Ownership Relations in the Development Trend of Sharing Economy in Vietnam

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ABSTRACT

Sharing economy is a term that has been discussed a lot on e-commerce forums in Vietnam recently. This is a new business model that can bring super profits along with general benefits to society on the digital economy platform. The sharing economy is a new opportunity to change the way of doing business from owning assets to using assets without owning. In the past, the possession of physical-production materials or consumption materials was the most important factor in assessing the efficiency of enterprises or the quality of life, but the trend nowadays has changed. Throughout the industrial revolutions from the first to the fourth ones, the production force has had a remarkable development from mechanics, electrification, electronics, computers, artificial intelligence, and cloud computing... The influence of the fourth industrial revolution and the emergence of the sharing economy leads to the appearance of a new generation who prefer the consuming experience of possessing material. Along with that trend, the production relationship, including the ownership, also has certain changes such as the subjects and objects of the ownership, the new perception of ownership... Changes in ownership, when the sharing economy is formed and developed in Vietnam, has raised many problems such as changes in ownership objects in sharing economies require a complete institutional foundation of management; property rights, especially intellectual property; means and ways to evaluate and measure the efficiency and profitability of enterprises pursuing the form of "sharing economy". Henceforth, the article proposes several implications for solving problems that arise in ownership when developing the sharing economy in Vietnam, that is: completing the institution; providing a full and flexible legal environment; creating conditions for the effective development and management of subjects participating in the sharing economic model, consistent with the rapid change of science and technology platform; renewing the intellectual property regime in the direction of encouraging creativity and protecting property rights in all fields; building a system of means and methods for economic accounting and information transparency in the sharing economy; enhancing understanding of subjects when participating in the sharing economy; having a management mechanism to protect legal rights and interests as well as personal property.

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1. Introduction

The sharing economy was conceptualized in 1995, starting in the US with the initial model of "peer sharing" but not clear. It started with the advertising rental website service, job seekers, job hunting ... and helped individuals to find jobs then earned advertising money. This business model developed strongly when the US economy fell into crisis in 2008 as people were forced to change their consumption patterns to adapt to difficult circumstances. The "sharing" of available resources using technology applications has brought huge profits for all service providers as well as tenants and resource users; henceforth, this business model has soared beyond American borders, spread across Europe and the world.

From a macro perspective, the sharing economy is where available resources are exploited collectively among users via a technology platform. The sharing economy is well known in Vietnam when two big companies in the world, Uber and Grab, entered the market in 2014. According to research by Nielsen in some Southeast Asian countries, the Vietnamese are ready to use a shared product and ready to share, especially electronics, then lessons, cars, motorbikes, and housing. According to the survey, 3 out of 4 Vietnamese respondents said they liked the business idea about this model and 76% said they were willing to take advantage of products and services under this model 1. Under the influence of the 4th industrial revolution, along with the Government encouraging the building of an innovative business community, the explosion of startups in the sharing economy model in Vietnam is likely to happen very soon. In a sharing economy, vehicles, other assets including goods, services, space, skills, and money can all be shared. The emergence of new business models and new cooperation models has created many new problems, including ownership relations. The content of the article will focus on the following issues: (1) Changes in ownership relations under the impact of the sharing economy (2) Issues in terms of ownership relations in the sharing economy; (3) Some implications for solving problems that arise in ownership relations when developing the sharing economy in Vietnam.

2. Content

2.1. Overview of the birth of the sharing economy

Definition of sharing economy

A sharing economy - a connection model where consumers can make use of each other’s redundant resources - is a model with high economic value2, significant impact on consumers as well as a traditional business2. A sharing economy, also known as a peer economy/a mesh economy/a collaborative economy/collaborative consumption is a socio-economic system built on the sharing of

2 Thu Hương: “Sức mạnh của nền kinh tế chia sẻ”. Theo TTVN/The Economist, Báo Tin mới online.
human and material resources. It includes sharing in the creation, production, distribution, trade, and consumption of goods and services by different individuals and organizations. These formations may have manifold configuration, but in the end, they use the power of information technology to benefit individuals, companies, NGOs, governments, which allows them to distribute, share and reuse excess resources of goods or services. The common premise for the sharing economy is that when information about goods is shared, the value of goods and services will increase, for both businesses, individuals, and communities.

Collaborative consumption is a phenomenon where there are a series of economic accords that allow those who agree to participate to share the connection to a product or service, rather than to own it individually. Usually, this model is supported by technology and peer communities. The collaborative consumer model is often used by an electronic platform like eBay, Craiglist, and Krrb, in emerging industries such as social lending, peer-to-peer accommodation, peer-to-peer travel experiences, peer-to-peer job assignments, travel advice, travel-sharing by car, or travel-sharing by bus.

A mesh economy is an economic model based on the sharing of meshes of people, goods, and services. This model is supported by technology that enables more efficient connections between people, goods, and services, creating new communities, organizations, or business models in the public and economic sectors. private sector. Technologies such as mobile devices, social networks, the Internet, connected communities, 3D printers, and sensors allow individuals and organizations to directly share available resources rather than waiting. third party companies or the government to provide the goods or services that you want.

The person-to-person model, also known as the peer-to-peer model, creates new opportunities for individuals, communities, governments, and corporations to trade and cooperate. The Mesh Economy was first introduced by Lisa Gansky in her book The Mesh: Why the Future of Business is Sharing.

There are many different definitions of the sharing economy. According to Yuhei Okakita, Deputy Director of the Economic Information Policy Division - Japan’s Ministry of Economy, Trade, and Industry, sharing economy is an economic reconstruction, in which anonymous individuals can use idle assets (including intangible assets such as personal skills and free time) owned by other individuals via combined Internet platforms. According to economic experts, shared economics is a term referring to a business model that exploits the resources available to the end-user and combines with technological elements to form one business model. In addition, the sharing economy is also understood as a "hybrid market" model (between owning and giving gifts), which refers to the sharing of access to goods and services (coordinated through community-based online services).

Although there are many different definitions of the sharing economy, in general, all definitions show that the nature of the sharing economy model is to utilize the development of digital technology to save on delivery costs and reach many customers through digital platforms. The basic feature of the sharing economy model is the use of
digital technology applications to provide information to individuals and organizations. From there, it allows optimization of resources through the redistribution, sharing, and reuse of redundant capacities of goods and services. To share resources, new goods and services as well as new industries in the sharing economy, three basic elements are required: (i) Customer behaviour for many goods and services changes from owning to sharing; (ii) Online social networks and electronic markets are easy to link with consumers; (iii) Mobile devices and electronic services make the use of shared goods and services more convenient.

Based on the form of asset owner and price decision-maker, the sharing economy model is generally divided into three main categories: (i) Centralized platform model (platform providers are asset owners and service cost decision-makers); (ii) Decentralized platform model (the platform providers create only the connected environment, the service provider is the owner of the asset and also the decision-makers of the service cost); (iii) The hybrid platform model (the asset owner provides the service at the price given by the platform and the platform also plays a role in ensuring the quality of the product delivered out of the market).

Participants in the sharing economic model are very diverse. There could be an individual user, a non-profit business, a for-profit business, a local community, or the public sector. The sharing economy allows consumers to access services and assets that they cannot own as well as help improve social welfare. It also makes the most use of physical assets and other idle resources, contributes to cost savings, sustainable economic development, and reduces negative environmental impacts. With these great benefits, the sharing economy has become an indispensable part of the global economy. Thus, the sharing economy (other names are the collaborative economy, the mesh...) is an economic system that promotes sharing and cooperation over private ownership.

People, instead of possessing to satisfy their needs, will find resources in the community. The sharing economy is growing because it redistributes resources that are not being used effectively (products that are bought but not used, machines are underutilized) to where it could be used more efficiently. In a society where cars are used on average 1 hour per day (less than 5% of the time), 99% of appliances are not used again in six months. This redistribution is necessary to save money on users and social resources.

Overview of the advent of the sharing economy
In fact, the sharing model has been around for a long time: library, car rental, club, practice room, motorbike taxi, sharing in villages and towns. However, since the mid-twentieth century, sharing had become more expensive and complicated than owning, due to the explosion of mass production (the industrial revolution). Since then, consumerism is formed on the idea that consumption will help people feel happy, consumption helps the economy thrive. But now the trend is reversed again, as sharing becomes cheaper.

The sharing economy is on a larger trend that dates to the Internet era: The reversing trend of consumerism. Thanks to the spread of the Internet, e-commerce sites like eBay and Craigslist helped connect resource-minded people willing to share resources and
those in need more efficiently. Resource sharing and redistribution began to go cheaper than buying new and throwing away old. People are not only buyers but can also sell through peer-to-peer commerce. This enables the wasted things that are not used to be utilized through the technology platform. Through this platform, people begin to change relationships with things they own, they realize what can be accessed without having to own, which is expensive to maintain, which is not needed. Equipment that is not used often should be rented, not be purchased. This changes the mentality of "private ownership".

Product Service companies started developing a fee-for-use, rather than per-ownership (ZipCar) model 10 years ago. Now there are hundreds of sharing-asset companies: Airbnb, RelayRides, DogVacay, LiquidSpace... These companies use the technology of mobile phones, GPS, 3G, online payments to make the sharing economy model work with high efficiency, cost savings, benefits increase for suppliers, needers, and middlemen. At the same time, they also save capital (not buying cars, building hotels) by using community capital (participant's car, participant's house), which helps companies to spread quickly around the world.

In summary: The sharing economy is an expression of the technology adoption to reduce waste in consumption, target smart cities and communities, and effectively utilize resources.

2.2. Ownership relations changes under the impact of the sharing economy
Ownership is the social relations arising between people in the "possession" of matter. In the sharing economy, the ownership relationship is also the relationship between people in the process of "sharing" resources. Therefore, there have been new changes in the ownership relationship, namely:

First, change in the object of ownership
Before the fourth industrial revolution, the object of ownership was always the main means of production such as capital and machinery. The subjects of ownership play a decisive role in the relationship with other entities in the production and business process. As time goes by, the sharing economy, along with the application of digital technology, plays an increasingly important role in production and business, whereas the position of the financial capital factor tends to decrease and be replaced by information technology businesses, which hold data about consumers' needs, preferences, finance... The world will witness a spectacular overthrow of information technology businesses when they turn manufacturing businesses into their "henchmen". With the ability to collect and analyze data, information technology businesses will grasp the needs of their customers and produce corresponding products. Then they will hire a manufacturing company to make products for them. Therefore, the era of a "coup" in production is approaching, not all businesses hold the production line.

Under the impact of the sharing economy, owning intangible assets is more and more important than tangible assets. (Tangible assets: factories, machinery, products, goods in circulation, and inventory... Intangible assets include intellectual property (ideas, design, research - development, databases, brands, reputation, strategies, business
processes, customer relations...) and intellectual property rights (patents, copyrights, trademarks, industrial designs...)

While intangible assets increasingly offer high value with low fixed costs, tangible assets incur high fixed costs, and high costs. In the present conditions, the added value of the manufacturing industry depends mainly on the processing of raw materials into final products. However, in the future, the internet connection will collect customer needs, which manufacturers will only need to update the software for product life without changing any components. Therefore, the value of intangible assets such as technology and data plays an increasingly important role. According to research by Ocean Tomo, intangible assets account for an increasing value in the value chain of a product.

**Figure 1: Changes in the ratio of capital in the market value of firms**

![Figure 1: Changes in the ratio of capital in the market value of firms](image)

*Source: OceanTomo, Intangible asset market value study, 2020*

**Second, change in the subjects of ownership**

On the Internet of Things platform, millions of devices are collecting data from users around the world every day and sending it to the cloud storage of a certain "boss". These data are valuable data, not just for every company that makes the device but for hundreds of other companies. Every day, such data is still collected, analyzed, and used without the user's knowledge. As can be seen from the digital ethos, the owner no longer limits his ownership as if he possessed tangible matter. The question is: Who owns the data? And with the ability to share data, with no access restrictions, how does the owner of the data benefit from his or her ownership? Answering this question, there are many different opinions: According to Barbara J. Culliton, in universities, or scientific institutions, it is clear that researchers have the right to retain data because

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"Universities rarely claim ownership". In the industrial sector, this ownership is determined by contract, commonly, the data belongs to the company. In governmental organizations and the state, the products that state scientists produce while working for the state belong to the state. But it is difficult to determine that, given the current trend, so many young researchers are working freelance and not really on the state payroll. According to research by David Loshin, owners of data are very diverse, depending on different situations. For example, data collectors can also become owners of those data. By combining datasets from different sources, one can create a new "body" of information, which is more valuable than the individual pieces of data that make up that "body".

Businesses can also be data owners. For example, collecting data from external market data providers as well as data from internal sales and stock processing in banking. All data is absorbed into a single operating data centre system, then redistributed, often with added value. In this case, the data belongs to the bank.

In other cases, if the user creates authorization requests to create data, pays for the data creation, they take ownership of the data, even if it is created by another party. For example, Mr. A pays Mr. B to report on the competitiveness of the sugar industry in Vietnam, then Mr. A is the only owner of the provided data.

In environments where information is "locked" within specific encrypted formats, the party that can unlock the information becomes the owner of the information. The cost of decoding and implementation is an investment in value derived from information. A particular example of this is shown in the results of DNA sequencing to isolate specific genes. The value of decoding DNA structure can be demonstrated by any improvement in the detection, prevention, or treatment of certain genetic diseases. The bioinformatics companies that decode genetic material are considered owners and can then sell the data they decode to the pharmaceutical and pharmaceutical industries. Even some global data has been shared unlimitedly for everyone to increase global knowledge about a particular issue.

Thanks to the remarkable development of artificial intelligence and intelligent robotics, now computers can organize the available data by themselves, analyze and integrate into a completely new product. For example, a group of members of museums and researchers in the Netherlands published a computer-generated portrait of "The Next Rembrandt" after analyzing thousands of works by Rembrandt - a Dutch painter in the seventeenth century. Moreover, with the development of new technologies such as 3D printing, users can directly participate in the production process by selecting models and customization on each product. So, the final product, which is the result of both

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the producer and the consumer, will be owned by whom, and how are the benefits distributed? This is still a conundrum for administrators.

**Third, forming a new perception trend of ownership.**

From the third industrial revolution to the fourth industrial revolution, there is a generation who tend to consume experience rather than possess material\(^7\). In 2015, more than 75 million of these young people entered the market, according to the Few Research Centres. These people do not want to own anything, from homes and cars to even a record of music on the shelf. They don't want the DVD, they want the movie it delivers. They don't want the CD, they want the music it plays on. They don't want cars, they want to be met with their travel needs most economically and efficiently. Thus, the future generation of customers will no longer enjoy holding an object and asserting their ownership, they only need the ability to "access" and use it. They feel that owning property is a burden rather than an achievement. Instead of owning to satisfy their own needs, they will find resources in the community.

Along with that trend, the birth of the sharing economy has made the demand for idle asset sharing to be met most effectively. From a macro perspective, a sharing economy is where available resources are exploited collectively among users through technology. People, instead of possessing to satisfy their needs, will find resources in the community. The sharing economy is growing because it redistributes resources that are not being used effectively (products that are bought but not used, machines are underutilized) to where it is used more efficiently. Then, consumers realize: Sharing and redistributing resources started to get cheaper compared to buying new and throwing away old stuff. Since then, there appeared the reversing trend of consumerism, turning to sharingism. As the Internet spreads more effectively to connect those who have and need it, people are not only buyers but can also sell through peer-to-peer commerce. This enables the wasted things that are not used to be utilized through the technology platform. Through these platforms, people begin to change relationships with things they own, they realize what can be accessed without having to own, which is expensive to maintain, which is not necessary, something that is not used often should be rented, not be purchased.

2.3. Sharing economy in Vietnam and issues about ownership relations in the sharing economy

*Types of sharing economy in Vietnam*

Vietnam is one of the first countries in ASEAN to allow a pilot business model of transport-related technology translation (e.g. Uber, Grab) starting in 2014. However, after 4 years of operation, by April 2018, Uber withdrew from the Southeast Asian market and exchanged a 27.5% stake in Grab\(^8\). Immediately, after Uber withdrew from the market, Vietnam witnessed a strong development, showing the economic model of

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\(^7\) Robert Niewiadomsky, Digital Generation: Is this the beginning of paradigm shift in ownership? https://cie.acm.org/articles/digital-generation-beginning-paradigm-shift-ownership/

sharing as a potential market segment. In May 2018, the VATO application appeared on the market\(^9\) and many other technology taxi companies such as Gonow of Viettel or the newly invented application of FPT’s T.Net. Besides, it also creates a strong incentive for traditional businesses to change their operating methods from manual to technology application.

Airbnb is a model that connects people who need to rent a house to families with available rooms to rent via a mobile application similar to Uber, Grab. This is a relatively new type of service, operating on a decentralized platform model, all payments are made using credit cards and via Airbnb. This intermediary will charge a fee for both the reservationist and the host. The fee for the host is 3% of the total value of the reservation, the fee for the guest book is 6 - 12% and this fee will always be displayed during the customer using the service. This fee still ensures that people pay less than hotel reservations via traditional channels\(^10\).

Many services provide a widely applied platform, namely Triip.me using a business model like Airbnb, which uses community resources to design tours worldwide; changing the style of travel guides, analytics help tourists learn more about where and whom they want to go and help them connect with locals around the world, or food service, labour, consumer goods.

Financial services applying technology (peer-to-peer lending) typically provide a platform to connect between lenders and borrowers such as lendbiz.vn, tima.vn...; Receiving the trend of service provision in the market, on June 5, 2018, Fin Financial Technology Innovation Joint Stock Company officially launched peer-to-peer lending services in Hanoi. This is an innovative start-up in the P2P Lending sector using an advanced technology platform in Vietnam.

The daily development of technology has led to the innovation in scaling up services such as Grab, transportation service is no longer just between people but expanding into freight services. Food transportation meets the practical needs of society. So does the connection of users with other Rada service providers with specific areas of home appliance repair, water and utility construction, airports, long-distance transportation, automotive equipment repair. After one year from April 2016 to April 2017, more than 20,000 successful transactions with 56,000 customers, more than 1,000 suppliers, and 3,500 workers/supplier, Rada started collecting money from the successful transactions (pcworld, 2017); or Okiaf’s hourly maid, house cleaning application.

Vietnam’s policy response to the shared economic model is reflected in Decision No. 999/ QD-TTg approving the Project to promote the shared economic model dated August 12, 2019, by Prime Minister Nguyen Xuan Phuc. The goal is to ensure a fair business environment between businesses following traditional economic and sharing

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economic models. This move shows a change in the Government's awareness and action in recognizing a new business form based on the optimization of redundant resources in society as well as economic activities based on the advances of science and technology, especially the development of the 4th industrial revolution.

Decision No. 999 / QD-TTg dated August 12, 2019, of the Prime Minister, has created a legal foundation with the support of the State to help technology companies operate in a sharing economic model, create an equal competition space between traditional companies and technology companies. The most important thing in the development of these models is the ultimate benefit to the user. The project of promoting the sharing economic model aims to ensure an equal business environment between business enterprises according to the traditional economic and sharing economic model; ensure the legitimate rights, responsibilities, and interests of the parties to the sharing economic model, including service providers, service users and platform providers; to encourage innovation, digital technology application and digital economy development. The project’s point of view is to support and adapt to the new development trend of the sharing economy model in the very rapid development of digital technology in the world; It is not necessary to have separate policies for the business model according to the shared economic model because the sharing economy is not a separate economic component in the economy.

**Issues on ownership relations in the sharing economy in Vietnam**

*First, the changes in the objects of ownership in sharing economies require a more complete regulatory institutional foundation.*  
Although in the sharing economy, it is indispensable for material and non-material, tangible and intangible objects such as capital, labour, resources ... like any economy, the most important object of ownership is the technology platform. Obviously, tech companies may not have any physical assets related to their businesses. For example, Grab does not own a car, Airbnb does not own a house at all. They only possess the technological foundation and the way for the owners of "material" resources to come together to meet needs. Thus, in the sharing economy, the issue of owning assets, capital ... is only relative in generating revenue and profits for businesses. Ownership is ultimately a means, not an objective when entering the market. The most important factor is the technology and consumer data systems.

The use of technology has helped the sharing economy model operate with high efficiency, save costs, and increase benefits for suppliers, needers, and middlemen. At the same time, saving capital of the company by not building facilities, buying input materials but using community capital (cars of participants, houses of participants) assists the companies in gaining a big profit and expanding its influence around the world quickly - no need to go through foreign joint ventures or open representative offices overseas. Other assets including goods, services, space, skills, and money can all be shared. The sharing economy creates a kind of real social capital but relies on a reciprocal exchange between people (either in a positive or negative direction). Ownership is the social relationship that arises between people in the "possession" of material, and here is the relationship between people in the process of "sharing"
resources. Therefore, the emerging "new" assets will need to be managed not in the traditional way but require new policy directions and legal corridors.

Initial review and assessment of the response of current laws to the sharing economic model show that the current legal system of investment and business in Vietnam (Law on Investment, Law on Enterprises, The Law on E-commerce, tax laws, etc.) have no regulations related to the operation of the sharing economy model. For example, the business model, the product, or the service is not in the category of business, so the business has difficulty registering to establish a business; therefore, most new business models are subscribed to another Service industry. Some shortcomings in the current legal system governing the operation of the sharing economy model in Vietnam include:

(1) There is a lack of policies to ensure fair competition between the traditional economy and the sharing economy in each specific industry. The recent proliferation of services under the sharing economy model in Vietnam has raised concerns about unequal competition (due to lack of legal corridors) if executive management did not have a timely and proper intervention. Because of the superiority of this new economic model, it will create great competitive pressure on traditional business enterprises. Conflicts of interest between enterprises doing business under the sharing economy model and enterprises traditionally doing business will occur. Most of this conflict is very fierce without good policies of the government to act as "the arbitrator" to resolve. When there are no uniform policies, the problem of unfair competition with traditional enterprises is a big risk that needs to be solved. The story of the lawsuit between Vinasun - a traditional taxi business with Grab in the past time is one of the typical examples.

(2) Lack of regulations on product or service quality control to protect consumers, especially defining more clearly the obligation to protect consumers' interests in e-commerce activities related to the sharing economy. The sharing economy has potential risks that managers need to pay attention to ensure the interests of both buyers (consumers) and sellers (service providers). Although the parties have more complete information about each other, the verification of information and direct contact with each other is less, so there is also a greater risk if not overcome by specific regulations and efficiency. The issue of insurance and safety for parties including service providers and service users/customers or customers is also more severe.

(3) There is a lack of mechanisms and policies to define clearer responsibilities of the sharing economy parties. Due to the appearance of a third party as a technology platform, the contractual relationship in the sharing economy will be at least a 3-party relationship instead of a 2-party relationship as in previous contracts. The legal framework specifying the responsibilities of each party to this contractual relationship should be changed and supplemented. This is also one of the reasons that countries in the world (even developed countries) need to adjust their legal systems to behave appropriately in the new context of the sharing economy.

Second, the issue of property rights, especially intellectual property
In the sharing economy, there is not only the sharing of services and goods but also the sharing of information. Exchange of information can create cooperation or deals of great
value. Under such circumstances, concerns about intellectual property rights were raised again. For example, sharing in the software and innovation industries leads to the further development of new licenses specifying the data sharing and collaborating terms, use and reuse for either personal or commercial purposes or other matters. The more sharing, the more prevalent the use of standardized licenses becomes. In a world where businesses and houses are (ideally) owned by members of the local community, there is good compliance with property laws will keep lawyers busy in sharing economies. That implies that the clear delineation of ownership in the sharing economy is very time-consuming and laborious.

Not until the fourth industrial period, intellectual property was concerned by countries, but it was the fourth industrial revolution that made intellectual property increasingly compulsory in the process of international integration, economic growth, and development of each country, including Vietnam. The products of knowledge, the products of creativity need to be protected by the law to bring about justice, and to further stimulate the development of science and technology. The industrial 4.0 digital storm has posed a great challenge to the law on intellectual property, requiring the provisions of the law on intellectual property to be more innovative, creative, and stricter.

The 3D printing technology - a remarkable achievement of the 4th industrial revolution, can have profound effects on intellectual property rights regulations because 3D printing is identified as conflicting with property Intellectual property or not is a very difficult job for both users and authorities. This technology allows the reproduction of objects or the materialization of designs. With just a 3D printer, anyone can download a computer-aided design (CAD) file, which "guides" the printer to create 3D objects.

Due to their digital existence, these CAD files are easily shared on the Internet through file-sharing services, similar to what computer users do with movies or songs. Thus, as long as there are a CAD file and a 3D printer, one can manufacture the product in a factory without any legal obligations related to intellectual property protection. Therefore, 3D printing technology is forecasted to create a series of infringements of protected patents. Besides, patents often protect a method of manufacturing a new product, while a 3D printer can create that product without violating the protected manufacturing method. Even when a patent protects a new product, 3D printing makes it easier for people to modify and design new products based on protected products.

The next obstacle is to prove a violation of intellectual property laws when 3D printing can take place anywhere, anytime, as long as there is a printer, even before the official manufacturer. The commercialization of 3D printers poses a huge challenge for market managers when the amount of counterfeit products is extremely large. Businesses can face serious trouble when other vendors or even individuals can easily copy their products using design files or 3D scanners. CAD files of objects, assumed to have intellectual property protection, can also be instantly shared with the world thanks to online 3D printing devices. Conflict of intellectual property rights at the corporate level, even up to the national level, is entirely at risk.
Thus, the sharing economy on applying the achievements of the fourth industrial revolution poses many challenges in the protection of intellectual property. The future of intellectual property will be affected in the way that many types of intellectual property will merge into one. For example, the copyright will be imported into patent rights. Also, when protecting intellectual property, instead of focusing on the protection of the production method, the composition of the product, people will focus on protecting ideas, designs - proof for the benefits of creators and probably will be the main source of profit in the coming time.

While the modern market economies in the world have been taking ownership of intangible assets very seriously, in Vietnam, there is still a heavy burden of owning tangible assets (owning in-kind). It is probably due to the slower development of the market economy in Vietnam that many forms of value ownership such as information ownership, management know-how, trademarks, copyrights, valuable papers are still not popular. The more scientific and technological revolution develops, the more important intellectual property is, which will have a strong impact on developing countries like Vietnam, open up opportunities and challenges for businesses, technology transfer policy-making, and regulatory agencies. The objective of economic activities in the market mechanism is value and profit. The fourth industrial revolution made owning tangible assets gradually no longer the goal, but only a means. In order to achieve value and profit goals, owners do not necessarily only own means of production.

On the contrary, owning value that is not based on in-kind ownership can still benefit such as buying brands, selling ideas...

Third, there is a lack of means and ways to evaluate and measure the efficiency and profitability of enterprises pursuing the form of "sharing economy". Lots of activities like renting out your second home for a few days on the Airbnb app platform don’t count towards your gross GDP, and neither do other activities. Some argue that this can be taken lightly because it is clear that we are using resources more efficiently, we are creating more value than producing more and more goods that can contribute to GDP data but not be necessary for this planet. This statement is not wrong in the downward trend of "consumerism". But the problem here goes further than that. Macro accounting is essential in any economy. The economy needs macro-balances, but we are lacking the data means to demonstrate that the "sharing economy" can create more equilibrium in society. The control of information transparency of these enterprises as well as the management of electronic transactions, international payment on card trade is a problem that is difficult for managers. The tax administration for the sharing economy model is also facing many difficulties, almost impossible to solve. It is difficult for managers to grasp the exact number of transactions carried out in the form of a sharing economy and who participate in this model.

Fourth, the responsibilities of parties participating in the sharing economy.
Not owning material production but mainly sharing resources, corporate responsibility is reduced to a minimum, especially the responsibility to the workforce of the enterprise. Employees' lack of benefits in terms of health insurance, job security, and peer-to-peer transactions will increase inequality. It breaks down the workload, and also
disrupts the perks of the association, from health care to insurance, from training to skills and promotion incentives. This is the biggest social failure of this economic model when it does not shape a workforce for itself. For example: When Uber was acquired by Grab, thousands of Uber driver service workers were not officially notified and struggled to find new jobs or new ways to join Grab’s workforce. The question is, what happens when thousands of workers are uninsured, have no job skills, and have no social welfare?

The relationships between those with wealth and intermediaries are also worth discussing. In the new model of sharing economy, fintech is still service intermediaries, but the problem with Uber or Grab is that the significant business risk is passed on to workers providing direct services, which they call partners, rather than deeper intervention. In the financial sector, intermediaries are also forced to be under the strict control of regulators, making it difficult to pass all risks to users.

In addition, the fact that goods and services are exchanged in a "shared" way with an infinite number of interactions will lead to challenges for policy managers such as the requirement for a favourable business environment, ensuring the benefits harmonization with traditional service business models; controlling the transparency of information; management of electronic transactions, international payment for commerce by card; product and service quality management; tax loss prevention (corporate income tax and personal income tax) and some other social problems arise such as labour, employment, and social security... The sharing economy is not an economy where prosperity and power are shared between rich and poor. On the contrary, it seems that this pattern worsens income inequality and concentrates wealth in the hands of the richest who do not need it most.

Of course, there are still many problems related to the sharing economy, but within the scope of this study, it only mentions some changes in ownership relations in the context of economic operation. And that is also the basis for the authors to propose many solutions to the above problems.

2.4. Several solutions to problems arising in ownership relations when developing the sharing economy in Vietnam

To build a foundation to ensure the expansion and development of the sharing economy as well as to solve problems arising in ownership relations, some solutions are proposed as follows:

First, completing institutions, providing a full and flexible legal environment, creating conditions for the effective development and management of parties participating in the sharing economic model, in line with a rapid change of science and technology. In terms of technology, the Government must establish a transparent database in many areas related to population, employment, industry, and services to respond promptly to changes in economic structure, problems of the labour movement, and unemployment. In the legal aspect, the Government must develop and amend legal documents in many areas that tend to use strong digital technologies such as transport, health, environment, tourism, and e-commerce.
Up to now, the Government of Vietnam has not had a legal corridor to ensure businesses operating under a sharing economy model. The activities of the world’s leading enterprises in this model such as Uber and Grab in Vietnam are only at a pilot level, even banned in some places. Before the issuance of Decree 10/2020 / ND-CP, the Ministry of Transport issued a document to suspend a new pilot with technology transport enterprises, the cause is the boom of technology taxis putting pressure on infrastructure, inequality with other types of transport services. Building a legal corridor for this economic model is essential to ensure social order and security, harmonize the interests of all parties, and ensure consumers’ interests. If managers recognize that the problem is urgent, having a far-reaching impact on the society, requiring tight management, they must urgently revise laws and decrees to adjust. The mindset "Banning the unmanageable" is not unacceptable. Because, as the trend will happen sooner or later, the domestic authorities need to identify the issue accurately so that from there to soon build a legal corridor for businesses to feel secure to operate and create value, profit. Recently, Airbnb, a leading enterprise in room sharing, has entered the Indonesian market but has not yet entered Vietnam, although there have been many moves before. This choice may have many reasons, but perhaps partly, they are also waiting for the official response of Vietnam to the Grab test.

Second, to renew the intellectual property regime in the direction of encouraging creativity and protecting property rights in all fields. Enhance, promote, and encourage creative activities in Vietnam in all fields to create a new intellectual capacity, patents, inventions, brands... Besides, it must perfect the institutional system including laws related to intellectual property, which expands the protected objects in the fields of technology, based on the internet of things, big data, and computing cloud - the technological platforms of the sharing economy. Specifying mechanisms for establishing rights, exploiting values, and protecting intellectual property rights against all infringements. Besides, building regulations on mechanisms for customer information assurance, data security, transactions, and handling measures when businesses violate.

Third, to quickly build a system of means and ways to make economic accounting and information transparency in the sharing economy. Product quality management is provided by “semi-specialized” business entities, transactions in the form of electronic payments, tax management from businesses according to the sharing economic model, ensuring no loss of national resources. The participant management mechanism is often difficult to apply to direct service providers, because of the diversity and complexity, often without specific clues. The regulator should focus on the entity providing the intermediary service between the supplier and the user on a technology platform - because managing data from the software is often more accurate and efficient. Depending on each type of sharing economy business model and types of goods and services, regulations should be set correspondingly.

Fourth, to increase the understanding of parties when participating in the sharing model, to have a management mechanism to protect legal rights and interests as well as personal property. Participants can claim benefits when participating in transactions through different types of insurance (labour insurance, rental insurance, car rental ...).
There should be a mechanism to clarify roles and responsibilities and have regulations to punish violations, prevent abuse, and ensure data security when participating in the sharing economy model.

It is undeniable that, in addition to the advantages, the sharing model also reveals some limitations on the issue of ownership relations, ensuring the harmony of interests of the parties, the lack of insurance sanctions, tax evasion, business ethics, and quality management sharing services. However, this model will certainly have a strong impact on the future of the economy and overcoming the limitation can only be done by a strict legal corridor.

**Conclusion**

In today’s digital age, the sharing economy has become a growing trend for many economies around the world. This research paper provides an overview of the sharing economy and the possibilities of developing the sharing economy in Vietnam. The essence of the sharing economy model is to take advantage of the development of digital technology to save transaction costs and reach many customers through digital platforms, which is to use public applications and digital technology to provide information to individuals and organizations, thereby allowing to optimize resources through the redistribution, sharing and reuse of redundant capabilities of goods and services. The article has affirmed that Vietnam is not out of the general trend. In Vietnam, there is also the activity of sharing economy. Since then, it has led to a certain change in the ownership relationship, such as about the owner, about the object of ownership, and formed a new perception of ownership ... These changes have raised many problems that need to be addressing the development of the sharing economy in Vietnam, that is: changes in ownership objects in sharing economies require a more complete institutional and management foundation; property rights, especially intellectual property; means and ways to evaluate and measure the efficiency and profitability of enterprises pursuing the form of “sharing economy”.

The article also gives some discussions on institutional improvement, providing a full and flexible legal environment, creating conditions for the effective development and management of actors participating in the sharing economic model, consistent with the rapid change of science and technology background; to renew the intellectual property regime in the direction of encouraging creativity and protecting property rights in various fields; to quickly build a system of means and methods for economic accounting and information transparency in the sharing economy; enhancing understanding of subjects when participating in the sharing model, having a management mechanism to protect legal rights and interests as well as personal property. are meaningful solutions in perfecting ownership relations when developing the sharing economy in Vietnam. We believe that Vietnam’s sharing economy will develop rapidly, making a worthy contribution to the country’s socio-economic development in today’s digital age.
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