# **Developing Logistics Services in the World and Lessons Learned for** Vietnam

#### **Dao Hong Van**

International Training and Cooperation Institute, East Asia University of Technology, Vietnam -Email: van.dao@eaut.edu.vn

Article Info Abstract

Page Number: 7313 - 7323 Logistics operations play an increasingly significant role in the

Vol 71 No. 4 (2022) integration and the dominance of the digital economy from production to

consumption, specifically the manufacturing and services sectors, as well

competitiveness of Vietnam in the setting of rising international

as the economy overall. The problem of developing logistics services in

**Keywords:** Overview; services of logistics; the world and Vietnam

Vietnam is more urgent than ever.

Article Received: 25 March 2022 Revised: 30 April 2022

Accepted: 15 June 2022

Publication Issue:

Article History

Publication: 19 August 2022

## 1.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 with strict management processes 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 extremely 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 a tool, an indispensable job of every business in all fields, especially inthe production - business. When logistics work inefficiently, the production line of enterprises will be affected in terms of quality and time. Therefore, there have been many studies to provide a concept, operational aspects, and factors affecting the development of logistics, to help businesses limit inadequacies in the logistics management process of the

ISSN: 2094-0343

2326-9865

company, enterprises, thereby limiting 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.

2. The process of forming and developing the logistics concept

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 troops from the base to the front line. In ancient Greece, the

Roman and Byzantine Empires had officers who took on the role of "logistics" who were

responsible for financial matters as well as for distribution.

Logistics has a 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. final consumption. In more detail, logistics is one of the "logistics services" industries,

which is simply understood as the process of preparing goods, arranging, packing, marking and

preserving goods, transporting goods to the port, and carry out export or import clearance

procedures for goods (Tao Thi Hai, 2020).

In 1988, The US Logistics Administration Council (LAC) 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 process of strategic management

of the procurement, transportation, and storage of raw materials, parts, and finished goods

inventories and related information flows through an organizational process. Organize and execute

marketing channels. Logistics is not limited to handling or transportation, but also includes a

combination of activities such as communication, customer service, localization, logistics (Stock

and Lambert, 2001), and related planning. closely related to trade and production (Grant et al.,

2006).

In 1999, the Logistics and Supply Chain Management textbook 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, through 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 the processes of 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. ... Or 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. The use of this definition is also one of the reasons why 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 specifically stipulates the concept of logistics services. Article 233 - Section 4 - Chapter VI of the Commercial Law stipulates: "Logistics service is a commercial activity whereby a trader organizes to perform one or more stages including receiving, 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 carried out scientifically and systematically through the steps of researching,

Mathematical Statistician and Engineering Applications

ISSN: 2094-0343

2326-9865

planning, organizing, managing, implementing, checking, controlling, and perfecting activities,

including work related to 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).

3. 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. In terms of 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 is currently focusing on automatic

material handling equipment, GPS, warehouse control software, and biometrics. Large-scale global

use of logistics services includes: retail, manufacturing, media, entertainment, banking and finance,

telecommunications, and government operations (public utilities). ), in which manufacturing

(processing, manufacturing) accounts for the largest 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

of the big deals take place in China.

Carriage

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 account

for 44.6% of transportation revenue. By volume, waterways accounted for the top share with 47.9%

of the global market share. According to statistics of the Global Transport Forum (International

Transport Forum) published in June 2018, global container transport (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 by 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 rate of recovery in road transport in Russia slowed down to 2.1% due to the EU. continue to extend the trade embargo with this country. According to a survey and forecast by Pantera 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 the assessment of the economic growth of the countries, the import tax increase policies of the countries, the oil price and many other influencing factors, including political, social and economic issues. nature. 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 the situation of 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 road sector is less affected by the energy transition than railways and waterways.

Rail transport Because coal accounts for a large proportion of freight transport by railways and waterways when countries switch from using coal to renewable energy, it will have a great impact on 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 freight. In 2019, shipping volume is 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 to Capacity continuing to grow in the first half of 2018. Shippers and importers are looking for ways to minimize storage costs no matter what mode of transport they use. 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 (UNTACD), global maritime trade grew by 4% in 2017, the highest level in the past 5 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 of 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 is

ISSN: 2094-0343

2326-9865

contributing 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 will grow at an average of 6% per year in the period 2018-2020, especially when goods are distributed more commonly via ecommerce. 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 and North America and parts of Asia-Pacific, including Australia and Singapore, still have the upper hand due to their higher position in supply chains and technology platforms. higher. Meanwhile, markets with large population sizes such as India and China are forecast to lead to the growth of 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 lead in terms of growth in the period 2018-2022. 1.2.3. Other services Forwarding Services 2018 witnessed major 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 at a rate of 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 next 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 point of origin to 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 also more intense than ever. In addition to competitive pressure, they also face major challenges such as limited warehouse space, increased operating costs, and regulations on traffic safety, labor safety and environmental protection. is gaining more and more attention in not only 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. It is forecast that the leading logistics service enterprises will remain the market leaders in the coming years. Meanwhile, the introduction of 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 6 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 largest proportion in terms of both quantity and transfer value. Most of the major deals have taken place in China reflecting the rapid development speed, and the requirements to change the way traditional logistics operate in China are very strong. A typical example of a large M&A in China in the first 6 months of 2018 can be taken as Alibaba Group invested 1.38 billion USD in ZTO company - one of China's major logistics companies - to own owns 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.

## 4. Overview of logistics service development in Vietnam

Infrastructure for logistics Logistics infrastructure

Transport infrastructure is the most important but also the biggest obstacle. In the period 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 outstanding problem is the lack of 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 developed, and the market capacity is as large as in the South and a few countries. In the northern province, not much appeared 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 types of 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, the introduction of green

logistics solutions and the expansion of free trade agreements around the world could create businesses that are more profitable than these leading logistics companies 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 6 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 largest proportion in terms of both quantity and transfer value. Most of the major deals have taken place in China reflecting the rapid development speed, and the requirements to change the way traditional logistics operate in China are very strong. A typical example of a large M&A in China in the first 6 months of 2018 can be taken as Alibaba Group invested 1.38 billion USD in ZTO company - one of China's major logistics companies - to own owns 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.

Status of logistics services

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 economy in general and import and export in particular as well as the interest in developing services. logistics of the Government and ministries, branches, and localities. According to the World Bank Report on the 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 rose to the top of the list. 3rd among ASEAN countries. Regarding the logistics institution, the difficulties of enterprises in business have been gradually solved, especially in customs services (The process of declaring and handling customs documents has been automated to a very high degree. with more than 99.60% of enterprises participating in implementing e-customs at 100% of customs units nationwide). Reducing regulations on specialized inspection as well as cutting business conditions is 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 the goal of 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 clearer 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. Warehousing services, in addition to CFS and ICD, can be divided into four main categories, serving different customer groups, including normal warehouses, bonded warehouses, distribution centers, and cold storage. Distribution center, and fulfillment center service, driven by demand from retail and ecommerce 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 domestic 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, Sinotrans, 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, in the past time, the bonded warehouse service business has faced difficulties 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 and is attracting a lot of interest from foreign investors from Japan and China due to the growth forecast when the trade in agriculture, forestry, fishery and food industry of the country. Vietnam is developing (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: Is the main service of logistics service providers in Vietnam, accounting for more than 80% of companies surveyed. In 2018, the forwarding service continued to thrive and was one of the main logistics services provided by Vietnamese logistics service providers, bringing profits to companies. Forwarding services are an important part of the transport and logistics value

ISSN: 2094-0343

2326-9865

chain, which is experiencing good growth, driven by strong growth in both air and sea freight. 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 the areas of transporting imported goods. 2018 also

witnessed a transformation in the process of digitizing forwarding and transportation services,

initially researching and applying high technology to logistics service activities. Customs agency

services and delivery services are two important services in the group of other logistics services

5. CONCLUSION

The research is carried out on the basis of synthesizing and systematizing the process of formation,

development and consolidation 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 of Vietnam's logistics industry.

Thereby, contributing more timely and practical recommendations and solutions in the process of

improving the competitive position of Vietnam's logistics industry.

**REFERENCES** 

1. Blancas Luis C., Isbell John, Isbell Monica, Tan Hua Joo, Tao Wendy. (2014), Efficient

Logistics: A Key to Vietnam's Competitiveness. Directions in Development - Countries and

Regions. Washington, DC: World Bank.

2. Bui Duy Linh (2018), Improving the capacity of Vietnam's logistics service industry in the

context of international economic integration. Doctoral Thesis, Hanoi Foreign Trade

University.

3. Business Monitor International (2011), Vietnam Freight Transport Report 2011, include 5 -

year forecast to 2015. United Kingdom: ResearchAndMarkets.com.

4. Christopher, M. (1998), Logistics and Supply Chain Management . New York: McGraw-Hill.

5. Dang Dinh Dao (2011), Development of logistics services in our country in terms of

international integration, State-level independent scientific research project. Institute for

Economic Research and Development, National Economics University.

5. Dang Dinh Dao (2017), Logistics solutions for railway development in Vietnam. Access at

http://vlr.vn/logistics/news-3329.vlr

- Dang Dinh Dao, Nguyen Minh Son (2012), Logistics services in Vietnam in the process of 7. international integration. Hanoi, National Political Publishing House.
- Dang Dinh Dao. Vu Thi Minh Loan, Nguyen Minh Ngoc, Dang Thu Huong, Pham Thi Minh Thao (2011), Logistics: Theoretical and Practical Issues in Vietnam (monograph). Hanoi, National Economics University Publishing House.
- Dinh Le Hai Ha (2010), Situation and solutions to develop major logistics services in our country in international economic integration. Topic 15, under State-level scientific research project: "Developing logistics services in our country in the context of international economic integration", Code DTDL 2010T/33, Institute for Economic Research and Development Development, Hanoi National Economics University.
- 10. Dinh Le Hai Ha (2013), Research on logistics development in Vietnam today. Doctoral Thesis, Trade Research Institute, Ministry of Industry and Trade.
- 11. Doan Ngoc Ninh (2019), Research on the development of China's logistics system and lessons learned for Vietnam. Visit at https://tapchicongthuong.vn/bai-viet/nghien-cuu-su-phat-trien-hethong-logistics-trung-quoc-va-bai-hoc-king-nghiem-cho-viet-nam -69702.htm
- 12. Doan Thi Hong Van (2003), Logistics The Basics. Hanoi, Labor Social Publishing House.
- 13. Edward Frazelle (2003), Supply Chain Strategy (Logistics Management Library). New York: McGraw-Hill.
- 14. Nguyen Hong Van (2007), Improving freight forwarding procedures in multimodal transport in Vietnam. Doctoral Thesis, Maritime University.
- 15. Nguyen Quoc Tuan (2015), State management of logistics services at Hai Phong port. Thesis of Doctor of Economics, Central Institute for Economic Management.