FPT UNIVERSITY

BACHELOR OF INTERNATIONAL BUSINESS THESIS

AN ANALYSIS OF FACTORS AFFECTING THE DEVELOPMENT OF LOGISTICS SERVICES IN IMPORT–EXPORT ACTIVITIES IN VIETNAM

GROUP MEMBERS

PHAN THI HOAI – SB02276
NGUYEN HUY TUNG – SB02290
CAO THO TUAN MINH – HS130164
NGUYEN QUANG HA – HS130265
DINH THI THU HA – SB02284

SUPERVISOR

MRS. CUNG THI ANH NGOC

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EXECUTIVE SUMMARY

The logistics services industry plays a major role in supporting, connecting, and enhancing the socio-economic development of the country as well as contributing to enhancing global economic competitiveness. In Vietnam, logistics services have many opportunities for development but also face many challenges in terms of labor resources, institutions, and policies. Moreover, the development of import and export activities in Vietnam also sets the requirements for logistics services to improve quality to meet practical needs. Therefore, it is essential and necessary to learn, identify, and analyze the factors affecting the development of logistics services, especially in the context of deepening international economic integration.

For over the past years, this topic has been of interest to many researchers around the world. However, there are not many studies that have specifically identified the factors affecting the development of logistics services in import and export activities and how to enhance it better in Vietnam.

In this study, the authors tried to study the influence of these factors on the development of logistics services in import and export activities. This study not only follows the quantitative method but also the qualitative method to ensure both objective and subjective viewpoints. In addition to that, the authors also collect opinions of businesses by conducting a survey. On the basis of the obtained results, this study gives a number of suggestions and orientations to improve the development of the logistics services industry.

After 168 valid answers from business representatives, the study identified four main factors: Political-legal framework factor, Economic-integration factor, Technological factor, Infrastructure factor that mainly affects the development of logistics services in import – export activities in Vietnam.

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ABBREVIATIONS AND ACRONYMS LIST

AW	Industry awareness factor
ASEAN	The Association of Southeast Asian Nations
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
EC	Economic factor
EVFTA	European Union-Vietnam Free Trade Agreement
FTA	Free Trade Agreement
FIATA	International Federation of Freight Forwarders Associations
IE	Economic-integration factor
IN	Integration factor
IF	Infrastructure factor
ICC	International Chamber of Commerce
LCL	Less than Container Loading
LPI	Logistics Performance Index
LSPs	Logistics Services Providers
PL	Political-legal framework factor
P.E.S.T	Political, Economic, Social, Technological
SWOT	Strengths, Weaknesses, Opportunities, Threats
TE	Technological factor
VAS	Value-added Services
VLA	Vietnam Logistics Business Association
WB	World Bank

CHAPTER 1: INTRODUCTION

1.1. Background

1.1.1. Topic background

Logistics is an essential service sector in the overall structure of the national economy. It plays a role in support, connection, and improvement of the social-economic development of the whole country as well as contributes to the advancement of economic competitiveness.

Logistics is also a core service industry that brings high country value. The development of this industry is associated with national development in commodity production, commercial operations including import and export, as well as information technology development and transportation infrastructure. Furthermore, sustainably developing the logistics services market will create a fair chance for enterprises in all economic sectors and encourage both domestic and foreign investments into Vietnam.

In Vietnam, the logistics industry has developed rapidly in recent years. It is considered as a potentially attractive market to grow. According to World Bank's report "LPI Global Rankings" (2018), Vietnam is ranked at position 39 with a significant improvement in its Logistics Performance Index, much higher than the 64th position in 2016 (World Bank, 2016). Furthermore, in recent years with an annual growth rate of 14-16% (Ministry of Industry and Trade, 2019), logistics is one of the fastest-growing and the most stable service industries of Vietnam. This is considered as an excellent opportunity for the logistics industry to expand and become one of the service industries with excellent development prospects in the coming time.

In import and export activities, logistics helps solve both inputs and outputs for businesses effectively, optimize the process of transporting materials, goods, services, reducing costs and increasing competitiveness for businesses. According to the Vietnam Logistics report (Ministry of Industry and Trade, 2019), the volume of goods and services produced and supplied to foreign markets is increasing over the same period in 2018. As of this moment, more trade agreements are signed between Vietnam and other big nations, bringing more benefits to Vietnam's economy, and they show high potential for the logistics services industry to grow more influential in this S-shaped country. According to experts, the logistics industry in Vietnam has many opportunities to grow but also faces many challenges in labour source, institutions and policy. Furthermore, the development of import and export activities in Vietnam has also laid out requirements that require logistics services to improve quality

to meet practical needs. Therefore, finding out, identifying and analyzing the factors affecting the development of logistics services are essential and necessary, especially in the context of an increasingly broad international economic integration.

Hence, the topic **"An analysis of factors affecting the development of logistics services in import-export activities in Vietnam"** is chosen to analyze these factors more clearly. From there, propose solutions and recommendations to facilitate the sustainable development of logistics services in Vietnam.

1.1.2. Practical problem

Vietnam officially joined the WTO in 2006, and one of the conditions under GATS (General Agreement on Trade in Services) for Vietnam is to open the gate for the logistics industry. This opening has become an essential driving force for the logistics to develop. Over the last few years, Vietnam has signed some FTAs (VCFTA, VKFTA, AIFTA,CPTPP, EVFTA.....) with many major economies in the world which open up opportunities for import and export activities. It sets the requirements for logistics businesses to ensure both timely and service delivery to support the effective development of import and export activities.

However, the logistics are now facing specific difficulties and limitations. There are some significant challenges of Vietnam ‘s logistics industry such as infrastructure, capital scale, taxes and fees, infrastructure, the system of seaports and warehouses that face many inadequacies. Moreover, human resources are also the main reason that makes it difficult for domestic enterprises to compete with foreign ones.

To deal with this matter, we decided to conduct this research to systematize the macro factors which influence the development of logistics services in Vietnam, especially logistics services in import-export activities. Based on the result, the study proposes a number of recommendations to promote the sustainable development of these services in Vietnam.

1.2. Research objectives

The primary purpose of this research was to determine the critical factors that affect logistics services import-export activities in Vietnam. From that, the authors provide some hypotheses and solutions as well as recommendations to improve this industry. The research was conducted by implementing the following objectives:

Objective 1: Determine the theories of logistics in general, and logistics in import-export activities in particular

Objective 2: To overview the situation of the logistics services in import-export activities in Vietnam from 2014 to now

Objective 3: To identify the critical factors and evaluate the impact of them on the development of Vietnam's logistics services in import-export activities

Objective 4: To propose some feasible recommendations to deal with existing limitations and to improve the development of logistics services in foreign trade activities in Vietnam

1.3. Research questions

In order to achieve above objectives, the research aims to answer the following questions:

- What is logistics in general, and logistics services for import-export activities in particular?

- What is the situation of the logistics services for import-export activities in Vietnam from 2014 to 2020?

- Which factors affect the development of the logistics services for import-export activities in Vietnam during the past years? How do these factors impact the development of this industry?

- What are the most suitable recommendations for Vietnam to improve the development of logistics services for import-export activities?

1.4. Research scope

In this topic, we will focus on analyzing logistics services in Vietnam which serve import-export activities only. The research on the factors affecting the import-export logistics services are also limited in macro-level, based on P.E.S.T model. The analysis period is from 2014 to 2020.

The methods we used for collecting data are in-person interviewed and the survey (both online and offline). Respondents in this survey are logistics companies in Vietnam that provide logistics services for import-export activities.

1.5. Methodology and data overview

In this research, environment analysis (P.E.S.T model) was adopted to determine how factors impact on logistics services in import and export activities in Vietnam. Primary research was conducted by rolling out surveys that extracted data from email surveying and direct interviewing, then processed by SPSS software ver 20.0. Related information of secondary

research was collected from official online institutions, newspapers, research articles and company's websites.

With the application of both quantitative and qualitative methods, this study will point out the factors influencing logistics services in Vietnam, especially for foreign trade sector and then render constructive recommendations for the purpose of eliminating the limitations and identifying a successful path for Vietnam's logistics services.

1.6. Conclusion

In this chapter, the authors aimed to unveil the research topic, as well as present background information related to the topic. This chapter also indicated the needs and importance of this topic, giving the overview of practical problems of Vietnam logistics services. To address these problems, the research subject, the scope of research and proposed research questions are identified.

1.7. Thesis outline

This thesis embraces five chapters (including the abstract, appendix, preference, list of table and configures, abbreviation and acronyms list)

Chapter 1: Introduction

Chapter 1 provides brief information about the background, objective, research question and the methodology as well.

Chapter 2: Literature review

Chapter 2 presents relevant theories that are the basis to develop research questions.

Chapter 3: Methodology

Chapter 3 contains qualitative, quantitative and observational studies. The result of these studies explained the emergency of the research topic.

Chapter 4: Findings and analysis

Chapter 4 analyses the data based on the proposed methods to identify the factors, and how these factors impact on logistics services for foreign trade activities in Vietnam.

Chapter 5: Recommendations and conclusion

Final chapter answers the research question by summarizing the findings and suggesting recommendations for improvement of logistics services to be better.

CHAPTER 2: LITERATURE REVIEW

2.1. Theories related to logistics services

2.1.1. Definition and characteristics of logistics services

2.1.1.1. Definition of logistics services

The development process of logistics has been analyzed by researchers under different perspectives and at different stages, so there are currently many concepts about logistics in the world:

The Council of Logistics Management defined logistics as "a part of the supply chain process that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, service and related information between the point of consumption in order to meet customers' requirement".

According to the Economic and Social Commission for Asia and the Pacific (ESCAP-logistics management), logistics is the process of optimizing the location and storage including transportation of resources - inputs and outputs from suppliers, manufacturers, distributors and end-consumers through a series of economic activities.

Canadian Association of Logistics Management (CALM) states logistics is the effective planning, implementation and control with the lowest cost of the process of transportation, storage of raw materials, inventories, finished products and related information from the place of production to a place of consumption to satisfy customers needs.

In Vietnam, logistics activities were first defined in the Vietnam Commercial Law 2005, article 233 of this law stipulates: Logistic services are commercial activities whereby traders organize the performance of one or many jobs including reception, transportation, warehousing, yard storage of cargoes, completion of customs procedures and other formalities and paperwork, provision of consultancy to customers, services of packaging, marking, delivery of goods, or other services related to goods according to agreements with customers in order to enjoy service charges. Following the Commercial Law (2005), the Decree 163/2017/NĐ-CP on 30/12/2017 has provided further details for the Commercial Law regarding conditions of logistics services business and limits of liability for traders providing logistics services, contributing to complete the provisions of Vietnam's law on logistics activities.

Based on some of the information above, we can see that there are differences in terminology, interpretation but they share the same ideas about this term that logistics is a chain of handling and transporting materials and merchandise from the beginning of the production line to the endpoint of consumption. The aim of the activities is the satisfaction of customers and increasing the competitiveness of enterprises. The task of logistics changed rapidly with the development of logistics from providing a simple operational support function to being a system that links all activities of companies.

2.1.1.2. Characteristics of logistics services

To begin with, logistics is the high and complete development of freight forwarding and forwarding services attached to and located within logistics. Along with its development process, logistics has diversified the concept of traditional freight forwarding, from on behalf of customers to perform discrete stages such as chartering, storage, preparation, packaging, recycling, clearance, to provide package services from warehouse to warehouse.

Besides, logistics is the perfect development of multi-modal transportation operators. In the past, because goods went in the form of retail cargoes from the exporting country to the importing country and went through many different means of transport, so the probability of loss risk for goods is very high. In addition, the shipper must sign multiple contracts with different carriers that their liability is limited to the route or service they undertake. By the 60-70s of the twentieth century, the container revolution in the transport industry had ensured safety and reliability in transporting goods.

2.1.2. Legal basis of logistics

Logistics is an open activity that the scope of activities may exceed beyond the boundaries of a nation or even the link between elements in a chain involving many countries. Therefore, the legal basis of logistics activities in foreign trade today is based on two factors: the element of international law and the element of national law.

2.1.2.1. International law

Because logistics in foreign trade is a collection of many activities that contain international elements, the scope of implementation extends beyond the borders of a country, so far no international agreements or conventions have been fully regulated. However, in the important parts of logistics such as sea transport, rail transport, road transport, air transport, loading and unloading process, customs declaration... all have had international conventions,

treaties, protocols, and practices that regulate the responsibilities, powers and obligations of the parties involved in commerce and logistics activities.

Currently, a number of law sources, which are applied or have an impact on logistics activities such as Customs Convention on Container 1972, Visby Protocol (1968), Hamburg Rules (1978), Convention on the transport of goods by railway (1961), Warsaw Convention (1929), The Hague Protocol (1955), Convention of the United Nations transporting goods by international multimodal transport (1980), Incoterm (International Chamber of Commerce) (2020), etc. In addition, there are many agreements among regional countries on a narrower scale than the regulations on one or more activities in the logistics chain.

2.1.2.2. National law

In almost all countries in the world, logistics is considered these legitimate economic activities and activities will be affected by the laws of those countries. In the legal system of most countries, there are laws and regulations governing logistics activities as well as economic activities within or related to a series of logistics activities. In Vietnam, logistics is now not only recognized by law but also encouraged to develop.

2.1.3. Classification of logistics

2.1.3.1. Classification by process

Based on the time of implementation of logistics activities in the stages of production and consumption processes, logistics is classified into the following categories:

Inbound logistics

Inbound logistics is the logistics activity carried out in the process of supplying inputs for production. There are collecting input information, preparing capital sources of enterprises, importing raw materials, fuels and storing the inputs of production. In the current highly specialized production conditions, enterprises can combine do reasonable business planning and implement strategies to achieve their overall goals.

Outbound logistics

Outbound logistics activities are carried out for the products of the enterprise. This process ensures the optimization of location, time and costs in the distribution of products from the business to the consumer. The output is always the most important factor in all production and business activities. Therefore, businesses always appreciate the role of logistics with the general purpose of being the greatest economic efficiency.

Reverse logistics

After inbound logistics and outbound logistics, economical and efficient production management is also one of the key factors in the success of businesses. Furthermore, with increasingly stringent requirements for environmental protection from both regulators and consumers, management and recalls are required to recycle or reuse elements that arise from the production process. The export, distribution and consumption such as waste, scrap, by-products that need to be done effectively. Reverse logistics is the efficient operation of this recovery.

2.1.3.2. Classification by the form of logistics services

First party logistics - 1PL

This is the form of goods owners organize themselves and implement logistics activities to meet their needs. This form develops initially and is usually only implemented when the scale and limits of logistics activities are small. With 1PL, shippers must invest in all means of transport, warehousing, information systems, human resources, logistics management systems. 1PL increases the size of enterprises and reduces the effectiveness of logistics activities due to lack of expertise, unstable logistics operations, lack of management experience as well as no continuity.

Second party logistics - 2PL

This is logistics activities provided by a second party but limited only to certain stages in the logistics chain. Because logistics is always the complex activities that make up the logistics chain, in reality, 2PL is limited to certain cases with certain activities such as transport (railway, road, air, sea...), warehouse leasing procedures, customs clearance, etc.

Third party logistics - 3PL

Currently, third-party logistics services (3PL) is a form of giving logistics services of a service provider with a wide range of activities, performed on many stages not limited to standing on behalf of the owner of the goods to management and implementation of logistics services. Especially not only in each functional department such as packing, inland transport, customs clearance, implementation of import and export procedures at border gates, but also on behalf of customers perform all related services from the manufacturing process to delivering goods to consumers or even after-sales logistics services. Therefore, 3PL can also be called full logistics.

Fourth party logistics - 4PL

The 4PL provides solutions for the supply chain, planning policies and consulting for logistics activities. Thus, the purpose of 4PL is to direct the management of the entire logistics chain including and without limitation in the management of goods from production through distribution to consumers but also the administration of goods management, warehouse management, inventory management, delivery time, etc.

Logistics in e-commerce - 5PL

With the rapid development of e-commerce, all transactions, purchases, payments are now possible via the Internet. The outcome of the transaction will be done through the 5PL service provider. Goods will be delivered at the buyer's request. Thus, 5PL logistics services providers are 3PLs and 4PLs who manage the distribution chain of goods on the basis of e-commerce activities. Currently, in the world and especially in the US, 5PL has formed some famous suppliers such as UPS, FedEx…

2.1.4. Role of logistics services

2.1.4.1. In the economy

Logistics services play an important role in optimizing the flow of production and business from the input stage of raw materials, accessories... to the final product for the customer to use. Since the 70s of the twentieth century, the continuous energy crisis forced businesses to notice costs, especially transportation costs. In many periods, high bank rates make businesses more aware of capital. Therefore, ways to optimize the production, storage and transport of goods are preferred.

Developing effective logistics services will contribute to increasing the competitiveness of the economy and the country. In the current strong global trend, the competition between countries around the world is becoming more fierce and fiercer. This has made logistics services one of the country's competitive advantages. Countries that are well connected with the global logistics services network can access many markets and consumers from countries around the world.

2.1.4.2. In enterprises

Logistics helps solve both inputs and outputs for businesses effectively, optimizing the process of transporting materials, goods, services. Logistics helps reduce costs and increase competitiveness for businesses. Many businesses have had great success thanks to the right

logistics strategy and activities. But many businesses have encountered difficulties or even failed because of wrong decisions in logistics activities such as choosing the wrong location, inappropriate reserves, inefficient transportation organization. In addition, logistics also provides effective support for marketing activities. It is logistics that plays a key role in getting products to the right place, at the right time. Products and services can only satisfy customers and be valuable if they reach customers at the prescribed time and place.

2.2. Logistics services in import and export activities

There are a wide variety of definitions for logistics services and the role may be interpreted in very different ways across the region. In the practice in Vietnam, it can be seen that there are many logistics services providers, but most of them focus on exploiting the market of logistics services for import-export activities or related to the import and export sector. Thus, the term of logistics services in import-export has been established and grew widely.

Additionally, international trade activities in the commercial industry are becoming more and more complex; therefore, the limit of distinction between logistics in the general economy and logistics services in import-export is only relative.

In short, for the purpose of this thesis, the focus will be directed towards the aspects of logistics elements that are relevant to the import-export sector. Hence, logistics services in import and export activities can be understood as the process of organizing, managing scientifically and reasonably rotation of goods as well as the sequence of activities involved in import and export processes to optimize time and economic efficiency.

2.2.1. Main logistics services in import and export

As mentioned in the above, the analysis of logistics in this study will only focus on factors related to import and export activities in Vietnam. For intensive research, this part will analyze logistics services in import and export based on the perspective of the Vietnamese legal framework.

2.2.1.1. Freight forwarding services

With the development of foreign trade, the scope of foreign trade activities has been expanded, and goods have been transported from one country to another through the process including many modes of different transportation. In addition, not all of the companies can afford their own transportation system. Due to that, companies have to use third-party services or vendors, also known as freight forwarders (Grochla, 1980). Shobanov and

Srtukova (2006) have defined freight forwarding as planning, management, the fulfilment of good delivery activities from the supplier to the place of consumption, and providing additional services for their preparation and shipping.

The main jobs of a freight forwarder are arranging cross border cargo movement, advising and choosing the best shipping method, booking space from carriers. Forwarders also provide services for supervising loading/unloading, consolidating LCL (Less than Container Loading) or helping customers to do customs clearance. They could operate warehouses for packing, labelling and loading LCL cargo as value-added services (VAS). The services provided by each forwarder are various depending on its size.

In conclusion, freight forwarding service is a complex procedure that makes a supplier, forwarder, customer and carrier work together. In which, the forwarder is the person who works with the cargo and fulfils this procedure. They offer services and commodity transportation to shippers. Besides, they also do VAS (Value Added Service) for their customers, which are becoming more and more important in today's fierce competition.

2.2.1.2. Transportation services

Transportation system is the most important economic activity among the components of logistics systems. It is associated with the movement of the goods by different modes of transport from the seller to the buyer. Transportation is always in correlation with foreign trade. According to the Commerce book (Dhanapal Mahesh, 2004), transport has several functions, such as increase the efficiency of the market, as well as the quality and range of goods, develop and expand the market, help specialization and mass production, improve the mobility of labour and capital, lead to economic growth and help to keep price stable.

In import-export activities, around one-third to two-thirds of the expenses of enterprises' logistics costs are spent on transportation (Tseng et al, 2005). Without well-developed transportation systems, logistics could not bring its advantages into full play.

One of the most significant decisions that should be made by the company during the planning of transportation is selecting the most effective mode of transport. There are four main different kinds of transportation that are often used, either individually or in combination, including sea shipping, air freight, road and rail transportation.

Maritime transportation

During the historical development of the transportation industry, sea freight was born quite early compared to other transport modes. Nowadays, the maritime transportation industry

plays an important role in international freight. Up to 90% of the world's merchandise is carried by sea, and the reason is that there are multiple benefits for foreign trade compared with other modes of transport. It can provide a cheap and high carrying capacity conveyance for consumers. Having many outstanding features such as low transportation costs, large cargo capacity, extensive shipping network around the world, ocean freight is becoming the most appropriate and popular mode of transportation in foreign trade activities.

Air freight transportation

Although air freight appeared quite late, it held a prominent position in foreign trade. The salient features of air transport are accuracy and speed. It provides fast delivery with a lower risk of damage, security, flexibility, accessibility and good frequency for regular destinations. However, one of the most significant drawbacks and also the characteristics of air transport is the high delivery fee. Therefore, air freight logistics should be selected when the value per unit weight of shipments is relatively high and the speed of delivery is an important factor.

Along with the development of global markets, air freight logistics also has to change their services. The future pattern of air freight logistics is cooperative with other transport modes, such as maritime and land transport, to provide an optimal service such as Just-In-Time, and door-to-door. This combination takes the cost advantages of sea transport, the flexibility of road transport, and the speed of airway to transport cargo to destination in a short time at a low cost.

Road and rail transportation

Road and rail transportation is a very important link in logistics activities. It extends the delivery services for air and maritime transportation from airports and seaports. The most positive characteristic of this transportation is the high accessibility level to inland areas. These two modes become optimal because of the large volume of railway transport and the flexibility of road transport. Their infrastructure has created a significant shipping and distribution network for large areas, linking inland points to seaports and international maritime transport systems.

Road freight transport has advantages as low initial investment, high accessibility, mobility and availability of infrastructure. Its disadvantages are low capacity, lower safety, and slow speed. Railway transport has advantages like high carrying capacity, lower influence by weather conditions, and lower energy consumption. However, this mode of transport has a

few disadvantages such as high cost of essential facilities and infrastructure, lack of flexibility, difficulty of management and expensive maintenance.

Nowadays, with the increasingly complete development of infrastructure, road transport and rail transport also have significant development steps. This network plays an essential and irreplaceable role in the domestic logistics system, serving nearly 75% of all freight transport.

2.2.1.3. Labelling services

Labelling and marking play critical roles in import-export activities. It is the method of identifying your cargo during the process of delivering them to the destination.

In international trade, customs regulations regarding freight labeling are strictly enforced. It is required for importers to comply with domestic labelling laws of import countries to ensure proper handling and to identify shipments information or the origin of goods. To help the import and export process go smoothly and get more convenient for exporter/importer, most logistics services providers now supply the necessary information or services regarding specific regulations of labelling. In fact, the exporters can obtain more detailed and specific regulations from freight forwarders, since they keep track of changing labeling laws in various countries.

2.2.1.4. Packing services

In the international trade import/export process, packing has not only increased the protection, but it also has a lot of additional functions, such as providing information, advertising, optimizing the loading process, management of storage and handling. Therefore, merchandise should be packed in strong containers, adequately sealed, and filled, with the weight evenly distributed. Goods should be packed on pallets if possible, to ensure greater ease in handling. Insufficient packing not only results in delay in the delivery of goods but will also entitle the customer to reject the goods or claim damages. In addition, export products must be packed to comply with the laws of the importing country.

2.2.1.5. Warehousing (Inventory and Storage)

Warehousing in logistics is the management, planning, and organization of operations within a facility. This includes managing space, planning shipments, and organizing information so that the warehouse operates to the best of its abilities.

The proper management of an export-import firm's inventory is a critical logistics function. In the practice, the costs associated with holding inventories can easily account for 25 percent or more of the value of the inventories themselves and could potentially create inventory expense problems for many firms. Due to that, appropriate inventory planning and control will reduce the number of storage facilities as well as carrying and freight costs. An effective warehousing can offer customers better delivery times, and cut down unnecessary costs of inventory.

2.2.1.6. Other services

Customs clearance

Every international movement has to do customs clearance. During the importing or exporting process, if customers need assistance with customs clearance, logistics providers can provide them all the information and services they need to cover their import/export customs clearance requirements.

Import and export consulting services

Most logistics services providers now offer consulting services. They help advise importers and exporters about tax rates and duties, import and export restrictions, exchange rates, methods of customs clearance or cargo insurance. With experienced export/import consultants, logistics services providers will help customers ensure that their goods meet requirements and make it easier for customers to export goods to foreign markets.

2.2.2. Logistics services process in import and export activities

In import-export transactions, the following steps represent the approximate order of physical movement and distribution of goods to a foreign buyer.

Step 1: Customer's initial purchase request

As a result of previous correspondence between the seller (referred to Exporter) and buyer (referred to Importer), the buyer places an order to purchase the desired merchandise. Then, both sides prepare the procedures to sign the sales contract.

Step 2: Forwarder gets details of the shipment

Importers or exporters also discuss their shipment details with a freight forwarder to prepare the process of transport.

Step 3: Warehousing

This is the stage where goods to be shipped by the client (seller) are brought to the freight forwarder's warehouse. Right after, the forwarder begins to prepare them for departure. This step starts by checking the quantity and quality of the good. It is also important to figure out the legal status of goods. If there are some kind of issues, the forwarder can contact the shipper to fix them before the goods can be rejected at customs.

At the same time, the freight forwarder selects the transportation mode (airline, ship, truck, etc.) as well as books the necessary space for the cargo. The space booking is then confirmed with the supplier, who will, in turn, confirm with the overseas customer. Also, at this step, the forwarding agent can perform packaging if the supplier hasn't made enough to secure the products. Finally, the documentation requirements are prepared and fulfilled.

Step 4: Export customs clearance

Before items can be shipped to the country of destination by the carrier, it is required to clear them at customs of the origin country. It is a type of official regulatory formality involving the submission of valid and required documents to the concerned authorities.

On this stage, the freight forwarder can work with a customs broker or perform customs procedures himself. They can as well submit appropriate payments or fulfil documents on behalf of the client. When the customs require to submit details about the cargo, customs broker or forwarder in cases has an obligation to provide them with any supporting documents that are needed to clear the goods. Finally, the merchandise will be approved to export and now ready to depart to the port of destination.

Step 5: Transport by carrier

The freight forwarder and the carrier has a contract of carriage, and the shipper or consignee, in this case, is not subject to any direct interaction with the carrier. In this process, a carrier will be decided to perform the freight from the port of origin to the port of destination. This step covers all physical handling, loading of the cargo at the port of departure or unloading them at the port of destination and transporting them by the carrier's means of transport.

Step 6: Import customs clearance

In general, this step is similar to the export clearance. After the merchandise is transported, the forwarder will collect and send the necessary documents to the customs broker to declare customs for the goods at the port of destination. Authorities in import countries have to check

all the related import customs documents. They may also physically examine the merchandise in some cases. Finally, the customs will approve to import the shipment and the forwarder then informs the consignee of the release of the merchandise.

Step 7: Warehousing

In fact, goods are not always declared customs and released when they arrive at the port of destination, which requires the goods to be stored and inventoried at the port or terminal. At that time, the goods will be placed in a warehouse to wait for customs clearance and they must be under the supervision and management of the Customs Department.

After the cargo is released by customs, they are also stored at the container yard at the port or the warehouse at the terminal to wait for picking up by freight forwarder. The storage time at the port is usually limited and charged fees. Then, the freight forwarder will arrange transport vehicles to the port for loading the shipment and directly deliver them to the customer or take them to his warehouse to wait for delivery.

Step 8: Delivery to the recipient

This step is also called the import haulage and it is quite similar to the export haulage. The forwarding agent transports goods from warehouse to the buyer and transfers them with all documents. Alternatively, the consignee might decide to collect the cargo himself or herself directly at the warehouse and save the cost of import haulage.

In the practice, logistics activities in import export includes many steps; it can be flexibly changed according to customer requirements. Each change will create a different process of services. Therefore, the above-mentioned process only summarizes relatively complete steps and activities in the import and export of goods. This process is for reference purposes only.

2.3. Empirical research on factors influencing logistics services

2.3.1. Foreign studies

International trade is stimulating a growing demand for advanced logistics services to be competitive. This new logistics model requires an efficient, dedicated infrastructure, advanced technologies adoption and highly qualified logistics operator capable of managing the whole logistics chain.

Zheng Yanchao (2010) confirmed the application of information technology has an increased impact on usefulness and convenience. By integrating factors of technology, infrastructure, logistics services providers, logistics services users into SWOT analysis

framework, the authors pointed out the advantages and disadvantages of the implementation of information technology, thereby proposed recommendations for the research and development of information technology in Singapore logistics.

Ming Xiong (2010) tried to compare the situation of logistics between The United State and China by analysing factors of logistics history, transportation infrastructure, logistics structure, logistics information system/ information technology (IS/IT). Additionally, the papers indicated China's logistics inferior to the U.S in all five aspects, especially in terms of infrastructure "China still lags behind the U.S. in highways and railway networks".

Ming Juan Ding (2011) tried to measure the influence of factors to logistics services competencies in ChinaThis study showed that not all widely acclaimed Business Process & Standard Operating Procedure (BP&SOPs) are equally potent in building L&SC competencies in China. Among the three BP&SOPs investigated, processes in increasing responsiveness (PIR) is the most valuable. PIR contributes positively toward strengthening all three logistics and supply chain (L&SC) competencies: positioning, distribution support and agility.

Akhavan et al. (2020) used the Amadeus database developed by Bureau Van Dijk as the main data source and Taylor's Interlocking Network Model and via econometric analysis through Ordinary Least Square regression (OLS) to develop and analyse an interlocking network model dedicated to advanced logistics firms in Europe and investigate the determinants of each cities' LGNC score. The results show that about 50% of the total connectivity between firms in logistics is distributed among the top 19 cities, with Paris outstanding in the network. Southern Europe is virtually absent from the map while Central and Eastern Europe is rather well represented.

In brief, international studies tend to use the secondary data and BP&SOPs to measure the influence of factors: technology, infrastructure, legal and policy system on logistics activity. Thereby, we understand that country-level logistics and international trade are interdependent, and mentioned factors have a vital role to play in management and development of the country's logistics for international trade.

2.3.2. Domestics studies

There are various factors that influence the development of logistics such as socio-economic, infrastructure and government policy system development (Doan Van Tao, 2019). In order to analyse the current situation of applying logistics policies in Haiphong, PhD Doan Van

Tao provided the basic factors affecting the implementation of to develop logistics infrastructure based on criteria about common factors, specific factors, domestic and international experiences. In particular, the study summarized the overall picture of the current situation of logistics infrastructure and then proposed recommendations and objectives of improving Haiphong city's logistics infrastructure development policy towards 2025.

PhD. Nguyen Xuan Quyet and PhD. Chan Thi Ngoc Lan (2017) proposed their own analysis framework referenced from other studies and this analysis model includes some new factors such as customer's awareness, electronic payment system, intellectual property and consumer protection. By using the combination of quantitative and qualitative research methods, the authors assessed and measured the influence of factors on e-logistics in Ho Chi Minh city. As a result, their work identified technology and security, customer's awareness and legal system are the most three influencing factors on the e-logistics in HCMC.

PhD. Ngoc Hoai Nam (2009) tried to analyse and clarify the definition of logistics by researching the real situation of logistics activities in foreign trade in Vietnam from 1998-2008. His study evaluated development conditions and factors promoting logistics development and then rendered constructive solutions to minimize the inadequacies and difficulties of logistics in import and export in Vietnam.

Ly Truong (2016) used reliability, assurance, tangibles, responsiveness and empathy (SERVQUAL) to find solutions for improving logistics in freight forwarding in Ho Chi Minh city, Vietnam. The study indicated factors of reliability, assurance, tangibles are the most underrated factors that need to change based on the recommendations the authors has made, and the remaining factors such as Empathy are highly appreciated. In addition, the authors also mentioned that cheap cost does not have to be equal with bad quality.

Government policy system has a vital role to play in the development of logistics (Le Trong Nghia, 2016) tried to indicate factors affecting the competency of domestic logistics Enterprises in Vietnam. The study focused on supply systematic and clear theory ground of logistics activities. It thus found out factors on how to enhance the competencies of logistics companies. The theoretical implications of the thesis are identifying some factors that enhance and affect the competency of logistics services providers (LSPs):Business Process and Standard Operating Procedure (BP & SOP), human resources, information and technology, government policy

In short, domestic studies tend to focus on accessing and measuring factors of technology, integration, customer awareness, legal and policy system, socio-economic and infrastructure. As a result these studies indicated technology, infrastructure and legal and policy systems are the most influential factors on the development of logistics.

2.4. Literature gap

Currently, there are different research articles about factors affecting the development of logistics in Vietnam. However, factors affecting the development of logistics services for import-export activities in Vietnam have not been studied much. These are some outstanding research articles of logistics development in Vietnam in general, in other cities in particular.

Firstly, these studies have been conducted before 2019. Most authors use qualitative research methods with a purpose to propose recommendations and solutions to develop Vietnam's logistics industry. The number of the articles using quantitative methods is very limited.

Secondly, the scope of the logistics industry in the previous studies has been quite broad. While most research has focused on the factors affecting logistics activities in Vietnam, there are some research topics on specific areas in logistics activities. Most of the studies mention the logistics industry in general, logistics in specific fields in the economy were not mentioned (manufacturing, import-export or in a particular industry).

Thirdly, some research scope only concentrated on a city or a specific place. The topic "Researching the real situation of e-logistics in Ho Chi Minh City" (PhD. Nguyen Xuan Quyet & PhD. Tran Thi Ngoc Lan, 2019) and the topic "Improving logistics services quality in freight forwarding in Ho Chi Minh City" (Ly Truong, 2016) analyzed in Ho Chi Minh City. Meanwhile the topic "The policy of developing logistics infrastructure of Hai Phong city towards modernization" (Doan Van Tao, 2017) only studied in Hai Phong city.

Next, some research articles did not mention solutions for problems. The study "Lessons for China from a Comparison of logistics in the U.S. and China" (Ming Xiong, 2010) had no specific modification methods for limitations of the infrastructure.

Moreover, there are some factors that change in research articles. The topic "logistics in foreign trade in Vietnam" (Ngoc Hoai Nam, 2009)" studied five conditions for logistics development and three factors promoting the development of logistics. The paper " Factors affecting the competency of domestic logistics Enterprises in Vietnam" (Le Trong Nghia, 2016) researched four elements.

Last but not least, almost all previous studies about factors affecting the development of logistics analysis are based on qualitative methods; but not conducted quantitative methods to confirm the rationality of the applied models and how the components impact on the development of logistics.

In summary, we are the first authors to analyze factors affecting the development of logistics in Vietnam through both qualitative and quantitative methods. Moreover, we have specific scope research. The authors will update the latest information and data from 2014 to 2019 to provide a more general picture of the development of logistics services for import-export activities in Vietnam. All of them are new points of research that the previous research did not mention.

2.5. Proposed research model

2.5.1. Basic model - P.E.S.T

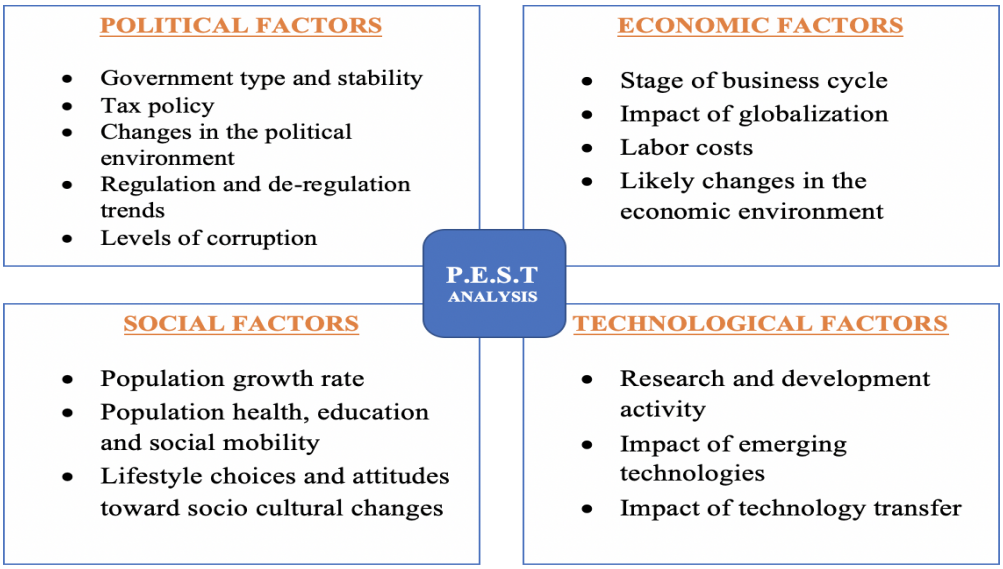


***Figure 2.1*: P.E.S.T model (Francis J. Aguilar, 1967)**

P.E.S.T analysis stands for political, economic, social, and technological (Francis J. Aguilar, 1967). It was created by Harvard professor Francis Aguilar in 1967. This model is a management method whereby an organization can assess major external factors that influence its operation to become more competitive in the market. As described by the acronym, those four areas are central to this model (Will Kenton, 2020).

P (Political): According to Donna Lubrano, senior advisor at Northeastern University, U.S, the political environment is an analysis of what politics is doing to the business world. Issues that must be considered include tax guidelines, copyright and property law enforcement,

political stability, trade regulations, social and environmental policy, employment laws and safety regulations. The general political climate of a nation or region, as well as international relations, can also greatly influence the organization.

E (Economic): The economic climate would obviously affect the future of a business. Among issues to consider when analysing the economic environment are the business cycle (whether it is a time of boom or recession), rate of economic growth, rate of inflation, economic stability, and employment policy.

S (Social): Social factor include the social, religious, and cultural mores of the society where a business is operating and serving its customers. Social factor bring under its sway demographics aspects, such as the average age and income of the population, level of education, and general outlook on life (whether liberal or conservative), and lifestyle preferences.

T (Technological): The technological component considers the specific role and development of technologies within the sector and organization, as well as the wider uses, trends, and changes in technology. Government spending on technological research may also be a point of interest in this area.

In this study, the P.E.S.T model is applied in researching the effects of factors in the macro level. The reason for choosing this model is because it will help the researcher have a baseline for identifying scientific groups of factors.

2.5.2. Proposed research model and hypothesis

2.5.2.1. Proposed research model

Based on 4 elements of the P.E.S.T model, different previous studies as well as the current context in Vietnam, the authors propose two more factors: integration and infrastructure. In the case of Vietnam - a country with increasingly improved and expanded transport infrastructure, this is an energetic springboard for the development of logistics activities in our country. Therefore, the proposed research model includes 6 factors as follows: (1) political factor, (2) economic factor, (3) social factor, (4) technological factor, (5) integration factor, (6) infrastructure factor.

To sum up, the authors decided to add two elements of integration and infrastructure into the proposed research model. The proposed research model for factors affecting the

development of logistics services in import-export activities in Vietnam is shown in Figure 2.2 below.

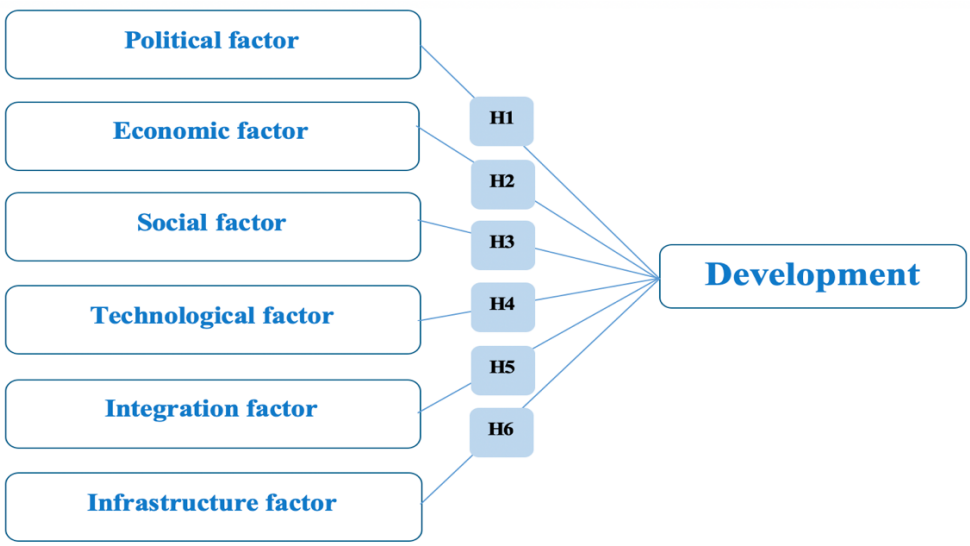


***Figure 2.2:** Proposed conceptual model*

2.5.2.2. Hypotheses and the relationship between factors and development

a. The relationship between the political factor and development

In the current business, political factor are increasingly affecting the business activities of the business. Political stability will help businesses be more active in their business activities. The basic factors of the political environment are political stability and diplomacy; balance of government policies; perspectives, socio-economic development orientations, etc.

➔ **H1**: Political factor affect the development of the logistics services in import-export activities.

b. The relationship between the economic factor and development

Usually, companies will base on economic factor to decide to invest in industries and regions such as GDP, inflation, or changes in petrol prices.

In addition to the support of the government's economic policies such as basic wage laws, economic development strategies, preferential policies for industries: tax and subsidy reduction, economic prospects have been shown at the GDP growth rate, the ratio of GDP to invested capital.

➔ **H2**: Economic factor affect the development of the logistics services in import-export activities.

c. The relationship between the social factor and development

Industry awareness has a strong influence on the development of the logistics industry, especially logistics in import-export. This factor is primarily evaluated on each individual in a collective. It shows us the level of awareness, understanding of an individual about the logistics industry. Especially in the current economic development period, industry awareness needs to be paid more attention to contribute to improving efficiency and productivity at work.

➔ **H3**: Social factor affect the development of the logistics services in import-export activities.

d. The relationship between the technological factor and development

According to the research results of the research group published in the logistics White Paper (2018), over 30% of IT applications currently used in logistics enterprises are basic applications such as forwarding management system, warehousing, electronic data exchange, transport management and customs declaration. Meanwhile, the forecast of the Industrial Revolution 4.0 will have a substantial impact on the logistics industry in general and the new logistics technology in particular, thereby affecting the logistics business of logistics services providers towards science and creativity.

➔ **H4**: Technological factor affect the development of the logistics services in import-export activities.

e. The relationship between the integration factor and development

The logistics services industry is playing an essential role in the process of integration and economic development in Vietnam. The integration process will make businesses adjust to the comparative advantage, labour division of the region and the world, thereby creating opportunities for Vietnam to develop partnerships and expand export markets, contributing to restructuring the economy and renewing the growth model.

➔ **H5**: Integration factor affect the development of the logistics services in import-export activities.

f. The relationship between the infrastructure factor and development

Vietnam's economic growth in recent years has created an enormous demand for transport infrastructure and services because it is the technical basis for bringing goods from

production to consumption. Developing logistics infrastructure in the coming years is one of the significant strategic breakthroughs. This is considerable work for Vietnam to integrate better with other regional economies.

➔ **H6**: Infrastructure factor affect the development of the logistics services in import-export activities.

2.6. Conclusion

In this chapter, the research team have clarified the basic theories about logistics services by systematically definition, characteristics, role of logistics services in the import-export field.

Based on the literature review, the study of published research concerning the logistics industry showed that lots of factors affect logistics services in import-export activities. In this study, the authors combined literature review and experimental basis to propose six factors that create model research for Vietnamese logistics services in import-export activities. From the initial proposal model, the authors use survey data to process and identify the critical factors that affect logistics services in Vietnam.

CHAPTER 3: METHODOLOGY

3.1. Introduction

The theory of how research should be carried out, including the theory and philosophy on which research is based and the impacts of these for the method or approach adopted (Saunders & Lewis, 1997). This part provides a brief about the way in which data about the logistics was collected, analysed and used.

3.1.1. Research philosophy

There are four categories named realism, positivism, interpretivism, pragmatism which are analyzed below.

Positivism is a philosophy system that holds that every rationally justifiable assertion can be scientifically verified or capable of logical or mathematical proof, and that therefore rejects metaphysics and theism. Positivists believe that reality is stable and can be observed and described from an objective viewpoint (Levin, 1988), i.e. without interfering with the phenomena being studied. Positivism has had a particularly successful association with the physical and natural sciences.

Realism is basically defined that all things happen around you exactly and independently in your mind through the senses of an individual. In metaphysics, realism about a given object is the view that this object exists in reality independently of our conceptual scheme. In philosophy terms, these objects are ontologically independent of someone's conceptual scheme, perceptions, linguistic practices, belief, etc. based on realism philosophy, realists can observe the objective behaviour and draw a conclusion at a low of trust based on personal viewpoint.

Interpretivism, Collins, H. (2010) considers that "interpretivism is associated with the philosophical position of idealism, and is used to group together diverse approaches, including social constructivism, phenomenology and hermeneutics approaches that reject the objectivist view that meaning resides with the world independently of consciousness". According to interpretivist approach, it is important for the researcher as a social actor to appreciate differences between people. Moreover, interpretivism studies usually focus on meaning and may employ multiple methods in order to reflect different aspects of the issue.

Pragmatism is, broadly, an approach to philosophy that clusters loosely around a set of themes and a common tradition. Pragmatism includes those who claim that an ideology or

proposition is true if it works satisfactorily, that the meaning of a proposition is to be found in the practical consequences of accepting it, and that unpractical ideas are to be rejected.

Taking everything into consideration, the authors decided to use pragmatism philosophy in this study. There are some approaches applied for collecting information and data were used in this study to prepare questionnaires and survey logistics enterprises via email, interviewing supervisors with logistics expertise. Therefore, the use of pragmatism philosophy will help the authors get objective and reliable results.

3.1.2. Research process

The research process (Table 3.1) below obtains the process of identifying, locating, assessing and analysing the data and information in order to address the research questions.

Phase I	**Determine the Research Problem**
	Step 1: Identify and clarify information needs
	Step 2: Define the research problem and questions
	Step 3: Specify research objective and confirm the information value
Phase II	**Select the Research Design**
	Step 4: Determine the research design and data source
	Step 5: Develop the sampling design and sample size
	Step 6: Proposed conceptual model
	Step 7: Interview logistics experts
	Step 8: Proposed research model for official research
	Step 9: Examine measurement issues and scales
	Step 10: Design and pretest the questionnaire
Phase III	**Execute the Research Design**
	Step 11: Collect the prepared data
	Step 12: Analyse data
	Step 13: Interpret data to create knowledge
Phase IV	**Communicate the Research Results**
	Step 14: Prepare and present final report

***Table 3.1:* Phases and steps in the Research Process**

The research process possesses four phases: Determine the research problem, select the appropriate research design, execute the research design, and communicate the research results. The four phases are divided into eleven steps above that can help image more about the research process.

3.1.3. Research approach

Different types of research problems require an explicit research approach in order to be solved and explained. According to Collis & Hussey (2013), the process of how a research is conducted can be sorted into two main categories, inductive and deductive.

Inductive approach is also known as inductive reasoning, which refers to collecting data that is relevant to the topic of interest. Inductive starts with the observation and theories are proposed towards the end of the research process as a result of observation and the development of explanation – theories – for those patterns through a series of hypotheses. In other words, an inductive approach moves from data to theory, or from the specific to the general and it is generally associated with qualitative research.

Figure 3.1: ***Inductive process in research approach***
(Saunders, M., Lewis, P. & Thornhill, A. 2012)

Deductive approach also known as deductive reasoning, which is concerned with developing a hypothesis (or hypotheses) based on existing theory, and then designing a research strategy to test the hypothesis (or hypotheses). Deductive approach can be explained by the means of hypotheses, which can be derived from the propositions of the theory.

In other words, a deductive approach is concerned with deducting conclusions from premises or propositions.

Figure 3.2: ***Deductive process in research approach***
(Saunders, M., Lewis, P. & Thornhill, A. 2012)

In this study, the deductive approach was adopted as the most appropriate approach method. In use of deductive approach, the study aims to observe the influence of factors in logistics

for foreign trade activities in Vietnam. Otherwise, an inductive approach is considered more challenging to apply to analytical research.

3.1.4. Research methods

Due to the fact that there are many research methods that could be used by scientists. However, this study will focus on qualitative and quantitative research methods, which involve the specific study activities of collecting and analysing research data in order to answer the particular research question.

3.1.5. Qualitative versus Quantitative

Quantitative research method is the systematic empirical investigation of observable phenomena via statistical, mathematical, or computational techniques (Given, Lisa M, 2008). The objective of quantitative research is to develop and employ mathematical models, theories, and hypotheses pertaining to phenomena. The process of measurement is central to quantitative research because it provides the fundamental connection between empirical observation and mathematical expression of quantitative relationships.

Qualitative research methods are designed in a manner that they help reveal the behaviour and perception of a target audience with reference to a particular topic. The aim of qualitative research is to understand the social reality of individuals, groups and cultures as nearly as possible as its participants feel it or live it. Research following a qualitative approach is exploratory and seeks to explain 'how' and 'why' a particular phenomenon, or behaviour, operates as it does in a particular context.

Quantitative	Qualitative
Focus on meanings obtained from numbers	Focus on meanings analysed from words
Numerical and standardised data are collected	Non-standardised data are collected and required for categorisation
Statistics and diagrams are conducted for analysis	Conceptualisation are conducted for analysis

***Table 3.2:** Differences between quantitative and qualitative*

3.1.6. Conclusion

In order to access and measure the influence of factors on logistics, both of two research methods that mentioned above are applied. The qualitative will be applied to analyse

secondary data and illustrate the situation of logistics in Vietnam, especially in foreign trade activities. Meanwhile, the quantitative research method will be adopted to evaluate the primary data, which was collected by conducting surveys. The results of the surveys will be processed and then factors influencing logistics in Vietnam will be stated.

3.2. Data source

From our point of view, data is a set of values of qualitative or quantitative variables. Data is facts or figures from which conclusions can be drawn. In research, before one can present and interpret information, there has to be a process of gathering and sorting data. Gathering data can be accomplished through a primary source (the researcher is the first person to obtain the data) or a secondary source (the researcher obtains the data that has already been collected by other sources, such as data disseminated in a scientific journal) (Mesly, 2015).

3.2.1. Primary data

Primary data are information collected by a researcher himself specifically for his research objectives. Primary data refer to direct data collected through surveys, observations, experiments, questionnaire, or live interviews (Hair et al., 2010). The primary data are original and relevant to the topic of the research study, so the degree of accuracy is very high. It helps researchers find out answers as well as orientations for specific issues. Moreover, primary data is current real-time data, which can better give a realistic view to the researcher about the research topic. However, the primary data also brings some unavoidable disadvantages (such as time-consuming and costly).

3.2.2. Secondary data

Secondary data is defined as data that has been integrated primarily for other purposes than the current research but has the necessary information for the research. There are varieties of available second data resources for researchers to gather on an industry or the marketplace. Brodeur, Isarel & Craig (2001) said that “Secondary data can be useful as supplementary data for reference purposes, for comparison and contrasts, and for adding additional levels of richness to other data”. Moreover, time and cost-saving are two main advantages of using secondary data in research. In this technological era, searching and collecting secondary data is easier than primary data. Sources of secondary data are government publications, websites, books, journal articles, industry reports and so on.

3.2.3. Conclusion

In order to collect enough data and information, both sources of data i.e. primary and secondary data have been selected. These are used in combination to give full insight into the topic: *An analysis of factors affecting the development of logistics services in import-export activities in Vietnam*. In this study, primary data is collected by individual interviews, surveys and questionnaires. In addition, this research used secondary data, which was derived from rules, regulations, internet articles, books, academic e-journals related to the logistics industry, and so on.

3.3. Data collection methods

3.3.1. Preliminary research

Preliminary research using qualitative research using interview techniques was conducted to explore the factors affecting the development of logistics services in import and export in Vietnam. The process of conducting this qualitative research is shown below:

The authors collected professional opinions from some representatives with experience in the logistics field who have at least 7 years of experience, they currently hold important management positions in departments. The authors collected opinions based on 6 factors: Political, Economic, Social, Technological, Integration, Infrastructure.

Process of collecting comments: Through exchanging and interviewing online and offline, the authors consulted with 9 representatives about the influence of 6 factors to the development of logistics services in import and export activities in Vietnam.

(Outline discussion and list of representatives of logistics enterprises participating in the interview see the Appendix).

Results: Regarding "Social factor", 6 out of 9 representatives said that this factor had an expansive meaning. They felt vague about the impact of this factor on the development of the logistics industry. Therefore, they commented that we should research deeply into awareness, in terms of human resources for logistics, so "Social factor" will be adjusted to "Industry awareness factor".

Besides, all of 9 representatives also suggested that the name "Political factor" should be changed to "Political - legal framework" with the desire to delve into the current law policy of Vietnam that is adjusting the logistics industry.

Additionally, 7 out of 9 interviewees responded that the "Integration factor" and "Infrastructure factor" are important, affecting the development of logistics services directly, so these two factors will be added to the model to suit the reality.

These changes will be the basis for adjusting the model and scale to suit the actual logistics activities in import and export in Vietnam.

3.3.2. Adjust the research model and design questionnaire to official research

3.3.2.1. Adjust the research model

Through the preliminary research results in section **3.3.1**, the proposed research model for the official analysis will include 6 factors: (1) Political-legal framework; (2) Economic; (3) Industry awareness; (4) Technological; (5) Integration; (6) Infrastructure.

This model is applied to official research because it is consistent with the perception of the majority of logistics enterprises' representatives that are the subjects of this research. Therefore, the proposed research model for official research is as follows:

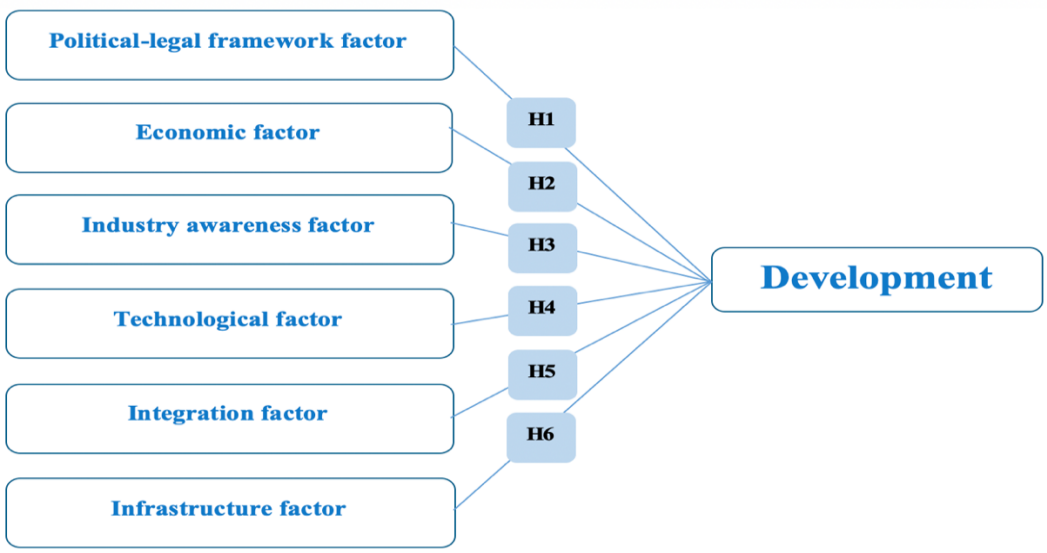


***Figure 3.3:** The research model for official research*

3.3.2.2. Design questionnaire

According to Hair et al. (2012), there are seven steps in Questionnaire design:

- Confirm research objectives

- Select appropriate data collection method

- Develop questions and scaling

- Determine layout and evaluate the questionnaire

- Obtain initial client approval

- Pretest, revise, and finalize the questionnaire

- Implement the survey

Following the steps above, in the scope of this study, the questionnaire was designed in Vietnamese and divided into three main parts (shown in the Appendix).

Part 1: This section contains questions about business information like the type of business, size of labour, the scope of logistics services providers.

Part 2: This section was designed to ask logistics services providers to point out the specific services they provide in import and export activities.

Part 3: This section was designed to collect assessments from businesses on the factors affecting the development of logistics services in import and export activities in Vietnam. The evaluation is based on six independent factors and one dependent factor in the proposed research model.

At the end of this section, the research team provided two open-ended questions asking businesses to show individual proposals to accelerate the development of logistics services in import and export activities.

In this questionnaire, part 3 includes a total of 27 variables. In particular, the evaluation of the development of logistics services based on the proposed research model consists of 24 variables to measure 6 influencing factors: Political - legal framework, Economic, Industry awareness, Technological, Integration, Infrastructure. The remaining 3 variables are used to measure the development of the logistics industry.

This measurement is based on a rating scale: 1 = very disagree, 2 = somewhat disagree, 3 = normal (neither agree nor disagree), 4 = somewhat agree, 5 = strongly agree.

After designing the questionnaire, the authors confirmed the proposed research model (Figure 3.3) and pretested the questionnaire (Appendix) with the experts mentioned in section **3.3.1**. As a result, all experts agreed with the factors and questions mentioned above. On that basis, the authors decided to apply this research model and questionnaire to official research.

3.3.3. Sampling and collecting data

3.3.3.1. Sampling

a. Sampling method

According to Hair (2012), there are two basic sampling designs which are: probability and nonprobability.

Probability sampling definition is any method of sampling that uses some random selection form, in which all of the units in the population have an equal chance of being chosen by the high assurance from some process or procedure that have been set up before (Hair et al., 2012).

Non-probability sampling method has been built based on the researcher's intuitive judgment or knowledge. In the collecting process, different units in the population also have different probabilities of being chosen (Hair et al., 2012).

In this research, the sampling technique is selected is nonprobability sampling because of some practical advantages which are cheaper to implement than probability sampling. Secondly, the need for sampling objectives can be satisfied by the procedures of non-probability sampling. Finally, the use of non-probability promotes efficiency when the population is not available, and it is a perfect alternative method to get the research done. In this study, all the respondents selected to take the questionnaire survey are current enterprises providing logistics services.

b. Sample design

The main purpose of designing a questionnaire survey is to collect data from the particular sample and it determines correlations between the five factors of the proposed research model and service quality. All the questions must be clear and short so that they avoid misunderstanding from the one who does the survey. As a result, the measurement scales need to be clarified to sub-categorize different types of data. In statistics, there are four data measurement scales: nominal, ordinal, interval and ratio (Hair et al., 2012).

Nominal scale is seen as the most basic and least powerful scale in which the researcher is allowed to categorize the answers into mutually exclusive subsets and each subset has no distance Hair et al. (2012).

Ordinal scale is typically measuring non-numeric concepts like satisfaction, happiness, discomfort, etc. in which categories are designed separately but the differences between each one are not really known.

Interval scale is a numeric scale in which we know both the order and the exact differences between the values. Hair et al. (2012) claimed that the interval scale not only determines the hierarchical differences but also illustrates the quantitative differences between data.

Ratio scale is the ultimate nirvana when it comes to data measurement scales because they tell us about the order, they tell us the exact value between units, and they also have an absolute zero– which allows for a wide range of both descriptive and inferential statistics to be applied.

All things considered, the nominal scale and interval scale are chosen to measure data in this study. By using existing logistics businesses that provide these logistics services, the research team can collect real data. Consequently, these above scales are the most suitable measurement scales for this research.

c. Sample size

This study has 27 variables in totals. According to Hair et al., (2012), the sample size should be at least 5 responses per 1 observed variable. In order to collect at least 5 responses per 1 observed variable, the study needs to collect at the minimum sample size of 135 responses. To get this sample size, 472 questionnaires were given to business representatives.

3.3.3.2. Collecting data

Data for the study were collected by means of mail survey and personal interview. The total number of the survey conducted was 472 and the targeted sample is shown below:

Type of survey: Online survey

Number of respondents expected: 135 units

Respondents: Enterprises providing logistics services in Vietnam.

The questionnaire contained 33 questions, most of which are closed-ended. The authors carried on collecting data with below-detailed analysis. Logistics enterprises' information was sought on vla.com.vn (Vietnam Logistics Association) and yellowpages.vn (a website about businesses' information), then these businesses were sent survey through email.

Question format: Questionnaires sent to the companies through an online survey are created by Google Forms.

Time period: Questionnaires were mailed in two batches: one in June 2020 and one in July 2020. Reminders to the first batch were sent in July 2020, about 5 weeks after the original mailing. Reminders to the second batch were sent in August 2020, about 4 weeks after the original mailing.

After the data collection process, it will be processed based on SPSS software ver 20.0.

3.4. Data analysis methods

At first, data will be input and screened to identify missing samples. After rejecting all invalid samples, data will be encoded and analyzed in SPSS as the following:

3.4.1. Descriptive analysis

The data collected from the answers is statistically rewritten into descriptive statistics. Descriptive analysis is the analysis of data collected between valid or non-valid answers through the mean, percentage, mode and variance of variables. After analyzing these data, the results can be used to describe the data obtained.

3.4.2. Reliability analysis

Cronbach's Alpha	Internal consistency
$\alpha \geq 0.98$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Table 3.3: Rule of Cronbach's Alpha (Cronbach, 1951)

Cronbach's Alpha is a common measure of internal consistency (reliability) of a test or scale. Internal consistency describes the extent to which all the items in a test measure the sameconcept or construct and hence it is connected to the inner-relatedness of the items within the test (Tavakol et al., 2011).

The value of alpha (**α**) may be between negative infinity and 1. Only positive values, however, have meaning. In general, alpha coefficient ranges in value from 0 to 1, and the increase of this value means that the correlations between the items increase (Amit Choudhury, 2010). In this study, scales which have Cronbach's Alpha coefficient greater than or equal to 0.7 will be accepted.

Besides evaluating the reliability of scales, Cronbach's Alpha analysis also helps to check if any item is not consistent with the rest of the scale through item-total correlations. Variables which have greater than 0.3 item-total correlations will be accepted; the others which have smaller than 0.3 item-total correlations will be eliminated from analysis data.

3.4.3. Correlation analysis

Correlation analysis is a statistical method used to evaluate the strength of relationship between two quantitative variables. A high correlation means that two or more variables have a strong relationship with each other, while a weak correlation means that the variables are hardly related.

The Pearson correlation coefficient (**r**) measures the degree of correlation between the two variables. Pearson correlation finds the relation of the variables. The Pearson correlation coefficient (**r**) is given from +1 to -1. The condition for significant correlation is that the sig value is less than 0.05.

If **r < 0** indicates a negative correlation between the two variables, i.e. if the value of this variable increases, it decreases the value of the other variable.

If **r = 0** shows no correlation.

If **r > 0** indicates a positive correlation between the two variables, i.e. if the value of this variable increases, it increases the value of the other variable.

3.4.4. Exploratory analysis

Exploratory factor analysis is a powerful statistical technique which is used for data reduction and summarization. The sampling adequacy of factor analysis is based on Kaiser-Meyer-Olkin (KMO) Measure. In case of KMO has value between 0.5 and 1.0 and Sig. < 0.5, factor analysis is more appropriate factor analysis. In case of KMO < 0.5 or Sig. > 0.5, it indicates that factor analysis may not be appropriate.

An important part in exploratory factor analysis is interpreting factor matrices. This research will use Varimax rotation process to produce multiple group factors. Factor loadings which

indicate correlations between the variables and the factors are required to have greater than 0.5. Then, a factor can be interpreted in terms of the variables that have high load on it.

3.4.5. Regression analysis

In statistical modelling, regression analysis is a set of statistical processes for estimating the relationships between a dependent variable (often called the 'outcome variable') and one or more independent variables (often called 'predictors', 'covariates', or 'features'). The most common form of regression analysis is linear regression, in which a researcher finds the line (or a more complex linear combination) that most closely fits the data according to a specific mathematical criterion. Then, based on the regression function, the authors will assess the impact of each independent variable on the dependent variable as well as predict the change in dependent variables when there is any change in independent variables.

3.5. Ethical considerations

It is specified that ethical considerations should be seriously considered by the researchers (Weber, 1949). According to Weber, the considerations can be divided into four categories. First of all, every respondent has the right to be notified about everything relevant to the particular research. Secondly, participants' identities during research and their answers are kept private and confidential completely by the researcher. Next, in fact, deception is considered forbidden because it is unethical. Last but not least, any researcher needs to know "Accuracy of the data has to be assured, as it is a basic principle in social science".

In brief, these ethical considerations have been included during the process of our current research. All participants could communicate with the authors of this study any time (by email or telephone) for asking possible questions or any other opinion. Moreover, all the respondents' answers were used only for the present research objectives and kept confidential. Additionally, the survey was carefully structured for the respondents to be fully aware of the applied procedures. Its purpose is to ensure unbiased results and honest responses to the questionnaire.

3.6. Limitations of the research project

To complete this research topic, the authors have tried and made a lot of effort. However, the research still has certain limitations. Firstly, the research period is limited. The authors only have three months to study (May - August, 2020). Therefore, the study was conducted only with a certain number of samples, so it may not overally reflect the factors affecting logistics in import- export in Vietnam. Secondly, the authors had difficulty in conducting

information collection by distributing questionnaires directly to the survey participants . In this process, it was inevitable that the responses were dishonest, inaccurate, and unbiased compared to their assessment. Finally, most of the reports and documents mention logistics of Vietnam in general, so it is difficult to find logistics data in import-export activities. These limitations are the suggestions and orientations for subsequent studies to overcome and improve.

3.7. Conclusion

To summarize, in this chapter, the authors presented the research process, the research methodology and built a scale for the research model. There are six primary scale factor groups: (1) Political-legal framework; (2) Economic; (3) Industry awareness; (4) Technological; (5) Integration; (6) Infrastructure.

The authors based on Hair et al., (2012) to select suitable research sample sizes and scientific sampling methods and data analysis methods. They include descriptive analysis, reliability analysis of scales measured by Cronbach's Alpha reliability coefficient, EFA analysis, correlation analysis regression analysis to ensure the reliability of the research topic.

CHAPTER 4: FINDINGS AND ANALYSIS

4.1. Overview of the logistics services market in Vietnam

4.1.1. Overview of the development of logistics services in Vietnam from 2014 – now

4.1.1.1. Number and size of enterprises in the logistics services industry

According to the report No.94/BC-BCT of the Ministry of Industry and Trade (2019), there are currently about 4,000 enterprises operating in logistics services in Vietnam. In which, 88% of which are domestic enterprises, 10% of joint-venture enterprises, and 2% are foreign enterprises, concentrated mainly in two big cities, Hanoi and Ho Chi Minh City (Chart 4.1).

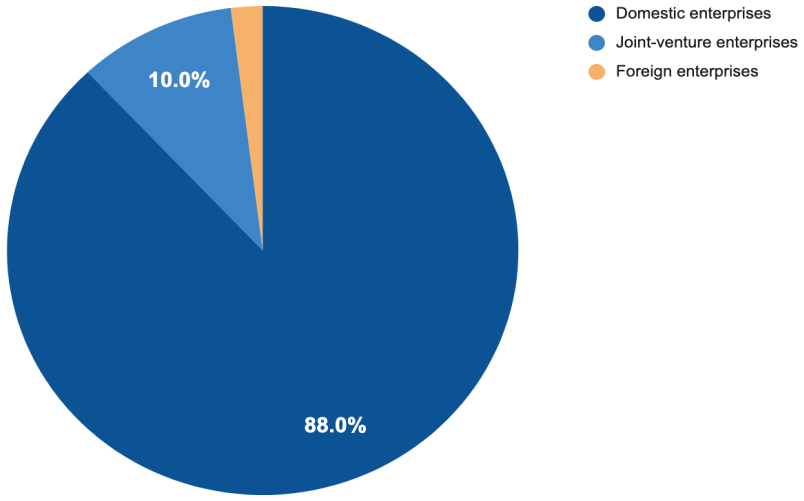
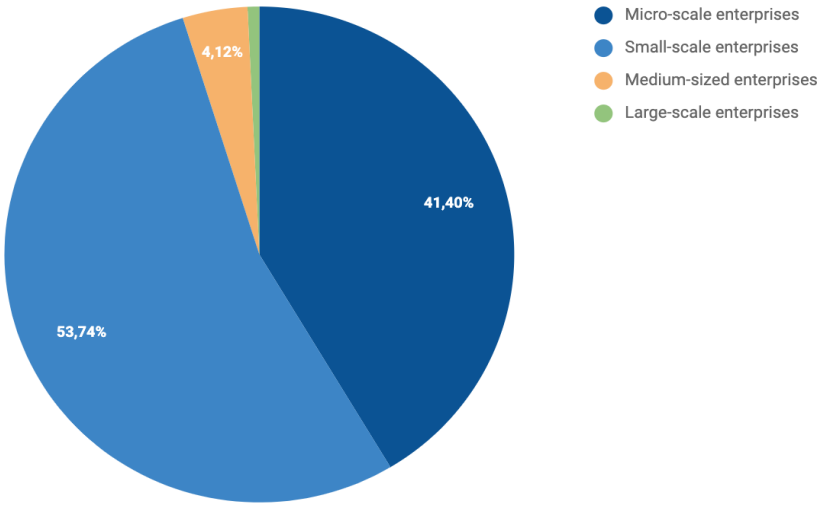


***Chart 4.1:** Types of logistics enterprises in Vietnam (VLA, 2020)*

In terms of market share, logistics companies in Vietnam have a clear differentiation in terms of competitiveness and market share. About 30 logistics enterprises of multinational corporations are operating in Vietnam, with very strong competitiveness, providing overall logistics services, accounting for 70-80% market share. The rest of the businesses are mostly small Vietnamese ones with limited competitiveness, accounting for about 20-30% market shares (TTWTO VCCI, 2019).

However, logistics enterprises in Vietnam are mainly small-scale. Specifically, 41.4% of enterprises are micro scale; 53.74% of enterprises are small scale; 4.12% of medium-sized enterprises ; 0.74% of large scale enterprises (Vietnam Logistics Report, 2019) (Chart 4.2). In general, Vietnamese logistics enterprises operate at a small scale of registered capital and limited labor. Specifically, according to VLA's statistics, up to 90% of logistics services businesses have registered capital of less than 10 billion VND. Limited business size is one

of the barriers for businesses in providing competitive logistics services chains efficiently in the domestic, regional, and world markets.



<u>Chart 4.2:</u> The number and size of domestics enterprises (VLA, 2020)

In terms of revenue and employment size of businesses as well as the number of types of logistics services, Vietnam has large groups of businesses providing logistics services such as Saigon Newport, Gemadept, Transimex, Sotrans, MP Logistics, U&I Logistics, TBS Logistics, Tonkin Logistics, ALS, SCSC, Seaborne, IndoTrans. Besides, there are currently about 25 leading logistics groups in the world that do business in many forms. Many cross-country logistics services providers are operating in Vietnam with famous names such as DHL Maersk Logistics, APL Logistics, CJ Logistics, KMTC Logistics, etc.

Regarding the type of logistics services, there is a clear distinction between the services that Vietnamese enterprises and enterprises with foreign elements provide. Vietnamese enterprises mainly provide 2PL (Second Party Logistics - providing second party logistics services) and 3PL (Third Party Logistics - providing third party logistics services). Meanwhile, foreign/foreign-invested businesses provide services such as 3PL, 4PL and 5PL.

4.1.1.2. The growth rate of the logistics services industry

In relation to the Vietnam Logistics Business Association (VLA), the growth of the logistics industry in Vietnam in recent years has reached about 14% -25% (Chart 4.3).

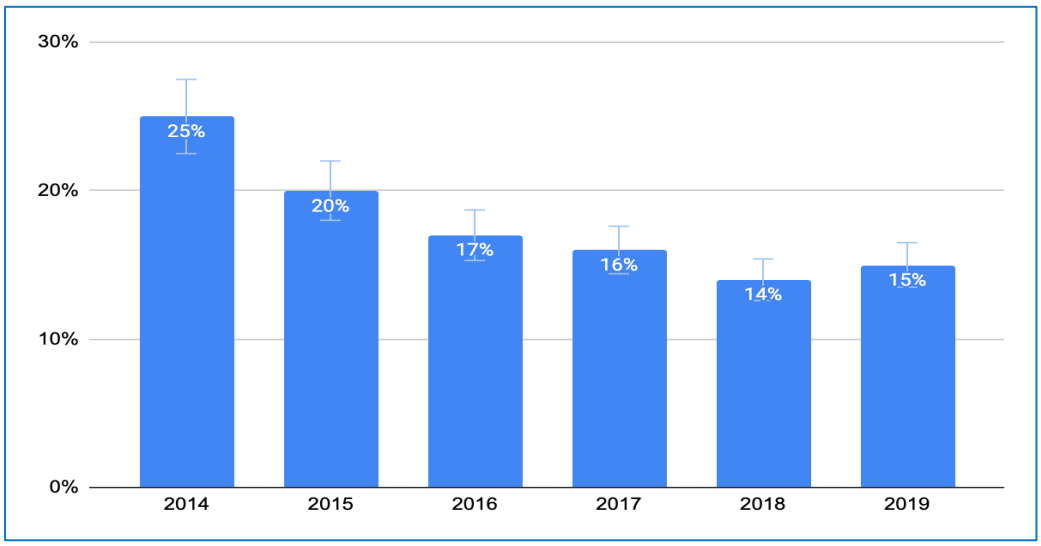


***Chart 4.3*: The growth rate of the logistics services industry (VLA,2019)**

Especially, by the end of 2014, Vietnam's logistics industry has grown at a rate of about 25%. However, there was a significant decrease in the next 4 years 2015, 2016, 2017, 2018 with growth rates of 20%, 17%, 16%, and 14%, respectively. Fortunately, in 2019, thanks to the high growth momentum of the economy in general and import and export in particular, Vietnam's logistics continues to reach a growth rate of about 15%, and has many advantages to develop for the transport and logistics industry with about 4,000 enterprises.

Finally, in early 2020, the Covid-19 epidemic appeared to have had a strong impact on economic sectors. Especially for the logistics services industry, with countries closing the border and stopping flight operations of airlines, they must also stop the import and export, with foreign countries. As a result, logistics services have been directly affected. According to a survey of the Vietnam Logistics Association (2020), up to 15% of businesses have a 50% reduction in revenue, more than 50% of businesses reduce the number of domestic logistics services, down from 10% - 30% of the number of international logistics services compared to the same period in 2019.

To sum up, from 2014 to 2018, the growth rate of the logistics services industry has been steadily decreasing. However, in the end of 2018 to the end of 2019 there was slight growth. The transportation, warehousing, forwarding and other related services activities have improved positively.

4.1.1.3. Vietnam's Logistics Performance Index (LPI)

In order to rank the efficiency and logistics capacity of countries, the Logistics Performance Index (LPI) is used by the World Bank. This index is determined bi-annually, mostly in even

years. Up to now, there's been a 6-ranking LPI in five 2007, 2010, 2012, 2014, 2016, and 2018. LPI index is assessed by 6 important criteria: clearance process, infrastructure, international shipments, logistics competence, tracking, and timeliness. These criteria are scored on a 5-point scale.

Vietnam is the top-ranking country in emerging markets. Based on the World Bank's Report in 2018 on Logistics Performance Index (LPI), Vietnam ranked 39/160 countries, up 25 stages compared to 2016, and reached the 3rd in ASEAN countries.

Year	Rank LPI	Clearance process	Infrastructure	International shipments	Logistics Competence & Quality	Tracking& Tracing	Timeliness
2014	48	3.15	2.81	3.22	3.09	3.19	3.49
2016	64	2.98	2.75	3.12	2.88	2.84	3.5
2018	39	3.27	2.95	3.16	3.4	3.45	3.67

Table 4.1: Rank of Vietnam in the Logistics Performance Index from 2014 to 2018 (World Bank, 2018)

Vietnam ranks first in emerging markets and ranks the highest in the group of middle-income countries. All 6 criteria for LPI evaluation in 2018 increased dramatically. The highest increase was Logistics Competence & Quality (ranked 33, up 29 stages). Tracking & Tracing was evaluated very well at rank 34 (up 41 stages). The criteria to evaluate quite well are the Clearance process (ranked 41, up 23 stages), Infrastructure (ranked 47, up 23 stages).

By improving the scores in all aspects of the assessment, it is believed that the logistics industry in Vietnam will continue to prosper and improve. This is to meet the goals set out in the action plan for improvement of competitiveness and development of Vietnam's logistics services by 2025.

4.1.2. Logistics services provided for import and export activities in Vietnam

4.1.2.1. Overview of import – export of Vietnam from 2014 up to now

According to data from the World Bank and General Statistics Office (GSO), in the period 2014 - 2019, the trend shows that import and export annual growth rate has seen a significant increase.

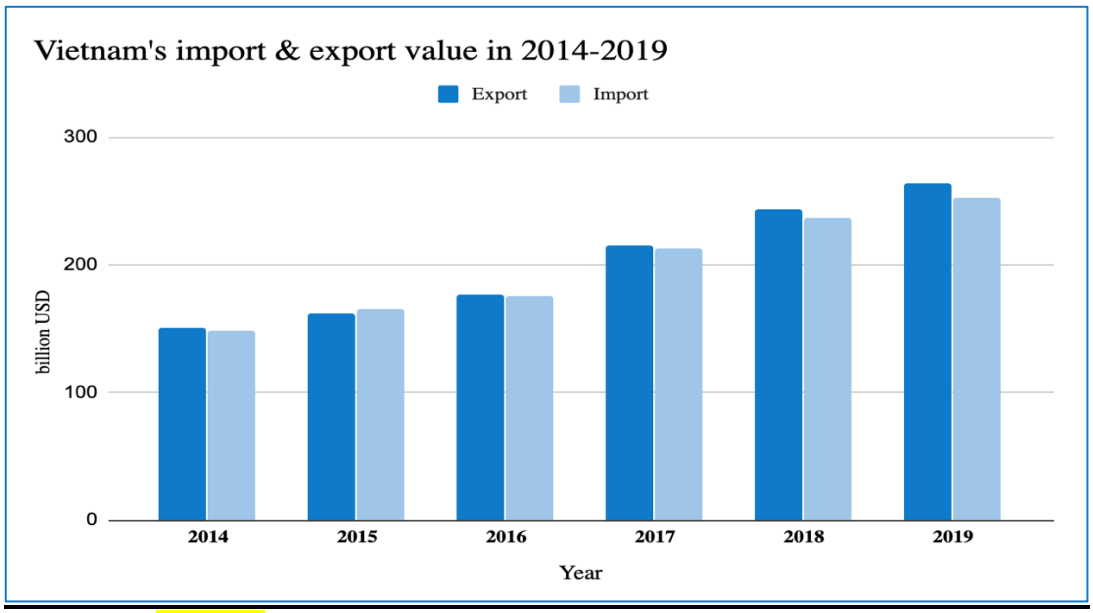


Chart 4.4: Vietnam's import and export value in 2014-2019 (General Statistics Office, 2019)

During the five years period, import and export activities have achieved many encouraging results, with the average growth rate of total import and export reaching about 12%. On average in the period, international trade gained about more than 400 billion USD, of which the value of export averaged 202 billion USD and import averaged 198.7 billion USD.

Accounting for 2019, Vietnam's import-export turnover was estimated at 517.26 billion USD, reaching a year-on-year increase of 7.6%. Of which, the value of exported goods was 264.19 billion USD, increased 8.4 per cent, while the value of imports rose 6.8% to 253.071 billion USD, resulting at the highest trade surplus level compared to the previous years.

In 2020, the total import and export turnover of Vietnam saw a decline due to the negative impacts of the COVID-19 pandemic. According to the General Statistics Office, total import and export turnover in the first six months of 2020 reached only 238.4 billion USD, slightly decreased 2.1% over the same period last year. However, import and export activities recovered strongly in June, resulting at 43.28 billion USD of the total import-export value, up 15.8 per cent over May, of which export value rose 17.6 per cent month-on-month and import value leapt 14 per cent. In addition, the trade agreement between Vietnam and the European Union (EVFTA), set to take effect from August 2020, will open greater opportunities for Vietnamese enterprises to access this world's second-largest import market. This is a more optimistic outlook for the country's foreign trade in the latter half of this year when countries open their economies and push the recovery process after the pandemic.

It can be said that the development of import-export activities is closely related to the development of Vietnam logistics services. In particular, the development of import-export activities will create favorable conditions and bring many opportunities to promote the logistics services sector. On the other hand, developing logistics services are an integral part in terms of supporting import and export activities because it allows firms to effectively operate and improve their quality of services as well as the competitiveness in the international trade market. It is playing an important supporting role to promote international trade and directly contributing to improve the competitiveness of the country's economy.

4.1.2.2. Logistics services provided for import and export activities in Vietnam

The common logistics services are forwarding, domestic transportation, seaport and airport operations, warehousing, cargo management and international transportation. Regarding the type of logistics services, there is a differentiation between services provided by Vietnamese enterprises and foreign firms. Most of Vietnam's domestic firms are 2PL and 3PL service providers, while foreign firms can offer 3PL or 4PL, 5PL services.

a. Forwarding services

Forwarding is the main service being provided by logistics services providers in Vietnam, accounting for more than 80% of the companies surveyed. In 2020, forwarding service continues to thrive and is one of the main logistics services provided by service providers Vietnam logistics, bringing profits to companies.

However, the overall picture is not much changed in the correlation between domestic companies and FDI enterprises. FDI enterprises still hold an overwhelming share of international freight forwarding, due to the relationship with foreign shippers and import-export turnover. Imports of FDI are very significant (accounting for 72.45% of the country's import turnover). Besides, 2018 showed a shift for Vietnamese logistics companies when applying information technology in international forwarding activities, increasing 15-20% of efficiency compared to the previous 2 years. The recent years also witnessed a transformation in the digitization of forwarding and transport services, initially researching and applying high technology in logistics services, such as Blockchain technology in e-Delivery Order and e-Bill of Ladings, Cargowise One on activities logistics activities. Thereby has facilitated the development and improvement of service quality.

b. Transportation services

Transportation services are a common logistics services provided in Vietnam. The volume of transport through some key modes of transport in Vietnam during the past time is shown in Table 4.2 below:

Volume of freight carried (million tons)				
Year	**Road**	**Maritime**	**Railway**	**Airway**
2014	822.0	249.5	7.2	0.20
2015	877.6	262.3	6.7	0.23
2016	969.7	280.3	5.2	0.29
2017	1074.5	302.9	5.6	0.32
2018	1195.9	324.9	5.7	0.40
2019	1293.1	385.4	5.2	0.45

***Table 4.2:** Volume of freight carried by mode of transportation in Vietnam from 2014 to 2019 (General Statistics Office, 2019)*

In 2019, the amount of freight transported in Vietnam reached 1,684.1 million tons, an increase of 9.7% compared to 2018. In which domestic transport reached 1,650 million tons and international transport reached 34.1 million tons (General Statistics Office, 2019). With about 1293 million tons, the majority of freight in Vietnam was carried via road transportation, followed by maritime transport, railway and airway transport.

Road transportation

Currently, road transportation plays an important role in the transport of goods in Vietnam, which remains the integral linking between inland terminals and seaports. In 2019, the volume of freight carried via road transport was estimated at 1,300 millions of tons, remaining about 75.6% of all freight transport. The average growth rate during the period 2014 - 2019 was over 110 percent, which is higher than that of other modes of transport.

Overall, in recent years, the road transport service for the import and export operation across the border has been much more convenient because Vietnam has signed more agreements with neighboring countries as follows. For examples, in 2018, Greater Mekong Subregion (GMS) countries (Vietnam, Cambodia, Laos, Myanmar, Thailand and China) reached an agreement on the implementation of the cross-border transport facilitation agreement

(CBTA).This is an agreement that seeks the elimination of border inspections within GMS. It promotes the eradication of intermediary stops (also known as transhipment), and seeks to boost commercial activity by reducing the amount of time spent crossing borders.

Maritime transportation

Vietnam is a coastal country of a long history of maritime trade, so maritime transportation (including both domestic and international maritime shipping) is a crucial element of national economics. The GSO data output showed that maritime transport services in 2014 reached 249.5 million tons of goods and in 2019 reached 385.4 million tons of goods. The average annual growth rate during the period of 2014 and 2019 reached 109.2 percent. Overall, the share of maritime shipping in the total cargo volume transported by all modes of transport was about 22.8 percent during 2014 and 2019 (General Statistics Office, 2019).

In 2019, Vietnam's maritime transport has had an impressive year with key metrics witnessing remarkable growth. According to Vietnam Maritime Administration (VMA), the amount of maritime freight handled at Vietnamese ports was estimated at 654.6 million tonnes, an increase of 14% more than that in 2018, and the number of containers through seaports in 2019 reached 19.35 million TEUs, increased by 6% (Ministry of Transport, 2019).

For international shipping, Vietnam's fleet of container ships in 2019 also reached 39 ships compared with just 19 in 2013. They currently rank fourth in ASEAN, behind Singapore, Indonesia and Malaysia, and 29th in the world. Currently, the Vietnamese container fleet operates mainly on short routes in Southeast Asia and Northeast Asia, with some bulk carriers transporting goods on European routes.

Rail transportation

The volume of goods transported by rail decreased from 7.2 million tons in 2014 to 5.2 million tons in 2019, the growth rate declined by 27%. It is clear that Vietnam's railway infrastructure currently is under-developed as well as have not contributed much in import and export activities.

In international transport, the Vietnam Railway Corporation and the logistics companies of China Railway have been cooperating to provide international freight transportation services. From June 2017, China railway has operated the Central Asia container train route, which departures from Kunming passing Hekou and across the border to Yen Vien through

Lao Cai before reaching the final destination of Hai Phong. The government also planned to construct international routes connecting Vietnam with Cambodia, Malaysia and Singapore. In addition, the prospect of cooperation between Vietnam - China - Kazakhstan - Russia - EU in developing international railway logistics is very large. Currently, the estimated time of a container train running from Vietnam to Moscow is expected to take 18-20 days, while traveling by sea the time will take at least 40-45 days. Therefore, this is a significant advantage of rail transportation in Asia - Europe transport, especially for the transport of valuable items, requiring fast transport as well as special storage procedures.

The main objectives of Vietnam Railways (VNR) in the coming period are to double the interval capacity of the existing network by 2021 and to make full use of the railway infrastructure as well as to ensure effective railway transport.

Air transportation

Air cargo transportation accounts for about 25% of Vietnam's export and import value. (Vietnam Logistics Report, 2019). According to The International Air Transport Association (IATA), Vietnam is the fifth-highest growth market in the world annual customers in the period of 2015-2035, with CAGR (compound annual growth rate) of 6.7% per year, much higher than the world's 3.9% and 4.6% per year of the Asia-Pacific region.

Along with the growth of the economy, the market for goods transported by air from Vietnam has a strong growth in the period from 2014-2019. In the year of 2018, the transport of Vietnamese airlines reached over 0.4 million tons of goods, an increase of 26% compared to 2017. Next to 2019, the Vietnam air freight market has seen remarkable growth and the total of volume was estimated at 0.45 million tons.

Currently, the Vietnam aviation market has the participation of 68 foreign airlines from 25 countries and territories and 4 Vietnamese airlines including Vietnam Airlines, VietJet Air, Jetstar Pacific Airlines and VASCO. The main routes of international air cargo transport in Vietnam are Asia - Pacific, EU and North America. China is currently Vietnam's largest air cargo import market with 26% of the market share, followed by South Korea (20%) and the United States (9%). According to the Civil Aviation Administration of Vietnam (CAAV), Vietnam's international air transport still achieved impressive growth in the next period.

c. Labeling/Packaging services

Currently, Vietnamese enterprises operating in the field of logistics with a very small market share with a total of businesses operating in the field of logistics is 4,000 businesses (the

Ministry of Industry and Trade, 2019), and most of them are small and medium-sized enterprises with mostly old equipment. Besides, the logistics needs are only half of the domestic logistics demand and the rest is foreign enterprises into this field. In fact, the packing phase is mainly packed for shipping by sea for export while the rest is transported by road or air. Then, meeting the needs of the packaging stage in general, businesses cannot reach it all. The domestic market is still very abundant but Vietnamese enterprises cannot fully exploit this whole market.

d. Warehousing

Warehousing plays a vital role in the overall logistics process in Vietnam, especially in import-export of goods. The total area of distribution centers and warehouses is about 3,000,000 m² (Vietnam Logistics Report, 2018). More than 70% of the warehouse area is located in the South. Companies providing warehouse services mainly Saigon New Port, Mapletree, Sotrans, Gemadept, Vinafco, DHL, YCH-Protrade, Damco, Transimex, (in Southern region), and Vinafco, Saigon New Port, Mapletree, Draco, IndoTrans, etc. (in Northern region). In which, Saigon Newport with a total area of 675,000 m² of warehouse, including container freight station (CFS) warehouse, bonded warehouse, department store and distribution center, is the largest warehousing service provider in the country.

In addition, demand for cold storage is expected to increase as Vietnam's agricultural, forestry, fishery and food trade sectors grow. There are about 20 cold storage systems professionally managed in the South, 40-50 systems in the North and many small and retail warehouses owned by manufacturing companies. Some other big enterprises also invest in cold storage such as Transimex, Vinafreight (cold storage of 1,500 m2, capacity of 1,800 tons in Ho Chi Minh City), Gemadept (capacity of 50,000 tons of cargo in Hau Giang), etc.

Vietnam warehousing market is expected to register a positive CAGR of 13.4% during the period 2018-2022 and to reach over 8 billion USD by the year ending 2022 (Vietnam Insider, 2018).

e. Customs services

Customs clearance service is one of the basic services of logistics companies. This is not only a tool to help customs authorities improve their capacity management force, improve the self-discipline of enterprises, but also help the goods clear customs quickly, reducing costs for businesses. VLA survey (2019) showed that 87.8% of logistics companies provide customs declaration services. However, customs agency services have not really developed

well and played the desired role. Currently, there are 914 customs agents and 1,450 certified employees in this particular field. Most customs agencies do not work as the name implies. Customs agencies are still not allowed to participate in specialized inspection on behalf of goods owners (import and export enterprises).

f. Consulting services

Customs clearance of import and export goods, especially imported goods, is always a matter of concern to businesses. Moreover, different practices apply in every country. Therefore, any carelessness or misunderstanding in the preparation of documents can lead to other costs, even penalties for violations. To avoid making unnecessary mistakes in preparation, a service called "consulting services" was opened with a team of well-trained international law experts to help businesses avoid unnecessary risks. The companies providing this consulting service will help logistics businesses on how to prepare and prepare documents and documents properly and quickly, helping import and export activities of the business take place. more effectively and economically in both cost and time.

4.2. Factors influence logistics services in import-export activities in Vietnam

4.2.1. Describe the research sample

With 472 questionnaires sent, the authors received 220 replies, after checking and removing the answer sheets with many empty boxes or the answers with a uniform scale, finally remaining 168 valid response tables are used as data in this study.

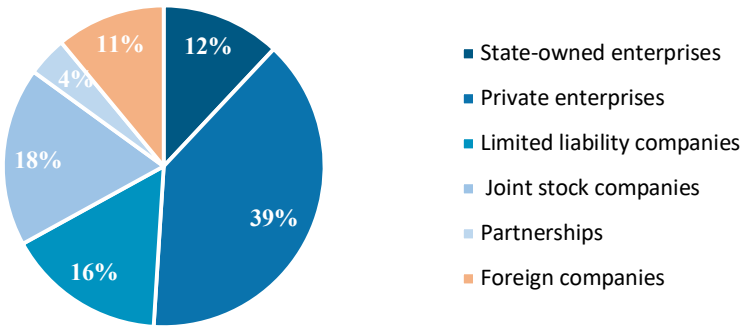


Chart 4.5: ***Percentage of responses by business type of the sample (survey data result)***

Regarding the type of enterprise*:* survey samples recorded feedbacks from 20 state-owned enterprises (12%), 65 responses from private enterprises (39%), 27 responses from limited

liability companies (accounting for 16%), 31 responses from joint stock companies (18%), 7 responses from partnerships (4%) and 18 responses from foreign companies (11%).

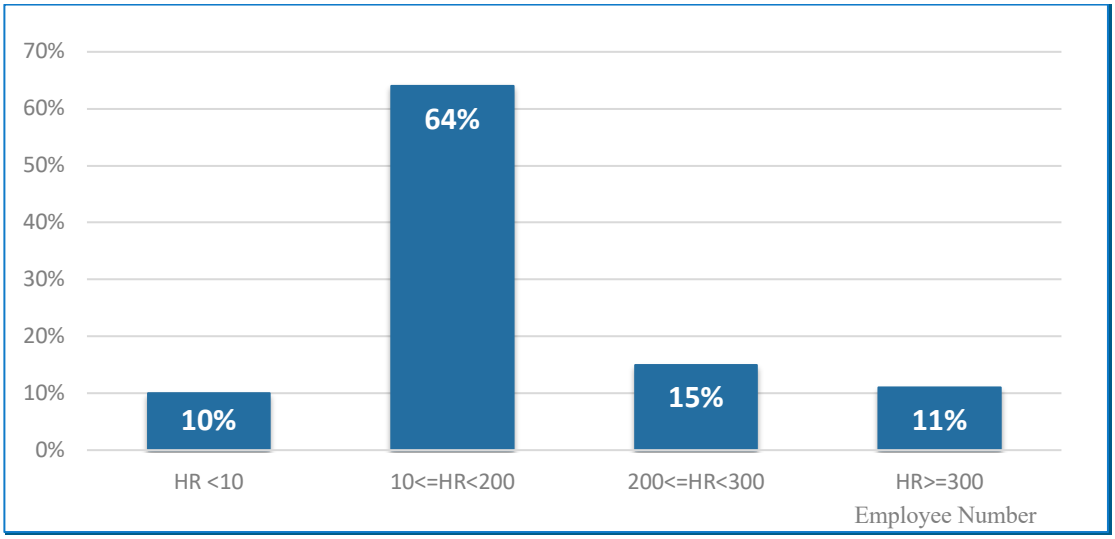


***Figure 4.1*: Information on the size of the company's human resources (survey data result)**

Regarding the size of human resources: According to the research sample, the number of small enterprises with the labor force of less than 10 employees accounts for a low rate (10%), most of the enterprises participating in the survey are labor-scale employees from 10 to less than 200 employees (64%), enterprises with a labor scale of 200-300 and large enterprises with a labor scale of over 300 employees account for only 15% and 11%.

4.2.2. Descriptive analysis

Descriptive Statistics						
	N	Minimum	Maximum	Mean	Std. Deviation	Variance
PL1	168	1	5	4.01	1.032	1.066
PL2	168	1	5	3.95	1.008	1.016
PL3	168	1	5	4.14	.941	.885
PL4	168	1	5	4.10	.992	.985
EC1	168	1	5	3.97	1.006	1.011
EC2	168	1	5	3.93	.917	.840
EC3	168	1	5	3.99	.800	.641
EC4	168	2	5	4.02	.826	.682
AW1	168	1	5	4.09	.881	.776
AW2	168	1	5	4.11	.819	.671
AW3	168	1	5	4.24	.730	.533
AW4	168	1	5	4.12	.818	.668
TE1	168	1	5	4.04	.953	.909

TE2	168	1	5	3.97	.981	.963
TE3	168	1	5	4.12	.927	.860
TE4	168	1	5	3.54	.578	.334
IN1	168	1	5	4.14	.833	.694
IN2	168	1	5	4.07	.926	.857
IN3	168	1	5	4.10	.913	.834
IN4	168	1	5	4.20	.808	.653
IF1	168	1	5	3.77	.995	.990
IF2	168	1	5	4.11	.899	.807
IF3	168	1	5	4.02	.830	.688
IF4	168	1	5	3.83	.848	.719
DE1	168	1	5	3.72	.868	.754
DE2	168	1	5	3.94	.748	.559
DE3	168	1	5	4.13	.856	.733
Valid N (listwise)	168					

***Table 4.3*: Factor descriptive analysis (SPSS results)**

In overall, most of variables have to mean approximately above 3 to 4, which is closed with neutral option.

4.2.3. Assess the reliability of the scale through Cronbach's Alpha coefficient

4.2.3.1. Evaluate the scale of the independent variable

After receiving 168 survey samples, authors analyzed the reliability of the samples through the Cronbach's Alpha coefficient and gave the results as Table 4.4 has shown below.

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Political-legal frame work factor		
Cronbach's alpha = .890		
PL1	0.779	0.851
PL2	0.734	0.868
PL3	0.784	0.85
PL4	0.739	0.866

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Economic factor		
Cronbach's alpha = .775		
EC1	0.681	0.633
EC2	0.759	0.613
EC3	0.709	0.647
EC4	0.195	0.862

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Technological factor		
Cronbach's alpha = .798		
TE1	0.612	0.751
TE2	0.635	0.735
TE3	0.6	0.754
TE4	0.609	0.749

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Industry awareness factor		
Cronbach's alpha = .850		
AW1	0.717	0.799
AW2	0.734	0.79
AW3	0.617	0.842
AW4	0.699	0.807

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Integration factor		
Cronbach's alpha = .818		
IN1	0.666	0.76
IN2	0.655	0.765
IN3	0.551	0.81
IN4	0.695	0.745

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Infrastructure factor		
Cronbach's alpha = .890		
IF1	0.57	0.735
IF2	0.598	0.716
IF3	0.626	0.704
IF4	0.545	0.743

***Table 4.4:* Reliability analysis result of independent variables (SPSS results)**

Among the 24 observed variables, all of observed variables with Cronbach's Alpha coefficient above 0.7. However, in the table of Cronbach's Alpha coefficients in Economic factor, we discovered that the observed variable EC4 only had Corrected Item-Total Correlation coefficient of 0.195 According to the condition that each observed variable when running must produce a Corrected Item-Total Correlation coefficient greater than or equal to 0.3, so the authors decided to remove the EC4 observation variable and run Cronbach's Alpha again and achieve final results as Economic factor's Cronbach alpha equal 0.862 and all the Corrected Item-Total Correlation coefficient from EC1, EC2, EC3 are greater than 0.3. Therefore, variables EC1, EC2, EC3 are eligible to go to the next analytical step.

Finally, after remove one observed variables, there are 23 observed variables left with coefficients above 0.3 in the Corrected Total of Corrected Items, so these 23 variables are valid for conducting an EFA group analysis step.

Factor	Cronbach Alpha analysis (1st time)	Cronbach's Alpha analysis (2nd time)	
	Number of independent variables	Cronbach's Alpha coefficients	Number of independent variables
Political-Legal framework	4	0.890	4
Technological	4	0.798	4
Integration	4	0.818	4
Economic	4	0.862	3 (Remove EC4)
Industry Awareness	4	0.850	4
Infrastructure	4	0.89	4

***Table 4.5:** Reliability analysis final result of independent variables (SPSS results)*

4.2.3.2. Evaluate the scale of the dependent variable

Variables	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Development Cronbach's alpha = .679		
DE1	0.437	0.661
DE2	0.58	0.486
DE3	0.474	0.611

***Table 4.6:** Reliability analysis result of dependent variables (SPSS results)*

For the three dependent variables, all three achieved a Cronbach's Alpha coefficient 0.679 and above 0.3 in Corrected item-total correlation. In a result, these three dependent variables will also be valid to proceed to the next analysis step.

4.2.4. Exploratory factor analysis (EFA)

4.2.4.1. Analysis of exploratory factors for all independent variables

After completing the data reliability assessment of 23 observed variables the research team has collected, authors conducted an EFA discovery factor analysis with these 23 variables to see whether the question posed by authors really represented the element that the group was targeting or would be confused with other factors.

KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy						.849
Bartlett's Test of Sphericity				Sig.		000
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.528	32.731	32.731	7.528	32.731	32.731
2	2.746	11.941	44.672	2.746	11.941	44.672
3	2.003	8.708	53.38	2.003	8.708	53.38
4	1.691	7.351	60.73	1.691	7.351	60.73
5	1.227	5.334	66.064	1.227	5.334	66.064
6	0.916	3.984	70.048			
7	0.786	3.417	73.464			

	Component				
	1	2	3	4	5
PL1		.828			
PL2		.793			
PL3		.845			
PL4		.806			
TE1					.717
TE2					.737
TE3					.786
TE4					.694
IN1	.767				
IN2	.787				
IN3	.651				
IN4	.778				
EC1	.690				
EC2	.756				
EC3	.647				
AW1				.736	
AW2				.807	
AW3				.673	
AW4				.829	
IF1			.723		
IF2			.674		
IF3			.764		
IF4			.667		

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.[a]

a. Rotation converged in 6 iterations.

***Table 4.7:* Results of Exploratory factors analysis for independent factors (SPSS results)**

As can be seen from Table 4.7 above, the observed variables achieving KMO and Sig. coefficients are respectively .849 and 000. This proves that the factor analysis of EFA has provided positive results with 23 variables. In addition, the Cumulative% of Variance show for this groups are 66%, this data model is perfectly suitable to use for the research. This also proves that this model will continue to be studied.

Based on the results of factor analysis EFA, the authors found that the two factors of Integration and Economy have combined to form a new factor. The authors decided to accept this factor and named it Integration - Economy (IE) and go to the next research step.

4.2.4.2. Analysis of exploratory factors for all dependent variables

As can be seen from Table 4.8, the KMO value is 0.638, greater than 0.5 and Sig. Value is .000, smaller than 0.05. The analysis extracts 1 component which has eigenvalues of 1,846 (greater than 1). All three development items define this component with factor loadings of more than 0.5. The cumulative variance is 61.559% which means that this component explains 61.559% of development variance.

KMO and Bartlett's Test						
Kaiser-Meyer-Olkin Measure of Sampling Adequacy					.638	
Bartlett's Test of Sphericity				Sig.	000	
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.847	61.559	61.559	1.847	61.559	61.559
2	.682	22.749	84.308			
3	.471	15.692	100.000			

Component Matrix[a]	
	Component
	1
DE1	.735
DE2	.841
DE3	.774

Table 4.8: Results of exploratory factors analysis for dependent factors (SPSS results)

After analyzing the EFA discovery factor, the current research model will have only 5 factors remaining, respectively: IE, PL, IF, TE, AW.

Therefore, the hypothesis made in chapter 2 will be rewritten as follows:

Hypothesis
H1: Political factor affect the development of the logistics services in import-export activities.
H2: Integration-economic factor affect the development of the logistics services in import-export activities.
H3: Industry awareness factor affect the development of the logistics services in import-export activities.
H4: Technological factor affect the development of the logistics services in import-export activities.
H5: Infrastructure factor affect the development of the logistics services in import-export activities.

Table 4.9: New hypothesis for research model

4.2.5. Multiple linear regression (MLR)

According to Evans (1996), the strength of the Correlation can be described by values of Pearson Correlation ® as following: 0.00 – 0.19 "very weak"; 0.20 – 0.39 "weak"; 0.40 – 0.59 "moderate"; 0.60 – 0.79 "strong"; and 0.80 – 1.0 "very strong". Furthermore, if Sig. value of Pearson's correlation coefficient is less than 5%, it indicates that variables have correlation with each other. The greater r-value is, the stronger linear correlation has. In this test, all independent variables need to be considered to correlate dependent variable.

Correlations							
		PL	TE	AW	IF	IE	DE
PL	Pearson Correlation	1	.412**	.496**	.336**	.258**	.552**
	Sig. (2-tailed)		.000	.000	.000	.001	.000
	N	168	168	168	168	168	168
TE	Pearson Correlation	.412**	1	.337**	.456**	.366**	.642**
	Sig. (2-tailed)	.000		.000	.000	.000	.000
	N	168	168	168	168	168	168
AW	Pearson Correlation	.496**	.337**	1	.422**	.402**	.500**
	Sig. (2-tailed)	.000	.000		.000	.000	.000
	N	168	168	168	168	168	168
IF	Pearson Correlation	.336**	.456**	.422**	1	.359**	.564**
	Sig. (2-tailed)	.000	.000	.000		.000	.000

	N	168	168	168	168	168	168
IE	Pearson Correlation	.258**	.366**	.402**	.359**	1	.470**
	Sig. (2-tailed)	.001	.000	.000	.000		.000
	N	168	168	168	168	168	168
DE	**Pearson Correlation**	**.552****	**.642****	**.500****	**.564****	**.470****	**1**
	Sig. (2-tailed)	**.000**	**.000**	**.000**	**.000**	**.000**	
	N	**168**	**168**	**168**	**168**	**168**	**168**
**. Correlation is significant at the 0.01 level (2-tailed).							

***Table 4.10:* Multiple linear regression results (SPSS results)**

According to the result at Table 4.10, all the independent variables have correlation with dependent variable with Sig. (2-tailed) value of .000 (smaller than 0.05).

Technological (TE) has the strongest correlation with Development (DE) with r equals 0.642 in which as expected and Industry awareness (IE) shows the weakest relationship with r only at 0.47, accepted number for this factor.

4.2.6. Regression analysis result

The study of the above methods is also for authors to clearly determine how the relationship between observed (independent) and dependent variables takes place. Moreover, through the method of linear regression analysis, authors will also test the Hypotheses posed at the beginning of the chapter. The multiple collinearity phenomena among variables is tested by using variance inflation factor (VIF). The regression equation is established as following:

$$\mathbf{DE = D_0 + D_1 * IE + D_2 * PL + D_3 * IF + D_4 * TE + D_5 * AW}$$

In this formula:

D_0: Constant

D_1 to D_5: Regression coefficients (from 1 to 5)

IE, PL, IF, TE, AW are the independent factors (Integration-Economic, Political-legal framework, Infrastructure, Technological, Industry Awareness)

DE: The dependent factors (Development)

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	42.249	5	8.450	50.482	.000[b]
	Residual	27.116	162	.167		
	Total	69.365	167			
a. Dependent Variable: DE						
b. Predictors: (Constant), IE, PL, IF, TE, AW						

Model Summary[b]					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.780[a]	.609	.597	.40912	1.241
a. Predictors: (Constant), IE, PL, IF, TE, AW					
b. Dependent Variable: DE					

***Table 4.11:* Development model summary and result of ANOVA test**

In table model summary, Adjusted R-square value is 0.597 (greater than 50%), which indicates that 59.7% of the variance in development of logistics services can be explained by these predictors (IE, PL, IF, TE, AW). Otherwise, Durbin-Watson statistic shows a value of 1.241 (which ranges from 1 to 2). That means there is no autocorrelation in the sample.

In table ANOVA, sig. of F test is 0.000 less than 0.05. Therefore, the dependent factor can be explained by the variables of five independent factors.

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		Beta	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.100	.254		.396	.693		
	PL	.179	.044	.240	4.035	.000	.684	1.463
	TE	.319	.054	.348	5.864	.000	.685	1.460
	AW	.094	.055	.106	1.717	.088	.635	1.574
	IF	.208	.055	.223	3.788	.000	.693	1.442
	IE	.153	.054	.158	2.807	.004	.762	1.312

***Table 4.12:* Development Coefficients**

According to Table 4.12, the Sig. value of only four independent factors is less than 0.05. That means four elements in the research model have reliability more than 95% and met the requirement. The AW element has a Sig value. 0.88 greater than 0.05 should be excluded and counted as not affecting the DE dependent variable in this session. The VIF score of these factors is lower than 2, so the multiple collinearity does not appear in this case. These Beta values are the regression equation for predicting the dependent variables from the independent variable. From the result of Coefficients, the linear regression equation is:

DE = 0.158*IE+0.240*PL+0.223*IF+0.348*TE

The regression coefficients have positive signs, showing that the factors in the regression model affect proportionally to the development of the logistics services. They are positively related and in the same direction with the development of the logistics services. As a result, all the proposed hypotheses are confirmed. Otherwise, following the standardized coefficients, Technological factor has the strongest influence on service (with Beta = 0.348). Other factors impact on service in the following order: Political-legal framework, Infrastructure and Integration-Economic (with Beta equals 0.240, 0.233, 0.158 respectively).

There are five new hypotheses which are indicated during the EFA analysis of the thesis, and the table below will show the result of hypotheses tested from SPSS result.

Hypothesis	Sig.	Result
H1: Political factor affect the development of the logistics services in import-export activities.	.000	Confirmed
H2: Integration-economic factor affect the development of the logistics services in import-export activities.	.004	Confirmed
H3: Industry awareness factor affect the development of the logistics services in import-export activities.	.088	Removed
H4: Technological factor affect the development of the logistics services in import-export activities.	.000	Confirmed
H5: Infrastructure factor affect the development of the logistics services in import-export activities.	.000	Confirmed

Table 4.13: Hypothesis question result

4.2.7. Findings discussion

After regression analysis, the authors found that all four factors (1) Political-legal framework, (2) Economic - integration, (3) Technological, (4) Infrastructure has varying logistics services in import and export activities. Hence, the authors have focused on

clarifying the advantages and limitations of the four above factors based on survey analysis combining the findings and analysis from the authors.

4.2.7.1. Political - legal framework factor

The influence of the political-legal framework is measured through some main criterias: political stability, legal corridor, customs system, and import-export procedures.

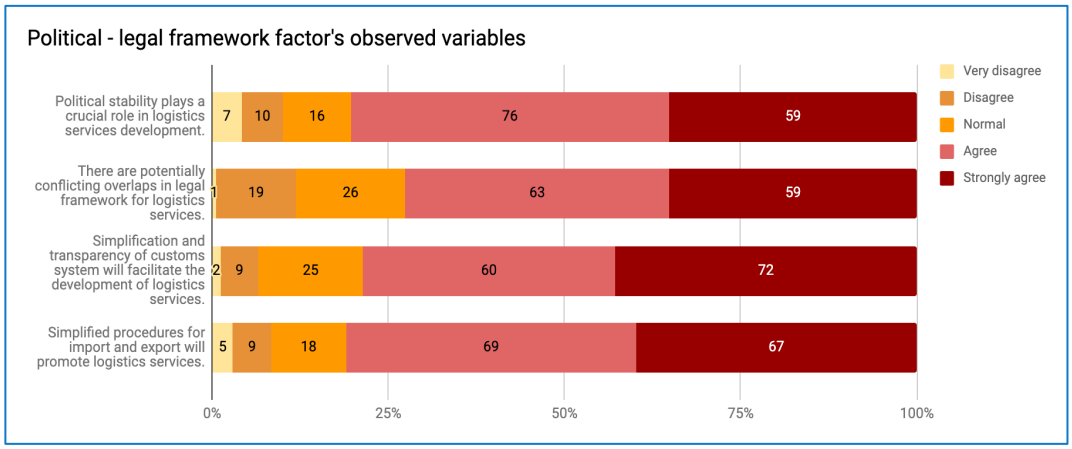


Chart 4.6: Evaluating observed variables of PL factor (survey results)

Results of survey for this factor is shown in the chart 4.6 above.

Political stability

More than 70% of voters agree and strongly agreed that political stability will help develop logistics (Chart 4.6). The above votes seem to indicate the importance of political stability in the logistics services industry. According to Global Finance (2019), Vietnam ranked 83/128 countries on the list of the safest countries in the world with a safety index of 11.15 points. This is quite understandable when Vietnam has a stable politics, rarely violence, territorial disputes, and human security indexes are improving. With the above conditions, logistics services in import and export activities in Vietnam become much easier. The exchange of import and export goods becomes more manageable and more convenient.

Legal corridor

The policies and laws of Vietnam have been significantly revised and improved to improve and promote the development of logistics services. With the system of adjusted documents, the business environment of logistics services has been significantly improved towards:

- Reduced unreasonable business conditions.

- Increased transparency and convenience in related administrative procedures.

- Increased and encouraged investment in developing logistics infrastructure.

For example, completed the policy of internalization of commitments on ASEAN customs transit; Law on Tax Administration 2019. More specifically, the Politburo's Resolution No. 43-NQ/TW of January 24, 2019 aims to build Da Nang into one of the major economic centers of the country and Southeast Asia as a start-up center, innovation, tourism, commerce, finance, logistics, high-tech industry. Meanwhile, the Politburo's Resolution No. 45-NQ/TW of January 24, 2019, aims to develop Hai Phong into an industrial city, creating a driving force for the development of the Northern region and developed transport structure to connect with the region, is the key of logistics services, training, research, marine economy. Supplement and amend institutions to create a legal corridor for the logistics development. These policy amendments have contributed to improving the legal framework, supporting logistics activities in Vietnam.

Convenient policies in import-export and transparent customs system

According to the results of the survey, up to 75% of respondents agreed and strongly agreed that simplifying import and export procedures (Chart 4.6) will facilitate the development of logistics services. According to the General Department of Vietnam Customs (2019), administrative procedures have been reformed, standardized, and simplified in the field of import and export to conform to international standards in the WTO agreement. The process of implementing standard customs procedures has been significantly improved. For example, improved the efficiency of state management of import and export goods, strengthened coordination between central and local levels on trade facilitation policies for import and export goods. Not only that, but the State can also manage risks at the customs and specialized inspection agencies. In addition, simplifying customs procedures in accordance with the standards of the WTO agreement helps Vietnam's logistics to achieve development goals, while reducing trade time and costs.

Indeed, in recent years Vietnam's customs system has been interested in the government and issued policies to amend and improve. For example, the regulations on "Customs do not collect taxes, fees and charges in cash" (General Department of Customs, 2019). This provision has helped to make customs operations transparent and also prevents negative actions in the course of duty performance by customs officials and employees.

In addition, with the policy of shortening customs clearance time and reducing tax payment time for businesses, the customs office has built an electronic payment portal to help

businesses pay electronic taxes. As a result, the import-export tax of the customs sector electronically reaches about 92% of the total budget revenue.

Limitations in the political-legal framework factor affecting the logistics services

In addition to the above-mentioned improvement policies, Vietnam's politics and laws still have some limitations.

To begin with, the political situation of the world has many instabilities, especially when the conflict between the United States and Iran has affected big issues such as the rise in oil prices. Also, the US-China trade war will continue to directly affect the import and export situation. Specifically, limited Chinese goods exported to the US lead to redundancy and can be poured into the Vietnamese market, causing competitive pressure on Vietnamese enterprises. On the other hand, exporting goods from Vietnam to China will be more difficult, because China has to focus on consuming domestic goods. The negative impact of the trade war on the Vietnamese economy will be even greater if the US imposes tariffs on all products imported from China.

Moreover, the legal corridor for logistics services is still overlapping and unclear. More than 65% of respondents agreed and strongly agreed with this statement of the survey (Chart 4.6). According to the Journal of Industry and Trade (2019), the legal system regulating logistics activities is not synchronized. Currently, there is no clear regulation on responsibilities and management limits between State agencies in managing logistics operations, especially between the Ministry of Industry and Trade and the Ministry of Transport. Thereby, the management and operation of logistics services still face many difficulties. Consequently, the reported data is not clear and transparent. There is no consensus and unification among agencies, then making statistics and evaluation of logistics development extremely difficult.

Besides, the regulations on decentralizing the management of logistics operations have caused overlapping in management competence and costly for enterprises when faced with many administrative procedures to apply for permission for business operations of the company. An example of licensing the multimodal transport business - an important activity of logistics services, there are currently more than 3 regulatory documents, related to many different agencies such as the Ministry of Transport, Ministry of Industry and Trade, Ministry of Post and Telecommunications, and the provincial People's Committee. Thus, just one transport activity through electronic means in the chain of logistics services activities has up to three state agencies with specialized management authority. It means that

in order to carry out this activity, businesses had to go through a lot of administrative procedures, paid a lot of different fees, spent much time and money to be able to apply for a license.

4.2.7.2. Economic-integration factor

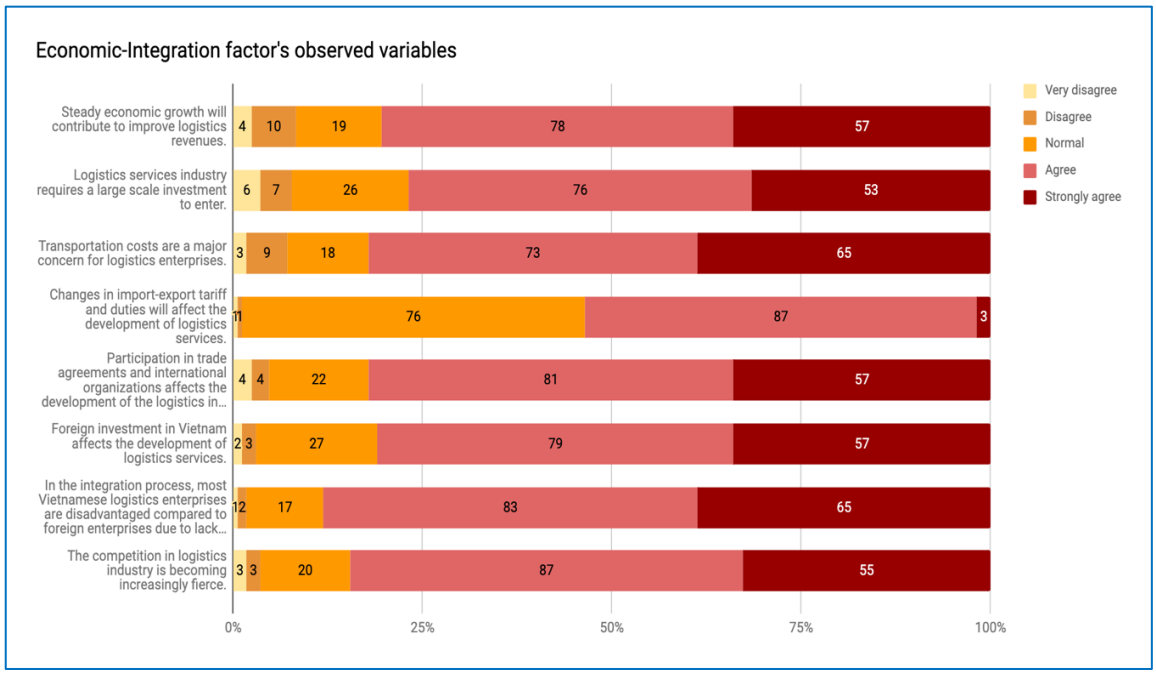


***Chart 4.7:* Evaluating observed variables of IE factor (survey results)**

After regression analysis, the economic - integration factor (IE) has the weakest influence on the development of logistics services in import and export activities. Details of observed variables of this factor are described in the charts above.

The considerable growth of Vietnam's economy

Obviously, Vietnam's economic stability contributes to the improvement of logistics services revenue. This judgment has collected more than 80% of the votes agreed and very agree from experts (Chart 4.7). According to a report by the Ministry of Industry and Trade (2019), Vietnam is one of the countries with the highest growth rates in the region with real GDP increasing by 7.02% in 2019. Because of the high demand for imports and exports, logistics businesses have had the opportunity to play their roles and capabilities. Specifically, the total import and export turnover of goods in 2019 exceeded 500 billion USD (Vietnam Logistics Report, 2019). This is a remarkable figure in the last year of the logistics industry. It has boosted the demand for logistics services such as multimodal international shipping, container transport, trucking domestic transport, system of warehouses, yards and bonded warehouses, customs clearance, etc.

Reduction in import-export tariff in integration progress with other countries

According to the statistics of the WTO (2020), up to Aug 2020, Vietnam has signed and is negotiating 17 FTAs. In which 10 agreements have entered into force, 3 agreements have been signed but have not come into effect, 4 are under negotiation. These include FTAs between Vietnam and some large economies in the world, for example, the Vietnam-Japan Economic Partnership Agreement (VJEPA), Vietnam-Korea Free Trade Agreement (VKFTA), the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Vietnam-EU Free Trade Agreement (EVFTA). In general, these FTAs have created more favorable conditions for goods import and export between Vietnam and partner countries thanks to tariff preferences, helping to promote export growth, increase trade surplus as well as change the export structure. For example, in the CPTPP agreement (2018), Vietnam committed to eliminating nearly 100% of tariff lines as soon as the agreement came into effect; and in the EVFTA agreement (2019), Vietnam and the EU have eliminated import duties on about 99% of tariff lines over 10 years.

In terms of the export turnover, the EVFTA agreement is expected to help Vietnam's exports to the EU increase by about 42.7% in 2025 and 44.37% in 2030. It was expected to increase the rate of exports to the EU of some industries (from 2020 to 2025) such as air transport (141%); water transport (100%); footwear (99%); textile (67%); rice (65%), etc.

In terms of the import turnover, the EVFTA agreement is expected to increase Vietnam's import turnover from the EU by about 33.06% in 2025 and 36.7% in 2030. In addition, commitments to eliminate taxes Vietnam's concern for means of transport, machinery, equipment, and technology for logistics activities from the EU is an opportunity for logistics enterprises to buy production products at reasonable prices. Therefore, EVFTA is also expected to help logistics businesses save operating costs, improve technology capacity. In short, the development in import-export acvities will create more opportunities to enhance our country logistics services.

Limitations in the economic-integration factor affecting the logistics services

Scale of capital of logistics services businesses

In the logistics services business, capital size is an advantage that enterprises need to create significantly big enough to implement development strategies. To participate in the field of providing logistics services, businesses need to have a large capital scale, more than 130 experts agreed and strongly agreed with this view. However, currently in Vietnam, logistics

enterprises are mainly small-scale capital, up to 90% of enterprises when registered with capital of less than 10 billion VND, only 0.6% of businesses have capital over 500 billion VND (VLR, 2019).

The competition from foreign competitors increased

The implementation of the commitment to open markets also created significant challenges for Vietnamese logistics enterprises, especially small and medium enterprises whose experiences are weak and the ability to take advantage of opportunities from FTA preferences is limited.

Indeed, in opening the logistics market with other countries in FTAs or WTO, Vietnam has tried to create certain conditions for the development the countrywitlogistics industry. For all Vietnamese businesses, this opening increases the number of competitors with strong potential in capital, technology and management skills, making competition fierce and difficult.

According to the Ministry of Planning and Investment (2019), after joining the WTO (2007), foreign enterprises penetrate the Vietnamese market through popular forms such as mergers and acquisitions (M&A), joint ventures, and association with Vietnamese companies. Joint venture activities were popular with foreign partners coming mainly from Asian companies such as Japan, Korea, and China. Then, FDI by the end of 2018 reached nearly 20 billion USD, accounted for nearly 20% of GDP value and held 70-80% market share of the industry.

The reason that Vietnam's logistics services providers are weak is that the form of small and retail service provision. While foreign businesses in Vietnam provide integrated logistics services packages, that are not only transporting goods but also many other value-added services such as customs clearance, storage, packaging, product distribution, etc. This is the reason why foreign businesses in Vietnam stand out so much.

Secondly, opening the logistics services market of Vietnam in FTAs also brings many challenges to Vietnam's logistics services industry. For instance, competition from rivals from the EU may be more intense. The EU is very strong in logistics, with multinational companies, large modern fleets, accounting for a significant market share in the world logistics market. In the logistics competency index (WB, 2018) (Table 4.14), EU countries account for the majority of the top positions (Germany, Sweden, Belgium, Netherlands).

Country	Year	LPI Rank	LPI Score
Germany	2018	1	4.20
Sweden	2018	2	4.05
Belgium	2018	3	4.04
Netherlands	2018	6	4.02

Table 4.14: Ranking of Logistics Performance Index - LPI 2018 (WB, 2018)

After EVFTA, with the commitment to open up stronger, the competition from these businesses with Vietnamese enterprises will be even greater. Since then, Vietnam's small and medium logistics enterprises have difficulty competing with other foreign enterprises.

Transport costs

Although the transport industry has made efforts to reduce transportation costs by technological solutions such as container transportation of goods, new construction of large-capacity vehicles and equipment, multi-modal transportation organization, etc, transportation costs are constantly increasing due to rising fuel prices. In fact, logistics costs in Vietnam are high (WB, 2018) and uneven among regions, mainly due to tariffs, tolls, transport costs, storage fees. Specifically, it is much higher than China (18%), Japan (11%) and Singapore (8%) (chart 4.8).

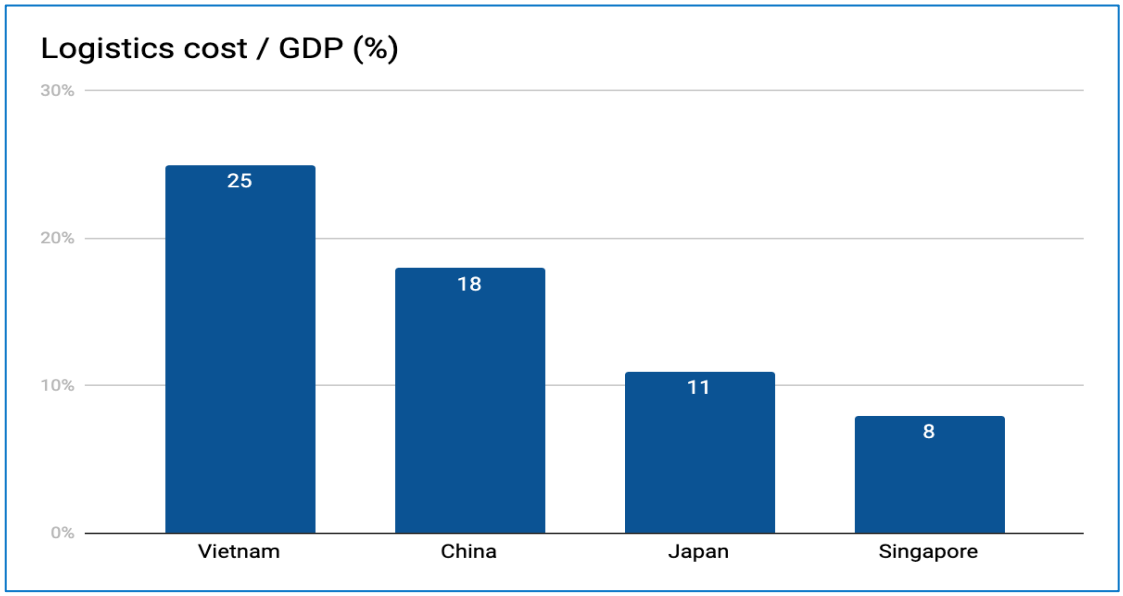


Chart 4.8: Logistics cost as the percentage of GDP (WB, 2018)

Therefore, this makes logistics services enterprises have difficulty in transporting and trading goods. Some businesses lost the opportunity to cooperate with potential partners.

Hence, the alarming numbers in 2019 were that export growth decreased from 21% to 8% from 2017. Only increased by 3.6% in the first 11 months of 2019.

Unstable development of the global economy due to external impacts

The unstable development of the global economy due to external effects Coronavirus (Covid-19) is one of the most influential external influences on the unstable development of the global economy in general and Vietnam in particular.

For the global economy, according to the latest report of the Asian Development Bank (ADB) (2020), the world economy has lost about 5.8-8.8 trillion USD, equivalent to 6.4-9.7% of global GDP due to the influence of COVID 19. In addition, the COVID 19 pandemic has upset the global supply chain, including logistics activities. The reason is that there are many factories shutting down so the amount of goods to be transported is less, leading to the decrease in transportation and delivery of goods, which greatly affects the enterprises providing logistics services. Moreover, the situation of goods import and export among countries in the world over the past time has also decreased significantly due to the COVID 19 epidemic, leading to a decrease in revenue for logistics enterprises.

For enterprises providing logistics services in Vietnam, the revenue of enterprises in this industry decreased by 10% - 30% on average over the same period in 2019 (VLA, 2020). According to a survey by VLA (2020), logistics activities such as transport decrease due to hindered clearance services, warehouse services, and freight rates are also severely affected. Some other problems arise such as some Chinese customers having financial difficulties, leading to the delay in payment to logistics enterprises.

For shipping, the main routes are from China, Korea, Japan, shipping lines such as ONE, HMM and some other shipping lines all reduce ships connecting all routes, affecting shipment schedules. and service quality. Most of the goods imported on routes back to Vietnam fell sharply, some other markets were strictly quarantined. The operating procedures from the Asian market and some other regions are later than usual.

As for the airlines, the current airlines are canceling flights to China, Korea, Hong Kong, and the CZ-DLC cut routes, SNG-HKG, minimized flights from the epidemic area. In addition, freight rates increased higher than normal. Meanwhile, the border routes are difficult to find shipping suppliers. The drop in cargo volume resulted in a 30% decrease in the demand for road transport.

4.2.7.3. Technological factor

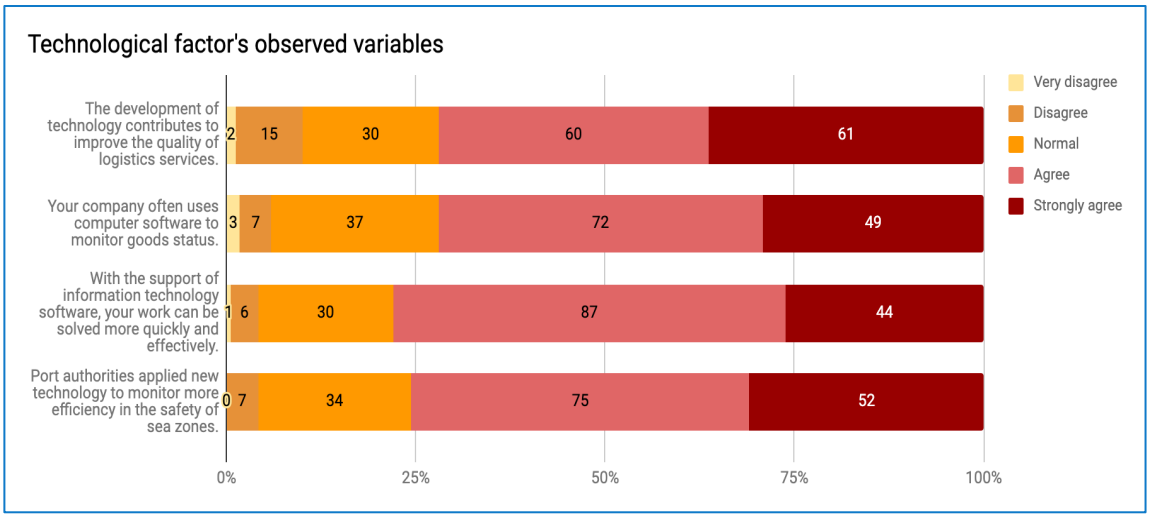


***Chart 4.9:* Evaluating observed variables of TE factor (survey results)**

After regression analysis, the technological factor (TE) has the strongest influence on the development of logistics services in import and export activities. That is quite easy to understand because with modern technologies such as artificial intelligence, robotics, internet of things, nanotechnology are developing strongly. Timely grasping the achievements of the industrial revolution 4.0 can be considered as the key to create a breakthrough development step for our economy in the coming time, simultaneously, implementing a successful industrialization process.

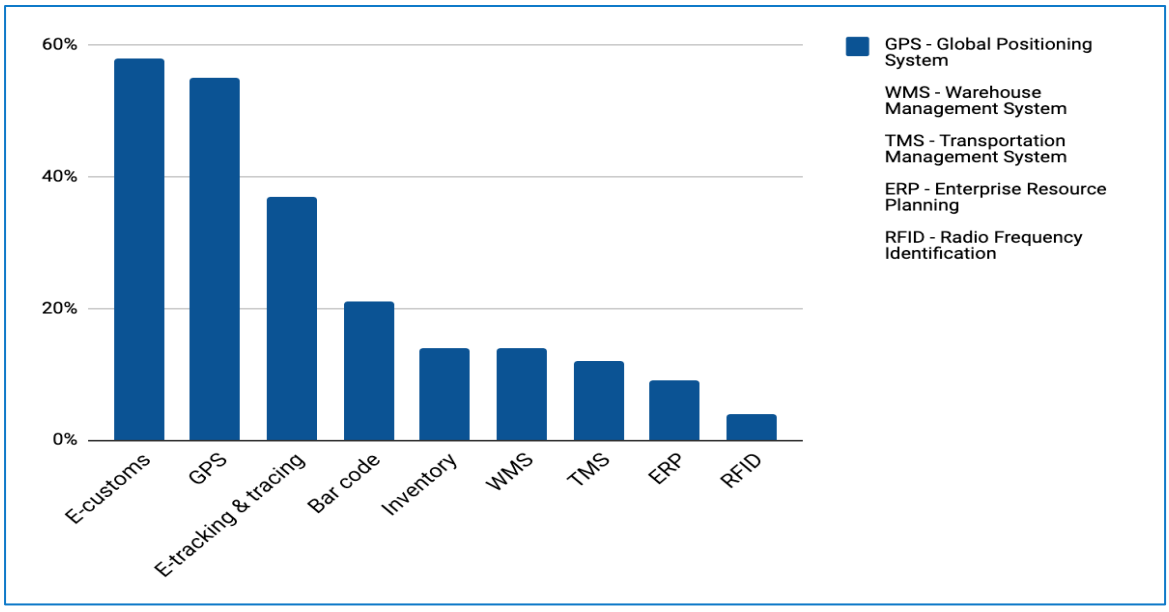
With the constant change of the 4.0 technology revolution, logistics companies around the world are rapidly improving technologies to catch up with this trend and improving profit margins, through the equipping of automatic and modern tools such as robot helps save energy, unskilled labor costs; Automated guided vehicles (AGVs) to fulfill orders, add goods to the warehouse itself; equipment for tracking, locating, navigating and observing with devices using WiFi, Bluetooth; the application provides routing and direction, facilitating the navigation through online tracking of vehicles; application of daily labor control in logistics; Integrating service contracts, order management, etc.

Similarly, according to the Vietnam logistics report (2019), industry revolution 4.0 and new advances in information technology will create new opportunities and challenges for Vietnam's logistics industry. The application of new technology will help logistics businesses to cut costs, optimize the process of goods handling, thereby improving their competitiveness in the international arena. Specifically, 88% of businesses have IT staff,

14% of businesses responded that there were more than 100 experts. In addition, 57% of logistics companies responded that they are using data experts (VLA, 2020).

Some IT solutions are considered to be invested by businesses such as technology systems to support customers to track the process of transporting goods (E-tracking & tracing), a comprehensive system connecting IT to deployment management, container handling, online payment support solutions, electronic invoices, etc. In enterprises, the role of the IT department for customers has also increased. The capacity of logistics enterprises in bringing technology to customers or in connecting technology with customers is increasing significantly.

According to the statistics of Chart 4.10 below, there are 58% of enterprises applying e-customs. This is a technology that can allow businesses to exchange information with authorities across the border without paperwork. Digitizing bills of lading also helps generate big data, so companies can harness this data to grow their businesses. In addition, the use of digitally signed electronic delivery orders in all transactions will save costs and time and eliminate the risk of carrying cash. Besides, up to 55% of enterprises use GPS to control the location of transport vehicles, as well as track the location of goods to facilitate customer notification.



<u>Chart 4.10</u>: Rate of logistics enterprises applying technology and information technology in business activities (VLA, 2018)

In addition, many new generation logistics centers have been established and applied technology in logistics activities (VLR, 2019). To illustrate, Thang Long Logistics Center (Hung Yen) inaugurated in October 2018; Complex distribution center (Ho Chi Minh City)

inaugurated in March 2019; Phu My 3 Logistics Center (Vung Tau) inaugurated in June 2019; etc. These are modern logistics centers, integrated multi functionally with a total area of at least 2 hectares including the system of general warehouses, frozen and cool warehouses, 8-story shelf system, humidity control system, 24/7 camera system, and modern management software. Besides, the warehouse system meets ISO (International Organization for Standardization), HACCP (Hazard Analysis and Critical Control Point System), C-TPAT (Customs-Trade Partnership Against Terrorism), and other standards as prescribed. In addition, the centers can distribute and store fast-moving consumer goods (FMCG), fresh food products, raw materials, etc.

Moreover, the application of the Internet of things (IoT) is also a big step to help connect people and machines together, creating faster and more optimal logistics processes for collecting and analyzing data. Hence, it can be seen that keeping up with technology trends to keep up with the global industry is essential.

Also, the technology investment budget of logistics enterprises continues to increase overall. The fundamental factor driving increased technology investment is to make a difference for businesses. The second biggest factor is to take advantage of new technology. This is consistent with the mindset of many technology-driven logistics businesses and is beginning to penetrate the industry. This is also closely related to technological thinking across the industry as a differentiating factor because companies will have to decide to invest or not invest in new technologies to create a competitive advantage.

Limitations in technological factor affecting the logistics services

However in fact in Vietnam, the number of logistics enterprises that understand and keep up with this new technology is very limited. According to a survey of experts from the University of Transport of Ho Chi Minh City (2019), logistics companies in Vietnam only focus on one application book that has been popular in the world such as e-commerce, forwarding management system, transportation management system, global positioning system, order management software, and customer relationship management system.

Meanwhile, the application of modern IT in companies is very limited such as warehouse management software, radio identification technology - RFID, cloud logistics system. This fact also stems from the reason that most of Vietnam's logistics companies mainly provide logistics services at a simple level such as forwarding and transportation. So, the application of old technology made the logistics industry have not the opportunity to develop to catch

up with the world such as difficulty in tracking goods, managing, handling tax documents, and more.

The reasons for these limitations are the investment cost in information technology is still too large, so enterprises can invest synchronously. For example, FMS international freight management software costs about 100.000 USD, but Vietnamese logistics businesses are too afraid of risks and cannot solve the economic problem leading to an applicable situation. As a result, the application of information technology in daily work is still at a low level, just stopping at basic tasks such as electronic customs, car navigation technology, email, and the internet, etc.

In conclusion, we can see whether the logistics services industry can grow or not, greatly depending on the advancement in the application of technology to everyday tasks. The above analysis of advantages and limitations highlighted the impact of technological factors on the development of logistics services.

4.2.7.4. Infrastructure factor

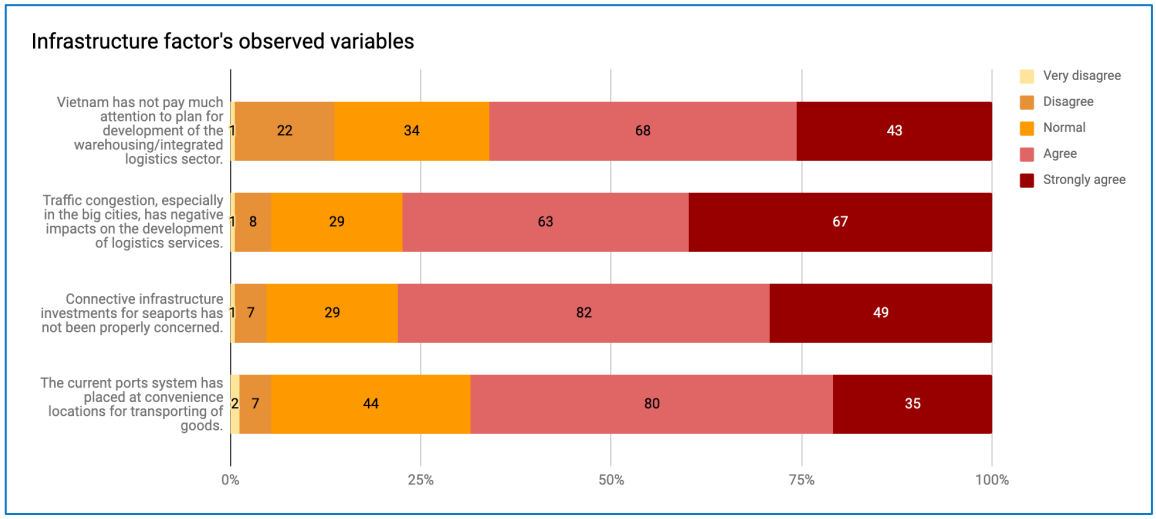


Chart 4.11: Evaluating observed variables of IF factor (survey results)

Infrastructure improvement of modes of transport

In general, the infrastructure of sea, airway, road, and railway routes in recent years has all had positive changes and brought considerable convenience for the development of logistics services in our country.

To begin with, the sea infrastructure system has been significantly improved. According to statistics of the Vietnam Maritime Administration (2019), the country has 281 ports with a total capacity of over 550 million tons/year. It can be said that the seaport system has been synchronized synchronously in infrastructure: Wharves, mooring buoys, cargo handling

equipment, basic development complete, fully functional, scale, and distribution across regions. In recent years, goods from Vietnam to be transported directly to Europe and the Americas, thereby reducing transport costs and improving Vietnam's logistics services. For example, Cai Mep - Thi Vai port receives ships of up to 194,000 DWT weekly operation, directly connecting Vietnam's import and export orders with partner businesses in other countries in Northern Europe.

According to a report of the Vietnam Maritime Administration (2019), Vietnam's fleet has 1,568 ships with a total tonnage of about 7.8 million tons, ranking fourth in ASEAN (after Singapore, Indonesia, Malaysia) and 30th In the world. The average age of the Vietnamese fleet is 15.6 years old, 5.2 years younger than the world (20.8 years old). The structure of the Vietnamese fleet has also been developed towards specialization. In particular, Vietnam's container fleet has grown quite well from 19 ships in 2013 to 39 ships in 2019.

Furthermore, most seaports have taken full advantage of natural conditions, met the requirements of transporting goods by sea, creating a driving force to attract and promote related economic and industrial development. With the development in this field, the Vietnamese government plans to make Vietnam a powerful maritime country by 2030, which aims to increase the maritime sector contribution to GDP to 10%.

In addition, the airway system is equally improved. According to VLR (2019), Vietnam ranked seventh among the fastest-growing markets in the world in terms of international air import and export (according to the International Air Transport Association - IATA), international freight transport accounts for 6.6%. Vietnam's international air transport still achieved an impressive growth of 11% in 2019.

Next, the road infrastructure system has certain highlights such as the quality of roads that have been newly built, repaired, and regularly maintained. There are some road traffic infrastructure statistics by road type and road surface structure in Table 4.15 below.

It is clear that the national highway frames where container trucks mainly run are paved with relatively smooth asphalt and concrete. The number of sections of national highways paved with concrete is over 15,000 km. In addition, the roads in districts and communes have been increasingly repaired. We can see that the length of the district roads is asphalted up to 25,000 km, showing that the quality of infrastructure in the roads is gradually improving significantly (Table 4.15).

Type of road	Total length (Km)	Classification according to road surface structure (Km)			
		Asphalt concrete	Asphalted	Precarious, lots of stones	Soil
Highway	24,866	15,573	7,332	176	128
Provincial road	28,143	8,285	14,958	1,237	714
District road	57,033	6,698	24,921	6,324	7,652
Commune road	159,102	3,741	19,175	21,688	47,607
Urban road	27,688	12,220	5,372	1,639	2,011
Specialized road	8,045	2,414	905	2,361	974

Table 4.15: ***Road transport infrastructure (Vietnam Road Administration, 2019)***

Finally, as of 2019, the North to South railway network has a total length of 3,143 km and has 297 stations. The distribution of the railway network is divided according to the length of the country from the North to the South, from the West to the East and there are dozens of specialized railway lines serving the local socio-economic development.

Limitations in the infrastructure factor affecting the logistics services

Currently, there are still some limitations in terms of infrastructure factor. The commercial infrastructure, transportation infrastructure as well as information technology infrastructure are still weak and inconsistent, leading to many diversities in multimodal transport services. The construction of logistics depot sources in 3 regions together includes the system of warehouses, wharves, and crossroads has just begun to be implemented and incomplete.

Also, most of Vietnam's ports are limited, they are often small-scale with outdated, un-maintained loading and unloading equipment. So the mechanization rate is still low. Besides, the current trend is containerized. The container fleet of Vietnam is mostly small vessels, mainly domestic and feeder operations in Southeast Asia. Besides, Vietnamese enterprises do not have enough financial resources to upgrade the fleet, it is difficult to borrow capital from commercial banks due to high-interest rates, so it is difficult to compete with large and modern fleets in the world (Ministry of Transport, 2019).

Regarding aviation infrastructure, many airports in Vietnam are overloaded and operating at full capacity. According to the Ministry of Transport (2018), another important issue related to aviation infrastructure was the runway and taxiways at Tan Son Nhat and Noi Bai airports, which have deteriorated after years of not being protected. Specifically, at Noi Bai International Airport, the surface of the 1A runway appeared when the aircraft wheel phenomenon was concentrated within 600m, each 1m wide. The total subsidence area of the runway was 1,200m2 over the total area of 144,000m2. In addition, the center of this runway in the section near the S5 road has cracked in the style of crow's feet with 1mm fissure, 30-50cm long.

Regarding roads, traffic jams often occur on major roads without specific solutions, and the state regulations on handling traffic jams have not been fully implemented. The road system is still poor, many places are unstable, difficult to go, and take a long time to move. In addition, the unstable and difficult road system can cause unfortunate accidents.

In addition, railway infrastructure is outdated and weak compared to other countries. The system of warehouses and yards on railway lines is small in scale which is unable to meet the requirements of freight transport. The total number of buildings that are out of date or unsafe in use is 220 (45,124 m2). Regarding warehouse, there are currently about 38,533.94 m2 of the warehouse were mainly invested from many years ago, most of which are general warehouses have been degraded, there is no warehouse to meet the standards for storing and preserving fresh items, high-value goods.

In summary, the above limitations of infrastructure factors have a negative impact on the development of logistics services. Specifically, the low and poor quality of infrastructure has led businesses to provide logistics services with the reduced service quality compared to competitors in other countries. Then, reducing the quality of services led to the failure to attract investors, potential partners, thereby affecting revenue and image of the business.

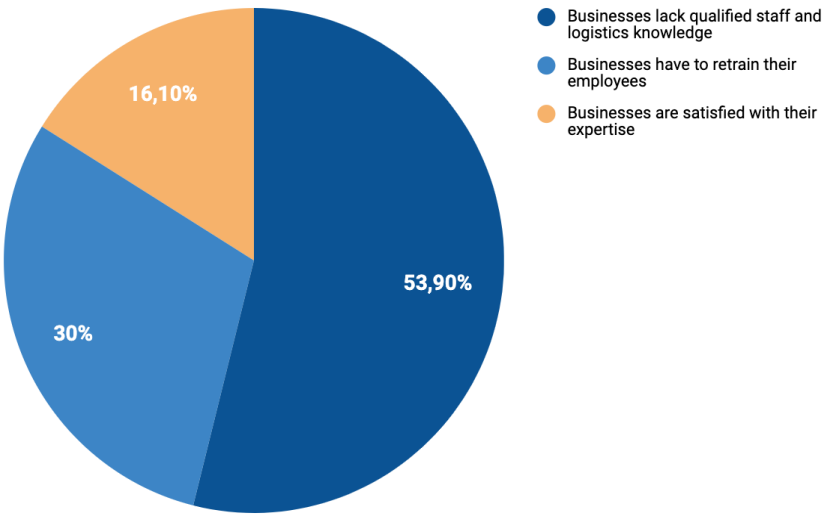
4.2.7.5. Industry awareness factor

According to the results when the authors analyzed linear regression, the industry awareness factor (AW) showed that it did not affect the development of the logistics services in import-export activities. From a practical perspective, the fact that the AW factor was dropped is understandable because of some limitations below.

According to the VLR (2019), the training of human resource training on specialized skills and knowledge has not left many achievements. There were not too many outstanding

changes that affected the development of the industry. In addition, the basic training of employees was generally to meet the needs of developing common types of services. However, to advance to a higher level and create a stronger development impact, the training has not been implemented. Employees hardly have the necessary training certificates to improve their competencies.

For example, there are now certificates in the world that provide logistics services staff at high levels, such as logistics specialists from the Asian Research Institute; FIATA Diploma in International Freight Management; etc. Very few employees at businesses can own the above certificates. As a result, the process of self-training was not methodical and professional; this has not promoted a close connection with training institutions to select high-quality logistics human resources or order training at the request of businesses.



<u>Chart 4.12</u>: Surveying the quality of logistics human resources in Vietnam (Ho Chi Minh City Research and Development Institute, 2019)

Based on Chart 4.12 above, up to 53,9% of businesses lack qualified staff and logistics knowledge; 30% of businesses have to retrain their employees and only 16,1% of businesses are satisfied with their expertise.

In summary, the implementation of specialized training for logistics services staff has not been conducted properly, the training has not changed much and there have not been many significant achievements. Therefore, it did not make a clear impact on the logistics services industry. That is also the reason why the industry awareness factor (AW) was eliminated.

4.3. Conclusion

In Chapter 4, the authors outlined the state of Vietnam's logistics industry in 2014 up to now by combining both qualitative and quantitative research methods.

Especially, by using SPSS software to analyze the data collected from the survey, the authors tested the hypotheses mentioned in Chapter 2 and came to a conclusion about the observed variables affecting the final dependent variable. We conducted a quantitative analysis to assess the influence of 6 factors affecting the development of logistics services in import and export in Vietnam. The results show that technological factors (TE) are considered the most influential factor for development. It is followed by the political-legal framework factor (PL) and infrastructure factor (IF) with a relatively strong influence. The Integration-economic factor (IE) has the weakest impact on the development compared with the three above factors. Finally, by using the qualitative method the authors have pointed out the detailed degree of completeness of the influencing factors, remaining limitations, and their causes.

CHAPTER 5: RECOMMENDATIONS AND CONCLUSION

5.1. Summary of findings – answer the research questions

Question 1: What is logistics in general, and logistics services for import and export activities in particular?

The definition of logistics is still a heated and divisive topic among academia and there are many concepts of logistics definition around the world that have been spelled out by many authors under their different perspectives. But simply, logistics is concerned as the process of planning, implementing, and controlling the flow and storage of materials from the point of origin to the point of consumption. The process is related to optimizing the location and storage including transportation of resources – inputs and outputs from suppliers, manufacturers, distributors and end-consumers through a series of economic activities.

In import and export activities, logistics services can be construed as a commercial activity whereby traders organize one or more jobs including forwarding, transportation, warehousing, storage, customs, clearance, other paperwork, customer advice, packaging, marketing, delivery or other related services regarding goods as agreed with customers for remuneration.

Question 2: What is the situation of the logistics services for import-export activities in Vietnam from 2014 to 2020?

In recent years, Vietnam's logistics market has witnessed a thriving in logistics industry in order to meet the increasing demand of goods circulation in import and export activities. According to the official statistics, Vietnam has about 4,000 enterprises operating in logistics services, in which domestic enterprises have taken over the majority and mainly are small-scale business. Meanwhile, foreign businesses occupy the minority but they are the largest-scale businesses in the country such as DHL, Nippon Express, Yusen Logistics, etc. It is worth noting that Vietnam’s industry has been maintaining a sustainable development. By the end of 2014, Vietnam’s logistics industry recorded 60 billion USD in total value-worth. In 5 years later, Vietnam’s logistics industry growth rate has reached about 15% and the market was forecasted to have many potential opportunities to grow further. In early 2020, due to the fact that the COVID-19 pandemic hit the world economy and Vietnam is not an exception, the country’s logistics industry has been suffering heavily from the global freezing economy. As a result, up to 15% of businesses have a 50% reduction in revenue,

more than 50% of businesses reduced the number of domestic logistics services and the market witnessed a downward from 10%-30% of the number of international logistics services compared to the same period in 2019.

Question 3: Which factors affect the development of the logistics services for import-export activities in Vietnam during the past years? How do these factors impact the development of this industry?

According to the analyzed data of Chapter Four, there are four factors that influence the development of the logistics services for import-export activities in Vietnam during the past years.

Technological	:Beta Standard Coefficient = 0.348; Sig. = .000
Political-framework	:Beta Standard Coefficient = 0.240; Sig. = .000
Infrastructure	:Beta Standard Coefficient = 0.223; Sig. = .000
Economic-integration	:Beta Standard Coefficient = 0.158; Sig. = .004

The results show that technological factor (TE) are considered the most influential factor for the development. It is followed by the political-legal framework factor (PL) and infrastructure factor (IF) with a relatively strong influence. The Integration-economic factor (IE) has the weakest impact on the development compared with the three above factors.

In terms of qualitative analysis, the study has analyzed and evaluated the extent in which the above factors have impacted on the development of logistics services in Vietnam's import and export activity. In summary, Vietnamese government has made many improvements in the promulgation of mechanisms, policies, development of infrastructure and actively taken advantage of opportunities from international economic integration and application of technology into logistics operations. However, some aspects are still limited, such as the increasing competition from foreign competitors, the high transport costs, the limited access to advanced technologies of Vietnam’s enterprises, the weaknesses and inconsistency of infrastructure, and the lack of qualified human resources, etc.

Question 4: What are the most suitable recommendations for Vietnam to improve the development of logistics services for import-export activities?

The details of these recommendations will be proposed specifically in the below section 5.3.

5.2. The Government's orientation in developing logistics services in Vietnam in the period 2020-2025

The Vietnamese Government considers that logistics is a pivotal service sector in the overall structure of the national economy. It plays a crucial role in supporting, connecting and promoting socio-economic development of the country as well as each locality. In addition, developing logistics services as a service industry brings high added value, linking logistics services with development of commodity production, import - export, domestic trade, development of transportation infrastructure and technology information. With the aim of making Vietnam a pivotal logistics hub in the region, the Vietnamese Government has issued the Decision No.200-QĐ/TTg of February 14, 2017, approval for the action plan for improvement of competitiveness and development of Vietnam's logistics services by 2025. There are six main following goals:

Firstly, by the end of 2025, the proportion of logistics services sector's contribution to GDP will reach 8%-10%; the service growth rate will reach 15%-20%; the proportion of outsourcing logistics services will reach 50%-60%; and logistics costs will reduce equivalent to 16%-20% of GDP; ranked by the national logistics capacity index (LPI) in the world at 50th or higher.

Secondly, the government focuses on attracting investment in logistics infrastructure development, building logistics centers at regional and international levels, improving the efficiency of the connection between Vietnam and other countries.

Thirdly, the government focuses on forming leading logistics services enterprises that are capable of competitiveness in domestic and international markets, while supporting the development of logistics services enterprises operated by modern and professional motto.

Fourthly, the government focuses on building enterprises capable of managing the supply chain, shortening goods circulation time, saving raw materials and production costs.

Fifthly, the government focuses on promoting the application of new technologies in logistics and training professional human resources that contribute to facilitating the commercial development, and restructuring production and trade activities of enterprises.

Last but not least, completion of the State management mechanism must be implemented, including policies to support the development of logistics services, the laws governing the

industry, and the management apparatus commensurate with the development of logistics in the process of international economic integration.

5.3. Recommendations to enhance the logistics services in import and export activities in Vietnam

On the basis of the limitations analyzed in Chapter 4 and the development orientation of the logistics services industry in Vietnam, the dissertation gives the following recommendations to enhance the development of this service industry. Recommendations are made in the order of the most influence factors to the least influence factors.

5.3.1. Recommendation for "Technological" factor

5.3.1.1. To the Government

According to Vietnam Freight Forwarders Association (VIFFAS), applying information technology (IT) into the business activities of Vietnam companies is now still limited. Based on the analysis on chapter 4, the authors suggest some plausible solutions for government as follows.

Firstly, the Government needs to focus on IT infrastructure investment and develop incentive policies as well as financial support so that small and medium logistics companies can invest more in IT applications. Secondly, it is necessary to develop and implement a sustainable IT development strategy for the logistics services industry in order to transfer electronic data safely and reliably, shorten the processing time of goods and simplify customs procedures. Therefore, it is imperative to build a comprehensive IT network connecting state management agencies, customs agencies, logistics enterprises and shippers. Thirdly, the State should promulgate policies to support and encourage software companies to invest in researching and developing IT applications according to international standards, thereby creating favorable conditions that benefit domestic logistics companies to access applications suitable to their financial capacity. It also should be paid more attention to enhance international cooperation in the field of scientific research and encourage transfer of IT applications in logistics enterprises, especially SMEs.

5.3.1.2. To logistics services companies in Vietnam

Thanks to the development of information technology in the area of logistics, technological factor are increasingly asserting its important position. The application of information technology in logistics activities helps companies optimize their management processes, cut

down the costs and improve the speed as well as the efficiency of transactions, thus they can enhance the competitiveness of enterprises. Therefore, logistics services providers need to quickly apply information technology into their activities as follows.

Firstly, it is important for business to be aware of IT as one of the factors that create customer satisfaction and contribute to improving the quality of logistics services. Thus, companies should focus on building an IT strategy as an important part of their business strategy.

Secondly, IT infrastructure needs to be focused on improvement and new construction, especially the application of EDI systems to gradually improve the data transfer and data digitization, increase security and data transfer speed. In business, advanced technology provides the owner with a competitive advantage, which allows their organization to outperform its competitors. Therefore, a part of the budget for business activities should be used to invest in IT to effectively apply the new software needed for logistics activities such as RFID, Barcode, logistics cloud, etc.

Thirdly, to quickly develop the technology in this industry, it is necessary to improve employee's qualification and skills. Logistics companies should pay more attention and invest more in recruiting and training IT professional personnel. They should combine with human resource training centers or universities to train IT staff with logistics knowledge. On-site training courses can be used to ensure that IT staff are trained according to the specifics of the job.

5.3.2. Recommendation for "Political-legal framework" factor

The political and legal framework factor are very important conditions for the development of logistics services businesses, as well as the framework for effective state management in this area. In order to perfect the system of laws, institutions and policies on national logistics development, it is necessary to focus on the following solutions:

5.3.2.1. Promoting the role of the State

In the context of Vietnam's increasingly deepening international economic integration (such as joining international organizations, free trade agreements), Vietnam's legal documents and policies in the logistics sector should be adjusted. Therefore, the authors propose some solutions to complete the law on logistics services as follows:

The first solution is to supplement and amend the content of logistics services in the Commercial Law. The State needs to identify correctly the definition of "logistics" in general

and logistics services in particular, create a favorable legal basis for domestic and regional logistics enterprises.

The second is to issue a decree amending, supplementing or replacing the old decree (for example, Decree 163/2017/ND-CP only allows compensation up to VND 500 million per claim if there is a failure, this will cause many shortcomings in rights, especially buyer) to comprehensively cover logistics services, internalizing new international commitments, especially on logistics. The State should also suggest some amendments and promulgations of new policies and laws to regulate, creating a separate committee to manage logistics services, multimodal transport, and cross-border transportation.

The third is to review and amend policies on taxes, fees and charges for logistics-related services. Vietnam should change service prices based on the world situation, applying land and air service charges and fees at port in the direction of creating favorable conditions for businesses that provide logistics services.

The fourth is to review international commitments on logistics services in the WTO, ASEAN and free trade agreements (FTAs). The State should also propose measures to avoid conflicts in commitments on logistics at international forums, to avoid conflicts between international commitments on logistics and domestic laws.

The fifth is to develop a plan to negotiate commitments on logistics services in future FTAs: Commitments to logistics in future FTAs need to synchronize with existing commitments and domestic laws, especially plans that promote the benefits of Vietnamese logistics services enterprises.

5.3.2.2. Promoting the role and support of Association for logistics businesses

In the current trend of outsourcing logistics, each business needs to focus on its strengths and outsource services that are their weaknesses, therefore, it is necessary to strengthen the linkage and cooperation between enterprises providing logistics services and establishing logistics associations. These associations will gather the firms that supply or involve in the logistics services to establish a strong industrial linkage to support each other's advantages. Thereby, it is possible to unite these associations into a unified organization, with a role of representing interests for logistics businesses. The establishment of these associations will play an active role in supporting and advising firms, which is a bridge for them to connect with each other in business activities. Logistics associations also act as a bridge to state management agencies, foreign relations with international partners, where researches and

development activities are carried out, and also the promulgation and management of standards, documents, forms, statistics, evaluation criteria of the industry.

5.3.3. Recommendation for "Infrastructure" factor

Vietnam is in the process of deeper and broader integration into the regional and world economy. In this trend, the international trade relations between Vietnam and the world are growing and developing rapidly. Since then, the development of logistics services to serve the trading process is extremely urgent. Accordingly, the planning of infrastructure systems, transport systems associated with the planning of logistics centers, industrial parks such as road transport systems, railways, sea routes, warehouse systems, wharves ... to serve the transportation of goods and services quickly and efficiently is necessary. Therefore, the authors have suggested some changes for Vietnam's infrastructure as follows:

Road infrastructure: The State should pay attention to establishing more highways linking North-South, constructing priority traffic routes for logistics services to connect with the region, upgrading and expanding existing routes to reduce congestion and costs when transporting goods by road.

Railway infrastructure: Vietnam should strengthen capacity to transport goods by railway, also modernize railway facilities to promote use instead of focusing on roads. Our country should also plan and build logistics centers in key economic regions with rail connections to major seaports to concentrate import and export goods and finished products. In order to create logistics centers soon, it is necessary to supplement the planning and build international seaports with a network of logistics centers.

Airway infrastructure: More new airports should be built to meet the demand of logistics services, expand the cargo reception capacity. Furthermore, Vietnam should also build new air logistics centers at airports and finally build modern cargo terminals with a large cargo handling capacity and a high degree of automation.

Seaways infrastructure: Vietnam needs to build and develop a system of seaports, harbors attached to key economic regions, industrial parks, and build logistics centers near border gates, airports, and large seaports for transportation. If Vietnam can take advantage of the long seacoast to build more ports, it will help businesses greatly in importing goods more economically and quickly than before. In addition, this investment will increase the competitiveness of shipping so that we can expand the shipping market in the region and in the world.

The authors also suggest Vietnam needs to have policies to promote and develop logistics technology to quickly implement customs declaration procedures. The computerization and exploitation of advantages of IT will help to improve labor productivity, save costs and improve competitive advantages, creating favorable conditions for trade and import-export activities, and also need to quickly implement plans to invest in more modern infrastructure for the logistics industry, including port systems, warehouse systems, airports and roads.

5.3.4. Recommendation for "Economy-Integration" factor

In order to accept the opportunities that the integration process brings, logistics enterprises will have to improve a lot. Here are the authors' contributions to helping businesses:

First, Vietnamese logistics businesses must be prepared to compete directly with FDI firms to retake the market. Although the growth rate of Vietnam's logistics services market is considered to be high, the competitiveness, quality, and efficiency are not commensurate, especially still weak in comparison to FDI enterprises. Therefore, the logistics services market should be developed in the direction of competition and transparency so that consumers really enjoy quality logistics services at reasonable prices to recapture the market from foreign FDI enterprises from cargo transport services by sea, air, consolidation services, warehousing to building supply chains, etc.

Secondly, businesses providing logistics services in Vietnam must break out of 2PL to become a full 3PL logistics services provider or even 5PL enterprise in the period of industrial revolution 4.0 to be able to compete and regain the market from foreign hand. Improve infrastructure quality and technology innovation, thereby attracting goods from regional countries under economic corridors and FTAs that have been signed and invested. In addition, Vietnamese logistics businesses also need to work together instead of separately as before to contribute to improving the quality of logistics services provided. For example, Vinatrans, Vinalinks, Sotrans... can link together to form a series of power supply services that compete directly with foreign businesses.

5.3.5. Other recommendations

The logistics services provider should be consistent with the strategy of diversifying the types of services provided to customers, towards full service and participating in the entire supply chain of customers. They need to develop diversified services with high added value such as: door-to-door shipping services, packing/labelling, services of distribution of goods, services of monitoring and checking goods via Internet, etc.

It is necessary to strengthen joint-venture activities with foreign partners when providing services. The participation of Vietnamese businesses in joint ventures and partnerships with foreign partners have also brought many benefits and allow them to learn management experience and methods of managing the logistics system; receiving financial support, technology, facilities, materials and technical facilities and skills from foreign partners; as well as the opportunity to expand business relationships and access to large markets of foreign partners.

In addition, investment in human beings will be a decisive factor for the development of the logistics sector in the future. Besides the training support from associations, organizations and universities, logistics enterprises need to have policies to train, build staff and promote the strength of human resources to help businesses develop sustainably and in the long term. All of the above are aimed at raising awareness and the role of logistics services in the economy.

5.4. Limitations and suggestions for further research

5.4.1. Limitations of the research project

To complete this research topic, the authors have tried and made a lot of effort. However, the research still has certain limitations. Firstly, the research period is limited. The authors only has three months to study (from May to August, 2020). Therefore, the study was conducted only with a certain number of samples, so it may not overall reflect the factors affecting logistics in import-export inVietnam. Secondly, the authors had difficulty in conducting information collection by distributing questionnaires directly to the survey participants. In this process, it was inevitable that the responses were dishonest, inaccurate, and unbiased compared to their assessment. Finally, most of the reports and documents mention the logistics of Vietnam in general, so it is difficult to find logistics data in import-export activities. These limitations are the suggestions and orientations for subsequent studies to overcome and improve.

5.4.2. Suggestions for further research

The survey of this research was carried out by logistics managers, managers, and employees in Vietnam. Therefore, this survey result can be used for other research topics related to logistics activities in Vietnam. New studies can add a number of factors like geographic location, etc… to the model to determine the impact of these factors on logistics in Vietnam's import and export activities.

5.5. Conclusion

This study accesses the influence of factors on logistics activities throughout the territory of Vietnam. Thereby the authors make recommendations for improving and enhancing the logistics services in Vietnam. The study combines both qualitative research methods and quantitative research methods to give the most specific results possible. Based on the P.E.S.T model and the results of literature review of studies related to the topic, the authors have proposed a research model consisting of 6 factors: Political legal framework factor, Economic factor, Technology factor, Infrastructure factor and Integration factor. With 168 valid responses, data is used to make reliability analysis, exploratory factor analysis and regression analysis as shown in Chapter 4.

The results of linear regression analysis identified that logistics activities in Vietnam are affected by 4 groups of factors: Political - Legal Framework factor, Economic - Integration factor, Technological factor and Infrastructure factor. Besides, the linear regression results showed the development has positive relationship with independent variables in the form of the following equation:

$$\mathbf{DE = 0.158*IE+0.240*PL+0.223*IF+0.348*TE}$$

Although there are some limitations, this study gave an overview of the factors affecting the development of logistics industry throughout Vietnam. The authors recommended several solutions for logistics service development in Vietnam. Thus, the authors made some key recommendations: promote investment and application of technology in domestic logistics activities; promote training, improving the quality of human resources in the industry logistics, fostering human resources in enterprises; building and developing the system of seaways and seaports; enhance the law on logistics services in Vietnam and actively integrate into the international economy, etc.

With this topic, the thesis has given analysis on the factors affecting the development of logistics in import - export activities in Vietnam. The topic hopes to contribute more ideas, suggestions, contributing to the growing and sustainable development of the logistics industry in Vietnam in the coming time, especially in the process of deepening international economic integration of Vietnam.

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APPENDIX

LIST OF LOGISTICS EXPERTS AND DISCUSSION DETAILS

I. List of logistics experts participating in the discussion

No.	Full name	Company	Position	Seniority
1	Mr. Hoang Anh Duc	4GS Import Export Joint Stock Company	Import-export specialists	14 years
2	Mr. Do Le Dat	NNR Global Logistics Company	Sales manager	12 years
3	Mr. Pham Duc Toan	My A Freight Forwarding Joint Stock Company	Import-export supervision specialist	12 years
4	Mrs. Le Thi Thanh Thuy	Hazel Wrights Vietnam Co., Ltd - Hazel Wrights	Head of customers service	12 years
5	Mr. Nguyen Tam Hoang Thong	Viet Hoa Nong Co., Ltd	Manager of logitics department	11 years
6	Mr. Huynh Tri Phuong Tung	Thien Ha Import and Export Company	Import-export specialists	11 years
7	Mr. Tran Tuan Duc	KMG Logistics Company	Head of logistics department	10 years
8	Mr. Pham Van Hai	DH Logistics Company	Head of operation department	8 years
9	Mr. Nguyen Huy Hoa	Dong Nam Trading Company	International business manager	8 years

II. Discussion details

Dear Sir/Madam,

My research team is currently implementing an analysis of factors affecting the development of logistics services in import-export activities in Vietnam. We hope you can take a moment to answer our questions as below according to your opinion. There is no right or wrong answer, we just hope to receive your valuable sharing of your experiences in this field.

1. How long have you been in the logistics industry?

2. How can you give your opinion on the development of the logistics industry in import-export activities in Vietnam today? How has the logistics services market changed from 5 years ago (since 2015)?

3. In your opinion, when talking about the impact of Vietnam's political factors on the development of the logistics service industry, what issues will it cover?

4. In your opinion, when talking about the impact of economic factor on the development of the logistics service industry, what issues will be included?

5. In your opinion, when talking about the impact of social factor on the development of the logistics industry, which issues will be included?

6. In your opinion, when you talk about the impact of technological factor on the development of the logistics industry, what issues will be included?

7. In your opinion, when talking about the impact of integration factor on the development of the logistics industry, what issues will be included?

8. In your opinion, when talking about the impact of infrastructure factor on the development of the logistics industry, which issues will be included?

9. In the 6 factors mentioned above, which do you think is the most important one?

10. According to your point of view, should there be solutions to improve or recommendations to develop the logistics service industry in import-export activities in Vietnam in the coming time?

THANK YOU FOR YOUR SHARING!

SURVEY ABOUT THE FACTORS AFFECTING THE DEVELOPMENT OF LOGISTICS SERVICES IN IMPORT AND EXPORT ACTIVITIES IN VIETNAM

GENERAL INFORMATION

Please tick √ on your chosen option.

All your personal information you provide is confidential and only uses for research purposes.

1. What is your type and size of your business?

1.1. Type of business:

□ State enterprises

□ Private enterprise

□ Limited liability company

□ Joint stock company

□ Partnerships

□ Foreign businesses

□ Others: ……

1.2. Number of employees

□ Under 10 employees
□ 10 - 200 employees
□ 200 - 300 employees
□ Over 300 employees

2. Which logistics services does your company provide?

2.1. Field

□ Domestic trade
□ Import-export activities
□ Both of the above types

2.2. Specific services

□ Forwarding services
□ Transportation services
□ Warehouse services
□ Packing and labeling services
□ Customs clearance services
□ Others: ……

ASSESSMENT QUESTION

Evaluate the influence by factor - Section 1

The statements below are designed to assess the impact of factors on the development of logistics services in import and export in Vietnam. Please rate the following statements on a scale from 1 - 5, with 1 being strongly disagree and 5 being strongly agree.

(*): Required question

No.	Code	Statement	Degree				
			1	2	3	4	5
Political - legal framework factor*							
1	PL1	Political stability plays a crucial role in logistics services development.					
2	PL2	There are potentially conflicting overlaps in legal framework for logistics services.					
3	PL3	Simplification and transparency of customs system will facilitate the development of logistics services.					
4	PL4	Simplified procedures for import and export will promote logistics services.					
Economical factor*							
5	EC1	Steady economic growth will contribute to improve logistics revenues.					
6	EC2	Logistics services industry requires a large scale investment to enter.					
7	EC3	Transportation costs are a major concern for logistics enterprises.					
8	EC4	Changes in import-export tariff and duties will affect the development of logistics services.					
Industry awareness factor*							
9	AW1	Vietnamese logistics services providers have focused on just a few services such as transport, forwarding, warehousing.					
10	AW2	Logistics is the completed development of freight forwarding services.					

11	AW3	Professional education curriculum is the key element in developing logistics services industry.					
12	AW4	Highly qualified workforce is a driving force for the development of logistics services industry.					
Technological factor*							
13	TE1	The development of technology contributes to improve the quality of logistics services.					
14	TE2	Your company often uses computer software to monitor goods status.					
15	TE3	With the support of information technology software, your work can be solved more quickly and effectively.					
16	TE4	Port authorities applied new technology to monitor more efficiency the safety of sea zones.					
Integration factor*							
17	IN1	Participation in trade agreements and international organizations affects the development of the logistics industry.					
18	IN2	Foreign investment in Vietnam affects the development of logistics services.					
19	IN3	In the integration process, most Vietnamese logistics enterprises are disadvantaged compared to foreign enterprises due to lack of management experience.					
20	IN4	The competition in logistics industry is becoming increasingly fierce.					
Infrastructure factor*							
21	IF1	Vietnam has not paid much attention to plan for developing infrastructure of the warehousing/integrated logistics sector.					
22	IF2	Traffic congestion, especially in the big cities, has negative impacts on the development of logistics services.					
23	IF3	Connective infrastructure investments for seaports has not been properly concerned.					
24	IF4	The current ports system has been placed at convenience locations for transporting goods.					

Assess the development of logistics services - Section II

Development of logistics services*							
25	DE1	Logistics services have been promptly meeting the needs of the market.					
26	DE2	Vietnam's logistics industry is predicted to grow strongly in the future.					
27	DE3	Vietnam logistics services market has become a driving force contributing to increase national competitiveness.					

28. According to you, in addition to the above factors affecting logistics in import-export activities, are there any other factors?

……

……

29. Which is the priority factors for the improvement of Vietnam's logistics services?

……

……..……

End of the survey

Thank you for completing this questionnaire!

Your input is an important contribution to our research results. Please leave your email address [……] if you are interested in the results.

(This survey was conducted and verified by FPT University)