BASED ON LOGISTICS SERVICES IN THE WORLD AND LESSONS FOR VIETNAM

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ABSTRACT

In the context of deepening international integration and the digital economy being the mainstream trend, Logistics activities throughout, from production to consumption, play an increasingly important role in the competitiveness of Vietnam—manufacturing and service sectors in particular and the economy in general. The problem of developing logistics services in Vietnam is more urgent than ever.

Keywords: Overview, Services of Logistics, The World and Vietnam.

INTRODUCTION

Logistics began to appear in the wars of the Greek and Roman empires when soldiers transported and distributed necessities such as food, weapons, and medicine, ... to the barracks with a coordination combination of many people and with a strict management process to avoid sabotage from competitors—from there gradually formed a system that is now called logistics management.

The role of logistics was increasingly confirmed when the second world war broke out. This has been done exceptionally well by the US and its allies when providing weapons,
ammunition, and equipment at the right time in an optimal way. World War II spurred and created many logistics applications developed to this day.

Along with the rapid development of science and technology, especially the big step of the industrial revolution 4.0, logistics gradually becomes an indispensable tool for every business in all fields, especially in production companies. When logistics work inefficiently, the production line of enterprises will be affected in terms of quality and time. Therefore, many studies have provided a concept, operational aspects, and factors affecting the development of logistics to help businesses limit inadequacies in the logistics management process. Enterprises, thereby restricting the inadequacies affecting production and business activities. Therefore, the article will introduce and analyze commonly used logistics concepts, thereby systematizing the process of forming, developing, and perfecting the logistics concept and proposing a research model on the factors that affect logistics to the sustainable development of Vietnam's logistics industry.

THE PROCESS OF FORMATION AND DEVELOPMENT OF LOGISTICS
Logistics is a specialized term derived from Greek, according to which, in Vietnamese, the nearest equivalent word is "logistics." Logistics has a concept that originates from the military need to provide troops during the movement of soldiers from the base to the front line. In ancient Greece, the Roman and Byzantine Empires had officers who took on the role of “logistics” and were responsible for financial matters and distribution.

Logistics has a business relate business-related concept that dates back to the 1950s. This is mainly due to the increase in supply and transportation in a globalized world, which requires specialists in the field. To put it simply, logistics is a part of the supply chain, including the overall work related to goods, including packaging, transportation, storage, and preservation, until the goods are delivered to the consumer for final consumption. In more detail, logistics is one of the "logistics services" industries, which is understood as the process of preparing goods, arranging, packing, marking and preserving interests, transporting goods to the port, and carrying out export or import clearance procedures for goods (Tao Thi Hai, 2020).

In 1988, the US Logistics Administration Council (LAC - The US Logistics Administration Council) introduced the concept: “Logistics is the process of planning, implementing, and controlling the movement and storage of raw materials. Goods in the process, finished goods and related information, from raw material procurement to consumption, to satisfy consumer requirements”.

In 1998, Christopher defined logistics as follows: Logistics is the strategic management of the procurement, transportation, and storage of raw materials, parts, and finished goods inventories and related information flows through an organizational strategy. Organize and execute marketing channels. Logistics is not limited to handling or transportation but includes communication, customer service, localization, logistics (Stock and Lambert, 2001), and related planning. Closely associated with trade and production (Grant et al., 2006).

In 1999, the textbook Logistics and Supply Chain Management of World Maritime University introduced the concept "Logistics is the process of optimizing the location, storage, and transportation of resources or services. Inputs from the point of origin as suppliers, manufacturers, wholesalers, retailers, to consumers through a series of economic activities”.

In 2001, the American Council of Supply Chain Management Professionals (CSCMP - Council of Supply Chain Management Professionals) introduced a precise and comprehensive
concept. Accordingly, “Logistics is defined as a part of the supply chain cycle, including planning, implementing, and controlling the efficient storage and movement of goods, services, two-way communication between the point of origin and the point of consumption to satisfy customer needs.”

In 2003, in Supply Chain Strategy, President of the Georgia Institute of Logistics Research, USA, Mr. Edward Frazelle, stated: “Logistics is the process of moving materials, information and money from suppliers to suppliers. end consumer”. Also in 2003, in Vietnam, Prof. Dr. Doan Thi Hong Van defined in the document “Logistics - Basics” as follows: “Logistics is the process of optimizing transportation and storage activities. goods from the place of production to the place of final consumption through a series of economic activities”. Accordingly, logistics are activities (services) related to logistics and transportation, including jobs related to supply, transportation, production tracking, warehousing, distribution procedures, and customs. ... In other words, logistics is a collection of activities of many industries and stages in a complete process.

In 2004, the United Nations Conference on Trade and Development, also known as the United Nations Conference on Trade and Development (UNCTAD), said: “Logistics is the get what you need at the right place and time.” Although used relatively commonly, according to the author, this is not a standard definition because it has not presented the content, content of activities, and operations of the logistics concept. This definition is also one of the reasons logistics becomes ambiguous, leading to ignorance or common confusion about logistics today.

In 2005, at the 7th session, term XI, on June 14, 2005, the National Assembly of the Socialist Republic of Vietnam passed the Commercial Law 2005, which explicitly stipulates logistics services. Article 233 - Section 4 - Chapter VI of the Commercial Law defines: “Logistics service is a commercial activity whereby a trader organizes to perform one or more stages including receiving goods, transporting, storing, storage, customs clearance, other paperwork, customer consultation, packaging, marking, delivery or other services related to goods as agreed with the customer for remuneration.”

In 2015, in the doctoral thesis on State management of Logistics services in Hai Phong Port, author Nguyen Quoc Tuan said: “Logistics is a series of continuous activities, closely related to each other. Reciprocal action is carried out scientifically and systematically through researching, planning, organizing, managing, implementing, checking, controlling, and perfecting activities, including supply, transportation, production tracking, warehousing, distribution procedures, customs,... Therefore, logistics is a process involving many different activities in the same organization, from strategy formulation to detailed and specific activities to implement the strategy”.

In 2020, Cao Thi Hai, in the research paper "Developing Da Nang port urban area with logistics services in the Decade 2020-2030", showed that: "Logistics service is a commercial activity in which traders organize real estate activities. Perform one or more stages, including receiving goods, transporting, storing, storing, customs clearance, other paperwork, consulting customers, packaging, marking, delivery goods or other services related to goods as agreed with customers for remuneration” (Tao Thi Hai, 2020).
THE SITUATION AND DEVELOPMENT TREND OF LOGISTICS SERVICES IN THE WORLD

According to data published in 2018 by the World Bank, the global logistics market has a size of about 4.3 trillion USD. Asia-Pacific accounts for about 40% of revenue. Regarding component services, transportation accounts for 60% of global logistics revenue. The rapid growth of e-commerce and the automation industry are the main factors driving the global logistics market in recent years. Investment in technological innovation in logistics focuses on automatic material handling equipment, GPS, warehouse control software, and biometrics. Large-scale international use of logistics services includes retail, manufacturing, media, entertainment, banking and finance, telecommunications, and government operations (public utilities).), in which manufacturing (processing, manufacturing) is the most significant proportion due to having the longest supply chain. The world's largest logistics service enterprises come from the United States, Germany, Japan, Denmark, and the Netherlands. The recent development trend of logistics businesses in mergers and acquisitions (M&A) and most big deals occur in China.

+ Transportation

In terms of costs, transportation costs account for about 60% of the overall cost of logistics. Thanks to its flexibility, easy access, reliability, and “door-to-door” serviceability, road transport accounts for 44.6% of transportation revenue. Waterways accounted for the top share by volume, with 47.9% of the global market share. According to the Global Transport Forum (International Transport Forum) statistics released in June 2018, global container transport (in TEU units) grew by 4.8% in 2017, and air freight in tons.km increased by 9%, much higher than the increase of 3.8% in 2016. Railway transport also grew well, typically; Russia increased by 6.4%, the US 5.3%, and the EU. Up 3.5%. Road transport in tons/Km continued to expand in the EU region with an increase of 3.5%, while the recovery rate in Russia's road transport slowed to 2.1% due to the EU continuing to extend the trade embargo with this country. According to a survey and forecast by Panteia Research Institute (Netherlands), the total world freight transport may increase by 3.3% in 2018, then slow down in 2019 with an increase of 2.3%. The forecast is based on assessing the country's economic growth, the import tax increase policies of the nations, the oil price, and many other influencing factors, including political, social, and economic issues. Road transport Road still leads in the share of global freight transport. However, 2018 continues to have many challenges for the road industry, partly due to the increase in fuel prices and road tolls, on the other hand, due to road transport—driver shortage and rising labor costs, especially in the truck segment in Europe. Road transport is expected to achieve the highest growth rate (3.8% in 2018 and 2.7% in 2019). The energy transition affects the road sector less than railways and waterways.

Rail transport Because coal accounts for a large proportion of freight transport by railways and waterways, when countries switch from coal to renewable energy, it will significantly impact the railway industry. And by water rather than by road. Global rail freight is expected to grow by 2.8% in 2018, representing an increase of 1.3 million tonnes of cargo. In 2019, shipping volume was expected to increase by 2.1%. The barge volume growth forecast is 0.6% in 2018 and 0.3% in 2019. Air freight E-commerce demand is adding pressure on the air transport industry, leading Capacity to grow in the first half of 2018. Shippers and importers
are looking for ways to minimize storage costs no matter their transport mode. The volume of air freight has increased steadily in 2018. Actively holding seats with both carriers and forwarders is a more popular choice for small and medium-sized shippers. According to a report from the United Nations Conference on Trade and Development (UNCTAD), global maritime trade grew by 4% in 2017, the highest level in the past five years, reaching 10.7 billion tons of goods, an increase of 411 million tons compared to 2016, of which about 50% is dry goods. Shipping volumes increased in most segments, setting the stage for growth in the first half 2018 before the trade conflict between major economies disrupted some traditional goods supply chains. The bulk and container shipping segments continued to improve in 2018. Sea freight has a big difference between routes. The Eastbound Trans-Pacific Service, the current forecast, shows a growth of 8-9% mainly because this is the service of modern large vessels. Multimodal transport The development trend of multimodal transport, with the connection of road - rail - sea - air transport in the same transport contract, contributes an increasing proportion. In the world logistics market, thanks to its flexibility in meeting orders of different sizes, limiting the impact of natural disasters and strikes... while balancing costs at an acceptable level available to shippers.

+ Warehousing Service
According to forecasts by market research firms Technavio and Businesswire, the global warehousing market is expected to reach $1.8 trillion in 2018 and grow at an average of 6% per year in 2018-2020, mainly when goods are distributed more commonly via e-commerce. The growing demand for frozen foods and pharmaceuticals is driving the development of cold storage systems. The use of warehouse drones for inventory tracking is one of the key trends in the global warehousing and storage market. Regions such as Europe, North America, and parts of the Asia-Pacific, including Australia and Singapore, still have the upper hand due to their higher position in supply chains and technology platforms. Meanwhile, markets with large population sizes, such as India and China, are forecast to grow the warehousing industry with the increase of manufacturing facilities, seaports, ports, etc. ... and especially the development of e-commerce. Asia-Pacific currently leads the world warehousing market with a market share of about 39% and is forecast to show in terms of growth in the period 2018-2022. 1.2.3. Other services Forwarding Services 2018 witnessed significant changes in the global forwarding market due to the impact of new technologies, especially automation and the application of artificial satellites in operations logistics. The delivery service automation market is expected to grow by over 25% during 2018-2023. The connectivity in the supply chain is supported by advances in positioning technology, dash cams, and especially the ability to analyze and forecast the following stages of the route. Merchandise location visibility continues to improve in the supply chain. Shippers and service providers can track online through mobile applications the status of their cargo from the point of origin to the destination.

+ Activities of some large logistics service enterprises in the world
While the global logistics market continues to explode, the competition among big players is more intense than ever. In addition to competitive pressure, they face significant challenges such as limited warehouse space, increased operating costs, and regulations on traffic safety, labor safety, and environmental protection. It is gaining more and more attention, not only in developed countries. To maintain their position in the industry, the world's leading logistics
service enterprises have been constantly expanding their presence across different regions, enhancing services, and growing their business—the leading logistics service enterprises are forecast to remain the market leaders in the coming years. Meanwhile, introducing green logistics solutions and the expansion of free trade agreements around the world could create businesses that are more profitable than these leading logistics enterprises in the future. Future. According to statistics, in 2018, the world transportation and logistics industry witnessed 283 mergers and acquisitions with a total value of 132.4 billion USD. In the first six months of 2018, the number of mergers and acquisitions in the transport and logistics industry was 111 deals, totaling 71.7 billion USD. Notably, M&A deals related to logistics and road transport accounted for the most significant quantity and transfer value proportion. Most significant sales have taken place in China, reflecting the rapid development speed, and the requirements to change how traditional logistics operate in China are very strong. A typical example of a large M&A in China in the first six months of 2018 can be taken as follows: Alibaba Group invested 1.38 billion USD in ZTO company - one of China's major logistics companies - to own 10% of the shares of this company; or JD.com sold its 18.6% stake to get $2.5 billion to invest in logistics company Beijing Jingbangda Trade Co.

OBSERVING LOGISTICS SERVICE DEVELOPMENT IN VIETNAM

+ Infrastructure for logistics

Logistics infrastructure

Transport infrastructure is the most important but also the biggest obstacle. From 2011-2018, investment in the development of transport infrastructure has achieved many outstanding achievements, and the capacity of the transport infrastructure system has been significantly improved (World Economic Forum WEF assesses the capacity rating and quality of the transport infrastructure). Vietnam's infrastructure quality continuously increased from 95/144 in 2011 to 79/137 in 2016 (assessment period 2017-2018), in which the road infrastructure quality index ranked 92nd (up 28 Ranked from 120), seaport ranks 82nd (up 31 ranks from 113). However, the problem is the need for more synchronization, especially between seaports and the road, railway, and support service system. After the port, the connectivity coupled with the asynchronous development of 5 types of transport has limited the efficiency of transport activities, especially multimodal transport and logistics services. The logistics center in our country is now mainly developed in big cities, or economic centers, where the production and distribution of goods are set, and the market capacity is as large as in the South and some other provinces. North does not appear much in the Central region. These logistics centers can provide several or many types of logistics services to objects in need. According to the functions and logistics services provided, some typical logistics centers in Vietnam include: Distribution centers (Gemadept, TBS Logistics, Saigon Newport, DKSH Vietnam, Damco Vietnam, etc.) Transimex, DHL Vietnam, Kerry Express, ViettelPost…); coming years. Meanwhile, introducing green logistics solutions and the expansion of free trade agreements around the world could create businesses that are more profitable than these leading logistics enterprises in the future. Future. According to statistics, in 2018, the world transportation and logistics industry witnessed 283 mergers and acquisitions with a total value of 132.4 billion USD. In the first six months of 2018, the number of mergers and acquisitions in the transport and logistics industry was 111 deals, with a total value of 71.7 billion USD. Notably, M&A deals related to logistics and road transport accounted for the most significant quantity and transfer value proportion. Most significant sales have taken place in China
reflecting the rapid development speed, and the requirements to change how traditional logistics operate in China are very strong.

**Logistics service situation**

In 2018, the logistics service industry continued the growth momentum of previous years with a growth rate of about 12-14% thanks to the growth momentum of the general economy and import-export in particular and the interest in developing post-sales services—needs of the Government and ministries, branches, and localities. According to the World Bank’s Report on Logistics Performance Index (LPI) published on July 24, 2018, Vietnam ranked 39th out of 160 countries participating in the study, up 25 places compared to 2016 and ranked first—3 in ASEAN countries. Regarding the logistics institution, the difficulties of enterprises in business have been gradually solved, especially in naval services (The process of declaring and handling naval documents has been automated to a very high degree.) is higher than 99.60% of enterprises participating in implementing e-customs at 100% of naval units nationwide). Regulations on specialized inspection and cutting business conditions are the determination of ministries and branches set out in the Government's Resolution 19/2018, dated July 15, 2018.

**Service of transportation**

Transport has met the goal of meeting the needs of transporting goods and passengers for the country's socio-economic development in the past period, positively contributing to GDP growth and eradication—poverty alleviation. The average annual growth rate of transport is always higher than the GDP growth rate. The transportation market continues to grow in both breadth and depth; means of transport develop rapidly in the direction of modernity, especially for air and road transport. The quality of transportation in all fields has been improved, especially road transport, air transport, and seaport service quality have achieved more precise results. Sea transport has timely met the needs of the economy, especially for nearly 80% of import and export volume, thanks to timely investment in construction, expansion, and upgrading of seaports, and quality improvement—services of Logistics. Air transport has the highest growth rate; the volume of air transport in 2018 reached 49 million passengers, an increase of 3.2 times in 2011, and the average growth rate reached 16.7%/year, the highest in all fields. - Warehousing services: Warehousing services are oriented to serve customers from the retail sector and import and export goods. In addition to CFS and ICD, warehousing services can be divided into four main categories, serving different customer groups, including ordinary warehouses, bonded warehouses, distribution centers, and cold storage. Distribution center, and fulfillment center service, driven by demand from retail and e-commerce operations, is the future of warehousing services. Currently, more than 70% of the warehouse area is located in the southern region, and investment in logistics real estate is attracting the attention of domestic and foreign investors. Bonded warehouse services (Bonded warehouses are warehouses or yards that temporarily store, preserve or perform some services for household goods that have gone through customs procedures and are sent waiting for export; temporarily imported goods. Re-export, or import into Vietnam) is invested by most large logistics enterprises on a large scale (notably the bonded warehouses of Transimex, Sotrans, Vietrans, and U&I Logistics), and there are also many enterprises. Other logistics businesses also operate bonded warehouses on a smaller scale (approximately 5,000-6,000 m2 in the port area, such as Traco, IndoTrans, Sotrans, Vietrans, Otrans,
Vinalines, ...). However, the bonded warehouse service business has faced difficulties in the past due to the decreasing number of goods related to tax policies for goods stored in bonded warehouses (especially from foreign investors). Cross-border e-commerce goods tend to increase very quickly. Cold storage service has a lot of potential. It is attracting a lot of interest from foreign investors from Japan and China due to the growth forecast when the country's trade of agriculture, forestry, fishery, and food industry. Vietnam has developed (currently, there are about 20 professionally managed cold storage systems in the South, 40-50 in the North, and many small and retail warehouses owned by manufacturing companies).

**Other services:**
Forwarding service: This is the leading service of logistics service provider in Vietnam, accounting for more than 80% of companies surveyed. In 2018, the forwarding service continued to thrive and was one of the leading logistics services provided by Vietnamese logistics service providers, bringing profits to companies. Forwarding services are an essential part of the transport and logistics value chain, which is experiencing good growth, driven by vital air and sea freight growth. FDI enterprises still hold an overwhelming share of the international freight forwarding market due to the relationship with foreign shippers and the significant import and export turnover of the FDI sector (accounting for 72.45% of export turnover). However, Vietnamese companies have also begun to increase their market share in transporting imported goods. 2018 also witnessed a transformation in digitizing forwarding and transportation services, initially researching and applying high technology to logistics service activities. Customs agency and delivery services are two essential services in the other logistics services.

**LESSONS FOR VIETNAM**
To promote digital transformation in the logistics industry, Vietnam must encourage to make the most of the power of digital technology. The government must support open management thinking, remove barriers, and support businesses to promote innovation. We must move from assembling and outsourcing information technology to manufacturing technology products and developing software and systems. Promote digital transformation in enterprises to improve the competitiveness of businesses and the whole economy.
In addition, Vietnam needs to invest in upgrading digital infrastructure and modern technology to deploy innovative connected digital applications, especially non-cash payment applications. Vietnam focuses on building and perfecting national and other databases and developing online information security and safety solutions on the strongly developed telecommunications platform. Governments and businesses must deploy 5G services to keep up with the world trend because 5G technology creates a good infrastructure for the Internet of Things connection, opening up many business opportunities.
In addition, the training of human resources who can apply digital technology achievements is also an important activity. Once the application of technology and digital systems is a must to stay caught up the competition, human resources capable of applying modern technology to daily operations will help improve the quality of life. Labor efficiency, and business efficiency, thereby creating competitive advantages for enterprises.
Building and perfecting institutions and legislation to create a favorable framework for digital transformation also need to be carried out. In particular, it is necessary to develop specific
plans for digital transformation for businesses associated with financial and funding sources to facilitate the implementation of enterprises.

Finally, propaganda to raise awareness about digital transformation plays an important role. Enterprises’ awareness understanding of the digital economy needs to be enhanced through various channels such as newspapers, media, schools, etc. These messages help businesses have the proper awareness and prepare well to adapt to the digital economy.

CONCLUSION

The research is carried out based on synthesizing and systematizing the formation, development, and consolidation process of the concept and factors affecting the Logistics industry in general and the sustainable development of Vietnam's Logistics industry in particular. Based on the proposed research model, the author expects that there will be more in-depth qualitative and quantitative studies on the topic of sustainable development in Vietnam's logistics industry. Thereby contributing more timely and practical recommendations and solutions to improving the competitive position of Vietnam's logistics industry.

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