant in commercial operation before November 1, 2021, and involved for 20 years from the date of commercial operation. Decision 13/2020/QD-TTG proposes: The purchase price of electricity for ground-based solar power projects is 1,644 VND/kWh, equivalent to 7.09 cents/kWh; The purchase price of electricity with a floating solar power project is 1,783 VND/kWh, equivalent to 7.69 cents/kWh; The highest price to buy rooftop solar power is 1,943 VND/kWh, equivalent to 8.38 cents/kWh.

Table 2. Compare electricity prices of power plant technologies

Technologies	**Prices (USc/kWh)**
Domestic coal-fired power plant	6,71
Imported coal-fired power plants	7,3
Gas thermal power (domestic gas)	8,37
Combined cycle gas thermoelectricity	7,47
Small hydroelectricity	4,92
Ground solar power	7,09
Water solar power	7,69
Rooftop solar power	8,38
Land wind power	8,5
Offshore wind power	9,8

Third, the state-owned enterprise sector still occupies a large scale in the energy industry. State-owned enterprises also have a monopoly on buying at the wholesale stage and a monopoly on selling at the retail stage to consumers. Environmental protection issues in the energy industry have not been paid due attention, for example, The efficiency of energy exploitation and use is

still low; The infrastructure of the energy industry is still lacking and inconsistent; The level of technology in some areas of the energy sector is slow to improve; The work of supporting enterprises to receive transfer and access to new technologies is still limited; The quality of human resources and labor productivity is still low; Policy on development investment and management of energy resources is lacking and inconsistent (Đảng Cộng sản Việt Nam, 2020). These problems have created barriers in terms of economy, technology, and access to resources in investment and business of potential enterprises, especially non-state enterprises.

4. CONCLUSIONS AND POLICY RECOMMENDATIONS

4.1. Conclusions

Renewable energy is identified as a priority industry for development in Vietnam. The renewable energy industry has experienced strong growth in recent years, in line with Vietnam's energy development strategy for 2030, with a vision for 2045. This development is in line with the goal of sustainable development in Vietnam. However, up to now, renewable energy, specifically solar power and wind power, still accounts for a low proportion of the total electricity generated in the economy. The analysis results show that, by 2020, renewable energy (excluding hydroelectricity) will only account for 2.53% of the total system of electricity produced in the economy. The scale of non-state enterprises operating in the energy industry is much smaller than that of state-owned enterprises. In 2019, there were 777 state-owned energy enterprises, accounting for 94.8% of the number of energy enterprises. Correspondingly, the investment capital of the state-owned enterprise sector accounts for 95.4% of the total investment capital in the wind and solar power industry KinhKinhKinhKinh(Viện Nghiên cứu quản lý kinh tế Trung ương, 2021). Therefore, developing the renewable energy industry requires effective policies to help reduce barriers to entry and create conditions for the private sector to participate in the industry.

4.2. Policy Recommendations

Regarding guidelines and policies, Vietnam has determined that it is necessary to prioritize the development of renewable energy in the next period. Resolution No. 55-2020 NQ/TW of the Politburo sets out the following objectives: Primary energy will reach about 175 - 195 million TOE in 2030, about 320 - 350 million TOE in 2045; The total capacity of power sources will reach about 125 - 130 GW, the electricity output will reach about 550 - 600 billion KWh in 2030. Renewable energy development will account for about 15-20% of the total primary energy supply by 2030; 25 - 30% by 2045. To achieve the targets, the state must create a favorable investment environment, limiting barriers to entry into the industry. In our opinion, there are four groups of issues with policy suggestions that need attention to reduce barriers to entry and promote the development of the renewable energy industry in Vietnam, which are:

Firstly, speeding up the development of a competitive electricity market. Developing a competitive electricity market is a strategic element. The competitive electricity market includes the following levels: Competitive electricity generation market; Competitive wholesale electricity market; Competitive retail electricity market. Electricity purchase and sale contracts directly between the producer and the consumer; the bidding and auction mechanism for energy supply, especially in renewable energy investment projects, must comply with the market mechanism. The competitive electricity market needs to develop towards transparency of electricity purchase and sale prices; fair and healthy competition; non-discrimination among electricity market participants. Those are decisive solutions to attract and expand investment from non-state enterprises to develop stable renewable energy for the economy.

Second, restructuring, decentralization, and monopoly control in the electricity industry. Decentralization is one of the vital solutions to adjust the market structure to reduce monopoly power and increase competition. For the electricity industry in Vietnam, it is necessary to separate the stages of natural monopoly (electricity transmission and distribution) from the competitive stage (electricity production and retail business) to ensure transparency, and fair, non-discriminatory among electricity market members. Transforming the operating model of the National Load Dispatch Center independent of Vietnam Electricity - EVN and power companies. At the same time, state management agencies need to strengthen their controlling role in monopolistic stages. Thus, unreasonable barriers to accessing and using energy infrastructure facilities and services will be eliminated.

Third, improve the investment environment, and encourage the participation of the domestic private sector and FDI enterprises to invest in renewable energy. The government should publicize the list of investment projects, and remove all barriers to attract domestic private enterprises and FDI enterprises to develop renewable energy projects. Regarding the issues of industry structure, the state should continue to implement the policy of equitization of state-owned enterprises in the electricity sector; radically restructure inefficient state-owned enterprises in the energy sector; encourage renewable energy investment projects in the form of public-private partnership (PPP). In attracting foreign investment, the state must create fair conditions for entry into the industry, but focus on and encourage projects with scale, new technology, high efficiency, and environmental friendliness.

Fourth, promulgate policies to support and encourage the development of the renewable energy industry. The State should promote its role in developing mechanisms and policies to encourage renewable energy projects to maximize the replacement of fossil energy sources. Specifically: Creating favorable conditions in accessing technology, labor, and other inputs to develop the renewable energy industry; Creating a mechanism to encourage enterprises to invest in R&D, develop innovation centers in the field of renewable energy and new energy; Effectively deploying the national key science and technology program on research, application, and development of energy technology between 2021 and 2030; Formulate policies on human resource development and develop training programs to train technical workers, managers, and administrators in energy development; Implement tax policies to encourage investment so that energy enterprises can access investment capital sources in renewable energy; Finally, create favorable conditions in the use of land, water surface and resources for investment projects to develop renewable energy.

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ANALYZING THE DYNAMICS OF HUMAN RIGHTS DURING THE COVID-19 CRISIS

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Abstract

The COVID-19 pandemic brought about numerous changes in human life. Governments across the globe were under pressure to alter their modus operandi in various governance dynamics. For the majority of nations, prevention and mitigation efforts were abrupt and difficult, and the prolonged lockdown strained socioeconomic activities. On the other hand, marginalized groups and individuals are especially susceptible to the negative effects of the pandemic and have suffered greatly as a result. During the pandemic, the number and severity of human rights abuses and violations increased, resulting in increased psychological distress. During the pandemic, the paper focuses on mental distress and disturbances caused by human rights restrictions and violations. During the OCVID-19 pandemic, the paper focuses on migrant and mental health issues resulting from global human rights violations. The paper also attempts to evaluate the international law and human rights obligations of nation-states, with the following aims: (i) To investigate the effects of COVID-19 on Human Rights; (ii) To comprehend the response of public health officials to the COVID-19 pandemic; and (iii) To assess violations of human rights and psychological distress during COVID-19.

Keywords: *Mental Health, COVID-19, Human Rights, Pandemic, International Law, UDHR, and Human Rights*

1. INTRODUCTION

The concept of human rights is entitled to the same fundamental liberties and rights as individuals. All human rights are non-negotiable. It is impossible for anyone to take them away. As a result of World War II, the United Nations was formed, and human rights emerged. One of the purposes of the treaty established by the UN is to reaffirm faith in basic human rights. The Universal Declaration of Human Rights was adopted by the United Nations General Assembly in 1948. In this document, we declare that –

i. Every human being is born free and with the same dignity and rights as anyone else.

ii. The right to life, liberty, education, personal safety, property ownership, employment, and other forms of financial security.

iii. Freedom from discrimination, slavery, servitude, arbitrary detention, cruel torture, and the like.

iv. Equality before the law participation in public life, freedom of thought and expression, etc.

Human rights, according to Section 2 (d) of the Protection of Human Rights Act 1993, are those rights that are guaranteed by the constitution and enforceable by the courts in India, such as life, liberty, equality, and dignity. Individuals' self-respect, dignity, and respect for others are the

primary goals of human rights, which also aim to promote social justice and peace between peoples. In order to ensure no one is harmed or discriminated against, human rights are of paramount importance.

The concept of human rights was born with the 1215 signing of the Magna Carta, also known as the Great Charter, Magna Carta. King John of England signed a charter agreement granting him chart rights on June 15, 1215. The Magna Carta is a peace treaty between an unpopular king and a group of individuals who are promised the protection of their religious freedoms in exchange for their cooperation. In the 1628 petition for independent rights, human rights were improved or expanded. In 1628, Charles I's English parliament issued the Petition of Rights, a declaration of civil liberties. According to the Virginia Declaration of Rights, every person is endowed with certain inalienable freedoms and liberties. The Declaration of Human and Citizen Rights was published in Hindi and French by the newly-formed National Assembly. The Universal Declaration of Human Rights was adopted as a document by the United Nations in 1948. The 1948 publication of the Universal Declaration of Human Rights marked the first time universal protection of fundamental human rights was specified [1].

These civil and political rights were enshrined in the Magna Carta of the 13th century. Civil and political rights include the right to freedom, the right to privacy, and the right not to be tortured or subjected to other cruel treatment. The Russian Revolution of 1917 and the Paris Peace Conference of 1919 are considered the origins of economic and social rights of the second generation. Having sufficient food, clothing, and shelter are examples. International law recognizes the inherent rights of individuals, groups, communities, and states. Thus, it acknowledges certain collective rights. Collective rights consist of the rights to self-determination, peace, and development.

2. LITERATURE REVIEW

According to Evans, T. in the work "International Human Rights Law as Power/Knowledge" argues that many people have observed that, when discussing human rights, international law is typically mentioned [2]. All stakeholders in the global human rights regime accept legal constructs, including nongovernmental organizations, major international organizations, and states. Human rights are neither explained in detail nor in a logical manner. In this region, a new economic order has been instituted. International law has been adopted as a remedy for human rights violations. This article examines the hegemony of law in the discourse on human rights by situating international human rights law within a critical framework. It begins by analyzing the present state of human rights discourse. Here, market discipline has supplanted the concept of discipline. It investigates the conflicts between international human rights law and market discipline regulations.

Human rights are identified as one of the world's most pressing intellectual, legal, and political issues in “Human Rights an International Issue”. Changing one's perspective on human rights depends on numerous variables [3]. Changes in institutions over the past four decades, the development of citizens, and the current emphasis of national leaders on human rights are all examples of these alterations. This article examines the evolution of the public's perspective on human rights. This change has occurred as a consequence of a number of political factors. This article will also examine the current state of human rights and the factors that have recently contributed to it. Additionally, grassroots activism has contributed to bringing about change. These rank higher in certain categories. Even though the paper demonstrates that the landscape of human rights has changed since the 1980s, there is no assurance that the current conditions will persist. No matter how much the market improves, there is no assurance that the current political leadership will remain in place. It has been determined that a gradual process is the most accurate way to describe it.

The article titled “The “essence” of international human rights” by Thielborger focuses on the essentials of international human rights[4]. Numerous legal systems around the globe recognize this fundamental human right. This article contains three major sections that discuss various aspects of international human rights law. The “first generation” of rights refers to civil political rights, while the “second generation” refers to socio-economic rights. For civil and political rights, the concept of essence is primarily associated with non-retractability, whereas for socio-economic rights, it primarily refers to states. Moreover, this article compares the two approaches and identifies key elements of a broader “essence” concept. This book also discusses EU law and the concept of “essence” in civil and political rights and cultural rights. It appears that the COVID-19 epidemic has reached a public health threat level that could justify restrictions on certain rights, such as isolation or solitary confinement, which restricts freedom of movement. Additionally, consideration must be given to human rights. It is possible to promote an effective response between conflicts and disagreements, such as nondiscrimination, and human rights principles, such as transparency and respect for human dignity, thereby reducing the likelihood of harm. This is due to the implementation of extremely comprehensive measures that do not meet the aforementioned criteria.

The covid of the 19th century is known as the pandemic, which has become a severe disease, has no vaccine. How many individuals over age 60 have heart disease or cancer, per the World Health Organization? According to this definition, a rapidly aging population puts many people in danger. In this report, the number of individuals at high risk is summarized. However, prisons and jails are places where transmission is restricted. When discussing the detention center, people are unable to maintain a social distance. All of the bathrooms and showers are communal.

Katherine Young proposes that the economic exercise of human rights restoration should be based on a long history of environmental problems, with the assistance of both countries and comparative frameworks for environmental and social rights, as well as an openness to the institution whose policy is being reconsidered by VID-19 [5]. In Section II, it is stated that “The Great Depression” is more educational than the recent global financial crisis because it examines how human rights acceptance and post-SVII reconstruction economies can coexist. The obligation to “continue to see” points to modernity and information transmission in sart III, which examines how legal standards were developed in government. The third section of the book explores how the recognition of economic and social rights is reflected in contemporary constitutions, courts, and human rights campaigns advocating for environmental restitution or transformation. This combination of historical, doctrinal, and comparative perspectives facilitates the comprehension of human rights-based economic stability.

J. J. Amon's article “Human Rights and COVID-19 Imprisonment. Human Rights and Health” asserts the “extensive” version of COVID-19's restitution policy, the “post-recovery”. This version proposes that a long history of environmental problems, supported by both countries and the international community, should serve as the basis for the economic exercise of human rights restitution and that the institution rethinking the concept of human rights should be receptive to new ideas. It is stated in article II that it will provide additional education and research on how the concept of human rights can be incorporated into the post-SVID reconstruction economy. Section III examines how government legal standards were developed to fulfill the obligation to “continue to observe” both modesty and information outcomes. In addition, the fourth section of the paper investigates how the current constitution, courts, and human rights campaigns address the issue of environmental discovery or transmission. Consider historical, clinical, and comparative perspectives to form a human rights-based perspective on economic stability [6].

Priority must be given to human rights in order to alter the epidemiological response to both public health emergencies and the wide-ranging effects on people's lives [7]. Human rights prioritize individuals. It is possible to achieve better results in epidemiology, universal health care, and human dignity by providing answers that are both well-formed and respectful of human rights. In addition, they highlight who suffers the most, why, and what can be done to alleviate the situation. Now that this problem has emerged, they are preparing the ground by developing equitable and sustainable societies and fostering peace.

3. RESEARCH PROBLEM

The threat to public health posed by the COVID-19 epidemic has reached a level where restrictions on certain rights, such as solitary confinement or isolation that restricts freedom of movement, may be justified. In addition, careful consideration of human rights principles such as non-discrimination and respect for human dignity, as well as human rights principles such as transparency, can help promote effective responses to conflicts and disruptions that inevitably lead to crises and reduce potential harm caused by the implementation of extremely comprehensive measures that do not meet the aforementioned criteria. In light of this context, the paper investigates the research question of how the COVID-19 pandemic affected various human rights dynamics.

4. HYPOTHESIS AND METHODOLOGY

Hypothesis of study

Governments are responsible for providing the information necessary to protect and promote these rights, including the right to health. In a number of nations, governments have failed to uphold the right to freedom of expression and have taken action against journalists and medical professionals. Lack of effective communication regarding the onset of the disease and low levels of trust in government actions led to a sluggish response to the crisis.

Methodology

This paper is strictly doctrinal in nature. The data was compiled using the secondary sources, including books, articles, and other organization reports and surveys. This research is purely theoretical and interpretive.

5. DISCUSSION

COVID-19, the most recent variation of the Coronavirus, was released in 2019. Government officials and other officials have urged the World Health Organization (WHO) to take these threats more seriously by declaring a pandemic. A few governments acted slowly, whereas others took the issue at hand [8]. There have been tens of thousands of deaths due to delays in government decision-making. In contrast, others use it to restrict or limit human freedoms. Numerous false conspiracy theories circulate on the internet, and it is the government's responsibility to debunk them. The government has taken steps to mitigate the negative effects of COVID-19. In numerous ways, individuals' rights are violated [9].

Migration and Pandemic

During times of crisis, migrant workers are particularly vulnerable. They have been quarantined or otherwise restricted. In this region, all factories had closed, leaving workers without employment opportunities. They had few resources, including money, clothing, and a place to live. The crew began their journey as infection carriers in order to reach their intended destinations. Many passengers gathered at the transportation and train tracks of the stations, feeling completely helpless. Some even wanted to return home. Their emigration was aided by unconfirmed reports of government-run transportation systems. Numerous workers perished as a

result of famine, depression, police brutality, and road and rail mishaps. Theoretically, there should be sufficient food grains on hand to feed workers throughout the year. However, because only a handful of cities and towns use a single rating card system, there is always cause for concern. During a crisis, these people are in a unique position because they don't have the same rights as citizens of the country.

Right to Health: Mental health during a pandemic

The "right to health" is the cornerstone of all contemporary human rights and liberties available to people around the world. After the lockdown was implemented, the majority of nations were placed in a state of extreme emergency. In March 2020, the majority of world leaders focused on reducing the pandemic, which required protecting the public at home and closing the majority of medical clinics, facilities, and pharmacies. Vaccination plans were reinstated, control over outpatient and inpatient development was maintained, emergency care was provided for seriously ill patients, and fewer patients were admitted for psychiatric care. The National Health Mission issued a report that covered the majority of fosuses, sub-fosuses, primary health centers, areas, and sub-districts, in addition to private medical hospitals [10], [11].

According to the report's findings, the distribution of calcium and iron supplements to expectant mothers had significantly decreased. In contrast, the number of unattended home births has increased due to a sharp decline in clinical activities associated with the child's transport. Additionally, the review found that Lakh kids had not received their BIG immunization, which protects them from tuberculosis, at any point during the study period. The second and third Lakhs were not immunized with the pentavalent antibody or their ROTavirus vaccine [12]. In addition, according to NHM data, inpatient and outpatient care for all diseases is provided in a radial fashion.

The pandemiologists halted HIV testing and examinations for a few days. As evidenced by the survey results, more people became ill while staying at home to slow the spread of the pandemic and its potentially fatal consequences [13].

Human rights violations and mental health issues at COVID-19.

For most people, the level of interference with human rights was the highest it had ever been in their lifetimes [14]. For some people, the pandemic COVID-19 has had a greater impact on human rights than for others. People with poor mental health are more likely to suffer human rights violations, contract Covid-19, and die from the virus [15]. As evidenced by the evidence gathered, human rights and mental health were neglected during the pandemic. In April of 2021, the European Commissioner for Human Rights stated that human rights must be prioritized and mental health services and support must be reformed as soon as possible [16].

UDHR during the Pandemic

Numerous agreements have been signed by the governments of various nations to protect and advance the human rights of their citizens. They ratified a number of international agreements, such as the Universal Declaration of Human Rights (UDHR) and regional treaties such as the European Convention on Human Rights. These agreements protect the rights to life, liberty, and the sanctity of marriage and the family. It must never be subjected to cruel or degrading treatment. The impact of the pandemic on human rights has been felt globally [17].

Global evidence indicates that the pandemic caused mental illness and violations of human rights. Numerous global studies have documented the dangers to an individual's mental health and human rights. These included an increase in suicide due to isolation and lockdown, as well as higher rates of mental illness and physical and verbal abuse among psychiatric patients in a

number of nations [18].

Human rights guidance in times of pandemic

In response to Covid-19, a number of international human rights organizations revised their recommendations for national governments regarding the protection of human rights. On 6 March 2020, the UN High Commissioner for Human Rights urged governments to put human rights at the heart of their responses to terrorism and other crimes against humanity [19]. To facilitate the emergence of healthy societies characterized by the rule of law and protection of human rights, UN experts have urged governments to maintain a human rights-based approach to regulation. According to the UN Special Representative for Disabilities, those residing in mental health facilities worldwide are in a "grave" situation and require additional protection during the chaos [20].

The impact of Covid-19 on mental health

A JHR report on nursing homes and hospitals goals for 2021 include emphasizing the significance of human rights such as the right to life, liberty, and respect for one's family's privacy in Care Facilities emphasized the significance of restricting access to one's own residence. During the initial phases of the pandemic, the death rate in nursing homes was significantly higher. Amnesty International documented the mental and physical health effects of nursing home residents' isolation [21]. People in care homes and hospitals subject to the Mental Slavery Act of 2005's Deprivation of Liberty Safeguards will receive comparable findings from the Quality Commission (Q) in July 2020. The Q stated that care providers found it difficult to balance lockdown measures with the need to limit restrictions on people's [22]. The Q reported that family members' leave and visits were frequently canceled during the psychiatric unit pandemonium for patients with severe mental illness. It was stated that patients who were being held in facilities sometimes had to deal with more restrictions than were strictly necessary.

6. CONCLUSION

Analyzing government activities is made easier with this insightful analysis. The government must discuss its activities openly with the public in order to build trust and make them more transparent. Instead of being a contingency that should only be maintained in an emergency, fundamental liberties should be upheld every day. Executing legal plans and ensuring that fundamental rights are available to all citizens will give them a sense of security and enable them to assist the government in its work. As a result of these actions, the government could effectively control this catastrophic disaster and protect individuals from being infected.

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PART 5

PSYCHOLOGY, EDUCATION AND MANAGEMENT

ESTABLISHING THE POSITIVE PARENTING TRAINING SKILLS PROGRAM FOR PARENTS OF CHILDREN DEALING WITH PROBLEMS IN EXTERNALIZING BEHAVIOURS: "24 WEEKS CHANGING TOGHETHER"

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Abstract

In the modern world today, there are a large number of training programs on positive parenting skills aimed at changing the way parents behave with their children. However, there has not been any study bringing a program suited to Vietnamese culture and society. This research focuses on the method of designing a training program for Vietnamese parents "24 weeks changing toghether" and adapt this program, which includes: compiling the program content; training for volunteer team, training for parents, guideline and support to parents in implementing the program, and evaluating the effectiveness. A sample of this study was 177 parents whose children from 2 to 6 years old and divided into 3 groups: study groups one (training and supported face to face at home), study group two (training and supported online), and control group (have not received training and support; will receive training when the study is completed). The results showed that the "24 weeks changing toghether" program was effective in changing negative behavior in children and reducing stress in parents in both study groups. In particular, parent group get online support still shows the same effectiveness as face-to-face support. This is useful for parents in the social context like Covid-19 in past time.

Keywords: *building parenting skills program, training for parents, negative behavior in children, "24 weeks changing toghether".*

I. INTRODUCTION

1.1. Reason for writing

In the modern methods of educating children today, physical abuse is not only less effective than other methods, but also harmful to children's development. In fact, when children have unexpected behaviors, parents usually find many ways to limit and change them, in which, physical discipline is an option, however, spanking, scolding can be a prerequisite for the formation and development of unexpected behaviors in children. Many studies have shown that if parents are trained in parenting skills and change the way they behave with children, it can help children have better behaviors and parents reduce stress. Therefore, our research is conducted to carry out this project, in which, the parenting skills training program is designed based on the ones in other countries with cultural similarities to suit Vietnamese parents, thereby improving the quality of parent-child relationship. The program is called "24 weeks changing

toghether". This research was done before the Covid-19, however, proven effectiveness with online support group. It is also an useful way for parents who cannot come to training in future.

1.2. New contributions:

1.2.1. Theoretical contributions:

Review of the research on parenting skills and parenting training programs; synthesize theories and evaluate the effectiveness of programs.

1.2.2. Practical contributions:

- Edit and design parenting skills training program that suits Vietnamese parents.
- Support parents in practicing parenting skills, change the way they behave with their children and improve relationship quality in the family, thereby, children can change their unexpected behaviors, practice more appropriate behavior.
- Create new research directions such as improve the program-wide implementation in other provinces in order to improve parenting skills and prevent children's mental health problems.

II. METHODS

2.1. Methodology research: Find study review, theoretical basis, selective survey tools and training programs.

2.2. Practical Research Methods: Survey by questionnaire and experiment.

2.3. Scales: CBCL (Child's Report of Parental Behavior) and PSS (Parental Stress Scale)

III. THEORETICAL BASIC ISSUES *ABOUT PARENTING SKILLS TRAINING PROGRAM*

There have been many parenting skills programs in the world, such as "Education without punishment" (Thomas Gordon, 1989), "Group Parent Training With Immigrant Chinese Families: Enhancing Engagement and Augmenting Skills Training" (Anna S. Lau and Joey J. Fung), "Child Parent Relationship Therapy" (Sue C. Bratton, Garry L. Landreth, Theresa Kellam and Sandra R. Blackard), Triple P (Matthew R. Sanders et al) or the program in Vietnam called "Positive Discipline" (by Le Van Hao).

These programs are all based on psychological foundations to form. Firstly, experts developed this program based on Carl Rogers' Existential – Humanistic theory. With a "client-centered" approach, Carl Rogers improved his communication skills and developed a respectful relationship with his client – which served as the conceptual and methodological basis for a number of popular parent training programs, for example, the "Parent Effectiveness Training" (P.E.T) program, developed by Thomas Gordon. This program is based on the idea of effective parenting, where parents are seen as the ones who are able to solve or prevent problems in raising children with aggressive behavior, conflict and poor communication skills. They can help children respect their feelings and thoughts, establish a sincere relationship with a child based on verbal explanation rather than praise and punishment (Smith et al., 2002) (Gordon, 2008).

The second basis is based on the idea of Alfred Adler about the necessity of overcoming inferiority complex. He believes that it is essential for one to has a sense of his own importance and to engage in close relationships, which also became the basis for the development of parenting training programs. The Systematic Training for Effective Parenting (STEP) created in 1976 by Don Dinkmeyer and Gary McKay is another example of competency-based parenting

education (Dinkmeyer, McKay, 1989). The authors proceed from the assumption that a child often doesn't know why he behaves badly, instead he is only trying to gain attention, care, and approval from his parents. Understanding the main cause of such behavior will give parents an opportunity to make adjustment to the relationship with their child and make it more positive. During the training, parents are taught about active listening and positive feedback skills, how to express their love and joy, and how to respect their child's feelings and thoughts.

Thirdly, the theory of Burrhus Frederic Skinner has become the basis for many training programs of parental competence, such as the Parental Behavior Training (PBT) or Confident Parenting Program (CPP) (Alvy, 1994; Graziano, Diament, 1992). Skinner's behavioral theory has been applied to develop programs aimed at reducing the persistence of undesirable behavior in children. Participants were taught about behavioral theory that behavior is governed by the consequentiality of it. Therefore, parents must first learn to describe children's behavior through specific actions, rather than judgement or criticism, and then learn to manage the consequences (Smith et al., 2002).

With these theories, the aforementioned researchers developed systems of training programs for parents. Some of these programs include: "Education without Punishment" by Thomas Gordon (1989), "Group Parent Training with Immigrant Chinese Families: Enhancing Engagement and Augmenting Skills Training" by Anna Lau et al. (2006, 2010), "Child Parent Relationship Therapy" by Sue C. Bratton et al., "Triple P" by Matthew R. Sanders et al. (2009), "Positive Discipline" by Le Van Hao (2009). With reference to and appraisal of the above programs, the research team has compiled a parenting skills training program with the following contents: Understanding child development, learning the path that leads to negative behavior in children, and positive discipline modalities. Then, we designed and organized a training program consisting of 2 days and 6 months of support for parents to implement. The final step is to evaluate the effectiveness of the program.

IV. RESULTS

Based on a variety of parenting training programs, the authors have developed a particular reference for this research. The process and results are shown in the paragraphs below:

4.1. The program's content

4.1.1. Phases of establishing the program:

Initial phase:

In 2016, A parenting training program named "Discipline without whip" was held in the Psychology department, Children Hospital 1, HCMC. The program supported parents who have children with acting out. The program included four parts: Affirmation, reward, ignoring, and silence. Because most of the parents came from rural areas so the program was held for only one day.

During the year, the parents were asked some questions about the quality of the program after their training sessions. The feedback showed that those parents could share their thoughts and emotions about their children's issues. They also could apply effectively the theory to role-playing activities. However, the most important drawback of this phase was that the trainers could not follow up on the interaction between parents and their children in their homes.

The middle phase:

In 2017, there were significant improvements in the program: time, contents, and methods. Also, the program changed its name to "100 days changing toghether". In two days of the training, the program was added more important content such as communication with the children, playing together, spending quality time, family rules, and solving behavioural issues in public places. Especially, the program had 3 months follow-up session which was an opportunity to evaluate the changes of the parents when they apply the skills at home.

In this phase, the research compares the effectiveness of the training in three big groups: (1) Clinical consultation to parents individually, (2) Training by groups in two days, (3) Training by groups in two days with follow-up sessions. The specific results are shown below:

(1) Clinical consultation to parents individually:

a. Method:

- 20 parents who were being with their children to have the assessments about their externalizing behaviours at the Psychology department, Children hospital 1, Hochiminh city.
- Every parent met their clinical psychologist in 10 sessions (one session per week) and every session was 60 minutes.
- In this clinical process, the parents were trained about:
  - Evaluating and repairing the assignments in previous training sessions
  - Talking about the next skills: explaining, modelling, role-playing, and answering the questions.
  - Giving new homework

(b) Results:

17 parents ended their process from the second to the 6th sessions. They explained that the location of the hospital was significantly far for them and 10 sessions were long for their limited time. Also, the parents said that the skills and techniques were difficult for them to apply to their children. In addition, they said that they kept being angry with their children so they gave up. Some parents also said that their children improved significantly so they did not need to join further. The other three parents who fully joined the 10 sessions reported that their sons and daughters improved significantly in their behaviours.

(2) Training for small groups without follow-up sessions

a. Methods:

- The parents were divided into three groups (16 people per group). All of the participants were the parents of children who need assessments about their behaviours at the Psychology department, Children hospital 1. After the training for three months, the researchers received the reports from the parents again.
- Content of the program: the program was as same as the mentioned program in section *(1)*.

b. Results:

- After two days of the training: The final evaluation showed that most of the parents change their perception of the behavioural issues of their children.

- After three months: A majority of the parents could not apply successfully the techniques and knowledge that they had learned. The reasons were that it was interesting to learn but difficult to apply so the parents went back to their old habits. Also, the parents did not have enough time to try while the agreement between family members was too low. So, externalizing behaviours of the children did not change.

(3) Training for small groups with follow-up sessions after three months

a. Methods:

- Five parents were randomly chosen and then were trained as same as in parts (1) and (2). These parents were also trained by phone in follow-up sessions within 3 months
- The content of the training sessions:
  - The trainers made plans with the parents for the next three months after the main training.
  - The trainer evaluated the assignments of the parents. The trainer also noted difficulties and improvements from the parents.
  - The trainer supported the parents to achieve the set goals according to the milestones in the plan: The trainer reminded the theory of the specific week, and then they explained and answered the questions.

b. Results:

There was one case that dropped out of the process without any reason. Four other cases showed that the parents' moods changed positively. However, only two parents reported that they experienced a significant change in their children's behaviours.

The final phase:

In 2018, the program officially changed its name to "24 weeks changing toghether". Based on this program, we at the same time conducted a longitudinal study named "The effectiveness of the training program for parents having children with externalizing behaviours" in 6 months. During this period, the study was examined three times: before training, after training 3 months, and after training 6 months.

a. The content of the program

- Training about the normal developmental milestones of a child. Goals: The parents could know what is a negative problem or crisis for their children at a certain age when they understand clearly about normal milestones.
- Training about the reasons for external behaviours in children. Goals: When the parents deeply understand the reasons for those behaviours, they could fully solve the problems.
- Improving the relationship between parents and their children (re-connection). Goals: Parents would pay attention more to positive behaviours instead of the negative behaviour of their children. From that point, the parent could realize the children's strengths and expected behaviours, Then, the parents could reinforce those positive behaviours. As a result, the relationship between parents and their children would be improved significantly.
- In this phase, the program has some new techniques: anger management, playing time, special playing time, changing language, family rules, affirmation, and rewards.

- Disciplinary methods: Besides the three mentioned training parts in the program, we also introduce some new disciplinary methods: ignoring, silence, and limiting the children's rights.
- In the reference of the training program, we have the below main contents:
  - Chapter 1: The normal developmental milestone of a child. We introduce the main developmental milestone from two to six years old such as language, motor development, cognition, emotion, fears at age 2, shame at age 2, and the crisis of three years old.
  - Chapter 2: Behaviors of children. The chapter talks about popular negative behaviour in children and explains these behaviours. The reasons could come from observation of other people, lacking skills, attention-grabbing, low self-esteem, academic stress, dysfunctional environment, mental health illness, family conflicts and violence. Also, the reason could come from parenting styles and the parents inadvertently reinforce negative behaviours.
  - Chapter 3: Action 1. In the theme "re-connection", the chapter introduces the topic of anger management and how to improve the relationship between parents and their children. The mentioned techniques: high-quality playtime, special playtime, effective affirmation, changing language, establishing rules, and a reward system.
  - Chapter 4: Action 2: In the theme "positive discipline", the chapter mentions some techniques: ignoring, silence, and limiting the children's rights.
  - Chapter 5: Extra supporting methods: How to go to public places with the children, a timetable for daily routine, memory notes.
  - Chapter 6: Planning for transformation with the children in 24 weeks

b. Organizational methods:

- Group training:
  - Method: Presentation, teaching, role model, explaining, analysing etc
  - Time: The training time for the parents is two working days (14 hours)
  - Number of participants: 120 parents were divided into 7 classes (15 – 20 people per class), and then the participants received the training. After that, 119 parents were again divided into two big groups: study group 1 (60 people) was supported face-to-face at home and study group 2 (59 people) was supported online.
  - (Control group of 58 people will be trained after the program is evaluated for effectiveness).
  - Trainer: The main author of the research and the reference: Nguyễn Thị Diệu Anh.
  - Supporting team: 40 volunteers were divided into 3 groups, and then, they supported seven classes.
- Practice:
  - Practicing in class (including assignments, role-playing, group and individual activities).
  - Practicing at home: the volunteer support the parents in practising at home.

- Total practice time of parents is 6 months (24 weeks) with specific plan of each week. Every 3 months will be assessed by CBCL and PSS scale for all 3 groups.

4.2. Experimental results:

The children's behaviours have changed as below:

Table 1. Change of children's behavior after 3 assessment points

Time of assessment	Study group 1		Study group 2		Control group	
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**	**Mean**	**Std. Deviation**
Before training	59.95	3.98	59.00	4.48	58.39	4.64
After 3 months	55.02	2.33	54.46	2.00	59.83	4.05
After 6 months	44.87	1.52	45.12	1.51	55.00	5.17
F	428.75**		319.19**		17.13**	

*Note: **: $p < 0.01$*

With df = 2, F = 428.75, $p < 0.001$, it is possible to conclude that children's behavior has significant change at 3 points of assessment. In group 2, there is also a difference when the mean score gradually decreases at 3 points of assessment. With df = 2, F = 319.19, $p < 0.001$, it is possible to conclude that, in treatment group 2, children's behavior tends to change positively over 3 points of assessment. In the control group, with df = 2, F = 17.13, $p < 0.001$, the change in the control group through 3 points of assessments is also statistically significant, similar to the analysis of the two other groups. Bonferoni post hoc test of the control group shows that at the second assessment point, there is no significant increase in the mean score compared with the first point ($p = 0.32$), but the mean score at the third point markedly decreases compared to the first and second point of assessment ($p < 0.001$). This allows the conclusion that although all 3 groups have a change over 3 points of assessments, there is a more evident change in group 1 and 2.

The above results show that intervention made a positive impact for both groups. In the control group, although there is a decrease in CBCL score at the third assessment, in comparison to the treatment group, the mean score at the third assessment of the control group only equal to the score at the second assessment of the 2 treatment groups. In addition, the change of group 3 was also in our initial prediction, for that during sample recruitment, in terms of research ethics, parents in the control group were also initially supported with handouts on how to change and presumably many parents might instruct their children at home; Furthermore, when committing to participate in research, parents may also feel that changing their ways of parenting is also important in supporting their children's behavior change. This is fitting to explain the decrease at the third assessment in the control group, because the control group also received some support when participating in the study, although the change was not as evident as in group 1 and 2. This result is close to the results in Anna Lau's study on a sample of Chinese parents living in the US - most of the children's behaviors change after parents are trained to change their children's behavior at home (Anna Lau, 2010).

Table 2: Stress of parents' chances during 3 times in 3 groups

Time of assessment	Study group 1		Study group 2		Control group	
	Mean	**Std. Deviation**	**Mean**	**Std. Deviation**	**Mean**	**Std. Deviation**
Before training	95.98	14.77	96.88	13.77	99.94	15.31
After 3 months	88.12	11.43	88.02	11.34	100.84	14.19
After 6 months	79.92	16.99	78.17	6.65	98.67	15.21
F	29.28***		42.73***		0.80	

*Note: ***: $p < 0.001$*

The table above shows that the mean of stress in parents has changed in study group 1, in the direction of decreasing at all three time points of measurement, that is, compared to the first survey, the following 2 times of survey had a significant difference. significantly reduced. With the coefficient of degrees of freedom df = 2, F = 29.28, $p < 0.001$, it is possible to conclude that the stress of parents has changed significantly at 3 time points of measurement.

Similar to group 1, in study group 2, there was a similar difference when BP gradually decreased at 3 time points of measurement. With the coefficient of degrees of freedom df = 2, F = 42.73, $p < 0.001$, it is possible to conclude that, in treatment group 2, parental stress tends to change positively over 3 times. Comparing this change with study group 1, it can be seen that the mean values of the two groups at the time of measurement 2 are similar, but at the time of measurement 3, group 2 has more differences. That allows us to conclude that parents in study group 2 have less stress than study group 1 after 6 months.

In the control group, the BD at time of measurement 2 increased higher than that of measurement 1, but decreased significantly at time of measurement 3. However, with the coefficient of freedom df = 2, F = 0.80, p = 0.45 did not carry. Statistical significance, allowing us to conclude that through 3 assessment times, the parental stress of the control group is constant.

V. CONCLUSION

Learning from the effectiveness ang limitations of previous studies, this study sdited and designed a parenting skills training program. With a focused from, in which parents are guided in theory, modeling and role-playing to practical skills; then, get help planning a change for 24 weeks. This program added an in-home support system for study group 1 of 60 parents, to compare it with study group 2 of 59 parents who received phone support, and a control group of 58 parents in the study waiting list. After 24 weeks, with 3 assessments, the results showed a prominent effect on group 1. It can be concluded that the program "24 weeks changing toghether" is effective, shown in children to change negative behavior and parents to reduce stress.

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SCIENTIFIC RESEARCH CAPACITY OF STUDENTS AT VINH LONG UNIVERSITY OF TECHNOLOGY EDUCATION

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Abstract

The article investigates the current situation of scientific research capacity of students at Vinh Long University of Technology Education (VLUTE), including the following main competencies: Capacity to register research topic; Capacity to conduct research activities; Capacity to publish research results (after acceptance). The research results of this article will help lecturers and university administrators identify the causes and propose effective solutions to innovate and improve the efficiency of scientific research activities for students, to meet the university's conditions and requirements of innovating and improving the training quality of VLUTE.The research results show that the scientific research capacity of students at VLUTE is not satisfactory for scientific research activities during their studies.

Keywords: *Students, scientific research, Vinh Long University of Technology Education, scientific research and scientific research capacity of students*

1. INTRODUCTION

Vinh Long University of Technology Education is a public university directly under the Ministry of Labor, War Invalids and Social Affairs, located in Vinh Long province (No. 73, Nguyen Hue, Ward 2, Vinh Long city). This is a multidisciplinary university, specializing in training human resources with university degrees in engineering, technology, technical education, social sciences and humanities.

Vinh Long University of Technology Education is a public educational and training institution, managed by the Ministry of Labor, War Invalids and Social Affairs in terms of personnel and finance, and managed by the Ministry of Education and Training in term of training activities. Assigned to be the key vocational training institution of the country by the State and funded by the project "Technical and vocational education". The university has trained and provided the society with high-quality human resources (vocational teachers and technical staffs) for the whole country with the number of thousands of graduates each year. The university is located in the heart of the Mekong Delta, located at 73 Nguyen Hue, Ward 2, Vinh Long City, Vinh Long Province (http://www.vlute.edu.vn).

The university has a training scale of 26 majors at university level, 9 majors at master's level, and 02 majors at doctoral level. The existing number of students on a yearly basis reaches nearly 10,000 at university level. However, students' scientific research achievements just remain at under 40 topics per academic year. This is a very low rate compared to the number of the third and fourth year students, estimated at nearly 5,000 students.

Therefore, the questions are given: Why is the number of students participating in scientific research at Vinh Long University of Technology Education every year so low? What solutions could be suggested to improve this situation at the university in the future? How is

students' learning quality when too few students participate in scientific research at the university? Is it true that students' research capacity does not meet the university requirements? In this context, we have conducted the study on the scientific research capacity of students at Vinh Long University of Technology Education to clarify the above questions.

This study was conducted from September 2021 to February 2022 at Vinh Long University of Technology Education. The research sample was selected by random probability method (each faculty selected 45 students). These students represent randomly for each faculty of vlute, including: 352 students were selected from Faculty of Basics, 486 from Faculty of Political Theory, 224 from Faculty of Electrical and Electronics Engineering, 426 from Faculty of Mechanical Engineering, 286 from Faculty of Information Technology, 312 from Faculty of Applied Biology and 415 from Faculty of Technical Education and Social Humanities.The study sample ensures that the subjects are very similar in age 19 to 21 years old. The learning environment is similar due to the same study location, the same lecturers, the same physical conditions and the same natural climatic conditions.

This study focuses on measuring the current situation of scientific research capacity of student at Vinh Long University of Technology Education, including*: Capacity to make application documents for selection of topics, capacity to conduct research activities, Operational capacity to announce research results (after acceptance)*. The results of the survey show that the current situation of scientific research capabilities of students at Vinh Long University of Technology Education have not met the requirements of scientific research capabilities in the learning process.

The results of this study are the basis for recommending the University's leaders to promote and strengthen the management of scientific research activities for students through management to improve the quality of lecturers, to improve the scientific research capacity for students, to improve the training quality of Vinh Long University of Technology Education.

2. THEORY BASIS

The university always considers scientific research as one of its key tasks. Scientific research activities among students always aim to innovate and improve training quality to meet the requirements of international integration and the requirements of high quality human resources of the society. The formation and development of scientific research capacity for students is one of the important goals of universities, including Vinh Long University of Technology and Education.

Previous studies have suggested that enhancing scientific research activities for students is helpful for universities to promote innovation and creativity, to improve the efficiency of innovation, and to improve the quality of education and training of the university (Nguyen N. Thanh, 2021). Scientific research activities will help students gain many significant advantages in improving their academic achievements at university. Scientific research is also considered the most effective method of learning for university students. Through scientific research, students have the opportunity to approach standard learning methods and working styles from instructors (Le T. V. Anh, 2017; Vo V. Nhi, 2019; Ngo T. Trang, 2017; Nguyen N. Thanh, 2021).

Scientific research activities help students experience and form capacities to cope with diverse and abundant lives. The ability to think creatively, to think deeply about problems, to clearly express one's own independent opinion in the real life. In addition, the ability to manage time, the ability to cooperate in learning and research is essential. The ability to apply information technology, and the ability to use foreign languages are very essential competencies

to help students thoroughly solve problems in learning, scientific research and social life (Nguyen N. Thanh, 2021; Ngo T. Trang, 2017; Graveiver, K-Terwel.J, 2000; OECD, 2003).

Scientific research capacity is the ability to effectively carry out a scientific research project, reflected in the application of knowledge, skills and practical experiences to the process of organizing, implementing and using research results, in order to improve research practice (Vu C. Dam, 1995; Dao T. Oanh, Le M. Dung, 2014).

Scientific research capacity, including knowledge competence, skills and attitudes (Tran T. Ai, 2014). Specifically: knowledge competence in the field of science; scientific research skills (research proposal development skills, research design skills, data collection skills, data analysis skills, situation assessment skills, data analysis reasoning skills, and writing scientific reports skills); autonomy and responsibility in scientific research.

Scientific research capacity of lecturers is the ability to carry out scientific research results (Duong M. Quang, 2020; Zhu, W. Z, 2003; Katz, E., -Coleman, M, 2002; Plotnicova, N.I, 2007). Specifically, the capacity to carry out scientific research activities, the capacity to guide students in doing scientific research, and the capacity to publish scientific research results.

Some studies related to the content of this article mainly focus on proposing solutions to promote scientific research activities, that is: solutions to improve awareness, attitude, motivation, and development of scientific research capacity (Duong D. Manh, Chu Q. Huy, 2016); solutions to improve policies to stimulate scientific research activities (Huynh T. Nha, 2016; Nguyen T. X. Huong, 2016); solutions to develop curriculum and modules "scientific research methods" (Pham B. Thuy, 2016; Nguyen T. H. Ninh, 2019); solutions to integrate teaching activities associated with scientific research activities (Vu T. T. Thuy, Nguyen V. Hong, 2019; Elena Semionova – Alena Samal – Natalia Smirnova, Maryna Boika – Maryia Chaikovskaya, 2018; Hasan Huseyin Sahan – rukiye Tarhan, 2015; David moursund, 2003); solution to create a professional environment and build a scientific research center, lecturers must actively innovate teaching methods in the direction of promoting active scientific research to serve learning activities, closely and effectively link scientific research with students' self-study activities (Le T. V. Anh, 2017; Nguyen T. H. Ninh, 2019).

From the above-mentioned theoretical bases, this article determines the scientific research capacity of students, which can be understood as the ability to effectively carry out a scientific research project (led by students) under the guidance of the instructor directly in charge of the subject. The student's ability to carry out scientific research projects is reflected in the level of the results of the research steps, including*: Capacity to make application documents for topic selection; capacity to implement research topics; Operational capacity to announce research results (after acceptance).*

3. RESEARCH METHODS

The authors selected the third and fourth year students of the university. The research sample was selected from 45 students representing each of the aforementioned faculties. Specifically, 352 students were selected from Faculty of Basics, 486 from Faculty of Political Theory, 224 from Faculty of Electrical and Electronics Engineering, 426 from Faculty of Mechanical Engineering, 286 from Faculty of Information Technology, 312 from Faculty of Applied Biology and 413 from Faculty of Technical Education and Social Humanities.

This research used a set of research tools and information collection techniques, including: *Survey tool set according to the criteria for assessing students' scientific research ability* (38 questions), Capacity to make application documents for topic selection (5 questions); capacity to

implement research topics (29 questions); Operational capacity to announce research results (4 questions). The survey criteria have 5 levels of evaluation including: Good (5 points); Fair (4 points); Average (3 points); Unsatisfactory (2 points); Very poor (1 point).

The article analyzes data through a tool to verify the reliability of collected data by halving the data (Spearman-Brown formula ($\mathbf{r}_{SB}$), formula: $\mathbf{r}_{SB} = 2*\mathbf{r}_{hh}/(1+\mathbf{r}_{hh})$; $\mathbf{r}_{hh}$ is the parity correlation coefficient, $\mathbf{r}_{hh}$ = CORREL(arrayl, array2) Calculate the total score of the odd questions and the total score of the even questions Then apply the formula to calculate the parity correlation coefficient and calculate the reliability of research data. If $\mathbf{r}_{SB}$ >= 0.7, the data is reliable (the rest are not reliable).

Measuring the concentration and dispersion of data through the unit of Mode (Mode - Mo) which is the most frequently occurring value in the score series; Median is the point in the middle position in the sequence of scores arranged in order; Mean (Mean) is the average of scores (Maximum - Minimum)/n = (5 - 1)/4 = 0.8. Average rating scale: Good (5 points), average score from 4.21 to 5.0; Fair (4 points), average score from 3.41 to 4.20; Average (3 points), average score from 2.61 to 3.40; Unsatisfactory (2 points), average score from 1.81 to 2.60; Very poor (1 point), average score from 1.0 to 1.8.

The article compares the collected data, using the "Chi-square test" because this is the discrete data. Calculate p-value (p-value), "Chi-square test" value on http://people.ku.edu/~preacher/chisq/chisq.htm_ If the results p value ≤ 0.001, conclude that the correlation is not significant (the data is not likely to be random), that is, due to the influence of the researcher.

4. RESULTS AND DISCUSSION

4.1. Verification results of the reliability of collected data

Table 1: Verification results of the reliability of research data

Surveyed sample	Answers	$\mathbf{r}_{hh}$	$\mathbf{r}_{SB}$	Conclusion ($\mathbf{r}_{SB}$ >= 0.70)
Faculty of Basics	45	0.9908709	0.9954145	Reliable data
Faculty of Political Theory	45	0.9909718	0.9954654	Reliable data
Faculty of Electrical and Electronic Engineering	45	0.9940219	0.997002	Reliable data
Faculty of Mechanical Engineering	45	0.9956953	0.997843	Reliable data
Faculty of Information Technology	45	0.9956442	0.9978174	Reliable data
Faculty of Applied Biology	45	0.9971717	0.9985839	Reliable data
Faculty of Technical Education and Social Humanities	45	0.9947782	0.9973823	Reliable data

Table 1 shows ($\mathbf{r}_{SB}$) – measurement results of "the reliability of research data" using the Spearman-Brown (rSB) formula, proving that all research samples randomly selected from surveyed academic faculties were of high reliability (0.99), much higher than the standard $\mathbf{r}_{SB}$>=0.70. This shows that the collected research data were very valuable and reliable.

4.2. Measurement results of centrality and dispersion degree of the research data

Table 2: Measurement results of centrality and dispersion degree of the research data

Surveyed sample	Value			
	Mode	Median	Average	Stdev
Faculty of Basics	3	2.21052632	2.182029	0.84725597
Faculty of Political Theory	3	2.13157895	2.10479088	0.84707919
Faculty of Electrical and Electronic Engineering	3	2.94736842	2.50912076	0.90815536
Faculty of Mechanical Engineering	3	2.97368421	2.57933723	0.91105326
Faculty of Information Technology	3	2.42105263	2.39501898	0.89678079
Faculty of Applied Biology	3	2.89473684	2.55417633	0.96073874
Faculty of Technical Education and Social Humanities	3	2.26315789	2.33065388	0.92871619

The above table shows that centrality and dispersion degree of the research data through the standard deviation (Stdev) value of survey data at the participating faculties are quite similar in the scores of the questionnaires (Stdev from 0.84 to 0.92). This shows that the survey scores of the questionnaires have very low dispersion. Research data has a focus on evaluation from survey subjects.

4.3 The measurement results are expressed through the mean score of the research data

Table 3: Average score of surveyed faculties (point scale of 5)

Survey contents	Survey sample (Average score)							Average score of each competence
	Faculty of Basics	Faculty of Political Theory	Faculty of Electrical and Electronic Engineering	Faculty of Mechanical Engineering	Faculty of Information Technology	Faculty of Applied Biology	Faculty of Technical Education and Social Humanities	
Competence group 1	2,31	2,15	2,67	2,71	2,50	2,67	2,44	***2,49***
Competence group 2	2,23	2,19	2,56	2,65	2,46	2,63	2,42	***2,45***
Competence group	2,65	2,54	2,82	2,86	2,78	2,89	2,66	***2,74***
Average	**2,40**	**2,29**	**2,68**	**2,74**	**2,58**	**2,73**	**2,51**	**2,56**

According to the rating scale, the average score is from 2.61 to 3.40, the level is "average"; The average score from 1.81 to 2.60 is “Unsatisfactory”. Thus, the average score of 3 scientific research competencies of students is assessed at the level of "Unsatisfactory" (2.56/5 points), only 03 faculties have the same average score. The students' scientific research capacity is assessed as "Average", that is: Faculty of Electrical and Electronics Engineering (2.68/5 points), Faculty of Mechanical Engineering (2.74/5 points), Faculty of Applied Biology (2.73/5 points).

To evaluate the current state of students' scientific research capacity at VLUTE, we conducted a survey to ask for opinions on specific group of competency as follows:

4.3.1. Competency group 1: *Registering research topics*; (including the following specific competencies: Capacity to identify research ideas (topics) through practice; Capacity to describe research ideas (topics) to "write research proposal"; Capability to register scientific research with academic faculties; Capacity to present the research proposal before the scientific council; Capacity to complete the application for research topic registration,The average score of "competency 1" of the faculties of 2.49/5 points (the score is "Unsatisfactory"). In which, there are 3/7 faculti with average scores of "Average", that is: Faculty of Electrical and Electronics Engineering (2.67/5 points), Faculty of Mechanical Engineering (2.71/5 points), Faculty of Applied Biology (2.67/5 points). The capacity of "*Registering research topics*;" is the first step to carry out scientific research, but students of Vinh Long University of Technology Education's faculties have not yet performed well in these capacities.

The capacity " *Registering research topics*;" is very important, this is the first step to start the practice of a scientific research project. The student's scientific research is started by considering the actual situation of the problem that needs to be found out in the learning process, specifically through each area of knowledge of the subject being studied. On that basis, students come up with the idea that they have a need to understand the nature of things, but if they study normally, it is impossible to fully solve this need. After having a research idea, students identify specific research problems and specific actions are to write the name of the research topic accurately, scientifically, and clearly about the research contents.

In order to register for scientific research, students must carefully study the set of documents and procedures for registration of science and technology topics of the university prescribed for students. Students must seek help and scientific guidance from the lecturer in charge of the subject related to the content they study for advice on how to make a research profile, and orient the required work contents. research for effectiveness. Under the guidance of the faculty member in charge of the subject, students can complete the application procedure for registering a scientific topic with the Faculty of Science in accordance with the university's regulations on scientific research. The ability to register a topic is a very difficult first step for students who want to do scientific research. This requires students to persevere, pursue the goals, and convince lecturers to participate in the topic guidance, which is no small feat for students. The next thing is the ability to present and defend scientific research ideas in front of the scientific council at the professional faculty, which is a step to show the bravery of the students' own scientific research experience in the reality of studying at the university.

4.3.2. Capability group 2: *Conducting research activities*, (including the following specific competencies: Ability to develop research programs and plans; Ability to choose research methods; Ability to plan organization implementation; Ability to plan information processing; Ability to conduct pilot studies (with a small scale to complete the contents at the preparation stage); Ability to accurately determine when to collect information; Ability to chart research progress; Ability to prepare conditions and funding for research activities; Ability to organize recruitment and training for participants to collect research information ; Ability to conduct information collection; Ability to check collected information; Ability to build measurement tools; Ability to code measurement contents; Ability to use mathematical statistical tools; Ability to check used statistical tools; Ability to analyze information and generalize research results; Ability to write research overviews; Ability to write the theoretical basis of the research problem; Ability to write research papers; Ability to define research methods; Ability to present

research results; Ability to evaluate (discussion) research results; Ability to summarize research conclusions; Ability to present research references; Ability to present appendices attached to the research report; Ability to make research progress reports (periodically after 6 months); Ability to write an application for extension of the research contract (if applicable); Ability to write an application to cancel the research contract; Ability to write an application to change the topic director or research member, The average score of "competency 2" of the faculties is 2.45/5 points (the score is "Unsatisfactory"). In which, there are 2/7 faculties with average scores of "Average", including: Faculty of Mechanical Engineering (2.65/5 points), Faculty of Applied Biology (2.63/5 points). The capacity of "Implementing research activities" is an important step to organize the implementation of scientific research with results, but students of VLUTE's faculties have not yet performed well in these capacities.

After the topic is approved by the scientific council at the faculty level, the students will be allowed to conduct research. The author of the project must perform a series of activities, such as: "preparing research", conducting "collecting information", "processing collected information", "writing a thesis summary report", and complete the registration procedures for assessment and acceptance of the topic with the faculty. These are the main tasks for students to successfully research a topic. This capacity requires students to make a lot of efforts, trying to both learn and experience to carry out the work in a scientific and methodical ways, and with total investment to complete the research task. Most students face many difficulties and obstacles in the steps to carry out the task of researching the topic. They don't know where to start and how to do this step by step to ensure the effectiveness of this research. If the instructors are not enthusiastic and dedicated to helping students, it is impossible for them to pass this research stage.

4.3.3. Capability group 3: *Publishing scientific research results*, (including the following specific competencies: Capability to make a dossier to register for a thesis summary report; The ability to present the report in front of the scientific council; The ability to complete documents after acceptance; The ability to perform procedures for topic liquidation at academic faculties, the average score of "competency 3" of the faculties is 2.74/5 points (score "Average"). Among them, there are 1/7 faculties with the average score of "Unsatisfactory", including: Faculty of Political Theory (2.54/5 points). The capacity of "*Publishing scientific research results*" is the final step of the scientific research process, but students of Vinh Long University of Technology Education 's faculties have not yet performed well in these competencies.

5. CONCLUSION

The scientific research capacity of students at Vinh Long University of Technology Education is currently "unsatisfactory" through survey assessment. Specifically, the scientific research competencies that need a lot of attention and investment for students are "Capability group 1. *Registering research topics* " and "Capability group 2. *Conducting research activities*,". The reason for this situation is that the university has not had an effective policy to encourage and motivate people to do scientific research. The capacity of lecturers in guiding students to carry out scientific research tasks has not yet met the requirements. Facility conditions have not brought favorable conditions for students' scientific research activities. In particular, students' scientific research capacity is still very poor in terms of awareness and skills in performing scientific research tasks in academic practice. Students have not been fostered and trained in effective scientific research skills by lecturers.

The results of the research on the current situation of scientific research capacity of students at Vinh Long University of Technology Education are the basis for recommending to

the leaders of the University to promote and strengthen the management of scientific research activities for students through managing to improve the quality of the teaching staffs, in order to improve the scientific research capacity of students to meet the requirements of the scientific research activities and traing in a long-term task. In addition, the university should pay attention to improve the scientific research capacity of students, so that they can promote the teaching of scientific research methods in the direction of practical application, build a set of scientific research capsule for students, organize training and fostering of scientific research capacity for students associated with practice on the set of scientific research tools that have been built, regularly summarize and evaluate the capacity of doing scientific research of students through the results of scientific research at the university each year.

Human resources are decisive factors to the quality of students' scientific research. In particular, the factor of the capacity of the teaching staffs is decisive in guiding students in scientific research. Besides, the factor of students' ability to actively participate in scientific research has a strong influence on the quality of scientific research at universities.

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CONCEPTUALIZATION AND VALIDATION OF "AFFECTIVE COMMITMENT TO THE PUBLIC SECTOR" SCALE

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Abstract

This study conceptualizes and develops affective commitment to the public sector (ACPS) scale. ACPS is defined as employees' desire to stay in the public sector, involving employee identification with the public sector and affective experience working in the public sector. The results of testing the scale on the sample of Vietnamese public sector employees show that ACPS is unidimensional, like other affective commitment scales. In addition, the ACPS scale does not significantly differ from public service motivation – a well-known construct in public management literature. Despite this, the ACPS scale does have predictive validity in that it can positively predict employees' intent to stay with the public and the scale is invariant across gender groups.

INTRODUCTION

Working for the public sector can offer employees numerous benefits, such as meaningful work experience of helping others and opportunities for gaining experiences and higher education. In addition, with the dynamics of workplace and the more opportunities for changing jobs or organizations, such as organizational restructurings, the changing job market demand, requirements of job mobility, the availability of study resources, and opportunities for changing jobs, it is clear that employees are more easily to change their jobs or organizations than in the past. As a result, their commitment may shift from commitment to an organization or an occupation to commitment to one sector such as the public sector. It means that employees want to work and contribute to the public sector, but no longer focus on a specific occupation or organization. Thus, it is important to build a new concept and measurement of affective commitment to the public service (ACPS).

The most common use of measurement and concept of affective commitment is that of Allen & Meyer (1990). Allen & Meyer (1990) conceptualized and measured employee commitment to an organization, involving 3 components: 1) affective commitment (emotional bond to an organization); 2) normative commitment (the feeling of obligation to stay with an organization); and 3) continuance commitment (the cost of leaving an organization as the employees receive benefits from that organization). Employees with affective commitment will engage in their task because they are willing to do so. Employees with normative commitment do their work because they feel they need to do so based on moral obligation. Employees with continuance commitment do their job because they must do it to avoid sanctions (Allen & Meyer, 1990). Thus, of the three types of commitment, affective commitment is the most important one that has a more positive impact on organizational performance.

However, there are two main limitations in affective commitment's scale that requires further development. First, although Allen & Meyer (1990) stated that affective commitment involves 3 dimensions (employees identify with, are involved in, and enjoy membership of an organization), it has been measured with only one-dimension scale. Second, affective

commitment (Allen & Meyer, 1990) was constructed to measure affective commitment to an organization. Thus, for a new target (public sector), it is vital to build a new scale to suit the target of affective commitment. The purpose of this study is to develop a new scale to measure ACPS that can deal with the limitations in the affective commitment scale of Allen & Meyer (1990).

CONCEPTUALIZATION OF EMPLOYEE AFFECTIVE COMMITMENT TO THE PUBLIC SECTOR

I followed Podsakoff, MacKenzie, & Podsakoff (2016) to conceptualize ACPS. The first step is to identify possible attributes of the concept ACPS. Since ACPS concept is primarily based on affective commitment to an organization concept, following Podsakoff et al., 2016, I have: (i) surveyed the literature of affective commitment to an organization; (ii) searched the dictionary for the definition of the concept affective commitment; (iii) interviewed experts and colleagues to help identify the potential attributes of the ACPS concept.

Affective commitment to an organization literature generally suggests three main dimensions of affective commitment, including employee identification, employee involvement, and employee enjoyment. However, it is often argued that employee involvement and employee enjoyment are not distinct concepts and it is very hard to distinguish these two dimensions. After discussing with experts and some peers, I have merged the two dimensions: involvement and enjoyment into employee affective experience. Based on literature of affective commitment to an organization and suggestions of some scholars, I propose two dimensions of ACPS: employee identification with the public sector and employee affective experience working in the public sector. These attributes are defined based on affective commitment literature (Allen & Meyer, 1990), identification literature (Dutton, Dukerich, & Harquail, 1994; Mael & Ashforth, 1992), and affective experience literature. The two attributes are finally defined as following:

(i) *Employee identification with the public sector.* Identification is defined as the degree to which employees see themselves as having similar attributes as the public sector and the degree to which employee abilities, values, and goals match with the demand of the public sector. Employee self-perception as a part of the public sector as well as the congruence between employee characteristics and the demand of public service work will more likely to make employees desire to stay in the public sector. As employee identification with the public sector satisfies the core needs of employees, identification here is considered intrinsically motivating employees to stay in the public sector.

(ii) *Employee affective experience when working in the public sector.* Affective experience is defined as an individual feeling about working in the public sector. Employee positive feelings in their day to day job is an important factor that fosters employees' desire to stay in the public sector. In contrast, negative feelings about working in the public sector will hinder this desire.

Based on the two above attributes, I define ACPS as employees' desire to stay in the public sector, involving employee identification with the public sector and affective experience working in the public sector.

According to Podsakoff et al. (2016), it is necessary to differentiate the focal concept and other related concepts. Surveying the literature suggested that ACPS and public service motivation public service motivation (PSM) are linked. PSM is defined as 'an individual's predisposition to respond to motives grounded primarily or uniquely in public organizations'

(Perry & Wise, 1990, p. 368). PSM involves four-dimensions, including attraction to public policy, commitment to public interest, compassion, and self-sacrifice (Perry, 1996). Recently, PSM has been applied in both public and private sector and been redefined as the motivation to contribute to society in general (Steen, 2008).

ACPS and PSM are similar in that both can be the reasons for employees to choose to work and remain in the public sector. In addition, they both can influence employees in-role and extra-role performance. More specifically, employees who have high PSM will be motivated to contribute to the public interests. As the role of the public sector is serving the communities, employees with a high level of PSM will be more likely to meaningfully contribute to their work (Ritz, Brewer, & Neumann, 2016). Meanwhile, ACPS also motivates employees to enhance their in-role and extra-role performance. This is because employees having high levels of ACPS feel positively staying in the public sector, they are more likely to contribute to make their sector better.

Nevertheless, they differ in that PSM is a motivation to contribute to society and to sacrifice yourself and it can be applicable for both the public and private sector (although working for the public sector is more often). ACPS involves the bond to the public sector and the promise to stay in the public sector in the future. ACPS may come from the motivation to serve the society (so that they have positive affects when working in the public sector) as well as other factors (e.g., sector-person fit) that can affect employee identification with the public sector.

Finally, I consulted a public employee to confirm that this definition is clear enough to continue to the next step.

ITEM CREATION AND CONTENT VALIDITY ASSESSMENT

Based on the definition developed in the previous section and existing measures of affective commitment to an organization or an occupation, I develop 34 initial items that correspond to 2 different dimensions – identification and affective experience. I, then, discuss with an organization behavior scholar, a public administration scholar, and a public employee to assess content and face validity of the items. Unclear and irrelevant items were deleted in this step. Finally, I retain the following 21 items:

Employee identification with the public sector items:

1. Being a public servant is a big part of who I am
2. I feel that I belong in the public sector
3. I feel strong ties with the public sector
4. I feel connected to the public sector
5. I see myself as a part of the public sector
6. My self-identity is based in part on working in the public sector
7. Working for the public sector is consistent with my core values
8. I share the goals of the public sector
9. Being a public servant reflects my personality well.
10. My abilities meet the demand of working in the public sector
11. I feel I fit well in the public sector

Employee affective experience when working in the public sector items:

12. I feel happy to be a public servant.
13. I am proud to be a public servant.
14. I enjoy working in the public sector
15. I feel meaningful to work in the public sector.
16. I feel comforted to work in the public sector
17. I feel sad to be a public servant
18. I feel embarrassed to be a public servant
19. I would be happy to spend the rest of my career as a public servant
20. If I had to leave the public sector, I would be very frustrated.
21. If I were forced to leave the public sector, I would be very disappointed.

SCALE VALIDATION AND REFINEMENT

To validate the ACPS scale, I conducted a qualitative study in Vietnam. The data from this survey was used to test EFA, CFA, convergent, discrimination, predictive validity, and measurement invariance of the ACPS scale.

Sample and procedure

I did a paper survey with 189 Master of public administration (MPA) students in 3 classes in Vietnam in 2019. Instructors were asked to deliver the questionnaire survey to the MPA students. Most of the students were working at public organizations in Vietnam and were funded to study the MPA program by the Vietnam's government.

The survey questionnaire contains 21 items of the ASPS scale, 5 items of the public service motivation (PSM) scale, 1 item of intent to stay with the public sector, and 2 demographic items (age and gender). The items were translated to Vietnamese and were checked by a Vietnamese MPA lecturer to ensure the items are clear and meaningful. A total of 164 completed questionnaires were returned, corresponding to an overall response rate of 87%. Around 9% data points were missing, and these were filled by the mean of the item scale.

Measures

ACPS was measured with the above 21 items. Respondents expressed their agreement with these statements using a 7-point Likert scale (1 = totally disagree, 7 = totally agree).

PSM was measured with 5 item scale (Perry, 1996), including: Meaningful public service is very important to me; I am often reminded by daily events about how dependent we are on one another; Making a difference in society means more to me than personal achievements; I am prepared to make sacrifices for the good of society; I am not afraid to go bat for the rights of others even if it means I will be ridiculed. This is the short version of the PSM scale of Perry (1996). Respondents expressed their agreement with these statements using a 7-point Likert scale (1 = totally disagree, 7 = totally agree).

Intent to stay with the public sector was measured with one item: Will you stay with the public sector in the next year? Respondents expressed their agreement with these statements using a 2-point scale (1 = Yes, 0 = No).

Analysis and Results

EFA

I evaluate the dimensionality of the ACPS scale by running the EFA with all 21 items. First, I performed a parallel analysis to have a better idea of how many factors in the scale. The scree plot was illustrated in Figure 1.

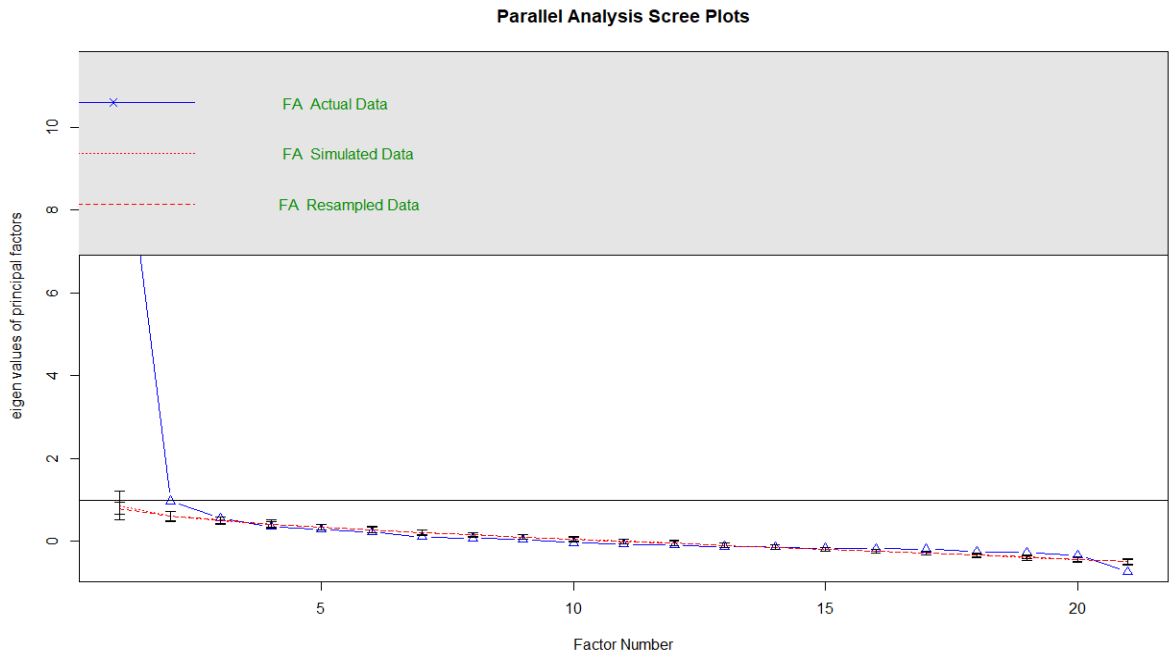

Figure 1.

The number of factors will be based on three rules. First, according to Kaiser's rule, it is vital to retain any factor that has an Eigenvalue greater than 1. Figure 1 shows that the second factor has an eigenvalue at around 1. Thus, Kaiser's rule would suggest 2 factors. Second, according to the blue line in Scree plot in figure 1, it seems like the elbow is at factor 2. Therefore, a single factor may fit best. Third, I compare the blue line and the red line in Figure 1. The blue line is above the red line in factor 2. That suggests the possibility of a second factor. Since one or two factors may be possible, I examine 2 EFA with 1 factor and 2 factors to see which one is the most appropriate.

EFA for 1 factor model shows reasonably good loadings (from.60 to .87) except for items 17 and 18 (factor loadings -.14 and -.20 respectively). The one factor explains 52% of the total variance in the items.

EFA for 2-factor model shows that items 17 and 18 load in the second factor (factor loadings equal .91 and .73 respectively) and the rest load in the first factor (ranging from .64 to .87). There were no high cross loading items. The two factors combined explain 59% of the variance in the items. Also, the two factors correlate at -.17. The low correlation signals that the two factors are not redundant. However, item 17 and item 18 (i.e., 17. I feel sad to be a public servant; 18. I feel embarrassed to be a public servant) do not fit to be a unique factor of ACPS. In fact, they were defined as a part of the affective experience factor. Thus, I decide to remove them and go with 1 factor solution.

The unidimensional nature of ACPS is aligned with the well-known measure of affective commitment to an organization of Allen & Meyer (1990). One of my motivations to develop ACPS is to clearly separate the 2 factors in accordance with the general definition of affective

commitment. However, it seems that the two factors are redundant, and one factor may be the most appropriate scale for affective commitment to an organization as well as ACPS. EFA factor loadings of the retained items are presented in table 1.

The 1 factor ACPS scale has good reliability with **Cronbach's alpha = .96.**

Table 1. EFA for 1 factor ACPS scale

Items	Factor loadings
Being a public servant is a big part of who I am	.66
I feel that I belong in the public sector	.67
I feel strong ties with the public sector	.76
I feel connected to the public sector	.82
I see myself as a part of the public sector	.84
My self-identity is based in part on working in the public sector	.78
Working for the public sector is consistent with my core values	.87
I share the goals of the public sector	.83
Being a public servant reflects my personality well.	.74
My abilities meet the demand of working in the public sector	.74
I feel I fit well in the public sector	.73
I feel happy to be a public servant.	.79
I am proud to be a public servant.	.81
I enjoy working in the public sector	.83
I feel meaningful to work in the public sector.	.82
I feel comforted to work in the public sector	.71
I would be happy to spend the rest of my career as a public servant	.60
If I had to leave the public sector, I would be very frustrated.	.67
If I were forced to leave the public sector, I would be very disappointed	.64
Cronbach's alpha	**.96**

CFA of the One Factor Model

Before fitting the CFA model to data, I used Mardia's test to test the assumption of multivariate normality. This assumption does not hold with my data. Since the data lack multivariate normality, Maximum likelihood estimation was not used. I instead rely on alternative approaches that are more robust to violations of normality including Satorra–Bentler, Yuan–Bentler, and Bollen–Stine.

Results of CFA with Satorra–Bentler estimation show the model has a poor fit to data with Chi-square = 324.988, Df = 152, Pvalue = .000, CFI = .894, TLI = .881, RMSEA = .083 with 90% CI [.072 – .094], SRMR = .056, and standardized factor loadings range from .597 to .875.

Results of CFA with Yuan–Bentler estimation show the model has a poor fit to data with Chi-square = 320.512, Df = 152, Pvalue = .000, CFI = .871, TLI = .855, RMSEA = .082 90% with CI [.071 – .093], SRMR .056, and standardized factor loadings range from .597 to .875.

Results of CFA with Bollen–Stine estimation show the model has a poor fit to data with Chi-square = 431.648, Df = 152, Pvalue =.000, CFI = .887, TLI = .872, RMSEA = .106 with 90% CI [.094 – .118], SRMR = .056, standardized factor loadings range from .597 to .875.

Lastly, I try CFA with diagonally weighted least squares (DWLS) estimation that may fit better for categorical data (data estimator="WLSMV"). DWLS provides acceptable model data fit with Chi-square = 68.057, Df = 152, Pvalue =.000, CFI = 1, TLI = 1, RMSEA = 0.000 with 90% CI [.000 - .000], SRMR = .055, and standardized factor loadings range from .602 to .866. Therefore, CFA confirms the appropriateness of the one factor model.

Convergent & discriminant validity

To assess convergent and discriminant validity, I overviewed the conceptual overlap and distinction between the ACPS construct and a comparable construct. According to the literature, ACPS and public service motivation (PSM) are comparable (as discussed in the previous section). Therefore, I access the convergent & discriminant validity between ACPS and PSM.

To assess convergent validity, I calculate the correlation between ACPS construct and PSM construct. Results show that the two constructs are positively and highly correlated (r = 0.85). Therefore, convergent validity was supported.

Regarding discriminant validity, I compared the chi-square differences between two CFA models: (model 1) 2 factor CFA model in which ACPS was distinct from PSM; (model 2) one factor CFA model in which ACPS and PSM was treated as unitary. The two models were compared to see which model had better fit to data. Since DWLS are more appropriate for my data, I use this method for all the CFA models.

Results show that both the CFA models have a good fit to data. I, then, used Anova to compare the chi-square difference between the two models. The tests were significant: $\Delta\chi 2(2) = 10.967$, $p < .001$ or the one factor CFA model fits significantly better than the 2 factor CFA model. These results indicated the ACPS scale did not satisfy discriminant validity.

In sum, the ACPS construct correlates positively and highly to PSM and is not significantly discriminate from PSM. Thus, ACPS satisfies convergent validity but fails the discriminant validity test.

Predictive validity

ACPS is a predictor of the intent to stay with the public sector since employees having high ACPS will have a "psychological bond" to the public sector. Employees having high levels of ACPS will be more likely to stay with the public sector and meaningfully contribute to the public sector. Therefore, I hypothesize that ACPS is positively related to intent to stay in the public sector.

I used OLS regression to estimate the relationship between mean scores of ACPS and Intent to stay (Since the structural equation model is not identified). Results show that ACPS is positively and significantly related to intent to stay (beta = .225, p <.001, Adjusted R squared = .297). Therefore, predictive validity of ACPS was confirmed.

Measurement invariance

I examined the measurement invariance of the ACPS scale in the two groups: men (n= 75) and women (n=89) by analyzing several CFA models and comparing their fit statistics. More specifically, I started with the fully unconstrained model and then added constraints step by step. The unconstrained model has an acceptable fit to data, with Chi-square = 110.044, Df = 304,

Pvalue =1.000, CFI = 1, TLI = 1, RMSEA = 0.000 with 90% CI [.000 - .000], SRMR = .066. (model 1).

Next, I constrained the factor loadings to examine metric equivalence (model 2). Most model fit indices are acceptable with Chi-square = 211.818, Df = 322, Pvalue =1.000, CFI = 1, TLI = 1, RMSEA = 0.000 with 90% CI [.000 - .000], except for SRMR = .093.

I, then, compared the fit of the two models using the chi squared statistic. Results of the Anova command show that Chi squared difference = 23.8, df difference = 18, and Pvalue = 0.1617. Thus, I would conclude that the ACPS scale has factor loadings invariant across the groups.

To examine scalar equivalence, I added to model 2 constraints to the item intercepts (model 3). Most model fit indices are acceptable with Chi-square = 218.247, Df = 340, Pvalue =1.000, CFI = 1, TLI = 1, RMSEA = 0.000 with 90% CI [.000 - .000], except for SRMR .094.

Next, I compared the fit of the two models (model 2 vs model 3) using the Chi squared statistic. Results of the Anova command show that Chi squared difference = 15.685, df difference = 18, p value= 6145. Thus, I can conclude that the scales have scalar equivalence across the groups.

To test strict invariance, I added to model 3 constraints to the item residuals. Most model fit indices are acceptable with Chi-square = 233.588, Df = 359, Pvalue =1.000, CFI = 1, TLI = 1, RMSEA = 0.000 with 90% CI [.000 - .000], except for SRMR = .099.

I, then, compared the fit of the two models (model 3 vs model 4) using the Chi squared statistic. Results of the Anova command showed that Chi squared difference = 22.324, df difference = 19, p value= .2684. Thus, I can conclude that the scales have items residuals invariant across gender groups.

CONCLUSION

This study aims at developing a new scale to measure a new construct ACPS. Based on the literature of affective commitment, I was trying to develop a new construct ACPS that contains two main factors. Despite this, results of testing the scale on the data show that ACPS is unidimensional, like other affective commitment scales. In addition, although my purpose is to develop a novel construct and scale, the ACPS scale developed in this study does not significantly differ from PSM – a well-known construct in public management literature. Despite this, the ACPS scale does have predictive validity in that it can positively predict employees' intent to stay with the public. In addition, test of measurement invariance showed that the scale is invariant across gender groups.

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A VALUE CHAIN ANALYSIS OF SEAWEED IN KHANH HOA AND NINH THUAN PROVINCE, VIETNAM

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Abstract

Seaweed industry is considered the very beneficial ones for the economic development of Vietnam. With 3,260km length of coastline and a very diversified marine ecosystem, Vietnam has a very big potential in seaweed farming. This paper focuses on analyzing the value chain of seaweed species called Caulerpa Lentillifera (Sea grape) because among many other seaweed species being cultivated in Vietnam at present, sea grape seems to prove its potential by the increasing cultivation areas and its opportunities for both export markets and domestic market. A qualitative research method is adopted in order to point out stakeholders in the seaweed value chain, clarify the value added during the chain, identify the opportunities and challenges, and figure out some general solutions for seaweed industry. Together with the survey results, we concluded that each chain in the value chain of sea grape should be put a great deal of attention to exploit its potential.

Keywords: *Value chain, sea weed industry, sea grapes, value chain analysis, agri-food, Vietnam*

1. INTRODUCTION

"Vietnam has a coastline of approximately 3260 km in length, dotted by numerous islands, islets, atolls and reefs, and in approximately 1,000,000 square km of sea area (Tu et. Al, 2013). There is a total of 827 seaweed species are reported along the coast in Vietnam, of which the Rhodophyta shows the highest species number (412 species), followed by the Chlorophyta (180 species), Phaeophyceae (147 species) and Cyanobacteria (88 species)" (Tu et. al, 2013). Several species are used for food (humans and livestock), for the extraction of agar and carrageenan (Huynh and Nguyen, 1998, Dang et al. 2007), for biofertilizer, as well as for traditional medicine. Among more than 800 species of seaweed, 90 species of seaweed have economic value in Vietnam. Vietnam has 20 species of agar-containing seaweeds, and a variety of seaweed with high carrageenan content (Vietfish Magazine, 2022). At present, there are common 7 seaweed species with high economic value such as: *Caulerpa lentillifera*, *Gracilaria tenuistipitata*, *Gracilaria firma*, *Gracilariopsis bailinae*, *Kappaphycus alvarezii*, *Kappaphycus striatus and Eucheuma denticulatum* (Vietfish Magazine, 2021)

Seaweed farming is mostly concentrated in the South-Central coast of Vietnam, such as in Da Nang, Quang Nam, Binh Dinh, Khanh Hoa and Ninh Thuan provinces.

Although the role of seaweed industry is indispensable, seaweed sector in Vietnam is

currently facing many challenges as pollution, fragmented production, out of date production technologies, no national standards for seaweed quality, no guidance about developing seaweed industry following the standards of value chain, etc. (*Development Strategy for fishery in 2030, vision to 2045* – Ministry of Agriculture and Rural Development). Apparently, the problems that seaweed industry is coping with are huge, and it is impossible to figure out the solutions for all the problems in the sphere of one paper. Hence, in this paper we focused on analyzing one problem which is considered one of the most important factors on the way of developing seaweed industry, called the value chain of seaweed. Value chain analysis at industry level is an effective way to thoroughly consider each stakeholder in the chain in order to see which chain should be improved to create the value added for the whole chain. After a systematic literature review of researches related to seaweed value chain analysis in Vietnam, we found that there has not been any research of sea grape value chain analysis conducted in Vietnam. This study employs an in-depth interview method and a value chain analysis to point out problems in seaweed value chain in order to promote the seaweed industry of Vietnam.

Value chain definition was first developed in France during the 1960s, called the notion of *Filière*. Based on the concept of *Filière*, value chain was described as commodity chain, and the analysis of value chain was the analysis of inputs and outputs, costs, prices and value added (Hiroki, 2022; Klemen Knez, 2021; Pablo, 2019; Bellu, 2013; Bertazzoli *et al*., 2011; Kaplinsky and Morris, 2002, Hopkins, 1977).

In 1980s, following the concept of commodity chain previously, value chain definition started to be examined from the perspective of strategic management, in which one of the seminal works was of Michael Porter (1985). According to Porter (1985), value chain was defined as a set of inbound logistics, operations, outbound logistics, marketing and sales, firm infrastructure, human resource management, technology development and procurement in order to deliver products or services from conception to the final customer.

Researches related to value chain analysis (VCA) in seaweed aquaculture are conducted in Indonesia and Philippines, and it is said that VCA has been an useful and practical tool in developing the seaweed industry (Neish 2008, 2013; Andriesse and Lee, 2017; Ferdinandus et al. 2017; Mulyati and Geldermann, 2017; Adibi, 2020). A value chain concludes all activities needed to bring a product from production stage to the final customer's consumption stage. VCA is carried out in order to identify the chains where the inefficiency exists, capture the value added along the chain, and point out recommendations for maximizing the value generated for the whole chain.

This paper is divided into five main parts: introduction, methodology, sea grape value chain analysis, SWOT analysis, and conclusion.

2. RESEARCH METHODOLOGY

We constructed semi-structured interviews with stakeholders of the sea grape value chain, including: fifteen farmers, four collectors, four processors, two retailers, and three experts to collect data for the analysis. The collected information includes: the flow of the product from manufacturers to final customers, sea grape cultivation, costs and revenue for sea grape products, market information of sea grape products, the opportunities and challenges that sea grape products are facing up with. The interviews were conducted from December 2021 to March 2022 in Khanh Hoa province, Ninh Thuan province and Hanoi. Using the obtained data, we adopted a value chain analysis used by Taylor (2005), Rosales *et al.* (2017) and Hiroki *et al.* (2022) to address these following issues:

Identify stakeholders involved in the value chain of sea grape

Map the identified parties along the chain

Determine the value added in each chain

Point out the opportunities and challenges the value chain is coping with

3. SEA GRAPE VALUE CHAIN ANALYSIS

Sea grape (Caulerpa lentillifera) has been introduced in Vietnam in 2004 and successfully grown in Khanh Hoa province and become source of export income. Potential sea grape cultivation areas are about 400 ha, mainly in Khanh Hoa province, and currently sea grape cultivating area is about 100 ha, sea grape yield is about 20 tons/ha/year, and selling price is from 8 to 10 USD/kg of fresh. Sea grape cultivation areas will increase due to current expansion of export and domestic market for sea grape cultivated in Vietnam. This above information was presented in the workshop held on 16^{the} February, 2022 by the collaboration between Directorate of Fisheries and the World Wildlife Fund for Nature of Vietnam (WWF-Vietnam).

3.1. Geographical area

Khanh Hoa is a coastal province in the South-Central Coast of Vietnam. The north borders Phu Yen province, the south borders Ninh Thuan, the west borders Dak Lak and Lam Dong provinces, the east borders the East Sea. Khanh Hoa also has sea areas, continental shelf, and coastal islands and Truong Sa Island district. Khanh Hoa province has 1.336 million people in 2022, with an area of 5,271km^2 including islands and archipelagos, the population density of Khanh Hoa is 253 people/km^2 (khanhhoa.gov.vn).

Khanh Hoa has a coastline of about 385 km from Dai Lanh commune in the north to the end of Cam Ranh Bay in the south, with many estuaries, lagoons, bays, and about 200 large and small islands along the coast and atolls in the Spratly archipelago. Khanh Hoa has six large lagoons and bays: Van Phong, Nha Trang, Cam Ranh, Hon Khoi, Nha Phu, and Dai Lanh. The climate in Khanh Hoa is relatively stable due to the nature of the oceanic climate. Usually there are only two distinct seasons, the rainy season, and the dry season. The rainy season is short, from about mid-September to mid-December, heavily in October and November, when rainfall usually accounts for over 50% of the year's rainfall. The remaining months are the sunny/dry season, with an average of 2,600 hours of sunshine annually. The average annual temperature of Khanh Hoa is about 26.7 °C high. Khanh Hoa has few winds and storms, only about 0.82 storms/year compared to 3.74 storms/year landing on the coast of Vietnam.

Table 1: Climatic condition in Khanh Hoa province

Average temperate re/month	1	2	3	4	5	6	7	8	9	10	11	12
Max (°C)	27	28	29	31	32	32	32	32	32	30	28	27
Min (°C)	22	22	23	25	26	26	26	26	25	24	24	22
Rainfall(cm)	2	0.6	2.1	2	5.1	3.5	2.6	3.2	13.4	25.4	25.1	12.2

(Source: acuraweather.com)

Khanh Hoa has diversified wetland ecosystems, coral reefs, mangrove forests, seagrass beds, estuary ecosystems, marine island ecosystems, and coastal sandy ecosystems. Especially, the Hon Mun area of Nha Trang Bay has the highest biodiversity with 350 species of coral reefs accounting for 40% of the world's corals. The province has a potential seafood production volume of 150 thousand tons, mainlyfloating fish (70%).

3.2. Sea grape value chain mapping

Sea grapes are cultivated mainly by individual household farmers. Sea grape farmers sell their products to the collectors, processing facilities and companies. The collectors can sell the fresh sea grape to the processing facilities and companies or the domestic retailers. The sea grape arrives at processing facilities and companies where it is cleaned, processed and packaged into different products, mainly fresh sea grape, dehydrated sea grape and sea grape by-products such as sea grape juice.

Sea grape processed products are distributed into domestic markets through: (1) restaurants and food chains, e.g. seafood restaurants, sushi restaurants, Tokyo Deli, etc., (2) mini and supermarket retail chains, such as Lotte, Vinmart, etc. A large proportion of sea grape are exported to foreign markets such as EU, Japan, US, etc.

Most of the processing facilities and companies are small and medium ones, from household business to around 60 employee companies. Few processing companies are also producers and exporters. There was no clear distinction between collectors and processors, because the processing is relatively simple, for that reason, some collectors can also sell the classified fresh sea grape directly to the domestic retailers. Therefore, the survey gathered these actors into one group as a business actor group.

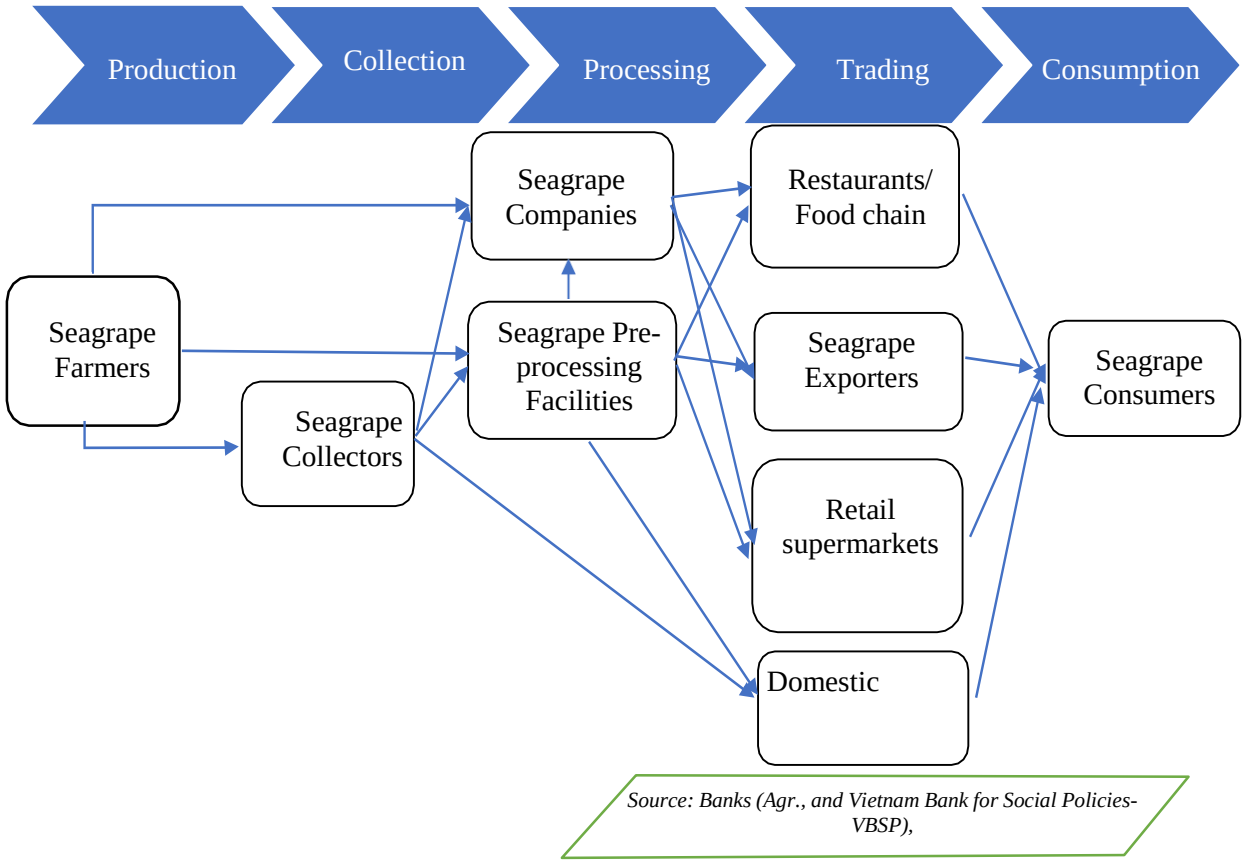

Figure 1: Sea grape value chain in Khanh Hoa

3.3. Sea grape cultivation

Table 2: Sea Grape cultivation in Khanh Hoa, Ninh Thuan provinces

Provinces	Sea grape production areas	Yield (ton/ha)	Volume (ton)	Note
Khanh Hoa	Sea grapes: 27 ha in Ninh Hai commune, 20 ha in Ninh Thọ commun Ninh Hoa town.	1-1.5 ton/ha/month (15-20 ton/ha); price 35-40 k/kg.	414.5 ton	Sea grapes: in Ninh Hoa town; Cam Ranh,
Ninh Thuan	Sea grapes: 15 ha			Nai Lagoon
Binh Thuan	Hai Nam Okinawa Company: 1 ha, 40 tanks		40 ton/year	
Phu Yen	5000 m2 (5-10 ha), 5-7 farmers	(50.000 vnd/kg)	20 tons	Xuan Phuong commune, Song Cau Town

(Source: Semi-structured interviews, December 2021)

Sea grape farming in Khanh Hoa Province: Sea grape cultivation was first grown in Khanh Hoa province in Vietnam, then is now presented in several coastal provinces in Việt Nam, including Khanh Hoa, Binh Thuan, Ninh Thuan, Kien Giang and Vung Tau, Phu Yen, Binh Đinh in the south and Quang Ninh province in the North of Vietnam. In Khanh Hoa province, sea grapes are cultivated in Ninh Hai ward, Ninh Hòa town around Hon Khoi cape. The local condition is quite suitable and stable for sea grapes growing, with average temperature of 28 – 30^0C, and salinity of 30 – 33‰C (Table 1).

The area around Hon Khoi cape were famous for its salt production in the past. Much of the salt fields were converted into shrimp ponds before. However, shrimp farming was faced with disease, and increasing water pollution problems. Therefore, local farmers have tried sea grapes cultivation since 2004. Ninh Hải Ward People's Committee reported of 27 ha of sea grape cultivation in locality. The productivity of sea grape is about 1.5-3 tons per hectare/crop, with about of 10 crops/year. Therefore, annual productivity of sea grape growing ranges from 15 – 20 tons/ha/year. Fresh sea grape selling price is about 35,000 – 40,000 vnd/kg. Hence sea grapes growers can earn a profit of 100 – 200 million vnd/ha/year (Vietnam News, 2021).

Many sea grape growers are currently cultivating their sea grapes on legally unstable cultivating areas, which were planned by the government for other economic activities and projects, such as: tourism, industrial developments, etc. For example, Ninh Hải Ward People's Committee, reported that all 27 ha of sea grape cultivating area in the ward was planned for a heavy industry complex project by the Korean investor STX Group.

***Sea Grape Farming in Ninh Thuan Province*:** Ninh Thuan province has a very suitable coastal environment for growing sea grapes. The province has plenty of unused shrimp ponds, that bring great opportunities to sea grapes cultivation. The suitable temperature for the best growth of sea grapes is from 20 – 28^0C. Dark shade nets can be used to control level of sunlight or temperature over the cultivating pond, or grower can control water level deeper to manage sunlight and temperature. In a water environment with pH from 7.5 to 8, salinity from 24 to 32 parts per thousand and rich of nutrients, sea grapes grow well, and it takes about half a month to harvest one crop. When harvesting, the stem is harvested separately, cut into short pieces of 7-10 cm before being put in a tank to remove dirt, then transferred to a centrifuge to drain and pack,

can be kept alive for more than 10 days. The average yield is about 10 tons/ha/year. Depending on the pond area, bottom substances, water source, light direction, etc. the initial investment cost for a sea grape cultivating pond (3,000 m^2) ranges from 50 million to 70 million VND. On average, 1,000 m^2 of ponds should be planted with about 1 ton of sea grape, more space will be needed for grape seaweed to grow. In Ninh Thuan province, Ninh Hai district is considered as the "capital" of sea grapes cultivation in Ninh Thuan province. Sea grapes growers are mainly in Dam Nai lagoon, most recent report of 15 ha of sea grapes, with 6 households. With an area of 1 hectares of sea grape gives an average of 15 kg of fresh sea grapes/daily, sold at a price of about 50,000 vnd/kg, after deducting costs, can bring a profit of about 250 million vnd/year.

Sea grapes is a popular nutritional food that can be supplemented and replaced with green vegetables. Sea grapes contains many minerals such as protein, calcium, magnesium, potassium, sodium, especially iodine, iron, vitamin A, prevention of malnutrition, anemia. Sea grape is a very popular product in markets such as Japan, Korea, China, and Malaysia.

Table 3: Cost and benefit analysis of sea grapes cultivation (1 ha/year)

Item	Unit	Price (1000 vnd)	Amount (1000 vnd)	Percentage (%)
I. COSTS				
1.1. Fix costs:	**1,250 millionvnd/ha/5 year**	**250,000**	**250,000**	**29.40 %**
Pond construction	0	0	0	0
Land rent	100 million vnd/ha/5 year	20,000	20,000	2.35 %
Machines & Tools	150 millionvnd/5 year	30,000	30,000	3.53 %
Plastics trays, sun-covernet	1,000 millionvnd/ha/5 year	200,000	200,000	23.53 %
1.2. Variable costs:			**600,000**	**70.60 %**
Seedling	2,000 kg/ha	30	60,000	7.06 %
Pond preparation	1 ha	40,000	40,000	4.70%
Energy	10 months	10,000	100,000	11.76 %
Chemical	10 months	10,000	100,000	11.76 %
Hired labor:				
- Harvesting	20,000 kg	10	200,000	23.52 %
Interest			50,000	5.88 %
Others			50,000	5.88 %
II. REVENUE			**1,000,000**	**100 %**
Sea grapes	20 tons/ha	50,000	1,000,000	100 %
By products			0	0 %
III. PROFIT				
Gross profit (GP)	**1 ha/year**		**150,000**	**17.50 %**
Net profit (NP)	**1 ha/year**		**120,000***	**14.00 %**
Value added (VA)	**1 ha/year**		**350,000**	**53.85 %**

***Source**: estimated from informal interviews and secondary information, 2021; * assume of a profit tax of 20%.*

From Table 3, it can be seen that sea grape cultivation gives an average profit of 150 million VND per ha, with a gross profit rate of about 17.5%, and a net profit rate of about 14%. Sea grape cultivation creates job to local people in harvesting; labor cost accounts for 23.5% of total production cost. The business creates a large value added to local economy, and rate of value-added over intermediate cost is about 53.9%; it means that with 2 VND of investment in sea grapes cultivation, it will bring 1 VND of economic value to local economy. The financial profitability of sea grape cultivation model is fluctuated depending on cultivation productivity and selling price. Sea grapes cultivation productivity is about 20 tons/ha but can be fluctuated due to weather and environmental conditions, for example heavy rain can reduce salinity and cause sea grapes to die. Water pollution and water quality reduction can cause sea grape disease and declining productivity. In a peak harvesting season, when sea grapes production and supply are high. Sea grape farmgate selling price can be dropped by 20-30%, hence grower can have a zero profit or a loss.

In-house sea grape cultivating system: to overcome the problem of unstable production yield and selling price, farmers and companies are continuously innovating their production and business models to reduce negative effects from unstable productivity and selling prices. Hai Nam – Okinawa joint stock company is one of the pioneers in this innovative direction in Binh Thuan province. The Company has built a sea grapes production facility of a total area of 1 hectare and located more than 1,000 m from the coast. The facility has 2 water-intake settlement/treatment ponds of a capacity of 5,000 m^3. Sea water is pumped from the sea through pipes and filter tanks. The facility has sea grapes cultivating 40 tanks, giving a yield of nearly 200kg/tank/25 days. The facility is operated by a team of over 50 workers and has been successfully manufacturing good quality sea grapes products. Total production volume of 40 tons of sea grapes is produced, processed, packaged and exported to foreign markets in Japan, Taiwan and some other countries, with an estimated revenue of about 400 – 600 thousand USD annually.

3.4. Sea Grapes Processing & Products

Sea grapes are harvested from cultivating farms and delivered to processing facilities. Sea grapes are nursing in tanks in-door with clean sea water for 4-5 days. Sea grapes are then dewatering and packaged before delivering to markets. Sea grapes processors locate mainly in Khanh Hoa and nearby provinces. Most of sea grape processors are established recently and use technologies imported from Japan or developed by domestic research and technological application institutes.

Sea grape is known as one of the fresh great seaweeds in Japan, Korea and Western countries. In Viet Nam, it is becoming more and more popular because of its various benefits for human health, such as: effective body detoxification, skin beauty, anti- obesity, anti-aging, arthritis, post stock, increasing resistance to the body and especially, it is extremely good for high blood pressure, cardiovascular diseases. Sea grapes are mainly processed to eat fresh as vegetable or salad. Fresh sea grape canbe processed as wet or dry sea grapes.

- **Wet sea grapes:**

Wet sea grapes are original fresh sea grapes, which are packaged in plastic or foam box. Fresh wet sea grapes can be preserved in good conditions (cool and soft light) for 8 weeks.

- **Dry sea grapes:**

Sea grapes are dehydrated with a certain level of salt. Dry sea grapes can be persevered for more than 6 months. Dry sea grapes are deepened in fresh water for about 5 minutes before

serving, and the quality is similar to fresh products.

Table 4: Cost and benefit analysis of wet/dry sea grapes processing (1 kg)

Item	Unit	Price (1000 vnd)	Amount (1000 vnd)	Percentage (%)
I. COSTS				
1.1. Fix costs:				
Housing & tanks				
Machines & tools				
1.2. Variable costs:			**180**	**100%**
Material	1.5 kg	50	75	41.67%
In-housing nurturing (4-5days)	5 days	10	50	27.77%
Packaging	2 packages	5	10	5.55%
Transportation	1 kg	5	5	2.78%
Hired labor:	1 kg	30	30	16.66&
Interest			10	5.55%
II. REVENUE				
Sea grapes	1 kg	200	200	
III. PROFIT				
Gross profit (GP)	**1 kg**		**20**	**10%**
Net profit (NP)	**1 kg**		**18**	**9%**
Value added (VA)	**1 kg**		**50**	**25%**

(Source: Interviews processing companies, December 2021)

- **Sea grapes powder**:

Sea grape powder has natural moisturizing properties which act like moisture barriers giving the feeling of fresh, radiant skin. Sea Grapes Powder is also considered a mask that can be combined with water to create a natural, skin-toning clay mask. Taking sea grapes powder as raw food supplement daily will help feel more energetic, productive,and focused.

- **Sea grapes juice & jelly:**

Juice is an extremely nutritious drink, rich in vitamins and minerals. It is pressed directly from fresh ingredients, has a delicious characteristic taste and this juice also has many good health benefits. It contains a lot of minerals and other organic nutrients that are beneficial to human health.

- **Potential for sea grapes processing products:**

Sea grape sauce: This seaweed contains a high enough protein that reaches 21% with a high residual amino acid aspartate and glutamic acid, including umami or savory flavor producers. Besides, this seaweed also has a distinctive seafood aroma (smell). Based on sea grapes' characteristics, one of the processed products that can be developed from sea grapes is a sauce,

by utilizing the protein, amino acids, and compounds in the form of seafood's aroma. The process of making sauces from sea grapes begins by preparing dry sea grapes, which are dried using the method of air drying, then making sea grape protein hydrolysates using the enzyme bromelain to release compounds that form the aroma of seafood, protein, and amino acids, then the formulation of making sauces by mixing hydrolysates, palm sugar solution, carboxymethyl cellulose (CMC) gel, and glucose syrup. The sauce from sea grapes has the right combination of seafood and bread flavors that make the sauce product accepted by consumers (Amin et al.,2021)

Sea grape functional foods: Sea grapes contains crude fiber and secondary metabolites which positions sea grapes as a functional food ingredient. The components of superior nutrition in sea grapes are minerals, proteins, fats, and carbohydrates. The superiority of sea grapes as a food ingredient is its processing which is very simple and brief and does not require food additives in the form of dyesand essences (Tapotubun et al., 2020).

Table 5: The Mineral Content of Several Types of Sea Grapes

Types	*C. lentillifera* (mg/100 g DW) [17]	*C. racemosa* (mg/10 g DW) [18]	*C. veravelensis* (mg/100 g DW) [18]	*C. scalpelliformi* (mg/100 g DW) [18]
Mg	630	161	-	-
Ca	780	476	-	-
K	970	503	-	-
Na	-	1064	-	-
Fe	9,3	2,97	14,79 ± 1,44	16,28 ± 2,11
Cu	2200 (µg)	0,06	0,41 ± 0,77	0,77 ± 0,55
Zn	2,6	0,68	5,42 ± 0,22	3,27 ± 0,28
Mn	7,9	-	2,00 ± 1,18	3,33 ± 0,36
Ni	-	-	0,20 ± 0,04	0,37 ± 0,55
As	-	-	0,21 ± 0,07	0,25 ± 0,09
Mo	-	-	0,13 ± 0,02	0,11 ± 0,01
Se	-	-	0,27 ± 0,04	0,15 ± 0,03
P	1030	-	-	-
I	1424 (µg)	-	-	-

(Source: Tapotubun et al., 2020)

Prebiotics on Inhibiting Pathogenic Bacteria: Sea grapes (Caulerpa lentilifera) consisted of polysaccharides to be used as a prebiotic precursor for prevention of pathogens in aquatic animals. The efficiency of polysaccharides extracted from sea grapes for prebiotic properties was conducted by comparing the growth of probiotic bacteria Bacillus subtilis at different concentrations in co-cultured with pathogenic bacteria Vibrio parahaemolyticus. The comparison between monoculture of probiotic bacteria and co-culture of probiotic bacteria plus pathogenic bacteria indicated that there was none significantly different in growth of the bacteria. Hence extracted polysaccharides from sea grapes (C. lentilifera) had potential to be utilized not only as a growth enrichment of probiotic bacteria but also inhibiting pathogenic bacteria (Sopon et al.,2020).

3.5. Sea grape distribution channels

Restaurant and food chains: Sea grapes are first introduced to Vietnamese consumers through high-valued seafood restaurant and sushi food chain, such as Tokyo Deli as a salad mix, eating with other seafood dishes and sushi. At first, sea grape is quite new and exotic to Vietnamese consumers. They are only willing to try it in special setting like high-end restaurants,

tourist places, hotels, and the likes. There was no official marketing campaign or program for sea grapes among Vietnamese consumers. However, with the certain time appearing on market, Vietnamese consumers are becoming more open to the new sea grapes dishes and products.

Sea grapes consumed through this channel are often high quality, with limited volumes and high price. Small sea grapes growers are difficult to participate in these channels.

Retail stores and supermarket: Nowadays, all major supermarkets across the country have sea grapes on their shelfs. Sea grapes are sold at supermarket includes BigC, Lotte, Mega, Aeon Mall, Vinmart+, Minimarts, convenience stores. Most of sea grapes are sold on retail stores are dry/dehydrated sea grapes, which can be stored for 6 to 12 months on shelf. Some small proportion of fresh sea grapes are distributed in retail store, often on large cities, where consumers are more open to new products, since fresh wet sea grapes are lasting only few weeks on shelf. The sea grapes' prices fluctuate slightly, but generally around 200,000 VND/kg for fresh wet sea grapes, and 600,000 VND – 750,000 VND/kg for dry/dehydrated sea grapes. Sea grapes are still a new product to consumers in retail and supermarkets. However, the consumption trend is increasing gradually due to raising awareness about product quality and information.

***Traditional wet and street markets*:** sea grapes are seldom sold in traditional wet markets because it is a quite new product to traditional consumers. However, sea grapes are sometimes sold in wet and street markets with very cheap prices and traditional customers are also trying to try this new product at very reasonable prices

Sea grapes are sold on wet and street markets with price lower than normal market prices. Some experts claimed that the reasons for low price are due to difficulties in export markets, and low-quality sea grapes which was cultivating with lower water quality and growing stimulants. The phenomenon raises a warning that sea grapes cultivation should be regulated in term of standard cultivation procedure, and quality control, to avoid future damage of its image and quality reputation. Selling sea grapes in streets can be a good tool for disseminating information about the product, and benefit the sector. However, it also has potential negative effects and damages to thefuture development of the sector.

***E-commerce and digital marketing*:** In recent years, many Vietnamese companies found the market opportunities for sea grapes products, so they have invested in sea grapes processing and marketing. Some new sea grapes product brands become more popular brands in Vietnam. The dedication of the industry on processing technology research and cross-border e-commerce are the two key factors that help the industry to grow in both domestic and international markets.

Sea grapes companies and distributors has been making use of online sale channel and digital marketing to approach its potential consumers abroad and domestic. Vietnamese sea grapes exporters have been working with Alibaba and Amazon, such as Fulfilment Center by Amazon (FBA) to get their products to be stored in Amazon's fulfilment centers all over the world, where Amazon picks, packs, delivers, and provides customer services. Sea grapes are easily searched by domestic consumersthough online market platform such as Tiki, Shopee, etc.

Sea grapes market potential: there is no estimation of current sea grapes market size and market potential. Based on existing information, the current total sea grapes cultivation areas range from 200 ha to 500 ha in the central coast of Vietnam, with the average yield ranges from 20 to 30 ton/ha/year. We estimate the total fresh sea grapes production volume in Vietnam is from 5,000 tons to 10,000 tons per year. We estimate that 40 percent of sea grapes volume is consumed in domestic market with a market price of about 10 usd/kg. And about 60 percent of total sea grape production is exported with an average price of 20 usd/kg. Therefore, estimated

market values of sea grapes are about 30 million usd in domestic market and about 90 million usd in international market. From the current estimated market volume, we calculate that average sea grapes consumption volume per capita in Vietnam is about 50 – 100 gram/person/year. It is equivalent to 02 meal of sea grapes a year. This level of consumption is too little. Sea grape is a healthy and promising food. We assume that people should eat 2 meal of sea grapes a week, it means that sea grapes consumption per capita should increase about 100 times. Based on this assumption, we calculate the potential market size of sea grapes and forecast that potential sea grapes market can reach at least 2 billion usd in domestic market and 6 billion usd in international markets.

Table 6: Estimation of sea grapes current and potential markets

Items	Unit	Current marketvolume (ton)	Price (usd/kg)	Current market value(USD)	Potential market size (value: USD)
Total	ton	5,000 - 10,000			
Domestic	40%	2,000 - 4,000	10	20,000,000 - 40,000,000	2,000,000,000 - 5,000,000,000
Per capita consumption	kg/ person	0.05 - 0.1 kg/per/year	10	0.5 - 1.0	5 – 10 kg/person/year
International	60%	3,000 - 6,000	20	60,000,000 - 120,000,000	6,000,000,000 - 12,000,000,000

(Source: Generated from data collected from interviews, 2022)

Hence, sea grapes market has very large potential. To fully exploit this market potential there are lot of work needed to be done regarding to market research, market development, brand building, advertising, distribution development, etc.

4. SWOT ANALYSIS

Sea grape value chain development

At company scale, there are some levels of value chain development and governance. Sea grapes growers collaborate with sea grapes processing companies to develop products that meet markets' demand. However, at the industry level, sea grapes sector is lacking coordinated body and strategy for developing the sector in the long run.

Strengths (S)

- Large potential coastal and sea water surface that are suitable for sea grapes cultivation and development.
- Sea grapes growers and processors are having initial experiences, knowledge and motivation to expand the sector.
- Images and reputation of Vietnamese sea grapes are emerging in domestic and international markets.

Weaknesses (W)

- Week and unstable sea grape cultivation technologies.
- Sea grapes cultivation is fragile to natural and weather conditions
- Not availability of technical procedures, organized standards and certifications in the sector: GAP, etc...
- Unstable and unsecure legal basis for the sector: policies, planning, land & water property rights.
- Innovation capacity is weak and scattering
- Lack of governing body and coordinating mechanism.

Opportunities (O)

- Innovation capacity is invested by government and other non-government organizations, including: innovations regarding new cultivation model (farming innovation/models: island, open sea, etc.); innovations in new products (functional food, pharmacies, etc.); Innovation grants for small and medium companies; innovations in seedling production and maintenance.
- New standards estimation for sustainability: GAP/clean production standards, quality control, environmental monitoring program… are on the way to be completed Market potentials are huge and diversified.
- Sector organization development are paid attention to by the government: grower groups/cooperative, sector organization, policy advocacies, investment scanning/opportunities/supportive environment.

Threats (T)

- Climate changes
- Unstable legal framework along coastal line land and water surface
- Competition and conflicts with other sectors development (tourism, etc.) and other countries (Indonesia, etc.)
- Moral hazard problems can lead the sector to a bad direction and poor reputation of low quality and unsustainability.

5. CONCLUSIONS

The seaweed sector in Vietnam has a big potential to develop. However, it needs strong supports, planning, legal status, and investment from both private and public sectors. For sea grape development, the first priority is to develop a stable legal status to protect long-term investment and development in the sector. First, the sea grape sector should continue to develop and expand its current strong expending markets both domestic and international. Second, the sea grape sector needs to develop standard production certification to ensure its quality, hygienic food safety standards, as well as its sustainable development in term of environment, and social aspects.

Sea grape sector, in particular, and seaweed industry, in general, need to develop their governing and coordinating bodies to guide and coordinate their development.

Especially, the sector governing bodies should work with the government to ensure good legal status and planning to protect their long-term development and avoid conflicts with the development of other sector along the coastal line.

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GREEN MARKETING: AUTHORITY RULES AND COVID-19 IMPACT

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Abstract

The pandemic has caused a change in societal tendencies toward a greater focus on health and environmentally responsible development. This shift is a direct result of the epidemic's influence on our general consumption habits. The endeavors of marketing should mirror the shifting trends in the behavior of customers. The purpose of this study is to investigate the factors that contribute to the accomplishment of a green marketing campaign that prioritizes innovation and long-term sustainability. We made some assumptions about the effect that several factors, such as pricing, product quality, and environmental advertising have on the desire to make a purchase. The SEM research model analysis and online data collecting are both things that we do. In addition, the role that the covid-19 influence and authority rules play as mediators of the relationships that exist between the marketing mix and purchase intention was investigated and analyzed. Based on the findings, it seems that the norms governing power play an important part in promoting sustainable development. Both theoretical and practical considerations were addressed in the conversation.

Keywords*: Product quality, packages, green advertising, authority rules.*

INTRODUCTION

Green marketing is all exchange activities aimed at satisfying customers' wants while minimizing harm to the environment by improving product design, production lines, packaging, or communications (Peattie et al., 1992). Many foreign firms are entering developing countries, but some ignore industrial waste treatment and dump it directly into the river, causing immense pollution and harming people's lives (Nguyen Van Quoc et al., 2021). Green marketing strategies will help businesses establish a green business image in customers' eyes (Groening et al., 2018). Recent research have also shown that the source, extent, and severity of the economic crisis brought on by the COVID-19 virus are distinct from those of previous crises (Ramelli et al., 2020). Under the effect of COVID-19, customers like healthier items and seek marketing that inspire confidence (Barrett et al., 2021). At the national level, a mismatch has been discovered between attitude and actual purchasing behavior. Existing literature on marketing innovation and sustainability is incomplete.

Most previous studies have focused on product, marketing and other types of sustainability. Little research has been done on the influence of COVID-19 and government

policies on consumer cognition and behavior. Green products can have environment, economic, health, and safety benefits (Chou et al., 2020). External variables such as government and media will influence green marketing innovation. That's why we think it's important to compare how consumers feel about the quality, cost, presentation, and promotion of eco-friendly and cutting-edge goods to how they felt before the Covid-19 pandemic hit, as well as how their purchasing decisions have changed as a result. Despite the extensive literature on sustainability and innovative marketing, there is little research data on this post-Covid-19 activity. This study aims to determine the determinants that influence whether someone intends to buy green products with improvements (Ketelsen et al., 2020). Consumers are likely to buy more green products if they see images of recycling or organic, trustworthy products on the packaging (Ketelsen et al., 2020).

GREEN MARKETING AND MARKETING MIX

After the pandemic, consumers may respond differently to advertisements. After the COVID-19 pandemic, consumers are understandably anxious about their health and unsure of whether or not to put their faith in the cleanliness of organic products. When making a purchase, quality is of utmost importance, so shoppers look for seals of approval from reputable organizations on product packaging and labels. The majority of consumers are wary of the higher prices of organic products. Actions in marketing convey to customers what they may anticipate in terms of cost, quality, availability, and placement (Han et al., 2018). In recent years, the "green" market has grown in popularity and importance, making it a target for several businesses (Wang et al., 2021). In the wake of the COVID-19 pandemic, consumers are wondering whether they can put their confidence in organic goods that claim to be safe and non-toxic (Duarte et al., 2022). Consumers that practice environmental consciousness do more than just weigh the pros and disadvantages of their purchases (Duarte et al., 2022). When making a purchase, quality should always come first. Consumers are more likely to believe a product if it has marks or labeling from a credible third party. After the pandemic, it's possible that advertisements may need to reflect a shift in customer preferences.

THE HYPOTHESIS DEVELOPMENT

1.1. Green Product (GPO)

Advertising messages may need to adapt to changing consumer behavior after the pandemic. Consumers are very concerned about health after the COVID-19 epidemic and how to trust organic products advertised as clean (Ishaq et al., 2014). Price is also a consumer consideration because organic products are often quite expensive (Asshidin et al., 2016; Chang et al., 2010). Green product quality has a direct influence on performance and is associated with consumer happiness, loyalty, and repurchase intent (Jan et al., 2019).

H1: Green product positively influences on attitude.

1.2. Green Package (GP)

Product package design is critical for conveying the image and quality of the product. Consumers often associate their emotions with product design and packaging. It can make consumers feel an increased affinity for a particular company or product, which increases brand loyalty (Vachon et al., 2006). A company's green image on the packaging can potentially increase the overall level of customer satisfaction (Seo et al., 2017).

H2: Green package positively influences on attitude.

Green Advertising (GA)

With the rising usage of eco-friendly products, green advertising has been a driving force in spreading public awareness of ecological challenges during the last two decades. Satisfaction with green advertising when the content in the ad refers to the environment, sustainability expectations and green needs of customers. Green advertising plays an important role in conveying an organization's eco-friendly image while tapping into consumers' eco-consciousness (Addisu, 2018; Bailey et al., 2016). Advertisers and customers will purchase greener products and services if they believe the features and advantages match claims made by marketers and legislators (Banerjee et al., 1995).

H3: Green advertising positively influences on attitude**.**

1.3. Intention to purchase (IP)

Consumer satisfaction is essential because it affects consumers' purchasing intentions. Intrinsic motivations for expected fulfillment include pleasure or excitement, curiosity or entertainment (Ansar, 2013), which increases customer purchase intent. People who are concerned about their own health and the future of the planet are more likely to purchase environmentally friendly products for their own health and living environment. Customers feel at ease and content after purchasing and utilizing such eco-friendly products (Aksoy, 2017; Dangelico, 2016). A positive product experience and reputation will increase the user's satisfaction and sense of trust, making them more likely to purchase again. Thus, we proposed the hypothesis:

H4: Attitude positively impacts on intention to purchase.

Mediation

Covid-19 (COVID)

Covid-19 (COVID) is a prospect, an occasion for enterprises to expand in a more sustainable manner, therefore enhancing community values in the following areas: The use of green, environmentally-friendly materials throughout the distribution route enables customers to avoid using plastic items while making online purchases (Severo et al., 2021). When customers are willing to modify their purchasing practices to avoid negative environmental consequences as a result of COVID, their motivation to alter their behavior increases significantly (Ansar, 2013). Thus, we proposed the hypothesis:

H5: Covid-19 impact mediates the relationship between attitude and intention to purchase.

Authority rules (AR)

"Policy marketing" is where marketing programs are deployed to persuade specific sections of society to adopt innovative policies (Lahcen et al., 2020). Policy marketing by governments is like "advocacy advertising" and would bring a better result than that done by private companies sectors. Governments can offer tax breaks, production loans, or bonuses to consumers through the recovery of used bottles, cans, and shells for recycling (Dangelico, 2016).

H6: Authority rule (AR) mediates the relationship between and Intention to purchase green products.

METHODOLOGY

Data collection

We used the Google forms platform to carry out an online survey in the country of Vietnam. It will be much simpler to do so because to the fact that connections may be exchanged across different platforms when sampling is done online. On the other hand, we place a greater emphasis on the younger pupils since they get a significant amount of instruction on environmentally friendly items. After the COVID-19 epidemic, eco-friendly goods is an important research priority, and this finding is in line with that goal.

Table 1. Demographic characteristics

		%			%
Gender	Female	48.9	**Income**	<2millions/month	11.2
	Male	51.1		2-5 millions/month	36.9
	Total	100.0		5-10 millions/month	27.4
Education	Highschool	15.1		>10 millions/month	24.6
	College	25.1		Total	100.0
	University	34.1	**Marital Status**	Single	72.9
	Graduated	25.7		Married	27.1
	Total	100.0		Total	100.0
Age	18-25	42.2			
	26-35	22.3			
	36-45	16.8			
	>45	18.7			
	Total	100.0			

Measurement

There were six questions including gender, age, education, income, the main source of income, and marital status. We used scale is Likert scale (1- totally disagree to 5 totally agree). It contains 10 variables: Attitude (4 items); Green product prices (5 items); Green product quality (4 items); Green packages (3 items); Green advertising (4 items); The Covid-19 Impact (5 items); Authority rules (5 items); Intention to purchase (5 items).

RESEARCH RESULTS

Initially, we examined the model fit of the confirmatory factor analysis figures, which have a marginally low GF but are acceptable and satisfy the general statistical requirements for conducting the SEM analysis. We analyzed the model fit of the confirmatory factor analysis figures, which have a slightly low GF but are acceptable and satisfy the general statistical requirements for the SEM analysis. The analysis results show that the model meets the requirements for model fit. We test the validity of the variables, and VIF before testing the research model (see Table 2, 3).

Table 2. Fornell-Larcker Criterion

	GPO	GP	GA	IP	COVID	AR
GPO	0.831					
GP	0.290	0.824				
GA	0.142	0.455	0.804			
IP	0.189	0.399	0.380	0.852		
COVID	0.120	0.536	0.467	0.464	0.919	
AR	0.324	0.379	0.082	0.192	0.255	0.887

Table 3. Inner VIF Values

	GPO	GP	GA	IP	COVID	AR	GPO
GPO		1.121					
GP			1.000	1.000	1.364		
GA					1.340		
IP					1.264		
COVID							
AR		1.186					
GPO		1.085					

According to the findings, the following factors influence purchase intent after the COVID period: price and green advertisement receptivity. When the steps check the reliability and accuracy of the scale, we run boostrap 2000 to analyze the PLS-SEM model. The results in Table 3 show that all hypotheses are approved (Table 4). Purchase intentions, customer attitudes toward the environment, the impact of the COVID-19 pandemic, and the involvement of the government all influence Green Marketing, laying the groundwork for the long-term growth of Green Marketing in the post-Covid future.

Table 1 Results of the Hypotheses testing

Ho	Estimate	STDEV	T-values	P Values	Results
H1	0.210	0.057	3.700	0.000	Approved
H2	0.265	0.043	6.206	0.000	Approved
H3	0.174	0.042	4.122	0.000	Approved
H4	0.338	0.076	4.428	0.000	Approved
H5	0.455	0.062	7.361	0.000	Approved
	0.399	0.058	6.941	0.000	Approved
	0.220	0.086	2.573	0.010	Approved
	0.246	0.080	3.092	0.002	Approved
H6	0.098	0.032	3.115	0.002	Approved
H7	0.100	0.037	2.670	0.008	Approved

DISCUSSION AND CONTRIBUTION

In this research, we investigate the hypothesis H1: The relatively high price of green goods has a negative impact on green marketing innovation. This result contradicts the findings of (Ansar, 2013), who discovered a positive correlation between price and green customer purchasing intent. We suggest that an environmentally conscious person will pay a greater premium for a green or environmentally friendly goods. The findings were made at a period when the economy and society were still stable and there were no epidemics. Consequently, it is evident that variations in location and economic status lead to diverse results. In this research paper, we demonstrate that the majority of customers in Vietnam base their purchasing decisions on price, and that a high price will prevent them from abandoning their purchase intention in the post-COVID era.

Theoretical implication

First, attitudes are related to the perception of green product value, affecting the intention to buy green products. Second, the COVID-19 epidemic and the government's supportive policy strongly influence attitudes toward purchase intention. Third, authority rules should understand that the application will be much more complicated and variable when implemented in many areas such as the public health, and the economic situation of individuals and businesses during and after the pandemic. People are more concerned about their health than ever before, and are prepared to accept items at a price that corresponds to the product's quality. Green commercials that highlight standard production procedures, such as recyclable packaging, will appeal to a larger number of customers. The influence of Covid on modifying consumer perception impacts green marketing.

Practical implication

A study shows that packaging innovation and improvement of green product quality do not positively affect customers' purchasing decisions. Instead, they focus on cost (H1) and advertising receptivity (H4), which will influence their purchase intention. Green businesses should reduce production costs through a variety of measures, including continuously improving and upgrading the level of production organization and labor organization.

Green marketing managers should create eye-catching advertising campaigns that emphasize environmental benefits, as well as material that imprints the ecosystem and eco-friendliness in the minds of buyers. At the same time, manufacturers should consider renewing packaging materials, both to reduce waste, protect the environment, and keep product prices at an acceptable level. Eco-labelling is an excellent method for people to readily identify green items. The government should develop proper regulations and policies to stimulate their development. To boost customer trust and knowledge about green products, the government should make it easy for businesses to obtain ecolabel certification.

In addition to the measures mentioned above, the government should make efforts to help general consumers better comprehend the principles of green living and promote green products. It should use public venues to promote a good image of eco-labeled products to potential customers. It may also consider developing appropriate, straightforward, and consistent eco-labels. With a reasonably high regression coefficient of 0.595, the hypothesis H9 is supported, illustrating the influence of Green Marketing innovation on its long-term development in the post-Covid era. Innovation precedes creativity and may result in the development of new processes, products, services, and technologies (Gundry et al., 2014). This highlights how creativity and innovation help organizations achieve sustained success.

Limitation and future research

LIMITATION

The survey's reach is still restricted; the bulk of respondents are students in Ho Chi Minh City. We did not get many responses from those aged 30 and older. Second, due to the COVID pandemic and other factors, we only employ online sampling methods, resulting in less reliable and objective survey results than anticipated. Third, since we concentrated so intently on how purchase intention effects innovation in green marketing in our study, we did not do exhaustive research on other factors.

FUTURE RESEARCH

Future studies might examine how environmental finance and the development of digital marketing effect green marketing. Our research is still centered on how companies could adapt to accommodate customers, but it does not address the issue that consumers must first alter their environmental knowledge and concerns before firms can concentrate on green goods. This notion may be expanded upon in future research.

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SELF-STUDY ABILITIES OF STUDENTS AT VINH LONG UNIVERSITY OF TECHNOLOGY EDUCATION

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Abstract

Students' self-study abilities are of great importance to their learning outcomes. This article presents the results of a study on the current situation of self-study skills of students at Vinh Long University of Technology Education (VLUTE), including self-study planning skill, material reading and research skill, in-class self-study skill (with lecturers), home self-study skill (without lecturers) and skills in self-review and evaluation of self-study results. The research results are used to help students have their self-orientation and self-adjustment of their self-study methods as well as advising teachers on how to foster students' self-study ability for more effective learning.

Key words: *Self-study skills, learning outcomes, students, self-study*

1. INTRODUCTION

Vinh Long University of Technology Education is a public educational and training institution, directly managed under the Ministry of Labor, Invalids and Social Affairs, and professionally managed by the Ministry of Education and Training. Vinh Long University of Technology Education is designated by the State as a key university for technical pedagogical training in the country, invested by the project "Technical and vocational education". The university has trained and provided the society with high-quality human resources (vocational teachers and technical staffs) for the whole country with the number of thousands of graduates each year. The university is located in the heart of the Mekong Delta, located at 73 Nguyen Hue, Ward 2, Vinh Long City, Vinh Long Province (http://www.vlute.edu.vn).

With a training scale of 26 majors at university level, 9 majors at master's level, and 02 at doctoral level. The number of existing students every year is nearly 10,000 in the university degrees. This study was conducted to answer the following questions: (i) How well do students have self-study in practice? (ii) To what extent are students' self-study planning skills? (iii) How is the student's ability to self-manage learning activities today?

The study was conducted from February to June 2021 at Vinh Long University of Technology Education. The research sample was selected by random sampling method (each faculty selected 40 students). The selected students randomly represented Vinh Long University of Technology Education faculties, including: Faculty of Electrical and Electronics Engineering (164 students), Faculty of Mechanical Engineering (383 students), Faculty of Information Technology (247 students), Faculty of Applied Biology (257 students), Faculty of Technical Education and Social Sciences and Humanities (340 students).

The study mainly measures the situation of students' self-study abilities such as: (i) self-study planning, (ii) implementation of self-study plans; (iii) self-review and self-evaluation of the learning results. The study results present the situation of Vinh Long University of

Technology Education students' self-study abilities at the average level in the 4-level rating scale (excellent, good, average and weak).

The study proposes the introduction of a course in self-study methods for Vinh Long University of Technology Education students, in order to effectively improve students' self-study abilities. In addition, fostering and improving the quality of Vinh Long University of Technology Education teaching staffs and academic advisors, promoting the innovation in teaching methods, and innovating the testing and evaluation of students' learning outcomes are important issues to improve students' self-study abilities.

2. LITERTURE REVIEW

The issue of self-study has been long studied by educators. Confucius believes that what a learner learns from a teacher just deals with the most basic problems, while the acquisition of knowledge must be done by the learners on that basis. The philosopher Sokrates (469-399 BC) noted that learners should "understand themselves", implying that learners must be aware of what they have, what they need, and what they should do to meet those needs. The educator Komensky (1592-1670) asserted that learners without learning aspirations and needs could not become talented. UNESCO recommends four pillars of education: "Learning to know, Learning to do, Learning to live together and Learning to be". Vietnamese Former President Ho Chi Minh emphasized that learners must know how to learn autonomously and regard self-study as the core of learning.

The self-study process undergoes three stages: self-study, self-presentation, and self-evaluation for adjusting learning. The stages correspond to the identification of problem, the orientation of solutions, and the solving of learning problem the learning problem solving (MOET, 2013). Factors affecting students' self-study abilities include awareness or concept of self-study, self-study attitude (needs, goals, interests, will and self-discipline), and self-study skills according to personal plans (Anh, 2005). Students need to practice reading for effective self-study and read materials about self-study. Each student needs to allocate 2 hours a day to reading (Chung, 2003). Effective reading strategies include underlining where necessary, taking brief notes, drawing diagrams, and making questions during reading. Self-study takes place when there is a need for understanding. Factors regarding motivation, will, confidence, determining learning tasks are necessary (Cam, 2000; Long, 2008; Hanh, 2006; Huong, 2010; and Luan, 2010).

The steps in forming intellectual motivation in self-study include setting the basis for actions, acting with objects or materializing, speaking loudly without using objects, acting with whispers, and acting in brief with inner speech. Learning is the process of interactions between the subject and the learning environment. Learning is conducted through personal intentions to satisfy learning needs. Learning takes place only in real existence. The learning process takes place in four steps: observation, memorization, reproduction, and motivation (Ngo, 2000, 2001, 2005, 2015; Tinh, 2004; Toan, 1997, 1999, 2004; and Tri, 2013).

Self-study is learning with a high degree of self-discipline and positive attitude. Self-study takes place when there is a need through work or a situation to be solved, and quality of learning is improved in the presence of a teacher (Vinh, 2013). Students' self-study skills meeting the credit-based training form include: planning, paying attention to lectures, reading books, taking notes, making outlines, learning key ideas, generalizing knowledge, discussing in groups, and self-evaluating the self-study results (Hoa, 2019). Developing self-study skills for students involves solutions, as follows: providing students with the orientation towards learning methods;

improving the effectiveness of advising and supporting students in the process of practicing self-study skills; implement fair testing innovating in teaching methods among lecturers (Nguyen T. H. Van and Hoang T. Van, 2020; Hue, 2020).

The above-mentioned studies mainly emphasize the concepts of self-study, the relationship between teaching and learning, the psychology of learners, the role of self-study, the demands of self-study students, the selection of learning materials, the organization of self-study, self-study methods... However, for the time being, there is no specific research on the field of self-study abilities of students at Vinh Long University of Technology Education

3. RESEARCH METHOD

This study was conducted by selecting the research sample from 5 academic faculties, and 40 students of each were selected to serve as the survey sample to assess the situation of self-study abilities. The random sampling was carried out by the research team as follows: Based on the number of students in each academic faculty, the research team made a list; drew the first random number (k) for the list of students participating in the study (the first draw was made from 1 to 10; and the remaining chosen students were determined by adding the distance unit of (n(n-1) + k). The study ensures that the students selected to participate in the study are similar in age (20 to 22 years old); students studying in the same course, students studying at the same university, students studying in the same field of training, students in the same class, etc. to make a general sample before selecting a random sample representing all students to participate in survey research.

There were 5 sets of research sample representing 5 academic faculties at Vinh Long University of Technology Education, each of which had 40 students, as follows: Sample 1, Faculty of Electrical and Electronics Engineering (40/164 students, 24.39%); sample 2, Faculty of Mechanical Engineering (40/383 students, 10.44%); sample 3, Faculty of Information Technology (40/247 students, 16.19%); sample 4, Faculty of Applied Biology (with 40/257 students, 15.56%); sample 5, Faculty of Technical Education, Social Sciences and Humanities (40/340 students, 11.76%). The total number of research samples is 200/1391 students, amounting to 14.38%.

The survey scale includes 4 levels including: Good (4 points); Fair (3 points); Average (2 points); Fail (1 point). To evaluate and adjust the relevance and scientific level and complete the survey tool, the research team conducted a test of the survey tool on 20 Vinh Long University of Technology Education students (not belonging to the selected survey sample). In the next step, the research team carried out a formal survey on the selected sample to collect research information.

The study used the tool to test the reliability of survey data on the level of self-study skills of Vinh Long University of Technology Education students through data halving method. This method was performed using the Spearman-Brown ($\mathbf{r}_{SB}$) formula. Formula: $\mathbf{r}_{SB} = 2*\mathbf{r}_{hh}/(1+\mathbf{r}_{hh})$, where $\mathbf{r}_{hh}$ is the parity correlation coefficient, $\mathbf{r}_{hh}$ = CORREL(arrayl, array2). If $\mathbf{r}_{SB} >= 0.7$, the data is reliable; or $\mathbf{r}_{SB} >= 0.7$, the data is not reliable.

To measure the concentration and dispersion of survey data on the level of self-study skills of Vinh Long University of Technology Education students, the research team used the measurement tools including: Mode (Mode - Mo) - the most frequent value in the score series; Median - the point in the middle in the ordinal sequence of scores; Mean (Mean) - the average of the scores. The gap value of the mean score (through 4 levels) (Maximum - Minimum)/n = (4 - 1)/4 = 0.75/4 points. Fail (average score is 1.0 - 1.75/4 points); Average (average score is from

1.76 - 2.5/4 points); Good (average score is from 2.51 to 3.25/4 points); Good (average score is from 3.26 to 4.00 points).

To compare data on students' self-study skills among Vinh Long University of Technology Education academic faculties, the research team used the "Chi-square test" because of discrete data. The method was to calculate p-value (p-value), "Chi-square test" value at: http://people.ku.edu/~preacher/chisq/chisq.htm.

The achieved result was compared with the reference value: if $p \geq 0.001$, the correlation is not significant (the data is unlikely to be random), which means that the result is manipulated by researchers; if $p \geq 0.001$, the correlation is significant (the study results are subject to randomization).

4. RESULTS AND DISCUSSIONS

4.1 The results of verifying the reliability of survey data on self-study skills of Vinh Long University of Technology Education students show that

The $\mathbf{r}_{SB}$ values of student groups of the surveyed faculties were above 0.99 (standard level is 0.7). It is concluded that the collected survey data were at a high degree of reliability.

4.2. The results of measuring the concentration and dispersion of the survey data on the self-study skills of Vinh Long University of Technology and Education students were as follows

The average value of the scores of survey results on self-study skills of researched students in the faculties are at the average level (the average score is from 1.76-2.5 points in the assessment table). There is a slight difference in the mean scores of the surveyed faculties.

+ *The concentration of research data*: The Mode value, the survey scores on self-study skills of surveyed students in the faculties all reached 3/4 points. The Median value, the median scores of the score series of survey results regarding self-study skills of surveyed students were in the range higher than 2/4 points, but less than 2.06/4 points. There was an insignificant difference in the mean scores between the surveyed faculties. The average value of the score series of survey results on self-study skills was at the average level (the average scores was in the range of 1.76 - 2.5). There was an insignificant difference in the mean scores between the surveyed faculties.

+*The dispersion of research data:* The value of standard deviation - Stdev of the surveyed faculties shows that there was a homogeneity in the scores of the questionnaires (Stdev of academic faculties was from 0.62 to 0.65). This shows that the survey scores of the questionnaires had a very low degree of dispersion.

4.3. Results of measuring the specific average of students' self-study skills

4.3.1. Students' self-study planning skill, include the content regarding the determination of the knowledge to be achieved; skills to be acquired; selection of learning materials; selection of learning materials and equipment; identification of the time to complete the learning goals; determination of learning methods and forms. The average score of planning skills was 2.01/4, a low average. This shows that, in the process of self-study planning, Vinh Long University of Technology Education students faced many difficulties in determining the time to complete the self-study goal with effective methods and forms. Vinh Long University of Technology Education students still carried out their self-study, but the self-study planning was new to them. Studying without planning would lead to a lack of initiative in learning. The role of the self-

study planning is to anticipate the goals, content, methods, and time of implementation for effective self-study. Simultaneously, self-study planning helps foresee situations in which the environment changes so that learners can respond and implement the plan to achieve the planned goals.

4.3.2 Material reading and research skill includes the following contents: Defining clear reading goals which involve reading-writing combination, horizontal reading, fast reading, slow reading, and very slow reading. The survey results of the situation of "material reading and research skill (before class)" of Vinh Long University of Technology Education students had an average score of 2.24/4 points. There was not much difference in mean scores between the groups of students of the Vinh Long University of Technology Education surveyed faculties. Vinh Long University of Technology Education students' material reading and research skill were evaluated at avergae level. This is one of the very important skills of self-learners, especially university students. Material reading and research skill would greatly assist students in their effective self-study. In this regard, the skill of "reading very slowly" should be most prioritized in practice because this is the "read-to-learn" skill.

4.3.3. In-class self-study skill includes: Maintaining order, staying calm, being patient, empathizing, respecting… everyone in the class; taking notes of (writing or drawing quickly) the content delivered by lecturers; actively selecting the necessary content to take notes through the lecturers' critical thinking; raising issues to be clarified in the lesson; actively participating in solving learning problems in class (raised by lecturers or friends); Taking notes of unresolved problems in class. The survey results of the situation of *in-class self-study skill* (directly with lecturers), had an average score of 2.00/4 points (the average score in the rating scale). Students' initiative for in-class self-study was still very limited, which was reflected in their initiative in self-taking notes of classroom learning content and giving problematic situations to be addressed in class. Taking notes and raising problems in class are very important skills for students' effective learning. However, these skills have not received carefully attention for practice by students.

4.3.4. Self-study skill at home includes determining the place, form, content, time for self-study and self-studying the lesson content before going to class: The survey results of the situation of "Self-study skill at home" of students were assessed at the average level (2.25/4 points). Self-study at home is an important element of self-control as well as the determination to overcome difficulties with diligence to achieve the highest learning results. Self-study habits at home largely determine the learning outcomes of students. Self-studying the content of the lesson before going to class is very important, which is an active and autonomous activity in self-study. It is very important to read and study the materials in advance to clarify the learning goals, contents and methods, especially preparing tools to test and evaluate their own learning results. The tools for evaluating the learning results is also the tools for evaluating the level of learning achievement as planned. Tools for testing and evaluating the learning outcomes include: Tests after each lesson or each chapter of the course; and the final test at the end of the course (the evaluation tools present the appropriate content, form, time, and evaluation criteria).

4.3.5. **Vinh Long University of Technology Education** ***students' skills in self-review and self-evaluation of self-study results:*** Survey results had the average level (1.95/4 points). Specifically, in terms of self-review and self-evaluation of self-study results after class, the average score was 2.08/4 points; with regard to skills in self-review and self-evaluation of results at the end of the lesson or at the end of the chapter, the average score was 1.90/4 points; for skills in self-review and self-evaluation of self-study results at the end of the course, the average

score was 1.86/4 points. Students' practice in self-review and self-evaluation of the learning results is the last activity in the implementation process of self-study plan (planning, implementation of the plan, and evaluating the implementation results). However, this can also be seen as a stepping stone for planning. It is because the results of self-evaluating the implementation of the self-study plan will act as the basis for the self-correction and self-improvement of the next more effective self-study plan.

In summary, the self-study abilities of Vinh Long University of Technology Education students are currently at an average level (2.07/4 points) and are reflected through skills, as follows: self-study planning skill (2.01/4 points); material reading and research skill (2.24/4 points); in-class self-study skill (1.91/4 points); self-study skill at home (2.25/4 points); skills in self-review and self-evaluation of self-study results (1.95/4 points).

4.4. Results of measuring the p-value in the research data

Table 1: Survey results

Faculty	Good (4 points)	Fair (3 points)	Average (2 points)	Fail (1 point)	Total
Electrical-Electronics Engineering	0	13	19	8	40
Mechanical Engineering	0	13	18	9	40
Information Technology	0	13	19	8	40
Applied Biology	0	12	18	10	40
Technical Education and Social Sciences-Humanities	0	13	18	9	40

The survey results show that: no student was rated at the highest score (4 points); the numbers of students rated 3 points in the research groups were very similar (12-13/group); the numbers of students rated 2 points in the research groups was very similar (18-19/group); the numbers of students rated 1 point in the research groups were very similar (8-10/group).

Table 2: p-value

Chi-square	0.446	
degrees of freedom	12	
p-value	**0.99999986**	**Higher than 0.001**
Yates' chi-square	0.134	
Yates' *p*-value	1	

For discrete research data (Good/Fair/Average/Fail), the article used the "Chi-square test" on the internet software. Research results show that the found p-value was 0.99999986, which was larger than the standard p = 0.001, which proves that the above survey data was collected by random, without any external influence on the surveyed students. The correlation between the groups and the survey contents was significantly random according to the research topic.

5. CONCLUSION

Research results have shown that the self-study level of students is currently at an average level, which has not yet brought about high learning efficiency. Students are still confused in performing some basic skills of learning. Students who organize their learning according to habits must have direct instructors. Students have not actively self-organized to determine the goals, contents, and power to choose effective methods and forms of self-study independently for themselves. Students do not have the skills and habits of self-examination and assessment of the achievement of learning goals for themselves.

Self-study skills of each individual are decisive factors to their learning outcomes. Self-study discipline acts as the basis for building and forming effective self-study habits and discipline, lifelong self-study habits, and building a lifelong learning community as expected by the society. Students' self-study skills are formed and trained as the basis to successfully accomplish that goal in the most effective manner.

In order to support students to achieve good learning results, it is suggested that the university should pay attention to training and fostering students' self-study skills in a strategic and effective way immediately after their attending the university. Those skills consist of: (i) Self-study planning skill; (ii) Material reading and research skill; (iii) In-class self-study skill ; (iv) At-home self-study skill ; (v) Skills in self-review and self-evaluation of self-study results.

On the other hand, in order to foster students' effective self-study skills, the university needs to turn this study issue into a specific subject and officially introduce in the university, therefore, all students can approach, study and practice in a formal way. This can be the subject regarding self-study methods for university students. The improvement in the quality of teaching staff and academic advisors is also a factor to enhance students' self-study abilities on a firm and long-term basis.

The results of this study recommend that lecturers should pay more attention to innovating teaching methods, mainly in the direction of teaching how to learn for students, from which students grasp self-study tools or self-study skills, effective self-study skills will make long- life learning skills for each person.

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AI-POWERED CHATBOTS FOR HOSPITALITY AND TOURISM SERVICE: ANTHROPOMORPHISM

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Abstract

After COVID-19 broke out, keeping a safe distance has become a big issue that could cause problems for the tourism industry. AI chatbots are software programs that use artificial intelligence to facilitate efficient textual conversations with clients without face-to-face interaction. This study applies the theory of anthropomorphism in conjunction with the theory of acceptance model (TAM) in order to evaluate the factors of effective ease of use, trustworthiness, social presence, and perceived enjoyment that will affect and evaluate the behavioral intentions of consumers and their actual usage (Actual Usage) of artificial intelligence (AI)-enabled chatbots for the hospitality and tourism industries in Ho Chi Minh City. A qualitative study was done to determine what factors have the most effect. Then, quantitative research data from 330 respondents were collected online and analyzed with Smart PLS software to build the PLS-SEM model. The results show that anthropomorphism, ease of use, trustworthiness, and perceived pleasure are all things that affect a person's desire to use AI chatbots while traveling and their actual use. The discussion will include not just the theoretical but also the practical contribution.

Keywords: *AI Chatbots, Anthropomorphism, ease of use, perceived enjoyment, social presence*

1. INTRODUCTION

In the face of the Fourth Industrial Revolution, the employment of modern computer and information technology in the tourist business is becoming more popular (McGinnis, 2020). Chatbots, artificial intelligence (AI), and robots are transforming the way the tourist sector functions today (Bowen & Morosan, 2018; Tussyadiah, 2020). Computerized communication and the capacity to hold conversations via audio or text (Shevat, 2017) and communicate with people in a certain domain or topic by providing replies is the highlight of this sort of technology.

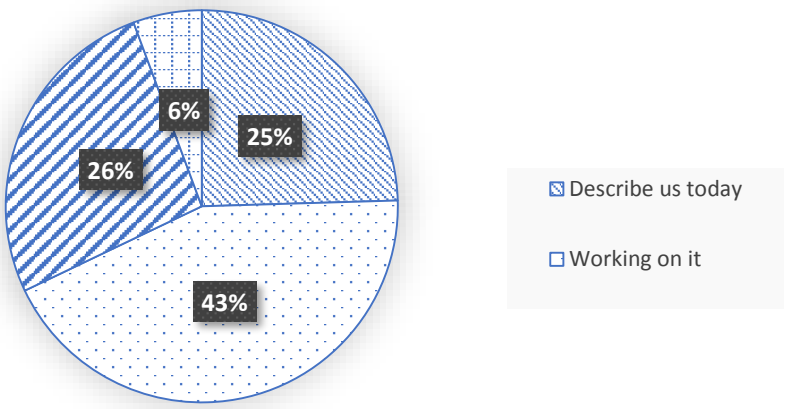

Figure 1. *Usage of chatbots in travel and hospitality companies worldwide in 2020*
Source: Statista (2021)

This study improves understanding of how customers interact with chatbots (robots), in tourism activities, which have been heavily affected by the Covid-19 epidemic. Chatbots, artificial intelligence (AI), and robots are transforming the way the tourist sector functions today (Bowen & Morosan, 2018; Tussyadiah, 2020). With many outstanding benefits, however, the available programming is binding, the answers of AI Chatbots are still limited when interacting with humans (Abdul-Kader & Woods, 2015).

The objective of this study is to close the research gap of existing elements of a chatbot available in the field of tourism to increase customer satisfaction and reduce work overload. Therefore, the following important contributions to the literature are made:

(1) The association of anthropomorphizing and tourists in choosing the right travel service through AI Chatbot?

(2) What technology-related features make travelers want to use AI Chatbot to look up information and booking while traveling?

(3) What emotional element of AI Chatbot can bring to visitors to make them use this service more?

The technology adoption model (TAM) was combined with contextual constructs such as ease of use (Perceived ease of use), perceived usefulness (Perceived usefulness), anthropology (Anthropomorphism), initial trust (Initial Trust), social presence, and perceived enjoyment (Perceived Enjoyment) to investigate predictors of consumer adoption of chatbots in the travel industry. Furthermore, this study included qualitative interviews with experts from travel and tourist firms to gain a more in-depth knowledge of the adoption intention (Adoption Intention) and actual usage (Actual Usage) of chatbots in tourism.

2. THEORETICAL BACKGROUND

2.1. Theory of anthropomorphism

Anthropomorphism is a psychological method that facilitates social interactions between people and people through an environment of inhuman connection (Epley et al., 2008). Currently, there are many service robots such as service robots, chatbots developing strongly, especially after the Covid-19 epidemic. The more human-like, the better the effectiveness of AI will be, motivating customers to use and be satisfied in the next use.

2.2. The theory of acceptance model (TAM)

The TAM was first developed by Davis as part of his dissertation as a technique frequently applied to better understand users' attitudes regarding new technology acceptance (Davis, Bagozzi, & Warshaw, 1989). The intention to use information systems, impacted by the two beliefs or motivations of perceived usefulness (Perceived usefulness) and perceived ease of use (Perceived ease of use). Perceived ease of use refers to how confident a customer is and as a predictor of behavioral intention to use tourist technology. Perceived usefulness is the level to which a customer believes that utilizing a certain system will improve job or task performance (Davis, Bagozzi, & Warshaw, 1989).

Study 1 – Qualitative research

The research design for this study was carried out in the two phases. The first phase is qualitative survey and the second phase are quantitative survey.

3. QUALITATIVE RESEARCH METHODOLOGY

Qualitative research involves collecting and analyzing non-numerical data (e.g., text, video, or audio) to understand concepts, opinions, or experiences. It can be used to gather in-depth insights into a problem or generate new ideas for research (Dash et al., 2022).

3.1. Data collection

Interviews were conducted with nine top experienced executives and managers from the tourism industry and travel companies. The purpose was to confirm and assure the accuracy of the measures and determinants for the quantitative survey's second phase. In order to describe each of the constructs, we made use of the operational definitions that had been created in earlier research.

3.2. Questions

The question is asked were presented :

- What do you know about AI Chatbots?
- Why should we be familiar with AI chatbots in the travel industry?
- What do you usually use AI chatbot for while travelling?

3.3. Data analysis method

We employ inductive analysis in this study. Inductive data analysis starts with gathering raw data, then moves on to interviews and open coding. In addition to using inductive coding, we add notes and headers to the text (Mohajan, 2018). After the content has been looked over more than once, the headers and notes are typed into a "coding sheet." (Lune & Berg, 2017).

4. QUALITATIVE INTERVIEW ANALYSIS

Usage of chatbots

Respondents reported growing familiarity with trip planning and reservation tools. Customers are using chatbots more and more when they travel and are also using them more and more to plan their vacations. This is because chatbots provide several advantages. Executives and managers at travel agencies say that customers are more at ease and are using chatbots more and more because they are easy to use and intelligently share travel information, which makes trips cheaper.

Chatbot problems

Respondents were dissatisfied with the chatbots. Some of them are uncomfortable with the chatbot's language and speed. Some clients want to speak in their language or with a natural person while organizing a holiday. They continue to use chatbots, despite only sometimes trusting them. Due to their age, some people opt to stay away from technology. However, some customers prefer human assistance since it is their specific preference.

Anthropomorphism

The responders discussed their efforts to replace human travel assistants with chatbots. The following quotation often appeared in this category: Clients have seen chatbots comparable to people. In contrast, chatbots have limitations, such as users not always being able to keep up with the chatbot's pace and chatbots not communicating in the customers' native language. Chatbots must be enhanced to deliver better and quicker customer support.

Study 2 – Quantitative research

Quantitative research is the process of collecting and analyzing numerical data. It can be used to find patterns and averages, make predictions, test causal relationships, and generalize results to wider populations (Dash et al., 2022).

5. HYPOTHESES DEVELOPMENT AND RESEARCH MODEL

5.1. Perceived ease of use

Perceived ease of use is an essential part of both the adoption and usage behavior of new technologies. The term "perceived ease of use" was first created by Davis, Bagozzi and Warshaw (1989), who described it as the degree to which a person perceives that usage of a specific system would be devoid of effort. The probability of using a chatbot is increased as a result of Perceived ease of use (Okumus & Bilgihan, 2014). In this investigation, we take Davis's concept as our starting point and define Perceived ease of use as the extent to which a person believes that chatbot technology is simple to operate.

H1a. Perceived ease of use affects the Adoption Intention of chatbots for tourism

H1b. Perceived ease of use has a positive effect on the Perceived usefulness

5.2. Perceived usefulness

Perceived usefulness was recounted as the level of user confidence that using AI Chatbots would improve travel planning efficiency. In TAM, this element directly affects people's attitudes towards the technology and their acceptance (Davis, Bagozzi, & Warshaw, 1989). If a technology is demonstrated to have a helpful utility, people are more likely to have favorable opinions and to want to accept it. (Liu, Lu, & Niu, 2018). Through the use of technology like chatbots, travelers can easily plan their trip, handle other issues that arise.

H2: *Perceived usefulness positively affects the Adoption Intention of chatbots for tourism*

5.3. Anthropomorphism

Initial Trust

People are more inclined to have faith in robots that have a greater degree of anthropomorphism as opposed to those that have a lower amount (Bistolfi, 2022). (Natarajan & Gombolay, 2020), revealed that anthropomorphism minimizes the detrimental impacts that errors have on trust. Specifically, anthropomorphism reduced the amount of trust that was lost as a result of the mistak.

H3a: *Anthropomorphism positively affects user's Initial Trust*

Social presence

Perceived anthropomorphism is defined in the literature on machine-human interaction as the attribution of human-like traits, intents, motives, emotions, and behaviors to non-human agents (Epley, Waytz, & Cacioppo, 2007); (Li et al., 2016)). According to earlier research, perceived anthropomorphism has an impact on social presence (Ng et al., 2021) and is an important construct in computer-mediated communication(Nowak & Biocca, 2003).

H3b: *Anthropomorphism positively affects user's social presence*

Perceived Enjoyment

Interacting with chatbots is made more fascinating and enjoyable by user engagement in the construction of real and artificial individuals. The conversation is pleasant, when more

human-like behavior, some sophisticated answer phrases, and comedy are used (Elprama, El Makrini, & Jacobs, 2016). Consumers will be attracted by entertaining AI chatbots as they engage them in greetings and jokes.

H3c: *Anthropomorphism positively affects user's Perceived Enjoyment*

5.4. Initial Trust

Initial trust is how people feel and believe in something. Hancock, Billings and Schaefer (2011) found that initial trust influences performance and decided to add intention to use AI Chatbot. The tourism Technology research confirms the positive effect of trust on intention to adopt self-service hotel technology (Kaushik, Agrawal, & Rahman, 2015), smartphone apps (Gupta & Dogra, 2017), online travel purchase (Ponte, Carvajal-Trujillo, & Escobar-Rodríguez, 2015)), live chat assistants (McLean et al., 2020). AI customer service robots are involved in interaction via dialogue, so it is crucial to verify that their performance can be trusted. (Przegalinska et al., 2019).

H4: *Initial trust positively affects Adoption Intention of Adoption Intention of AI powered Chatbots for travel planning.*

5.5. Social Presence

The social presence component's influence on users' behavior has been demonstrated. Chatbots, online agents, or avatars are examples of digital assisted interfaces simulated human activities that provide the appearance of a powerful social presence (Cyr et al., 2009). Social presence promotes consumers to improve product experience via social media presence in numerous ways, such as service descriptions and testimonials (Rese, Ganster, & Baier, 2020). High levels of social presence give people a feeling of human warmth and friendliness.

H5: *Social presence positively affects Adoption Intention of AI powered Chatbots for travel planning.*

5.6. Perceived Enjoyment

Perceived enjoyment is defined as the extent to which using a system or device is perceived as enjoyable in its own right (Heijden, 2004). When communicating with chatbots, responsiveness lessens customer boredom and creates a positive. In other words, customers who enjoy using a system are more likely to use it again (Heijden, 2004). Journal of Management Information Systems, (Benbasat et al., 2020) found that people's enjoyment was greater when interacting with the product recommendation agent that carried more social cues.

H6: *Perceived Enjoyment positively affects Adoption Intention of AI powered Chatbots for travel planning.*

5.7. Intention to adopt

Adoption intention is the subjective probability of an individual engaging in a given behavior (Ajzen & Fishbein, 1975). Chatbots are new technology, and customers are often used to making travel plans using their traditional acquaintances. Chatbots have many smart features to cater to travelers' travel planning requirements (Rese, Ganster, & Baier, 2020) .However, tourists can still depend on traditional travel agents due to being adopted marketing strategies to satisfy the heart of customers (Abdul-Kader & Woods, 2015). After the objective and subjective effects, the actual use is the final determinant of human behavior towards a new technology.

H7: *Adoption Intention of AI powered Chatbots for travel planning influences Actual Usage (Actual Usage) of AI powered Chatbots for travel planning.*

6. METHODOLOGY

6.1. Data collection & measurement

Using a structured questionnaire, UEH students who are aware of the chatbot, have used it while traveling, or plan to use it in the future for tourism were surveyed to collect primary data. Over the course of four months, participants' responses are solicited using a Google Form distributed via a social platform. The quantitative survey was conducted primarily using quantitative techniques and Smart PLS software. These respondents were suitable because they were highly educated and had a substantial income. We use five-point Likert scales to measure the opinions and acceptance of AI Chatbots in hospitality and tourism. The characterization of these constructs from their operational definitions is adopted and modified from the literature.

6.2. Data analysis method

The main method used in this study is the SEM linear structural model and is performed by Smart PLS software for reliability analysis, exploratory factor analysis (Exploratory factor analysis) (Hair, Ringle, & Sarstedt, 2016).

7. DATA ANALYSIS AND RESULTS

7.1. Descriptive Statistic

Table 2. Descriptive Statistic

Item		Quantity	%
Gender	Male	175	53.04%
	Female	155	46.96%
	Total	330	100%
Age	From 18 to 22	270	81.8%
	From 22 to 30	60	18.2%
	Over 30	0	0%
	Total	330	100%
Work situation	College student	275	
	Working	55	
	Total	330	100%
Income	Under 3 million VND	170	51.51%
	From 3 to 7 million VND	100	30.30%
	Above 7 million VND	40	12.12%
	Above 10 million VND	20	6.07%
	Total	330	100%

Factors loading of all other variables are greater than 0.5 and should be kept for further analysis. The summary table of Cronbach's alpha analysis results shows that all scales have internal consistency because Cronbach's alpha is greater than 0.6. Additionally, the correlation coefficients of the total variables of the observed variables in each scale are higher than the limit of 0.3. Therefore, the observed variables of the scales are kept for confirmatory factor analysis.

The basis of evaluating discriminant will be based on the idea: The higher the average correlation coefficient within a scale, the better the cross-correlation coefficients. According to the calculation from the example above, the HTMT of all variables index ≤ 0.85, so it can be concluded that variables are distinct from each other (see Table 2) (Henseler, 2015).

Table 3. Heterotrait-monotrait ratio (HTMT)

	AIN	ANM	AUE	INT	PEA	PEN	PUL	SPR
AIN								
ANM	0.698							
AUE	0.720	0.753						
INT	0.377	0.415	0.406					
PEA	0.678	0.834	0.577	0.591				
PEN	0.752	0.789	0.851	0.600	0.767			
PUL	0.584	0.547	0.513	0.507	0.756	0.619		
SPR	0.525	0.436	0.608	0.568	0.512	0.643	0.511	

7.2. Analysis of SEM model

To test, all the techniques of the SEM model such as multivariate regression, factor analysis are used. Using 95% standard, Sig of "Perceived usefulness" effect on "Adoption Intention" is >0.05, Sig of "SPR" affects "Adoption Intention" is >0.05, it is concluded that Perceived usefulness variable does not affect Adoption Intention and SPR does not affect Adoption Intention, so we remove hypothesis H2, H5 from the model (see Table 3).

Table 2. Hypothesis test results

Relationships between variables	Coefficient	Standard Deviation	T Statistics	P Values	Result
AIN ➔ AUE	0.642	0.105	6.128	0.000	ACCEPT
ANM ➔ INT	0.356	0.150	2.373	0.018	ACCEPT
ANM ➔ PEN	0.686	0.120	5.710	0.000	ACCEPT
ANM ➔ SPR	0.365	0.140	2.605	0.009	ACCEPT
INT ➔ AIN	0.421	0.118	3.569	0.000	ACCEPT
PEA ➔ AIN	0.374	0.138	2.720	0.007	ACCEPT
PEA ➔ PUL	0.703	0.134	5.268	0.000	ACCEPT
PEN ➔ AIN	0.176	0.087	2.025	0.043	ACCEPT
PUL ➔ AIN	0.109	0.101	1.086	0.277	REJECT
SPR ➔ AIN	0.060	0.094	0.643	0.520	REJECT

8. CONCLUSION

8.1. Theoretical implications

This study takes a step forward in advancing the literature by providing important insights of traveler behavior in relation to the use of chatbots in tourism. Next, this study reinforces the usefulness of the anthropomorphism and TAM model for explaining the adoption of new technologies and contributes to the new smart tourism research stream and fills a gap in the current literature on the adoption of chatbots in the tourism industry.

8.2. Practical implications

We recommend the service provider must ensure that the chatbot e-service is trouble-free, useful, and enjoyable. In addition, retailers make sure that the whole process is very simple and useful. Finally, chatbot developers also need to ensure that chatbots have anthropomorphic features so that users feel that chatbots are real, alive and human-like.

8.3. Limitation and future research

Firstly, the scope of this research is limited to chatbots in the tourism industry. Second, this study examined the behavioral intentions of the participants towards AI chatbots in the travel sector based on their responses to previously prepared images and theories of conversations. Third, further studies can expand facilities such as customization, personalization, interaction, and enjoyment. as well as understanding the impact on customer experience and value. Finally, the research can be extended to understand the quality of data provided by the chatbot according to customer requirements and its influence on customer satisfaction.

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