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OF GRADUATE OF ACADEMIC DEGREE
«MASTER»

THEME: «Management of import-export activity in supply chains»

Speciality 073 «Management»

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NATIONAL AVIATION UNIVERSITY
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Academic degree Master

Speciality 073 «Management»

Educational and Professional Program «Global Logistics and Supply Chain Management»

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TASK

FOR COMPLETION THE MASTER THESIS OF GRADUATE

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1. Theme of the master thesis: «Management of import-export activity in supply chains » was approved by the Rector Directive №2051/CT. of September 29, 2021.
2. Term performance of thesis: from October 04, 2021 to January 02, 2022.
3. Date of submission work to graduation department: December 13, 2021.
4. Initial data required for writing the thesis: general and statistical information about construction market in Ukraine, information of the company ««FTP», production and financial indicators of the company ««FTP», literary sources on logistics and customer service process, Internet source.
5. Content of the explanatory notes: introduction, the essence of the nowadays import and export activities in supply chain; the specifics of logistics in the building construction; analysis the activity of the LLC ««FTP»; identification of disadvantages in the customer service chain; analysis of business process of import and export in the logistics activity of the company; construction the SWOT-analysis of the customer service process; implementation of the digital freight forwarder information system as part of the supply chain management in customer service chains; calculation of the customer effect of the proposed measures; conclusions and appendix.
6. List of obligatory graphic matters: tables, charts, graphs, diagrams illustrating the current state of problems and methods of their solution.

7. Calendar schedule:

№	Assignment	Deadline for completion	Mark on completion
1	2	3	4
1.	Study and analysis of scientific articles, literary sources, normative legal documents, preparation of the first version of the introduction and the theoretical chapter	04.10.21-28.10.21	Done
2.	Collection of statistical data, timing, detection of weaknesses, preparation of the first version of the analytical chapter	29.10.21-15.11.21	Done
3.	Development of project proposals and their organizational and economic substantiation, preparation of the first version of the project chapter and conclusions. Editing the first versions of master thesis	16.11.21-03.12.21	Done
4.	Preparing the final version of the master thesis, checking by standards inspector	04.12.21-09.12.21	Done
5.	Approval for a work with supervisor, getting of the report of the supervisor, getting internal and external reviews, transcript of academic record	10.12.21-12.12.21	Done
6.	Submission work to Logistics Department	13.12.21	Done

Graduate _____
(signature)

Supervisor of the master thesis _____
(signature)

8. Consultants of difference chapters of work:

Chapter	Consultant (position, surname and name)	Date, signature	
		The task was given	The task was accepted
Chapter 1	Associate Professor, Pozniak O.V.	04.10.21	04.10.21
Chapter 2	Associate Professor, Pozniak O.V.	29.10.21	29.10.21
Chapter 3	Associate Professor, Pozniak O.V.	16.11.21	16.11.21

9. Given date of the task October 04, 2021.

Supervisor of the master thesis: _____
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Task accepted for completion: _____
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ABSTRACT

The explanatory notes to the master thesis «Management of import-export activity in supply chains» comprises of 102 pages, 26 figures, 19 tables, 1 appendix, 102 references.

KEY WORDS: DIGITALIZATION, EXPORT, FORWARDING, FREIGHT, IMPORT, LOGISTICS, PANDEMIC.

The purpose of the thesis is to develop theoretical foundations and practical recommendations for improving the management of import and export activities in supply chains in the face of uncertainty caused by the Covid-19 pandemic.

The object of the thesis is the logistics activity of «FTP» company in the field of export-import and its role in intersubjective interaction in the supply chain.

The subject of the thesis is management of the export-import activities in supply chain based on the application of information innovations and modern logistics approaches.

Research methods. Scientific works of classics of economics, publications of leading scientists and specialists on market development, transport economics, as well as regulations of Ukraine governing the activities of transport, logistics are the theoretical and methodological basis of research. To achieve this goal and the implementation of the tasks in the work used a set of general and special methods.

The information base of the thesis there is a study of modern specialists in the field of import and export operation transport and logistics activities and systems of search and selection of foreign suppliers. The study used regulations in the field of logistics, as well as the results of financial data analysis of of LLC «FTP».

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NOTATION

AIS	– Automatic Identification System;
BL	– Bill of Landing;
BPR	– Business Process Reengineering;
CBPR	– Construction Business Process Reengineering;
CRM	– Customer Relationship Management;
CSCM	– Customer Service Chain Management;
ERP	– Company Resource Planning;
FCL	– Full Container Load;
FEA	– Foreign Economic Activity;
IT	– Information technology;
KPI	– Key Performance Indicators;
LCL	– Less Container Load;
LTL	– Less Than Truck load;
MIS	– Management Information Systems;
MRP	– Material Requirements Planning;
NPV	– Net present value;
PCIS	– The Port Community Information System;
PP	– Payback Period;
SCM	– Supply Chain Management;
VSL	– Vessel carrier.

INTRODUCTION

Sustainable economic growth in nowadays world trade could not be imagined without developed foreign economic relations. Modern world trade is characterized not only by the dynamics of growth in its physical volume, but also by a wide variety of commodity structure, directions and principles of product sales in foreign markets, as well as ways of formalizing foreign trade transactions that require participants in foreign economic activity to conduct appropriate operational and commercial work. Consequently, entering the foreign market, in addition to knowing the conditions of interstate and national regulation of export-import flows, is associated with the study of possible forms and methods of selling a specific type of product and the corresponding registration of foreign trade transactions.

The form of communication between manufacturers of products from different countries is foreign trade, serving the sphere of commodity circulation (including services and intermediaries) through foreign trade operations that are of a commercial nature. Foreign trade operations are a complex of basic and auxiliary (supporting) types of commercial activities, that is, a set of techniques, the consistent application of which ensures the implementation of the purchase and sale agreement. Their main type is export-import operations.

The export operations are logistic activity aimed at selling goods to a foreign partner (buyer) with its export from the seller's country. Therefore, the export operations are a type of operations during foreign economic activity, when goods, finished products are moved outside the customs territory of the country, or services are rendered to a foreign customer.

At the same time the import operation - represents activities related to the purchase of a foreign seller and the import of foreign goods, technologies and services into the buyer's country for subsequent sale on the domestic market. Therefore, the import operations are a type of operations in foreign economic activity, when the customs territory of the state is moved goods, finished goods, or turn out services from

foreign suppliers. Thus, export-import operations are operations for the movement of goods, raw materials, finished products in the world market because of their sale to foreign buyers. All export-import transactions accompany settlements between counterparties, which creates system of international payments.

When carrying out import-export operations, the same logistic actions are performed as when supporting the supply of goods within the country. Indeed, it is necessary to organize transportation, think over the procedure for processing goods and transport documents, agree on the terms of delivery and payment with the counterparty, think over warehouse operations and document flow.

But there is a peculiarity: since goods cross the border of the country, then foreign economic activity is accompanied by specific regulation defined by the formulated (that is, existing in Ukrainian conditions today) system of state interests (determining the list and rates of taxes, as well as the taxable base, collection of these taxes, restrictions in the field currency control, the implementation of non-tariff regulation measures, the regulation of the transit of goods and vehicles carrying these goods, the procedure for the protection of intellectual rights, etc.), which predetermines the commission of a large set of specific (that is, aimed at fulfilling the regulatory requirements of the state in the field of foreign trade) actions for the preliminary preparation of projects and their documentary support, coordination of the efforts of various departments within the company - a participant in foreign economic activity, and external coordination with carriers, warehouses, customs brokers, government and other regulatory structures.

From the variety of tasks facing logistics in the field of import and export operations, we highlight the main:

1. Optimization of the pricing process of procurement and production of goods and services.
2. Ensuring the optimal level of quality of products and services.
3. Determining the level of demand for a given product or service in a particular domestic and (or) foreign market.
4. Choice between delivery with or without intermediate warehousing.

5. Determining the optimal level of logistics service.

6. Selection of the most advanced technologies for the production of products and services.

7. Organization of work of multi-functional branches of the company, aimed on international companies.

8. Analysis of the international competitive environment and gaining competitive advantage.

Strong consumer-supplier relationships are the key to an organization's success. In a market economy, the main problem for suppliers is the organization of sales, and for consumer's adequate choice of contractors in the field of supply - suppliers. The company has the opportunity to influence the cost of material resources, starting with their procurement.

Ukrainian companies procure not only from Ukrainian suppliers, but also from foreign ones, this fact can add some inconvenience. There is a problem of finding and choosing foreign suppliers. From geographical remoteness, time differences, language barriers, cultural and religious differences, differences in business, differences in country legislation - all these features hinder the search and selection of foreign suppliers, as well as assessing their reliability.

The activities of any company are usually aimed at making a profit. One of the current areas of maximizing profits should be considered by balancing all operations subject to the company: in the field of transportation of raw materials, distribution of finished products, production, storage, packaging and more. However, it is extremely difficult to organize and sell the entire supply chain to one legal entity and achieve success, because it requires deep knowledge, skills, competence in each area of activity, as well as large-scale logistics. Therefore, most companies focus their activities in a specialized field, which plays the role of the main (key) activity and is the main source of income, secondary, less important functions of the company often.

Problems of making logistics decisions in modern conditions of operation of industrial companies and, in particular, the choice of suppliers are studied in many scientific papers as domestic – E.V. Krykavsky, M. Auckland, and foreign scientists -

Christopher, Henfield, B. Robert and others [42]. However, logistical decisions on the selection of efficient suppliers in the international supply chain are insufficiently covered in both Ukrainian and foreign sources. The urgency of the problem of choosing a foreign supplier and increase the efficiency of the international supply chain in general led to the implementation of research in this area.

The purpose of the thesis is to develop theoretical foundations and practical recommendations for improving the management of import and export activities in supply chains in the face of uncertainty caused by the Covid-19 pandemic.

In accordance with the purpose, the tasks of the thesis are formulated:

- to characterize the theoretical foundations of planning international transport and logistics activities;
- explore the basics of international transport and logistics activities;
- to analyze the possibilities of forming logistics outsourcing in international transport and logistics activities;
- to conduct production and financial analysis, customer analysis and analysis of the competitive environment of the transport and logistics company LLC «FTP»;
- to analyze risks and ways to reduce them when planning international transport and logistics
- justify the possibility of optimizing costs by using the single window concept;
- evaluate the effectiveness of the new service (single window) and clearly define the IT-provider company responsible for.

The object of the thesis is the logistics activity of «FTP» company in the field of export-import and its role in intersubjective interaction in the supply chain.

The subject of the thesis is management of the export-import activities in supply chain based on the application of information innovations and modern logistics approaches.

Research methods. Scientific works of classics of economics, publications of leading scientists and specialists on market development, transport economics, as well as regulations of Ukraine governing the activities of transport, logistics are the theoretical and methodological basis of research. To achieve this goal and the

implementation of the tasks in the work used a set of general and special methods.

The general scientific methods used in writing the thesis include observation (when collecting information about the company under analysis), comparison (when assessing the effectiveness of options for choosing the best digital freight forwarder), measurement, generalization, abstraction, formalization, analysis and synthesis, induction and deduction, analogy, modeling, ranking and system methods. statistical and analytical methods, factor analysis (in the study of performance indicators of the new service); grouping (to systematize the risks that affect the choice of supplier), graphical method (to demonstrate the results of research), methods of marketing and sociological research (during monitoring of the competitive environment of the company),

The information base of the thesis there is a study of modern specialists in the field of import and export operation transport and logistics activities and problems of search and selection of foreign suppliers. The study used regulations in the field of logistics, as well as the results of financial data analysis of of LLC «FTP».

The scientific novelty of the obtained results lies in the substantiation of the introduction of a new solution for search and selection of one digital freight forwarder by a transport and logistics company, which is economically feasible for the company providing such a service and for the customer company.

The practical significance of the work is that its main results can be used by logistics organizations (logistics companies, transport companies and organizations), expeditions and other agents who have a import and export directions. In addition, the implementation of practical proposals that have been substantiated in the work, namely a new service in the logistics industry, will increase efficiency and achieve a fundamentally new quality of cooperation (interaction) of business, provide a synergistic effect of the activity.

The result of the thesis was published in Conference Proceedings of the “Challenges of nowadays in the light of sustainability” 8thVUA YOUTH scientific session, 2021 November 26th, 2021, Hungary.

CHAPTER 1

THEORETICAL FUNDAMENTALS OF EXPORT-IMPORT ACTIVITY MANAGEMENT IN SUPPLY CHAINS

1.1 The essence of export-import activities in supply chains

Globalization gives opportunities to find new customers all over the world. But to enter the world market successfully each company needs to have each own field or place in the world's logistics. Logistics is the science of planning, managing and controlling the movement of material, information and financial resources in various systems. During the development of market relations in the Ukraine in the 1990s, a new scientific and practical direction has been formed and began to develop rapidly – logistics [53]. Interest in it is due to the needs of the development of the economy and business in general. Logistics contributes to the prosperity and development of the company, supplying consumers with products, goods and services, on time and in strict accordance with the requests.

For logistics, a consumer is everyone who receives deliveries to any destination. The destination can be a wholesale store and a private house and a wholesale company, as well as a factory warehouse or warehouse. Often, one of the companies of the company itself or its business partner, belonging to another link in the supply chain, acts as a consumer. Regardless of the motives and goals of supplies, customer service is a priority moment that forms the needs of logistics. Logistics methods unite the firm and the management of different phases, stages and aspects of economic activity [10]. The following definition of logistics is often used next definition: "Logistics is the science of managing information and material flows in the process of goods movement" [71].

Although it should be noted that there is no unambiguous definition of logistics, since certain aspects of logistics management come to the fore. Currently, there are several types of logistics. Some of them like transport logistics, procurement and

production logistics, warehouse logistics, commercial logistics, marketing and information logistics, industrial logistics and distribution logistics. Note that most of them are mutually intersecting. Transport logistics differs from transportation in that the transportation of goods is the result of the activities of the logistician and there is a choice of the most profitable option in terms of time and cost of the route, type of transport and their combinations. As a rule, transportation is accompanied by additional services: loading and unloading operations, cargo insurance, warehouse services and security, customs clearance, etc. [36].

Transport logistics links together many stages of goods delivery. The essence and content of procurement logistics. Purchase logistics is the management of material flows in the process of providing the company with material resources. Any company, both manufacturing and trading, has a staff service that purchases, delivers and temporarily stores goods (this can be both ceramic granite plasterboard finishing materials and raw materials for a factory). That is why the level of exporting and importing costs is one of the most important problems for regional companies [66]. The main factors affecting the success of regional companies in entering the world market are the level of logistics infrastructure development and the effectiveness of customs services.

Together, these factors form the customs and logistics framework of the foreign economic activity. The main factors of this framework are customs authorities, logistics providers and participants of the foreign economic activities. Each of them has own interests and problems to solve.

Below is presented the figure 1.1 [102], which reflects the complex and full vision of complicated international logistics: the process developed from easy relations to a very difficult structure with border-crossing, customs clearance, examination, checking and double-checking and others.

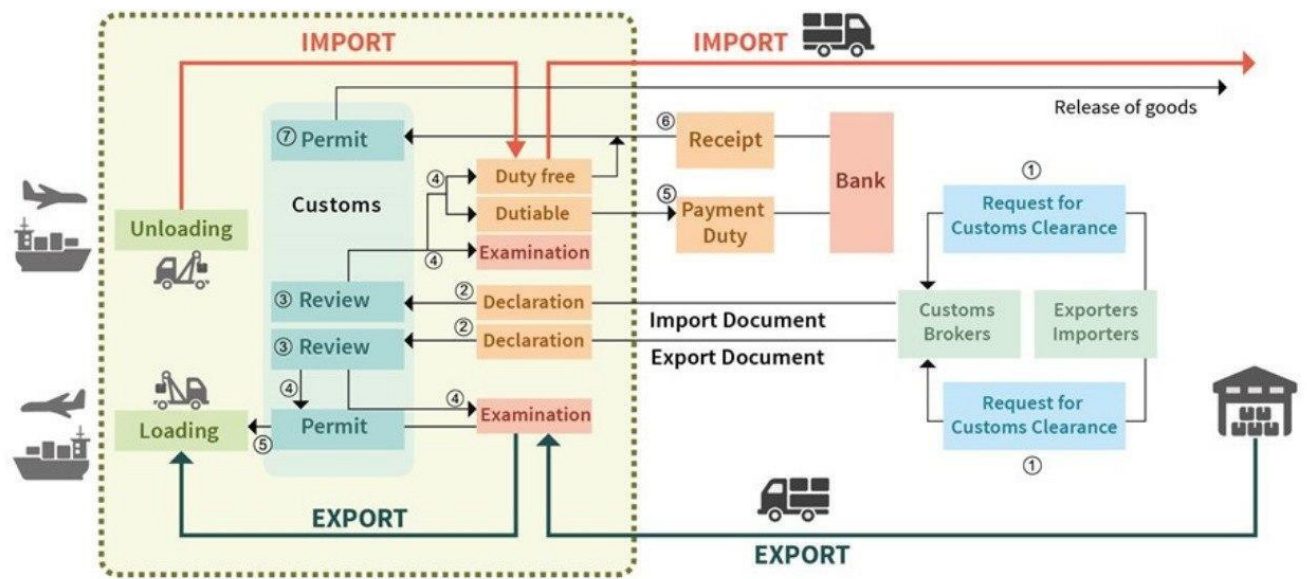


Figure 1.1 - Export-import operations in supply chain

The brief defining and interpretation of these two activities separately could be represented below for more deep understanding of processes.

Import (from lat. importare - to take into) - import from abroad of goods, works, services, results of intellectual activity, including exclusive rights to them, technology and capital for sale and use in the domestic market of the importing country without re-export obligations; reimbursement of production or consumer services from foreign partners.

Import can be divided by those categories:

- transportation of goods from free zones or warehouses in these zones;
- importation into the country of goods purchased abroad. The purchase of goods can be made directly from the manufacturer or through an intermediary. The purposes of purchasing such goods are personal use, the needs of the company, processing and further sale abroad;
- purchase of products for processing under the supervision of customs control authorities. This type of import operations includes goods that were purchased and brought into the country for processing and further manufacture of other products. The final product is exported from the country and sold to other countries. For example, a

company buys and delivers olive oil, and then sells canned fish based on this oil abroad. Companies engaged in such imports are exempted from paying customs duties and taxes, or from the control of state bodies.

Export from (lat. *exporto* - I take out) - export of goods (both national production, passage, and previously imported from abroad and processed), works, services, results of intellectual activity, incl. exclusive rights to them, from the customs territory abroad without an obligation to re-import them to sell them on the external market. The fact of export is recorded at the moment the goods cross the customs border, provide services and rights to the results of intellectual activity.

Export can be divided by those categories:

- sales of processed (finished or complete) goods;
- sale and transfer of material goods to other states. At the same time, the goods were initially manufactured, mined or grown in the territory of the supplying country. The category of export operations also includes the sale of goods imported from abroad, but processed and changed subsequently.

In this thesis, the author defines the goals of creating the customs and logistics framework [43], explores phases and stages of its design. The concept of developing a customs and logistics framework suggests two possible vectors for its formation: “top-down” and “bottom-up”[67]. The author describes the role of main framework development initiators, the basic principles and construction methods. The proposed concept can be used as the basis for further studies of individual regions integration processes into the system of world economic relations.

Simplifying trade conditions and ensuring efficient logistics play a key role in ensuring the country's competitiveness. Effective export and import procedures, competitive transport and logistics services, and predictable and transparent legal requirements and procedures increase companies' confidence in their actions and reduce their costs. Reforms in the field of transportation and simplification of trade conditions which was occurred in Ukraine are aimed at reducing costs and increasing the efficiency of trade activity of companys [60]. An efficient transport system and trade facilitation are also critical to the participation of national businesses in global

value chains. Geographical location provides significant potential for Ukraine as a transit country on the way from the EU (European Union) to the countries located in the eastern direction [2]. As in most countries, the development of the Ukrainian logistics sector largely followed the general economic development of the country.

The Ukrainian economy has been hit by the financial one crisis of 2007–2008 [33], but has already shown signs of stabilization and sometimes improvement of key indicators [59]. Freight volumes have been growing for some time; this growth is mainly due to road transport. Instead, the volume of rail freight decreased slightly. Compared to other countries in the region, Ukraine demonstrates relatively good trade performance indicators (eg advisory services and appeal procedures). At the same time, Ukraine should make more efforts to develop cross-border cooperation [82], develop procedures, introduce preliminary tax explaining and informing the business. The WTO Trade Facilitation Agreement is currently a major driver of trade facilitation reform in developing countries. Ukraine ratified this Agreement in 2015 [72]. Implementing the measures provided for in the logistics field and will help reduce trade costs transactions on average by 13.7% –17.4% [49].

Unified customs forms and documents, approaches to risk management and the introduction of a "single window" are the most important measures implemented under the WTO. Instead, issues such as customs brokerage, the right to appeal against government decisions and the detention of goods have the lowest priority [46]. Paperless trading procedures are especially popular and have significant potential to reduce costs and increase efficiency.

Integration of the Ukrainian transport system and simplification of trade procedures with the EU both in terms of physical infrastructure and in terms of regulatory framework is one of the key tasks of reform in this area. In recent years, Ukraine has proposed a number of transport initiatives and policies to facilitate trade procedures, including strategic initiatives to address existing barriers to transport and trade facilitation. However, the practical implementation of some projects proved to be quite limited. As a result, reform in the transport sector and trade facilitation is unsystematic, limited in scope and impact, and important acts of legislation on customs

issues are blocked or very slowly adopted by the Verkhovna Rada of Ukraine [9]. In some issues, there is a lack of coordination and common vision between different ministries and agencies, leading to discussions on the direction of the reform.

Priority is given to the following measures to facilitate trade facilitation:

- improving institutional coordination between state and border control authorities to develop a more coherent approach to supporting exporters;
- strengthening the capacity of ministries and departments, as well as improving infrastructure at the border and within the country to facilitate the transit of export goods;
- introduction of the necessary acts of legislation (laws and regulations) to increase the efficiency of activities and reduce the costs of exporters.

Over the past 20 years, Ukraine has achieved a sustained economic growth. According to the World Bank (WB), one of the most important factors to maintain that achievement was the trend of labour migration from rural area to urban area, causing a decline of young labour market and leading to improvement of productivity as a priority in the next phase of Ukraine [24]. Besides, Ukraine has a favourable geographical location, political stability as well as impressive investment in infrastructures, which are the key conditions for the rapid development of industry and production, an increase in trade and stronger global connectivity. However, the WB also indicates the Ukraine's key challenge is the main driver of growth is being depleted and need to be replaced by within-sector productivity improvements[81]. At macro level, better performing logistics can play a significant role in increasing productivity going forward, as well as provide international and domestic investors with an environment where they can source products for export at a lower total landed cost than what they incur in other countries.

However, in reality, the logistics cost in Ukraine lies in the range of 20.9 to 25% of GDP [69], 10% higher than the average for developing countries in the region. If calculated by value, Ukraine, compared to countries with similar levels of development, is spending more than 10-15 billion per year on logistics. In addition, logistics services in Ukraine are not only costly but also less effective [63].

At micro level, never before has been accorded so much importance as it has been in contemporary business, and never before has logistics played such an important role in industrial development as now. Much of the development of logistics, however, is occurring in the so-called “leading edge” companies in developed countries. Increasingly, in these firms, logistics is treated as a strategic activity and the solutions are often characterized by service directed to customer demands, costs efficiency and a comprehensive view of the logistics process, from raw materials to the end customer. Close cooperation between suppliers, producers and customers is the hallmar in these companies. These firms are concerned with on-going process improvements and attention to changes in both internal and external environments. However, most of manufacturing and export-import firms in Ukraine are small and medium-sized companys [83], leading to current status that a few of them have adequate administrative resources to participate in such competence development. In reality, many of exporters and imorters in Ukraine are operating far below their potential. Their use of modern manufacturing equipment, methodologies, and management practices is inadequate to ensure for competition ability.

The research group realizes considerable weaknesses and variability in the logistics process of them. No company knew all parts of their logistics costs, or had established comprehensive norms for the quality of their delivery service. Few companies has any control of service variations, and even fewer has set up systems to deal with such variations. Besides, those companies with more than 20 employees had a better grip on logistics than the smallest companies [6].

In addition, it was clear those companies with ownership links to larger companies, and companies that had demanding customers, were logistically better prepared than the rest. Yet, industry’s interest for logistics has increased to a further extent; this is due to escalating competition in the marketplace and recognition from companies of higher efficiency and better quality in goods delivery are mere conditions of survival. Therefore, there is a need to conduct an assessment on logistics performance of companys, especially in developing countries where no baseline survey has been done on the subject. Also in Ukraine, there is a fact that to date none of the

previous studies analyses the logistics performance of manufacturing and export-imports firms. This is a great opportunity to study this issue in Ukraine in terms of one of the most important factors contribution to promoting competitive ability of companys in current status [50]. The main objectives of this study were to reveal the factors that affect Ukraineese firms logistics cost and the logistics performance of manufacturing as well as export- import firms, and to identify a set of measures that would enable them to increase their competitive ability in order to more easily and directly participate in global trade.

In international commodity and economic relations, a special place is given to transport, namely transport logistics. Transport logistics is the final link in the production chain, which is able to ensure the delivery of the product to the consumer. The cost of goods, the level of prices in their sale, and hence their ability to meet customer needs depend on how effective the transport and logistics support of the main sectors of the economy will be. Therefore, one of the main goals facing carriers is to reduce the cost of transportation and increase their economic efficiency [52].

Today, to achieve this goal, transport logistics has solved the following tasks:

- choice of type and type of vehicles that can ensure efficient transportation of goods;
- joint planning of the transport process with warehousing and production units of stakeholders;
- joint planning of transport processes on different modes of transport (in the case of mixed transport);
- ensuring the technological unity of the transport and warehousing process;
- determination of rational routes and schedule of cargo delivery.

The goals of logistics are met by such advanced modes of transportation as batch, container, combined. Transport logistics coordinates the economic interests of the sender, transport company and recipient on the basis of creating integrated transport and logistics systems in which the rolling stock of producers, consumers and transporters is used in cooperation.

Based on the experience of countries with a high level of economy, the use of transport and logistics systems can reduce overall logistics costs by about 12-35%, transport costs by 7-20%, and the cost of loading and unloading by 15-30%, as well as boost speed of circulation of material resources by 20-40% and simplify their stocks by 50-200% [80]. The following information is evidence that one of the important factors of economic growth is the creation of integrated transport and logistics systems covering individual countries and regions, which in turn affects the development of foreign economic relations.

The transport and logistics system is an integrated set of subjects of transport and logistics activities and objects of transport and logistics infrastructure that interact to optimize the movement of cargo flows "door to door" at minimum cost on the most favorable terms [31]. It should also be noted that the transport logistics system, like any other system consists of specific subsystems, namely such as: transport and supply, transport and warehousing, transport and logistics services and management, integrated information and transport and logistics solutions, as well as transport and sales.

Ukraine's manufacturing and export-import sector grew at a compound annual growth rate of 9.3% from 2015 to 2020, and labor productivity in the sector increased at 2.1% a year. Because this sector accounts for around 30% of overall GDP [48], this rapid growth made a substantial contribution to Ukraine's expansion during this period. Within manufacturing, some subsectors performed especially well. Automotive production grew at an annual rate of 1,6% during these five years, ready-made clothes by 12.9%, and electrical equipment by 1,2% [78].

The manufacturing and export-import industry plays a vital role in Ukraine's economy by providing employment opportunities and accelerating its growth. Simultaneously, liberalization, removal of investment restrictions, and semi-privatization of the economy have greatly boosted the country's industrial growth rate. The main manufacturing and export-import sectors in Ukraine are textiles and garments, food and beverages, leather and wood. The Government has implemented various programs to transform Ukraine's economic structure from agriculture-driven to industry-driven and reduce its import dependency [85].

The development of export processing and industrial zones is just one of the initiatives that bolstered the country's industrial growth. The Government has also offered incentives to investors in social sectors such as health and education. However, since liberalization, the Governments share in the overall industrial investment has been declining, thereby enabling higher participation of private and foreign companies. Financial and R&D (research and development) support, as well as the allotment of land in industrial zones, are likely to encourage stakeholders in the manufacturing and export-import industry to increase their investments [35]. While sectors such as textiles, leather, food and beverages, automobiles, chemicals and energy were resilient even during the economic downturn, a booming food processing sector, an unsaturated pharmaceuticals market and a dynamic garments sector are expected to add value to the industrial production in Ukraine.

The Government has retained the majority of the stake in energy, finance, banking and telecom and shielded the agriculture, food and automobiles sectors from international competition. Higher private and foreign investment had enhanced the growth rate of sectors such as transportation, real estate, communication and mining. However, the country does not permit foreign investments in national defense, security, and health and it places conditional restrictions on investments in telecommunications postal network and airports [17]. The Ukraineese Governments initiatives and specific incentives for the industrial sector are likely to increase exports and drive the economic growth. Liberalization and the removal of various restrictions generating sector-specific investment opportunities are expected to attract more private and foreign participants to manufacturing and export-import industry. Overall, with an aim to become industrialized country by 2020, Ukraine's manufacturing and export-import industry has been undergoing major changes as a result of government initiatives, WTO commitments and industrial liberalization [56]. Industrial development strategy for the period 2011-2020 to focus on the development of textiles, leather, chemicals, agro processing, electronics, automotive, information and communications technologies are expected benefit from the industrial development strategy [45]. During crisis period, many firms in sector have been badly affected resulted from high

leverage in capital structure. The companies, well overcome such bad cycle of economy, generally do not only well prepare for business operation to maintain activity.

1.2. Classification of export-import activity in Ukraine

This part of research focuses on nowadays and past years' situation occurred to import-export operations proceed in Ukraine, analyze the changes in a volume of total sold and procured goods (in order to make a clear and understandable report, based on relevant information, was chosen the five most profitable types of commodities, which was determined as the most valuable goods).

Caused a complete, temporary or partial suspension of companys in various industries, he global demand for non-critically necessary goods is declining in order to major crisis caused the pandemic, which leads to the formation of abnormally large stocks, the volume of sales of which is impossible to predict. In addition to barriers in international supply chains, falling prices on world markets and declining demand, the situation in Ukraine is complicated by:

- inadequate quality and lack of product certification;
- slowing down negotiations on entering the markets;
- non-harmonization of Ukrainian legislation with EU norms;
- technical barriers to the export of industrial products to the EU;
- insufficient export quotas for duty-free delivery agricultural products in the EU markets;
- lack of an effective mechanism for representing Ukraine's foreign economic interests abroad;
- level of quality of transport infrastructure;
- the complexity of determining the origin of the goods;
- groundless increase in the customs value of goods;

- long wait for export clearance at customs;
- the complexity of electronic communication with government agencies;
- lack of a system of non-tariff protection against low-quality of imported products.

The table 1.1 represents the export occurred by Ukraine in period January – June 2020 and 2021 year.

Table 1.1 - Commodity code and title by Ukrainian Classification of Commodities in Foreign Trade, export 2020-2021

	Export 2020 (thsd. USD)	Export 2021 (thsd. USD)	Absolute deviation
XV. Base metals and preparations thereof	1616786,1	2671731,7	1054945,6
II. Plant products	1365253,8	1281912,5	-83341,3
XVI. Machines, equipment and mechanisms, electric and technical equipment	1190675,3	1659282,2	468606,9
III.15 Animal or plant fats and oils	956875,2	945257,3	-11617,9
V. Mineral products	932623,5	1989127,2	1056503,7

Table 1.2 provides a list of goods that were imported into Ukraine in the period from January to June 2020 and 2021 and have the largest share in the total volume of imports [54].

Table 1.2 - Commodity code and title by Ukrainian Classification of Commodities in Foreign Trade, import 2020-2021

Commodity	Import 2020 (thsd. USD)	Import 2021 (thsd. USD)	Absolute deviation
XV. Base metals and preparations thereof	2167262,7	2698929,9	531667,2
II. Plant products	1096489,2	1023714,3	-72774,9
XVI. Machines, equipment and mechanisms, electric and technical equipment	2119522,0	1660720,2	-458801,8
III.15 Animal or plant fats and oils	1023714,3	2429840,1	1406125,8
V. Mineral products	900683,6	1124490,2	223806,6

Situation of import and exports operations proceed in Ukraine concerned the trade with EU (the 5 most valuable and profitable goods for import and export are shown in fig. 1.2 and 1.3).

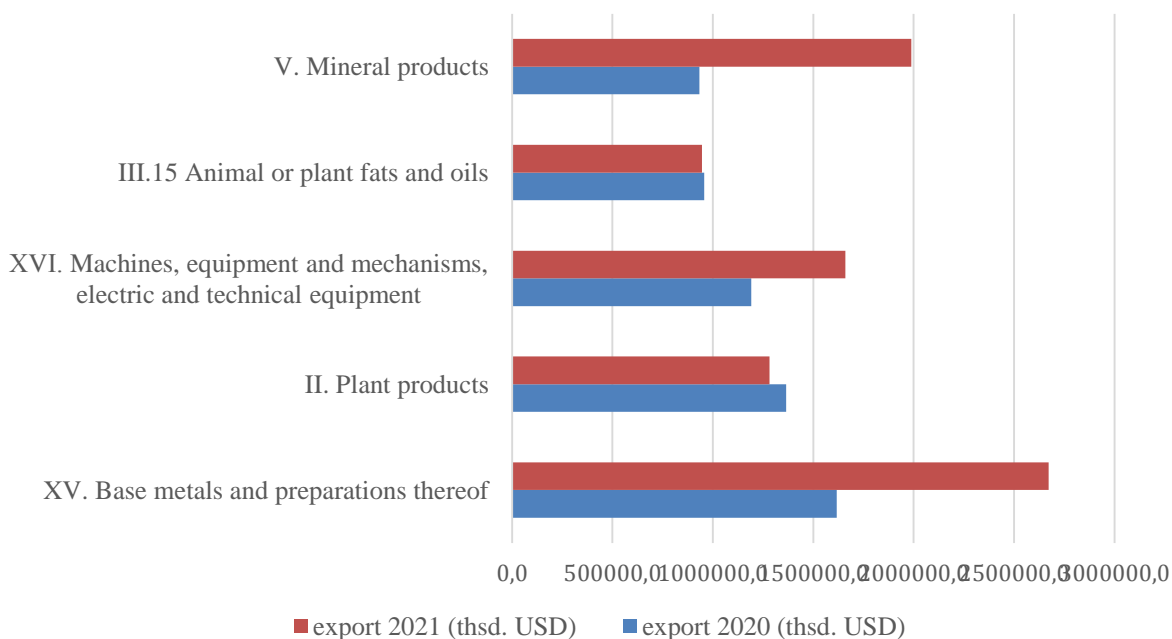


Figure 1.2 - Commodity structure of export in 2020-2021

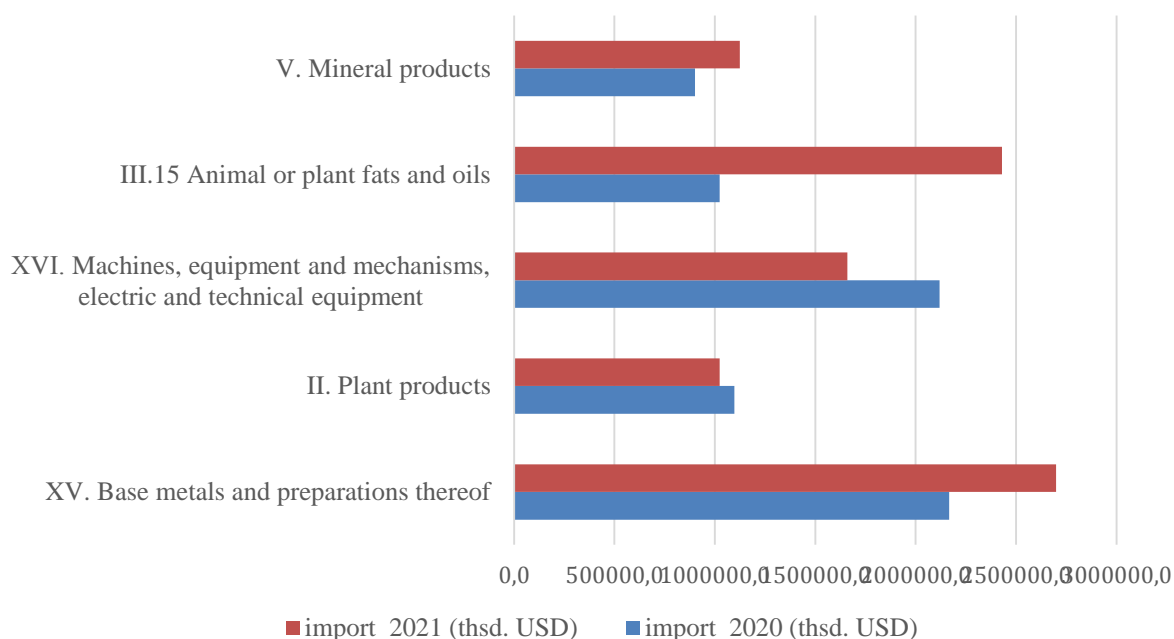


Figure 1.3 - Commodity structure of imports in 2020-2021

To compare the export and import of commodity into Ukraine in the period from January to June 2020 and 2021 data about import and export commodities was combined and summarized in table 1.3.

Table 1.3 - Analysis of Ukraine's foreign trade in 2021-2020

Commodity	Export 2020 (thsd. USD)	Export 2021 (thsd. USD)	Deviation 2021/2020	Import 2020 (thsd. USD)	Import 2021 (thsd. USD)	Deviation 2021/2020
XV. Base metals and preparations thereof	1616786,1	2671731,7	1054946	2167262,7	2698929,9	531667,2
II. Plant products	1365253,8	1281912,5	-83341,3	1096489,2	1023714,3	-72774,9
XVI. Machines, equipment and mechanisms, electric and technical equipment	1190675,3	1659282,2	468606,9	2119522,0	1660720,2	-458802
III.15 Animal or plant fats and oils	956875,2	945257,3	-11617,9	1023714,3	2429840,1	1406126
V. Mineral products	932623,5	1989127,2	1056504	900683,6	1124490,2	223806,6

In order to track the main trends in export-import operations in Ukraine under the influence of Covid-19, it is necessary to combine data on export and import operations for the period 2020-2021 in fig.1.4.

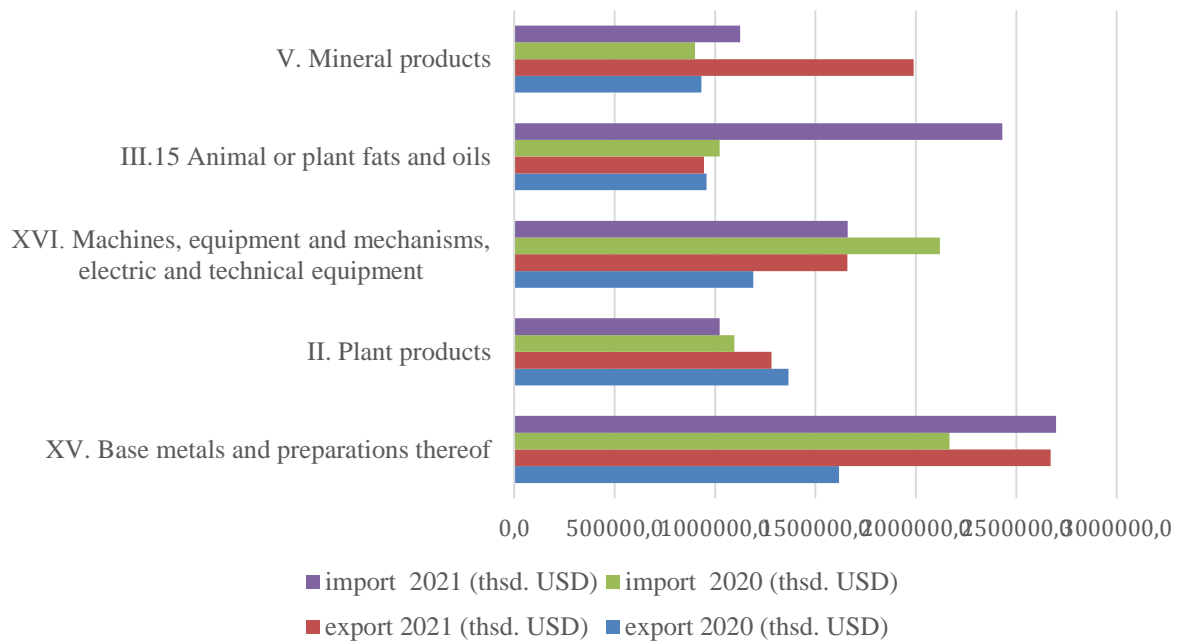


Figure 1.4 – Structure of Ukraine's foreign trade in 2021-2020

The import aroused more than 30 percent higher, and these numbers do not mean that Ukraine have solved structural problems in trade (and the dominance of commodities, equalization of access to markets with key partners and insufficient financial support for exports). Numbers figures are rather evidence that Ukrainian business is competitive, despite crises and challenges like the COVID-19 pandemic, and the sales representative summed up [40].

Import and export processes are important components of international and global supply chains [5]. Errors made during the import or export process, most often with regard to information flow or noncompliance with government regulations, often result in increased cycle time and/or costs. Yet these processes are often not given much attention, either in supply chain management executives' strategy or in academic research on supply chain management. Also, there is essential to compare several common elements of import and export processes, not only with each other, but with

the expertise that major firms possess relative to how important a particular element may be considered over time.

1.3. Problems of organization of export-import activities in terms of Covid-19

Today, the foreign economic activity (FEA) of business structures is an important element in the development of new sales niches, finding access to limited resources, establishing international relations, attracting investment and more. The implementation of foreign economic activity creates a number of advantages not only for companies but also for the country of location of companies.

The regulating exchange rates, strengthening the national currency and promoting revenues to the state treasury. The main types of foreign economic activity, which occupy a decisive share among other types of foreign economic activity, are exports and imports.

Under the export activity of the company means the sale of goods or services by exporters resident in the country from which the products will be exported to foreign FEA entities (non-residents) for possible payment by barter with optional intersection of customs products exported or imported within using border of the country [38]. In export activities are among the priority foreign trade operations and formulate low liabilities and minimal risk of resource provision of the company compared to other types of foreign economic activity. In contrast to the above, in order to carry out export activities in the Ukraine, it is mandatory to cross the customs border, which is evidenced by a properly executed cargo and customs declaration, which is the cause of tax obligations [1]. After analyzing the literature [7; 21; 47; 87], it becomes clear the existing discrepancy in the definition of "export activity" on the parameter of movement of products across the customs border of the country. Given the above, it would be logical to assume that exports involve crossing the border, resulting in the

completion of the customs declaration as an integral part of export activities. Generalization [30] on the essence of the concept of "export activity" of the company allows us to note that the export activity of the company is a series of interrelated operations involving the sale of goods with mandatory movement across the customs border in order to provide possession of these products.

The work of many scientists is also devoted to the study of the essence of the concept of "import activity". Given that in economics, the operation is part of the whole process or activity, it can be argued that any foreign economic operation is part of the same activity, so the import operation is part of the import activities of the company. In order to conduct a comprehensive and thorough study, it would be logical to along with the value the concept of "import activity", which is identical to the content of the category "import", consider the essence of the term "import operation" as the main component of the import. The set of interconnected, consistent import operations constitute the import activity of the company. As assume, the import of marketable products involves the importation into the country of the commodity mass by a properly executed purchase transaction from another country for the sale and consumption of products on in the territory of the importing country [84].

Also under the meaning of the term "import" considers the process involving the purchase of products of commercial and non-commercial nature, manufactured in the territory of a foreign partner for consumption or resale within the territorial boundaries of the importing country. The other meaning and defining is that under import means the importation into the territory of the importing country of products manufactured or to be sold in the territory of the counterparty for the purpose of its use or resale. The necessary process is to include in import regulation trade operations from "assigned warehouses" and "free zones", re-import operations and goods crossing the border for processing under the control of customs services. Imports should also include products imported by "parent companies" of multinational corporations to their "subsidiaries", provided that both are located in different countries [70].

The content of the concept of "import operation" is also considered and improved by many representatives of economics. The import operations are the process of buying

and transporting goods across the customs border of the country of foreign origin in order to implement such products on the national market or own consumption by the importer. Import operations characterized by the involvement of the subject of Ukraine with the payment of appropriate monetary compensation for products by optional importation of these products into the territorial lands of the importing country, and providing for the possibility of consumption of such goods by entities engaged in various activities located abroad [26].

The term import transactions is the process of attracting products from abroad with the payment of appropriate material remuneration and crossing these products at the border of Ukraine for its internal use by the subject of foreign economic relations in the territory of the importing country or further resale. From the point of view of the authors, the import operation cannot take place without the fact that the products cross the customs border of the importing country after the relevant legislative procedures [13]. Analysis of literature sources [3; 88] reaffirm that the concept of "import operation" is basic and integral element of the concept of "import activity", but the authors often identify these concepts, which is not entirely true.

Despite the above, it would be logical to assume that the import of products still involves crossing the border, resulting in the completion of the customs declaration as an integral part of import activities. In the economic field there is a partial classification of types of foreign economic activity. The typology of goods of foreign economic activity with division into corresponding classes is formed in the classifier [86]. However, there is not enough attention in scientific works is given to the complex typology of types of export-import activity of the company. In some sources there is a fairly generalized typology that does not contain a sufficient number of classification features. So, it becomes obvious the need to provide a thorough and comprehensive typology of types of export-import activities, which will allow to classify the import of the company on many typological grounds [16].

Generalization of the analysis on the essence of the concept of "import activity" of the company allows us to note that the import activity of the company is a number of interrelated transactions involving the purchase of goods or services by a business

entity of a particular country from a counterparty from abroad with the obligatory movement of products across the customs border in order to provide possession of these products to the entity of the importing country. The concept of "import transaction" refers to a set of interrelated actions carried out by an entity of one country through a one-time purchase of products from a resident of another country for further use or sale in order to obtain profits, and is a major component of import activities [62].

Such a description of the factors influencing exports and imports is not complex, because the factors are distinguished by only one classification feature: the degree of coverage of the environment. Thus, the problem of reflecting the complex typology of factors influencing the export-import activity of companies remains insufficiently covered [15].

Based on the analysis which the performed researches systematized and supplemented the classification of factors influencing the export-import activity companies, which assumes that the factors influencing exports and imports can be categorized as follows: incentive (factors that contribute to the implementation of export (import) activities) and inhibitory (complicate the initiation and / or expansion of export (import) activities by the company). Incentives for export activities include: growing demand for products abroad; higher profitability of products in foreign markets; availability of competitive comparative advantages; establishing foreign relations; avoiding the seasonality of demand for basic goods, etc [55].

The inhibitory factors in the start of the company's export activities include:

- instability of the legal framework for foreign economic transactions;
- ignorance of the peculiarities of the regulatory framework of other countries.

Encouraging factors in relation to import activities include:

- growing demand for imported products in the domestic market;
- high price of similar products on the national market; lack of necessary components or raw materials or end products in the domestic market;
- impossibility of growing, extracting or manufacturing this product due to geographical, climatic and other features of the market of the importing country, etc.

The inhibitory factors that complicate the start of the company to import, consist

of instability of the legal framework for foreign economic transactions; lack of necessary information on demand for specific products, etc [11; 25]. The degree of coverage of the environment: environmental factors and internal factors. The factors of the external environment include: the legal framework and political and institutional factors in the countries of the exporter (importer) and counterparties; importers - consumers of products (for export) and similarly for imports; suppliers, etc. Constructive in relation to exports include factors that facilitate the conduct of export activities (contribute to its functioning), such as simplification of the customs clearance procedure; reduction of the functional load on employees by opening a foreign trade department at the company, which will be responsible for the export of goods, etc.

The destructive factors include those that complicate the procedures for export activities: the rise in price of raw materials: outflow of highly qualified personnel, etc. Constructive in relation to imports include: reduction of import (import) duties; simplification of the customs clearance procedure, etc [90]. Neutral factors in no way affect the export and import activities of the company in the short term, however, in the long term may change their influence and become constructive or destructive. The main factors include those that have a significant impact on export and import activities of companies and, as a rule, have a long-term effect. It would be logical to include secondary factors, the impact of which is not significant and which can be neglected in certain cases. By mechanism of action: direct action and indirect action. To direct factors actions usually include the following factors: labor resources of the company, technology of the organization's activity, etc. To the factors of indirect action include: competitors of the company; buyers of certain products or services organizations, economic situation in the country, etc. According to the level of complexity of the object of influence: factors of individual influence and complex impact. Factors of single influence include factors that affect:

- transportation of export or import products of the company;
- settlements between foreign partners; production of subject products;
- export (import), etc.

The factors of complex influence can be including factors that affect:

- staffing of the company;
- organizational structure of the entity's management;
- resource companys, etc.

In contrast to the existing ones, the following classification features are proposed for the typology of factors influencing exports and imports:

- the degree of motivation to export (import) activities: incentive and inhibitory (such differentiation will help identify the purpose of the influence of factors);
- by level constructiveness: constructive, destructive and neutral (will help determine the beneficial effect);
- according to the level of complexity of the object impact: single exposure and complex exposure (facilitate identify the extent of the influence of the factor).

In general, and for some of its elements [51]. This fact creates an opportunity for business leaders to manage the results of activities by logically and fundamentally determining the factors that will affect their activities, and modeling and forecasting the effects of these factors on the functioning of the object under study. It is important to note that in the modern literature there is virtually no research and development of conceptual foundations for the implementation of analysis of any area of business [29]. Given the above arguments and the importance of export-import activities of companys, there is a need to substantiate and clarify the conceptual basis of diagnosis of export-import activities of the company.

The subject of analysis of import-export activity is devoted to the study of the conceptual foundations of the analysis of various processes and activities. Presents the concept of diagnostic procedures for the intellectual potential of companys focused on innovation. It is essential to develop the concept of analysis of investment attractiveness of modern companys in order to increase profit and sustainability [32].

But if formed the concept of economic analysis of the trading company, based on the separation of three groups of components: theoretical, methodological, finally applied and provide a number of interrelated stages for the implementation of technology analysis of the potential of financial and economic stability of the company. The key and very important element of the diagnostic system is the task of analysis,

which includes: systematic evaluation of the effectiveness of business activities; search for factors influencing the results of the organization; determination of financial stability and solvency of the company, etc.

The process of implementing diagnostic measures for business is a set of elements such as the introductory part, analytical procedures and final actions (conclusions). The key tasks of the introductory part are to identify the main tasks, goals, methods of diagnostic procedures and search for specific features of the object. The main (analytical) part is aimed at conducting a series of diagnostic actions on the financial and technical component, as well as the effectiveness of commercial, production and investment processes in the organization on the availability and use of fixed assets and labor resources, business costs in the short and long term. -technical potential and patterns of development of the production process, the state of the investment climate within the organization [65] The factor in import and export operations about the processes in the organization of the actual nature for a specific time and a program of action of a recommendatory nature, aimed at eliminating shortcomings and

Significant attention to the principles of the diagnostic system of economic nature was paid in their research by Ukrainian scientists, dividing them into the following main components [34].

An important place in the system of analysis of any kind is occupied by the functions of the mechanism which determining the efficiency of import-export activities occupied. In particular, his definition of the essence of the concept of "analysis" emphasizes its identification function. Important clearance for identifying the functional load of diagnostic systems is given in the definition of analysis. [27], which emphasizes its search and analytical functions. However, in the literature there is virtually no information on the functional load of analysis.

It should be noted that some literature sources contain information on some of the features characteristic of the mechanisms of analysis. Also, it could be noted that the fundamental basis for the creation of mechanisms in the organization of analysis should be taken "the concept of diagnostic procedures", which aims

To identify various links, as well as interactions of a multiplicative nature between

events and phenomena that arise as a result of the company [57]. However, in the literature there is a lack of information on the conceptual basis of the

Diagnosing export-import activities of companies. That is why an important element in the development and study of diagnostic systems is a comprehensive and conceptual study and solution of this issue. The system of analysis plays an important role in the process of company management and rapid and accurate response to new or changing factors. When developing the conceptual foundations of any analysis system, it is important to attach special importance to the construction and implementation of high-quality, scientifically sound and logical structure of the analysis system as a prerequisite for coordinated functioning of the diagnostic mechanism. In the process of developing the concept of analysis of export-import activities of companies should consider the elements of the diagnostic system of the appropriate type.

The system of analysis of the company is mainly aimed at studying the prospective (future) state of the company, so it is an important element of diagnostic systems in general, because it allows you to predict possible changes in the market economy. The importance of developing conceptual foundations of analysis is also justified by the need to predict the mechanisms of export and import development in modern conditions of intensified competition. Today, export and import activities are the most important types of foreign economic activity and together occupy the largest share in the volume of all types of foreign economic activity that can be carried out by a modern company [79].

During the development of the conceptual foundations of analysis, the structure of the system of analysis is proposed, which has such interrelated and complementary components as subjects (customers) of analysis of export-import activities of companies, the basic principles of the process of analysis of export-import activities, purpose, main tasks, technology, methods and techniques, factors impact, economic indicators, export-import activities of the company or its individual elements. The essence of foreign economic activity suggest that the system of analysis plays an important role in the management of the company and rapid and accurate response to new or changing existing factors, because this concept is based on determining the

factor impact and further forecasting the values of the resulting indicator. Depending on the action of a number of significant factors, the impact of which can be reflected in economic indicators [23]. Could be assume that the analysis of export-import activities of the company. Serves as an information and reference base for obtaining the necessary data by the management staff on the peculiarities of the operation and trends in the development of export-import activities of the company in future periods of operation. Predictive provides the ability to predict the future state activities of the organization in relation to export and import operations and stimulate positive transformations in the company or block the development of negative changes in export-import activities. Analytical carrying out diagnostic procedures involves analyzing trends in development or, sometimes, the state of export-import activities of the company in different time periods, varying as needed.

Recommendation procedure aimed to the analysis of exports and import operations aims to gather the necessary information to provide recommendations to senior management on the nature and direction of subsequent management decisions. Evaluation system of analysis involves assessing trends in the export-import activities of the organization to provide balanced and reasoned information to management. Preventive activated when necessary to carry out diagnostic procedures to anticipate negative changes in the company and prevent their activation. Stimulating system of analysis stimulates the development of positive processes and transformations in the company. Identification called to determine (identify) the state of the object of study, usually for the long term, its capabilities, prospects and threats of business. Factorial helps to prevent undesirable developments in the company, to avoid recessions in the export-import activities of the organization or to ensure positive processes in these activities by identifying and taking into account factors influencing the activities of the company. Note: systematized and supplemented based on the analysis of sources involvement in the implementation of analysis of relevant resources simplifies the implementation procedure, as well as improves the quality of the results.

Thus, the input base for the implementation of logical, economically feasible and effective analysis of export-import activities of companys are information, technical,

software, financial, material, human and other resources [28.; 37]. It is determined that the subjects (customers) of procedures of this type of analysis are an important element of the system of analysis of export-import activity of companies. Entities can be divided into two types depending on their involvement in the activities of the organization: internal and external. Internal entities include the owners, management staff and employees of the company, which carry out export-import activities. External entities include foreign counterparties, investors and investment companies, banks, public authorities, etc. That is, the subjects of the system of analysis of exports and imports include all individuals and legal entities, as well as public authorities that may be the initiators of the procedures of analysis of export-import activities of the company. Subjects of analysis can act as executors of such analysis (thus independently carrying out diagnostic process), or only customers, transferring performance of the analysis on the persons competent in this sphere who are capable to carry out qualitatively the analysis of export-import activity. Truthful and substantiated information on threats and prospects for exports and imports [22]. Based on the research, it can be argued that the analysis is based on key principles, meaning the principles of implementation. When building a system of analysis, it is important to identify and interpret such basic principles to ensure the process of analysis of export-import activities of companies.

In the modern economic literature, the concept of "principle" is considered as the basis, key principle of a particular operation or procedure. The basic principles on which the analysis is based, it is expedient to include:

- the principle of integrity (implies the need to take into account all components of the system of analysis as the basis for effective and coordinated functioning);
- the principle of effectiveness (a key characteristic of the principle is the direction of the analysis system to ensure the result, ie the system's focus on achieving the goal, which is based on forecasting and preventing the development of negative changes or stimulating positive processes and transformations in export and import operations);
- the principle of functional orientation (the final link in the system of analysis is the performance of the functions of analysis);

- the principle of autonomy (the essence of the principle is the possibility of functioning of the system of analysis, even in the presence of complications in the work of other systems in the company);
- the principle of predictability (mostly, the main basis for the implementation of analysis is to determine the future state of the company based on establishing the impact of a number of significant factors on the resulting export-import activity and its further forecasting under the influence of certain factors);
- the principle of adaptability (given the variability of the operating environment, it is necessary to ensure adequate functioning of the system of analysis in the event of changes in the operating environment);
- the principle of sequence (the implementation of analysis should take place in a clearly defined sequence, neglect of phasing which can lead to distortion of the original results of the study);
- the principle of optimality (the essence of the principle is that the implementation of analysis should be the best and most representative of the objectives of the analysis and ensure the implementation of import and export functions) [4; 20].

The next element of the system of analysis of export-import activities of companies is the purpose of these measures. It is substantiated that the purpose of the analysis of export-import activities of companies is to identify problems and conditions to ensure the efficiency and effectiveness of export-import operations.

The purpose of the analysis is to determine the main objectives of the system of diagnostic procedures of nature in relation to export and import activities of the company. In the process of research, it was found that the task of import-export operation can be interpreted as the main actions that must be performed in the process selling (export) and buying (import) goods, commodities and services.

To establish a correct effectiveness of export-import activities, it is necessary to know its level. Even a detailed analysis of the cost of partial indicators, as well as coefficients can not correctly diagnose the effectiveness of export-import activities of the enterprise; criteria should be modeled on the basis of these partial indicators. The methods of analysis of the effectiveness of this activity primarily involves:

- general analysis of the profitability of the enterprise due to foreign economic activity
- analysis of the fulfillment of obligations under foreign economic transactions
- analysis of the effectiveness of the return on funds invested in export operations
- analysis of the effectiveness of import operations, in particular, in the case of their implementation on credit terms.

The effectiveness of foreign economic activity should be determined in compliance with the following provisions:

- comprehensive consideration of all components of the costs and results of foreign economic activity in the documents of the operational statistical and accounting;
- summary of costs and results for comparison to the same quantitative units and eliminate duplication of data;
- discounting of different costs, revenues and results of foreign economic activity;
- comparison of data of the current period with data of the base period to assess the current state foreign economic activity of the business entity and development of proposals to improve the situation in the period under analysis.

COVID-19 caused an unprecedented collapse of international trade in the first half of 2020. Prior to the outbreak of the pandemic, global trade was projected to grow by 3 percent in 2020; it is currently estimated to decline by about 20 percent. This suggests that the COVID-19 pandemic could result in a loss of about \$ 6 trillion for global trade, about 50 percent more than the drop in trade recorded during the 2008 recession.

The economic shocks caused by the COVID-19 pandemic have affected some sectors much more than others, due to sectoral differences in demand, labor intensity and global value chains. The COVID-19 pandemic is leading to a more significant reduction in international trade in goods and services that are relatively more labor-intensive and consumer demand for which may be delayed. The sectors that have been hit hardest are the automotive, textiles and clothing industries, and a variety of

machinery and equipment, which declined more than 10 percent in trade in the first half of 2020. On the other hand, international trade in the agricultural food processing industry remained unchanged. Trade in office equipment declined sharply in the first quarter of 2020, but picked up the same pace in the second quarter, probably due to increased demand caused by the widespread practice of remote work during the period of isolation. In the service sector, the tourism industry has been hit hardest, with the number of international tourists will decline by about 70 percent.

Another consequence of the COVID-19 pandemic has been an increase in demand for medical supplies and equipment such as ventilators, thermometers, hand sanitizers, and face masks and clothing. Although immediately after the beginning of the pandemic, measures such as the introduction of export restrictions on certain types of medical equipment and food items, since then the volume of international trade in such items has increased significantly. In this regard, a positive role in meeting the demand for COVID-19-related medical products are globally played by international trade.

1.4 Chapter 1 summary

On the basis of research and deep defining of literature sources reflected conceptual and terminological analysis of logistics activity in the direction of clarifying its fundamental analysis: analysis of company activities, export and import activities. Export-import operations, as a rule, are associated with the use of certain standard documents and forms, in particular, a proforma invoice, purchase order, commercial invoice (invoice), documentary credit, bill of lading, certificate of origin of goods, act (certificate) of inspection of goods, consular invoice, packing slip and insurance certificate. International traders should be aware of the correct use of these documents, as well as the potential pitfalls that each of these documents contains.

Export-import operations involve companies carrying out transactions for the sale and purchase of goods (expressed in material form) with export / import across the

border. In turn, such operations are divided into export (commercial activities for the sale and movement of goods abroad for the purpose of transferring it into the ownership of the owner with a foreign registration) and import (purchase and import into the country of goods of foreign origin for their use or sale in the domestic market).

The main features of export activities that characterize the most significant processes have been determined:

- delivery of goods to other countries that were manufactured, mined, grown on the territory of this state, as well as imported from abroad and subjected to further processing;

- export of previously imported goods processed under customs control;

- export abroad of previously exported goods that have not been processed in the country of export. This export procedure is defined as re-export.

Also, the main features of export activities that characterize the most significant processes have been determined:

- delivery of foreign goods to the country directly from the producing country or from an intermediary for personal consumption, for the needs of various enterprises, as well as for processing and export to other countries;

- delivery of goods from capital warehouses and free zones;

- import of goods from abroad previously exported from the domestic market and processed. Such movement of goods is called re-import.

The pandemic is seriously affecting international transport and logistics. Shipping companies, airlines and road and rail carriers are facing plummeting demand for their services, especially for passenger transportation. The sudden business shutdown and an unprecedented deterioration in global trade are causing deep recessions in most countries. In the worst case, without strong international support, many developing and least developed countries, which live on income from the sale of raw materials, tourism and remittances, face a sustained economic downturn.

CHAPTER 2

ANALYSIS OF EXPORT AND IMPORT ACTIVITIES OF «FTP» IN THE SUPPLY CHAINS

2.1. General characteristics of the company

«FTP» logistics company is operating in the market of import-export operations, international freight and transportation and border-crossing (customs clearance services) since 2010. For eleven years of operating within market, the company has a reputation as a high-professional and a reliable partner and continues to spread and develop with its customers and business partners, completely responding to their needs and meeting their request for any logistics task.

The company is supervised by a team of young but quite skilled practitioners in the field of logistics, brokerage services and freight forwarding, so it's no surprise that company has a high and dynamic development.

Today, «FTP» high-experienced specialists can offer a comprehensive approach to any size logistics business, which allows clients to maintain every shipment movement from start to finish. High-quality consulting, preparation whole packet with required documents, no matter, import or export documentation, cargo insurance, service for certification, transportation by all available types of transport, customs brokerage services - all mentioned below is performed by this logistics enterprise.

Thus, in 2014 the researched logistics company has achieved the Industry Leader 2014 award (twenty-eighth place (silver) rating in Ukraine in company's main activity FEA (foreign economical activity 52.29 – the other support activities in the field of transport)

The main attractions services of company are represented on its website [91]:

- efficiency and quality of services provided by the logistics company;
- a comprehensive approach to solving problems;

- experienced and proactive team of specialists;
- availability of own offices in Kyiv and Odessa;
- extensive partner network around the world.

The structure of the company «FTP» is presented in appendix A. And, which, accordingly, can be defined as the linear-functional structure, because it provides a division of management, in which the linear management is designed to command, and functional - to advise, assist in developing specific issues and preparing appropriate decisions, plans. Among the advantages of this structure should be noted:

- deeper preparation of decisions and plans for work related to the specialization of employees;
- exemption of line managers from solving many issues related to financial planning, logistics, etc.;
- building relationships "manager - subordinate" using hierarchical ladder, in which each employee should subordinate to only one direct supervisor.

However, there are shortcomings in the linear-functional structure:

- each link is engaging to reach the one direct goal, but not the whole goal of the company;
- not enough level of close relations and interactions within different departments at the horizontal level;
- overdeveloped system of vertical interaction;
- gathering to the top level along with strategic and operational objectives.

It also can be mentioned that the current structure of the researched logistics company can't be more suitable for its activities while making comparing with other possible structures and present time stay the perfect variant of management.

Let's briefly consider the tasks of departments that are directly related to the provision of logistics services. Thus, the work of the sales and marketing units is targeted at increasing the number of sales of logistics company services, therefore, accordingly, the activities of the different units are targeted at achieving the next goals: attracting customers, maintaining customer base and increasing the number of customers.

The main tasks and functions of the sales department are:

1. Study and assessment of market conditions, constant analysis of the results of commercial activity of the company and the factors that affect them; development of sales forecasts and market share of «FTP», conducting situational market analysis.
2. Formation and management of the company's service implementation system.
3. Implementation of the process of active sales of «FTP» products and achievement of sales indicators set in the sales plan and development plan of «FTP».
4. Organization and conduct of business negotiations for the sale of the company's services.
5. Expanding the customer base, increasing sales for the customer and the company as a whole.
6. Organization and conduct of internal training of sales staff in negotiation and sales techniques.
7. Informing potential consumers about the range of services, its updates and conditions.
8. Participation in determining the commercial value of transactions.
9. Implementation of operations for the sale of services, control of their implementation.
10. Ensuring the provision of services and presentation of information to potential customers.
11. Organization of statistical data collection and sales accounting, their analytics.
12. Registration of documentation on transactions with buyers and suppliers.
13. Preparation of recommendations for the formation of the range and pricing, as well as the implementation of services.

The range of responsibilities leaned on a specialists of the road transport department includes a full complex of different freight forwarding services in the road transport field, like next:

1. Transportation of goods between Ukraine, CIS countries and Western Europe, as well as intra-European freight.

2. Cargo repacking, cargo handling and consolidation using warehouses in Germany, Poland, Lithuania and other countries.

3. Cargo insurance against possible risks.

4. Completion of all necessary transport documents in accordance with international standards.

5. Road haulage of any complexity, including complete, prefabricated, refrigerated, dangerous, perishable or large.

The tasks of specialists of the department of sea and air transportation include:

1. Delivery of goods using sea containers by a "door to door" scheme with the opportunity changing transport time in time, if it's necessary.

2. Implementing of the full complex solutions for freight transportation with coordination of routes.

3. Preparation of all list of documents required for legal import-export operations and customs clearance controlling of shipment.

4. Managing of all interactions of participants of transportation process.

5. Implementation of cargo tracking all the way through it.

6. Provision of marine insurance.

7. Goods delivering from/to the any airport for international air transportation.

8. Weighing, marking, registration of the necessary transport documentation (cargo manifest, air waybills, etc.) and other service.

9. Completion of all necessary transport documents in accordance with international standards.

10. Air travel booking and cargo tracking along the entire route.

11. Cargo insurance in the largest insurance companies.

12. Organization of intermodal freight (car + sea, air + car, etc.)

The department of customs brokerage services provides a full range of customs clearance, among the main tasks are:

1. Preliminary selection of product codes according to custom classificatory of Ukraine.

2. Representing the client's interests at customs.

3. Preliminary calculation of customs duties and taxes.
4. Accreditation of foreign trade entities in customs.
5. Consultation and assistance in preparation of the full necessary package of documents for registration of cargo of the client.

Based on the main tasks and objectives of the departments directly involved in the organization of the logistics chain, we present in appendix A. Range of services «FTP», which will be mentioned more detailed below:

– FEA operator service is a comprehensive door-to-door logistics solution, the components of which are the search for suppliers/markets, registration and maintenance of contracts with suppliers, payment for goods, preparation of products for shipment (collection, sorting, labeling, warehousing) customs clearance operations as in the country of departure, as in the country of destination, transportation of goods (using the most efficient type of transport, depends on conditions and clients request), accessing legal permits, commodity certification in the country of destination, organization of direct delivery to the recipient, etc.

– "sales agent" service, which helps to choose the best scheme of work with foreign contractors and helps to establish the correct contractual, financial and documentary work in building supply chains. This service is possible due to experienced specialists operated in all areas related to economic activity both in Ukraine and in the countries of the asia region, USA, EU.

The above services have made it possible to organize door-to-door delivery from EU and the China, which are hight-demand services from the logistics company's customers.

The latter services are also possible through the use of consolidated warehouses on biggest transportational arterias (Germany, Hungary, Italy, Lithuania and Poland,), which conducted tocount on delivery time, use the most suitable routes in terms of costs, perform well-managed trading and financial flows.

In the field of international sea (maritime) transportation «FTP» logistics managers are ready to offer cargo's transportation by sea, despite the serving in the most remote regions with poord or old infrastructure, so company is experience in transporting

goods through major world ports in China; in Central, Southeast, East, West, Southwest Asia; in Europe and Australia, as well as in ports passing the both the coasts of North America and South America.

The service of the organization of transportation by separate containers is possible for safe shipments of any type:

- general cargo, which is packed in containers (boxes, bales, barrels, etc.) or artificial;
- bulk cargo;
- bulk or bulk cargo;
- temperature-required cargo that needs special attention (meat, cosmetics, food);
- non-standardized, oversized and overheavy cargos, for which transportation special permit is required.

During the organization of sea transportation of groupage cargoes to Ukraine the company uses the following transit ports: Illichivsk (Ukraine), Gdynia and Gdansk (Poland), Klaipeda (Lithuania), Riga (Latvia), Constanta (Romania) and Hamburg (Germany).

To organize the transportation of goods by air, logistics companies have a sufficient number of direct contracts related airline companies and agents worked airports to guarantee just-in-time goods delivering from or to anywhere in the world.

The hardest stage in term of costs of the import shipment delivery through the "chief air gate" of Ukraine - Boryspil Airport, which is how any the airport has its own reception office, providing optimal timing of the logistics chain: receipt and copy of documents from the warehouse, procedures of import customs clearance, payment of fee to the terminal collection, receiving shipment from the warehouse, loading into the truck for direct delivery to the recipient.

After uprising the popularity of air cargo services from China, «FTP» operates a wide network of partnership with biggest manufacture Chinese cities, like the Guangzhou, Hong Kong, Foshan, Shanghai, Shenzhen, Foshan and Yiwu. That makes possible to organize better air transportation of goods, including dangerous goods, in the shortest possible time make it cost-effective.

A next very component in arrange of the services of «FTP» are custom clearance services availability, while the offer of clearance services is not restricted to "standard" certification and registration of shipment for import-export as discussed above, and also include:

- registration of goods under rule of preference (medical devices, medicines, technical assistance, etc.);
- registration of courier items (also for physical persons);
- registration of temporary import-export to exhibitions, reclamations, etc.

It addition, should be mentioned that company has own office at Boryspil Airport terminal, the company has its own reception in the Odessa Sea Commercial Port, which saves time for freight forwarding and customs clearance of impor-export operations in the Odessa Sea Commercial Port.

An other essential part in the differs of services of the logistics company «FTP» is the ability to control delivery, namely tracking of cargo during transportation, both in Ukraine and during international delivery.

Yes, on the company's website it is possible to track the transportation of goods:

- in Ukraine: Nova Poshta, UkrPoshta, Delivery, Autolux, Justin, Mist, SAT;
- international couriers: DHL, UPS, TNT, Fedex, DB Shenker USA, Air Cargo, POST / EMS (with USPS);
- and also by number of container, sea bill of lading or MRN code.

In general, it can be concluded that «FTP» responding the criterars required to determine a reliable partner in the field of foreign economic activity and provides the whole complex of procurement, transport logistics and financial activity.

2.2 SWOT analysis of «FTP» company

SWOT analysis (or SWOT matrix) is a strategic planning technique which operates to improve a personal or company identify strengths, weaknesses,

opportunities, and threats related to business competition or project planning [46]. It is designed for use in the preliminary stages of decision-making processes and can be used as a tool for evaluation of the strategic position of a city or organization. It is intended to specify the objectives of the business venture or project and identify the internal and external factors that are favorable and unfavorable to achieving those objectives. Users of a SWOT analysis often ask and answer questions to generate meaningful information for each category to make the tool useful and identify their competitive advantage.

It is intended for use in the initial stages of the decision-making process and can be used as a tool to assess the strategic position of a city or organization. Its purpose is to define the goals of the company or business project, as well as to identify internal and external factors favorable and unfavorable for achieving these goals. SWOT users often make questions and answer them to achieve objective and relevant information for each field, to make the instrument useful and to reveal its competitive advantage.

Strengths and weakness are frequently internally related, while opportunities and threats commonly focus on the external environment. The name is an acronym for the four parameters the technique examines:

- Strengths: definition of the business or project that give it an advantage over others.
- Weaknesses: definition of the business that place the business or project at a disadvantage relative to others.
- Opportunities: elements in the environment that the business or project could exploit to its advantage.
- Threats: elements in the environment that could cause trouble for the business or project.

The level to which the internal environment of the enterprise corresponds to the external environment, implements the strategic concept of the concept. SWOT-identification is important for various reasons. First of all, it is necessary to consider the persons who make the decisions, to determine precisely what is available for SWOT analysis. If the destination could not be connected, they must monitor other functions

and use the operation.

The SWOT analysis of the activities of companies will allow a long-term development plan. Firstly, we analyse road transport activity (Table 2.1).

Table 2.1 – SWOT-analysis of road transport activity

Strength	Weaknesses
FTL service, LTL service, Strong team, Work schedule 24/7, Existence of physical office, Positive experience, stress resistance,	Location, Sale levels, Carriers, Accounts receivable controlling, Rapid truck searching, 1 employee in LTL sector.
Opportunities	Threats
Location, Truck search speed in 30 minutes, Implementation of 1C Sale levels, Communication, Experience exchange.	Loss of key customers

Accordingly, to analysis the action plan was developed:

- to provide a list of company-exporters from Ukraine to European countries;
- to provide a list of company-exporters of clients from Ukraine to Poland (south, west, southwest);
- revise the amount of team bonus, in the direction of reduction;
- create a strong FTL service vehicle searching procedures;
- create KPI on received and executed applications in 1C;
- improving the one accounting system 1C;
- creating a strong trucking team;
- boosting of sales;
- development of business share in current customers;
- much higher receivables control.

The SWOT-analyses of customs clearance services performed in the Table 2.2.

Table 2.2 – SWOT-analysis of customs brokerage activity

Strength	Weaknesses
Geography: Kyiv, Odessa, Boryspil Work schedule 24/7, All types of transport, Deferred payments, Certification srvcies.	Team, Sales, Weak control, Lack of coherence.
Opportunities	Threats
Team reinforcement, Strengthening personal contacts in Odessa, Set target sale.	Loss of P&G.

In order to analysis conducted below the follow steps could be recommended for implementation and make work better:

- improve the brokers team strengthening;
- strengthening the sale managers team of customs brokerage services;
- top 20 customers of Yagodin custom terminal.

The SWOT-analysss of sea transport performed and represented in the Table 2.3.

Table 2.3 – SWOT-analysis of sea transport activity

Strength	Weaknesses
Team (interchangeability), High-skilled, Deferred payment of services, Work in all ports, Wide range of services, Flexibility in payments, Rapidness and customer focus.	No own freight, Sales, No office in the seaport.
Opportunities	Threats
Agent network, Office in Chornomorsk/Odessa/Yuzhnyii, Strengthen the purchase of sea freight, Sales.	

The action plan performed above in the field of sea (maritime) transport could be defined - hiring a top development manager, improve the office in Odessa, expansion

and agents' partnership aimed to attract clients and use the customer mailing: distribution of import-export tariffs.

2.3. Analysis of indicators of export-import activity of the company

Logistics company «FTP» offer a lot of different types of transportation, but usually most cost-efficient type of transport is sea transport. Sea transport is used more than other ways of transport. «FTP» offer LCL and FCL types of sea transportation either, So, LCL and FCL types of sea transportation: Meaning and difference?

The terms LCL and FCL refer to two main types of container shipping: FCL for Full Container Loads and LCL for Less than container load. FCL delivery, or full container delivery, as the name suggests, is a cargo that takes up the full space of a container without exchanging it for other goods.

LCL, or grouping shipment, as it is otherwise known, refers to consignments that only take up a portion of an entire container and are shipped along with other goods from other carriers in the same container. The terms FCL and LCL are commonly used in international logistics regardless of language. It is important to discuss the four main differences between FCL and LCL that carriers must consider before ordering delivery: volume, safety, cost, and urgency.

LCL and FCL: the main differences:

– Transport volume: Transport volume refers to the capacity occupied by the goods being transported. It is usually measured in cubic meters or cubic feet. This is often the deciding factor when choosing between LCL and FCL conversions. For small loads from 2 to 13 m³, groupage transport is usually best suited. LCL allows, under certain conditions, to transport goods with a size of less than 2 m³. FCL shipments are usually cheaper if more than 10 standard pallets are used for transportation or exceeds 14 m³.

– Cargo Security: Of course, all carriers want their cargo to be safe when crossing oceans. However, not all transfers require the same level of security. Some movements are more sensitive to changes and movements that goods often undergo and to which they undergo during transportation. FCL transportation is usually safer as it has exclusive rights to the entire container. This means it is no longer in contact with carriers such as LCL shipments and there is no risk of damage or contamination by other goods. However, LCL may be a safer choice for some transfers.

– Shipping cost: Shipping cost is one of the important factors to consider when deciding whether to transfer FCL or LCL. While you have some guidelines you can follow, it can be a gray area where the FCL and LCL decision is unclear. As a rule, LCL for transportation of small volumes of cargo (from 2 to 13 m³) and FCL for transportation of large volumes (13 m³ or more), although it is impossible to completely fill the container. Switching between FCL and LCL can be difficult, and a common buyer's question is which of the two methods is cheaper? There is no simple answer to this question, as there are several factors to consider. The main factors are traffic volume, routing, schedule and cost. While LCL allows buyers to ship less, shipping including local taxes is usually higher than FCL when comparing CBM rates. Hence, comparing LCL prices to FCL prices is always useful when the CBM is high enough. As a rule, if the translation is about 15 cubic meters., It is recommended that you check the LCL and FCL rates with your shipping company and compare shipping costs, delivery times and other possible costs that may arise during the logistics process. Knowledge of the basics of delivery and a reliable freight forwarder will help every buyer to choose the right way to deliver their products. However, this guide is by no means carved in stone. Under certain circumstances, it may be better to deliver FCL in volumes of less than 15 m³. If you are unsure whether to send an FCL or LCL, consider both and seek the advice of your carrier. The stability of FCL and LCL speeds may vary. In general, FCL rates are more volatile compared to LCL rates, which tend to be more stable.

– Speed of sending: it is important to schedule delivery in advance, but something may not always happen and circumstances may not allow it. When choosing between

FCL and LCL, you must consider one factor in addition to the rates - the speed of delivery of your cargo to the destination. FCL delivery is usually the best option for urgent shipments or shipments that must arrive before the due date. LCL is more suitable for flexible transport. In addition to transshipment, groupage consignments are more prone to delays due to repeated handling during transport. Groupage cargo must be unloaded and loaded whenever it arrives at the port of transshipment. In times of stress, such as during the main shipping season from August to October or a few weeks before Golden Week in China, it may be easier to order a pick-up service instead of cargo. To assume all mentioned above, was made a comparing table 2.4., which is informative and can help transport forwarder to choose the more suitable way of transport goods.

Table 2.4 - Comparing LCL and FCL types of maritime transportation in import-export operations.

Indicator	LCL: Less than Container Load	FCL: Full Container Load
1	2	3
Shipment's Volume	Can be used for shipments from 1 CBM or less, although the minimum billing volume is 1 cu. LCL is ideal for shipments smaller than 15 cbm.	It is best to understand how to complete a full container, both of which consisted of 16 cubic meters and. The following there are the dimensions of the FCL-compliant container operators, as well as their approach: 20' – 33 CBM, 40' – 67.5 CBM, 40' HQ – 76 CBM
Shipment's Weight	Small deliveries less than 1 CBM, but over 150kg may be more economic profitable if shipped by LCL rather than air. This is because airlines base billable cargo weight on either total weight or volumetric weight, whichever is greater. Regardless of how small the consignment is, the customer always pays for the volume or actual weight, whichever is greater.	Each container size has a different maximum allowable weight, which is always posted on the container as a reference. Some countries have various rulings on the maximum load. Below are the maximum payload for the basic container sizes. 20' – 18.6 tons 40' and 40' HC – 28.6 tons
Freight Value	For small loads of up to 15 cubic CBM, the costs are usually lower. Local fees are usually higher than FCL. For a shipment of +/- 2 CBM from 15 CBM it is better to check the possibility of container loading.	There is no specific defining, when FCL more suitable as prices vary depending on the route. However, the total cost of a full container load can be lower as the local FCL fees apply per container.

Continuation of table 2.4

1	2	3
Speed	<p>LCL can take at least four days or more total term compared to FCL. Extra days required for unloading, sorting, and deconsolidating.</p> <p>If a shipment in the same container is selected for selection by customs, the entire container will be detained by customs..</p>	<p>Overall delivery times are typically shorter compared to LCL as containers are unloaded from the ship and delivered to their final destination.</p>
Security and Damages	<p>The risk of damage, theft or loss increases if the container is shared with other cargo. Freight insurance may be offered the buyer additional protection.</p>	<p>The risk of damage, theft or loss of cargo is reduced as the container moves directly to the final recipient.</p> <p>The full container cargo insurance and screening are also available as additional protection.</p>
Trackability	<p>The ship and container can be tracked using the information on the Bill of Lading. Unfortunately, the tracking ends when the container arrives at the port or is unloaded from the container. Tracking can also be inaccurate, especially when there are multiple shipment.</p>	<p>FCL tracking is the same as for LCL. You can use the information on the bill of lading to track the ship or the location of the container. FCL is much easier to follow than LCL because the full container is carried to one receiver.</p> <p>Your freight forwarder can provide additional shipment information for delivery.</p>
Split Shipment	<p>In the case of group shipments, it is easier to split up the shipments for delivery to different locations using LCL, as the full container is sent to the warehouse for sorting.</p> <p>If shipments are being sent to multiple addresses that are remote from each other, LCL may be the best option depending on the total volume. The load can be split so that different ports can be used depending on where the shipments is being delivered.</p>	<p>You can also split the whole shipment under the FCL agreement; However, it's best to research what options you have and which one is more cost effective.</p> <p>Since the container for FCL does not need to be transported to the warehouse, splitting the shipment requires this additional step, storage fees, labeling fees, sorting fees, loading and unloading fees, and shipment weight fees.</p> <p>It's best to ask your carrier for best shipping route if you don't have to pay more.</p>
Delivery Appointments	<p>Depending where the shipment is forwarding, LCL shipments in fulfillment warehouses can be booked for delivery more easily than for large shipments, as the overall size is not as large as the volume of a full container. Delivery times and booking processes are usually cheaper and faster, but they can still be delayed.</p>	<p>There are some situations when the waiting time for the delivery date is longer for the FCL container delivery to the fulfillment warehouse than for the LCL delivery.</p>
Local Charges	<p>Shipments as part of LCL shipments are billed via quantity CBM. The tariffs include the local fees for outgoing and incoming ports.</p> <p>It is common practice to pay more for local fees with LCL than you would on your previous FCL shipment.</p>	<p>Local FCL shipping and handling costs are flat and stable and usually billed per whole container. These costs are usually lower than the cost of groupage shipments.</p>

The end of table 2.4

1	2	3
Customs Clearance and Customs crossing	<p>However, the difficulty with LCL is that if one shipment is tagged by customs ordered to inspection, the entire container will have to go through inspection.</p> <p>This can range from a simple X-ray examination to a thorough ASD (anti-smuggling department) checking.</p> <p>The cost of customs clearance, as well as any associated warehouse and port charges, will be shared among all recipients using the container.</p>	<p>Customs is conducting randomize spot checks on containers.</p> <p>The buyer pays the customs control costs as well as port and storage fees. So it's best to always pay for customs clearance upon shipment.</p>

And below the table comparing FCL and LCL types of transportation was performed the figures: figure 2.1, figure 2.2, figure 2.3, which reflect situation with countries engaged on import operations of the sea transportation in «FTP» company. Every next year was increased the volume of cargo transported from other countries (in order to operate not only on Chinese market, but also on South Korea, United States of America a Taiwan markets).

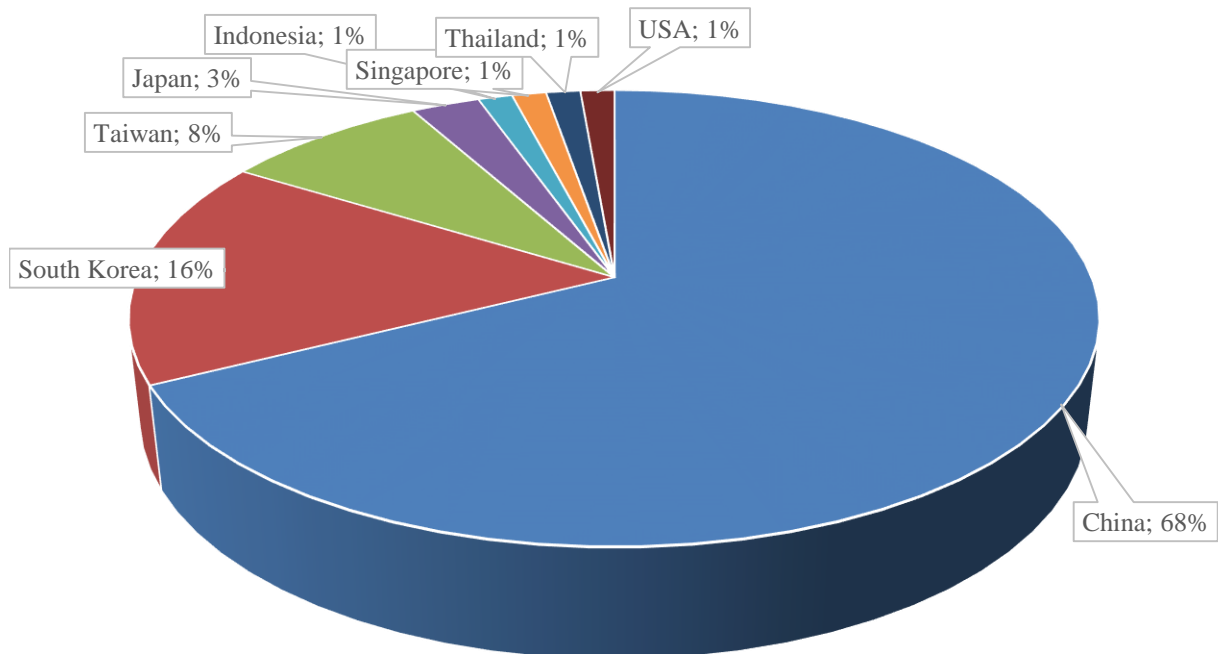


Figure 2.1 – Structure of transported goods by sea transport by «FTP» in 2018

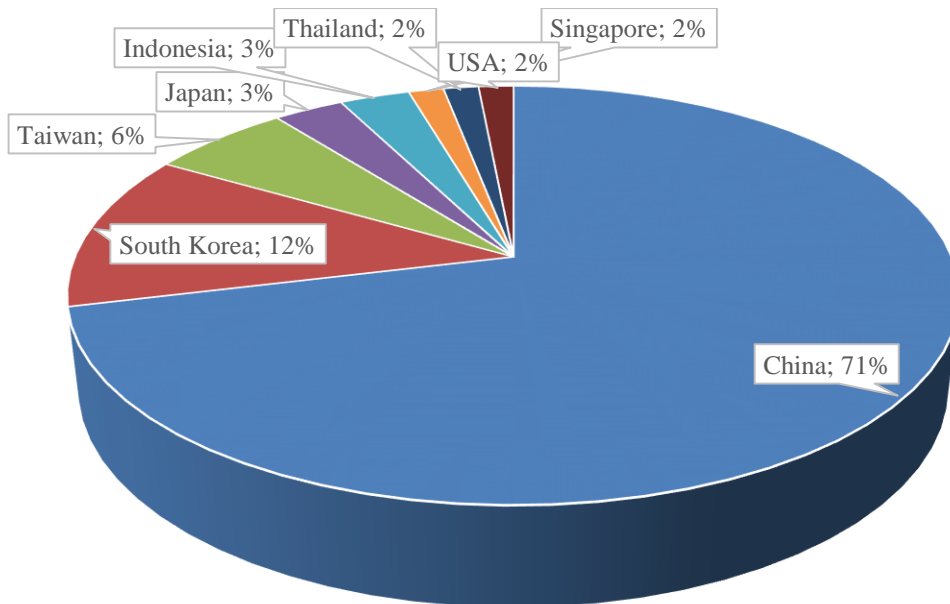


Figure 2.2 - Structure of transported goods by sea transport by «FTP» in 2019

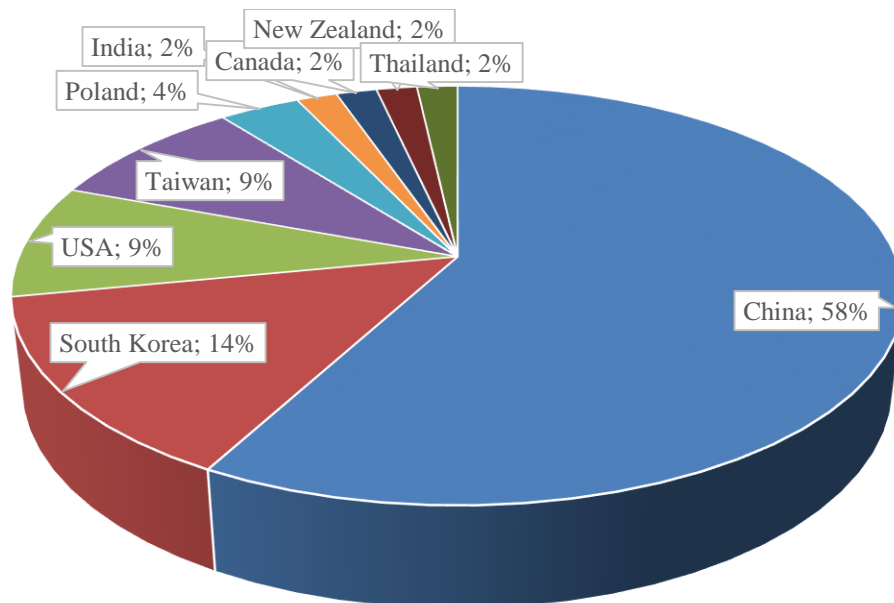


Figure 2.3 - Structure of transported goods by sea transport by «FTP» in 2020

The figures (figure 2.4, figure 2.5 and figure 2.6) represents the import-export operations occurred by the sea transport from 2018 until 2020 years and which is shown the separation by the type of container transportation (FCL or LCL transportation).

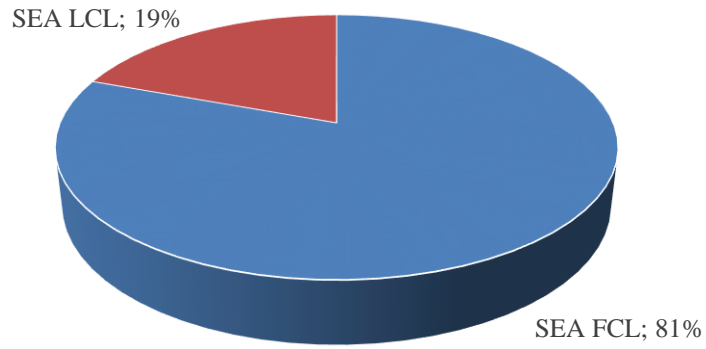


Figure 2.4 - Structure of FCL and LCL transportation occurred by sea in 2018

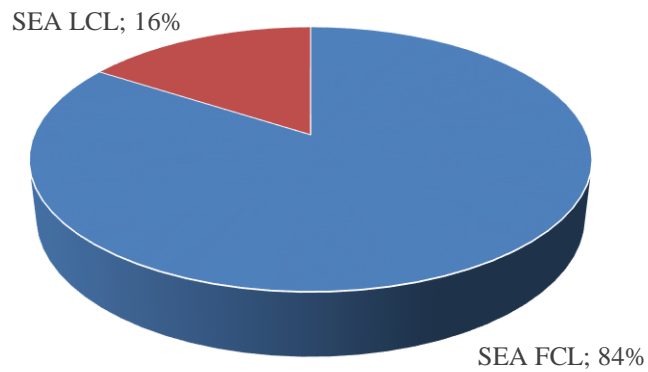


Figure 2.5 - Structure of FCL and LCL transportation occurred by sea in 2019

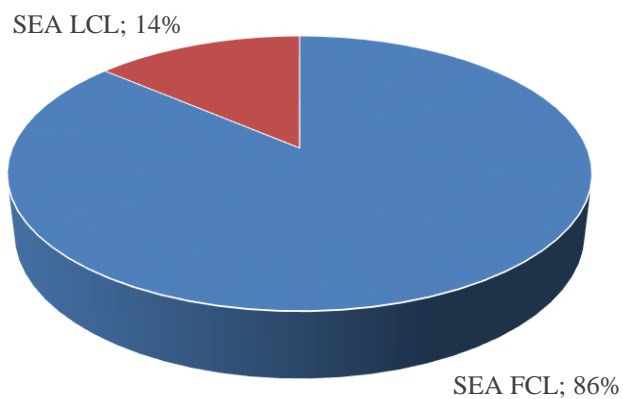


Figure 2.6 - Structure of FCL and LCL transportation occurred by sea in 2020

Below presented the figures (figure 2.7 and figure 2.8) which shown schematically analysis and segmentation by countries of road transportation of the

logistics company «FTP».

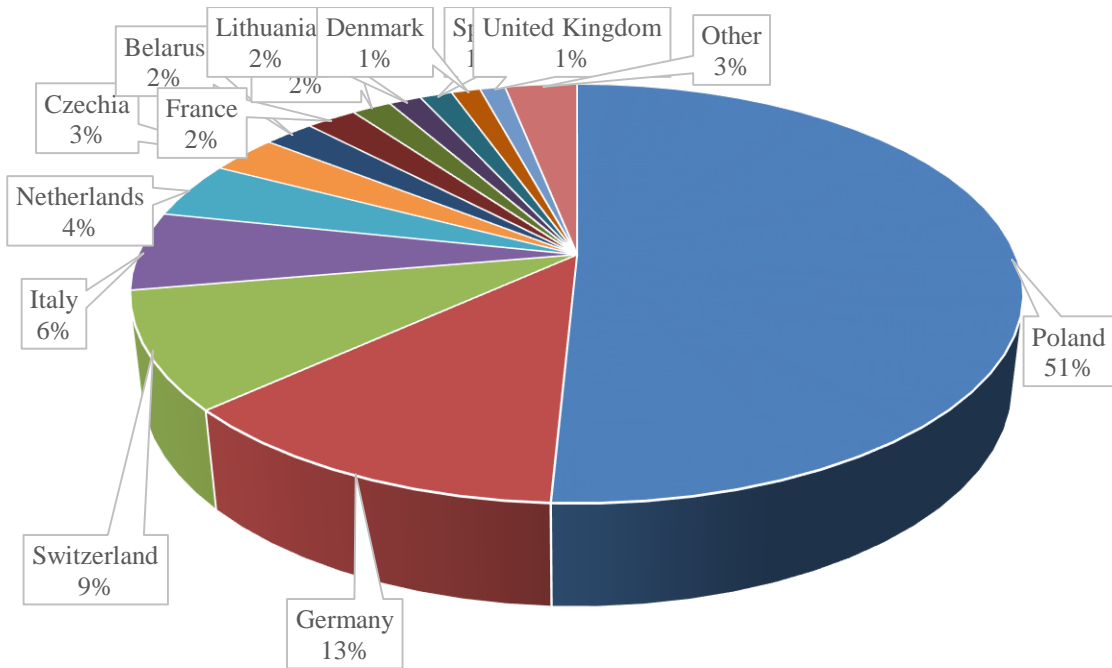


Figure 2.7 – Structure of goods transported by road transport in 2019

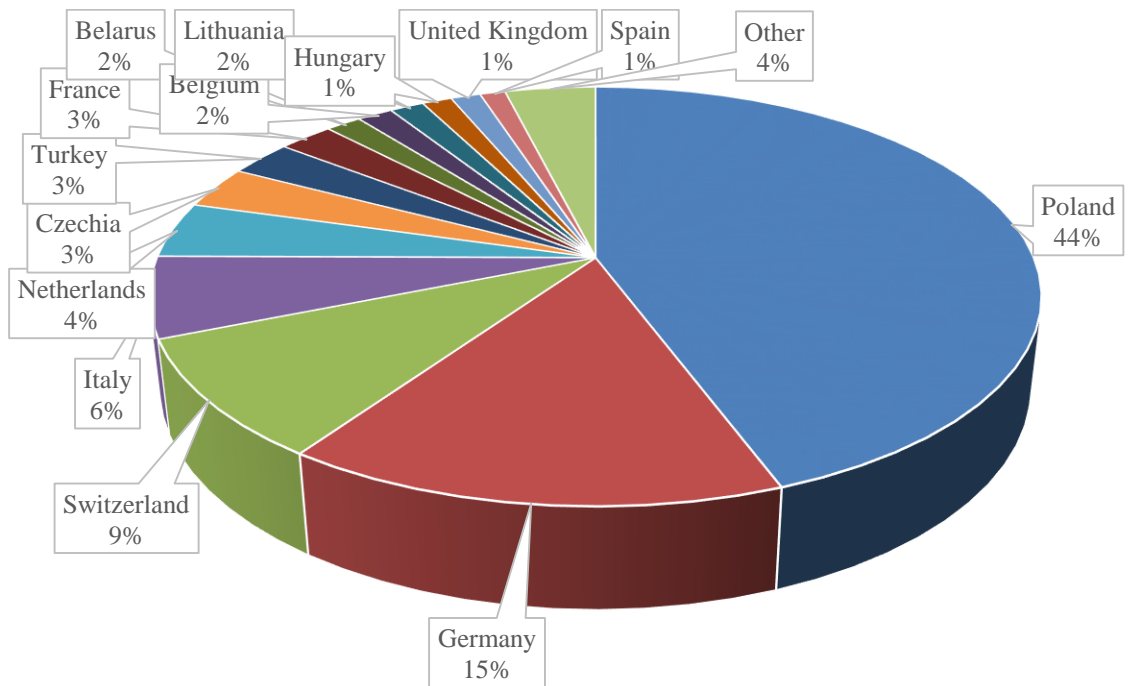


Figure 2.8 - Structure of goods transported by road transport in 2020

All figures presented above can reflect the services offered and operated by logistics company «FTP», was observed sea (maritime) transport and road transport,

and after summarizing all figures, could be notice that logistics company operates in different segments, have a shares in diffirent countries market and by a different types of transportation, That mean that company may be a strong competitor in a different conditions including multimodal transport and smoothly pass big crysisis and troubles faces a global logistics market,

2.4. Analysis the financial indicators of the company «FTP»

The next stage is the analysis of production and financial performance of the company, because such an analysis takes action as important part in improving the economic performance of the company, in its management and in strengthening its financial condition.

The analysis of economic activity is conducted by the statistical report of the company by indicators and after that, analysis of the received tendencies. First, consider the volume of work performed by consolidated groups of services over the past three years (see Table 2.5).

Table 2.5 - Volumes of services performed for 2018 – 2020

№	Service groups of «FTP»	Years			Total
		2018	2019	2020	
1	Road transport	23	185	265	473
2	Air transportation	25	31	35	91
3	Sea transportation	72	156	165	393
4	Brokerage services	213	320	576	1109
	Total	348	708	1059	2115

Thus, the services offered structure for three years present the predominance of demand for brokerage services in the total services of the company, but it should be

borne in mind that brokerage services are often provided in a package with freight forwarding services for various modes of transport during the organization of both unimodal and and intermodal transportation. For greater clarity, we have present in Fig. 2.9 distribution by shares of these services for the last three years.

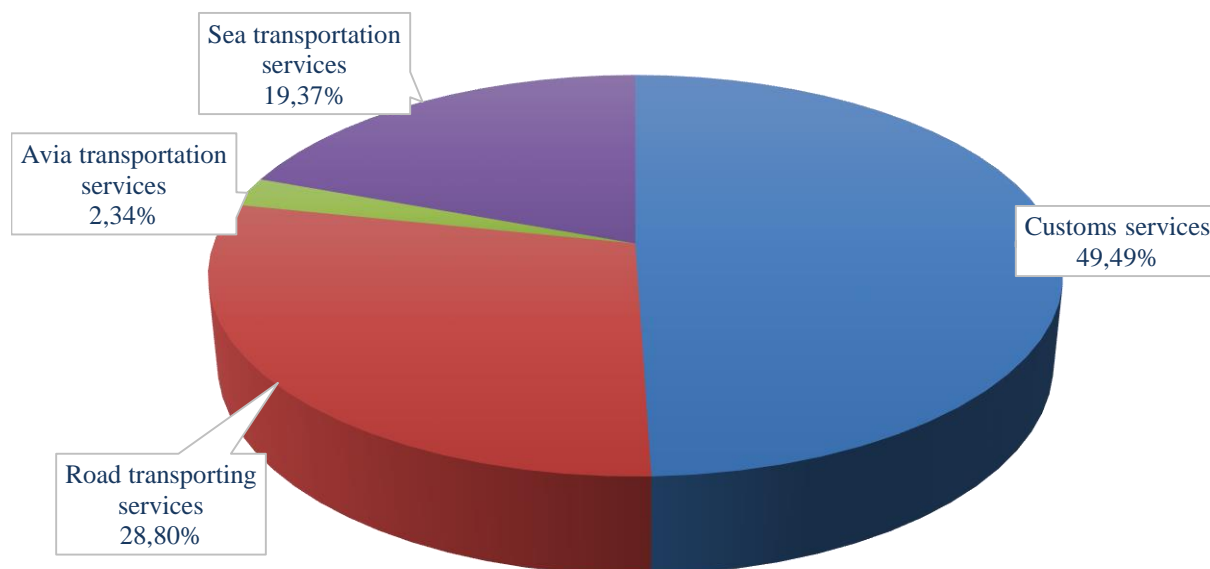


Figure 2.9 - Structure of services of the logistics company «FTP» (by number of orders for the last three years)

Thus, if we consider the transport and forwarding support, the largest part falls on the forwarding support of road and sea transport, and the smallest, respectively, on air.

Representable in fig. 2.10 segmentation of shares for all freight forwarding services, taking into account the mode of cargo.

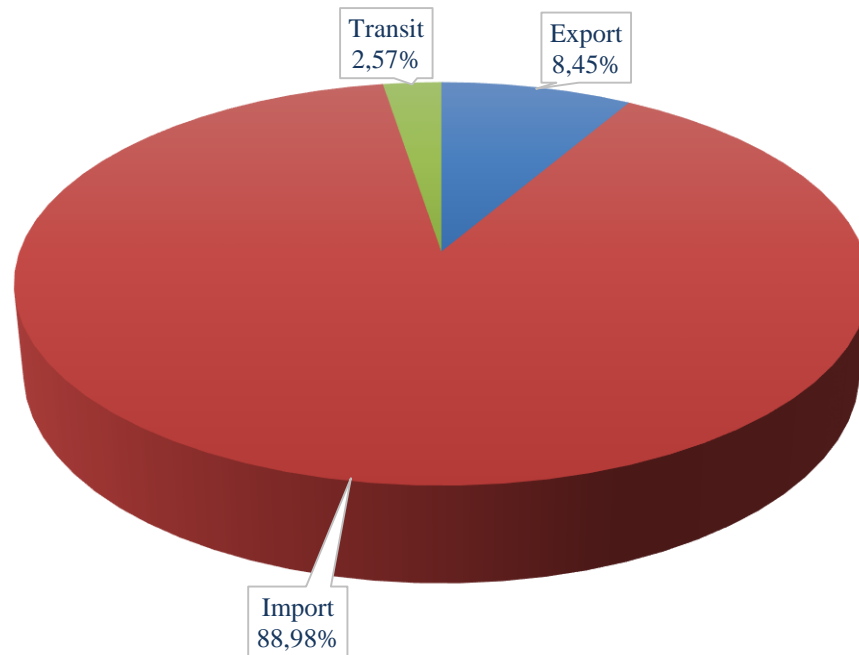


Figure 2.10 - The structure of services by mode of registration of cargo

The percentages of cargo transportation regimes indicate the general Ukrainian tendency to exceed the import of goods over exports, and the logistics company is beginning to develop in the market of logistics services during transportation between third countries.

Given that among the goods for which the logistics company «FTP» provides freight forwarding services, are in the "import" mode, consider in more detail from which countries the goods are imported by customers of «FTP».

As the logistics company does not have its own motor vehicles, it cooperates with carriers that are the largest in the Ukrainian market, such as Nova Poshta, UkrPoshta, Delivery, Autolux, In-Time, Mist Express and SAT, and the world's largest express carriers. such as DHL, UPS, TNT, Fedex, as well as with trucking companies, including mostly small limited liability companies and individuals-companys, which over the years of cooperation have established themselves as reliable partners, such as Pan Avtos LLC, Vast Trans LLC ", LLC" Econo LTD ", LLC" Kalberson Logistics Ukraine ", LLC" Consult-Auto "and LLC" Novinka LTD "and others.

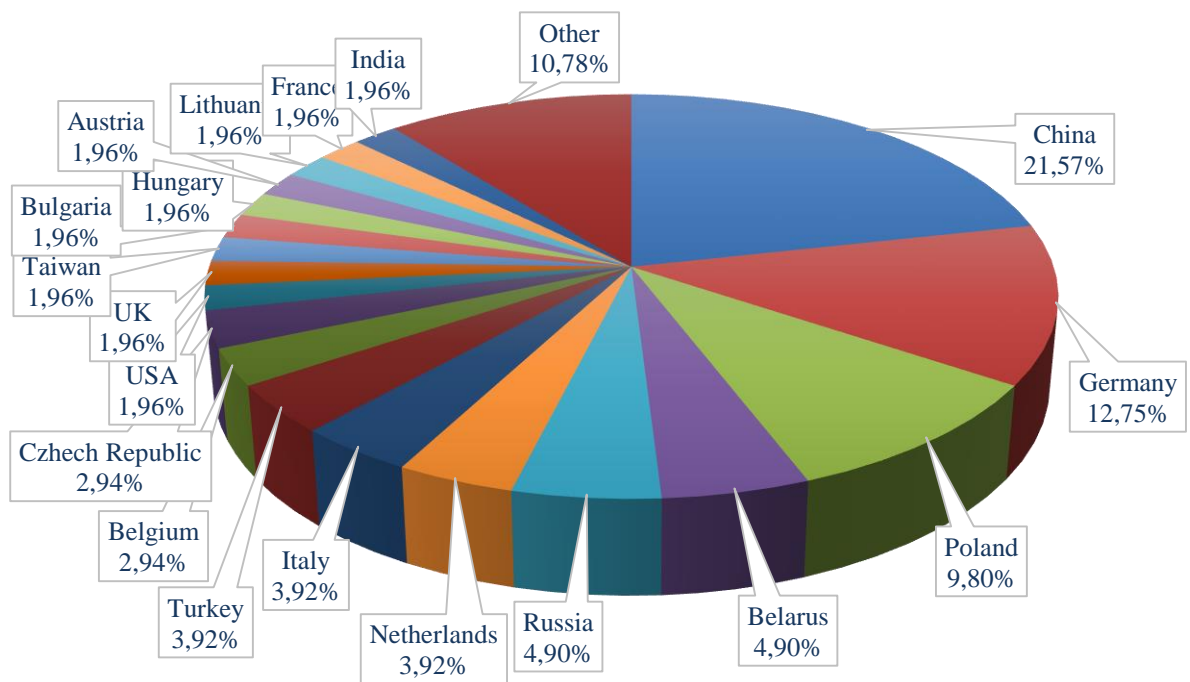


Figure 2.11 - Distribution of imported goods serviced by «FTP» by countries

In general, it could be assuming that this indicators of logistics company are successful concerned the mentioned activities, as evidenced by the main financial indicators in table. 2.6 and in fig. 2.12.

Table 2.6 - The main financial results of the logistics company «FTP» for 2018-2020, thousand UAH

№	Type of service	Indicator	Years		
			2018	2019	2020
1	Freight forwarding services	Gross income	1196,2	1338,2	2257,8
		Gross costs	809,9	1132,2	2025,4
		Net profit	386,3	206,0	232,4
2	Brokerage services	Gross income	1512,7	2734,9	5413,6
		Gross costs	623,5	1142,8	2675,2
		Net profit	889,2	1592,2	2738,4
3	Together	Gross income	2708,9	4073,2	7671,4
		Gross costs	1433,4	2275,0	4700,5
		Net profit	1062,9	1798,2	2970,8

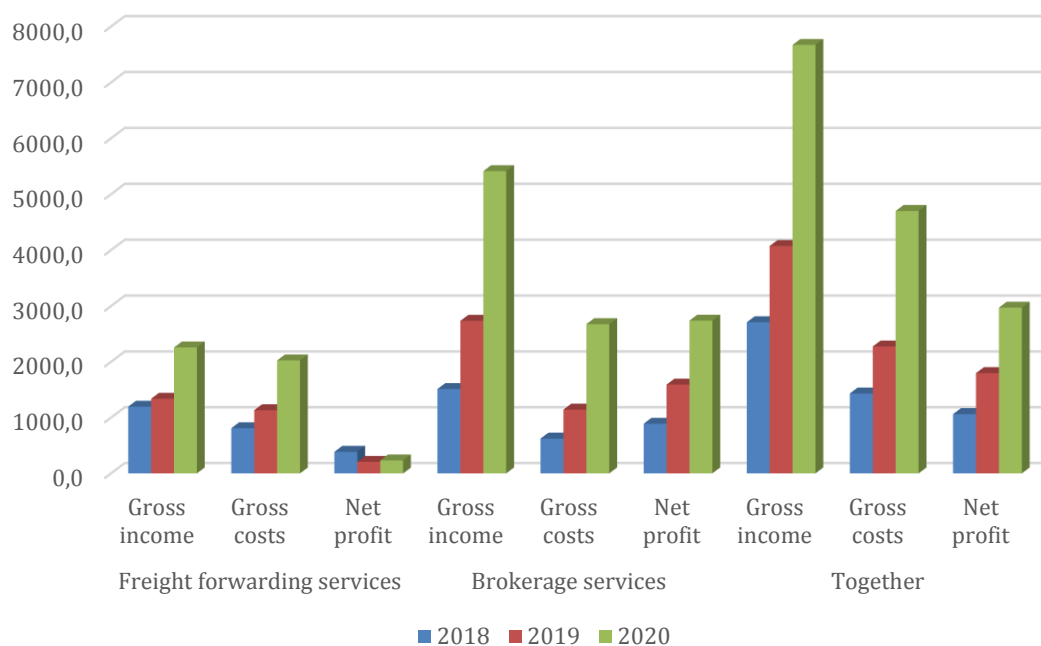


Figure 2.13 - Dynamics of the general financial results of the logistics company «FTP» for 2018-2020, thousand UAH

In general, the dynamics of gross income and net profit is positive, which indicates the externally normal state of affairs in the logistics company, but for a more detailed understanding it is necessary to conduct a more complete analysis.

That is why, the next step is to diagnose the financial condition of «FTP» according to the balance sheet of the logistics company and the report on financial results for 2018 - 2020, the summary data of which are given in appendix A. In, namely: in table. A.1 summarizes the balance sheet data, and in table. A.2 - summary data from the reports on financial results.

Thus, for a more comprehensive assessment of the financial condition of «FTP» we use profitability, ie the share of profits in costs (see Table 2.7 and Fig. 2.14).

Let us analyze the obtained indicators. Thus, high rates of return on assets indicate the company's ability to generate profits without taking into account its capital structure, such high values of this indicator, in principle, is typical, because these logistics services provided by «FTP» do not require large investments in working capital.

The next indicator is the return on equity, which is the most important indicator

for investors and owners of the company, because it indicates the efficiency of the capital invested in the logistics company. Such significant figures are explained by revenues of over UAH 1 million. With equity in amounts up to six hundred thousand UAH.

Table 2.7 - Profitability indicators of «FTP» for 2018-2020, %

№	Indicator	Formula	Normative value	Years		
				2018	2019	2020
1	2	3	4	5	6	7
1	Return on assets	line 2350 of the balance / (line 1300 of the balance at the beginning of the year + line 1300 of the balance at the end of the year) / 2) * 100	Increasing	128.5	140.8	154.1
2	Return on equity	line 2350 balance // line 1495 balance at the beginning of the year + line 1495 balance at the end of the year // 2) * 100	Increasing	432.0	355.0	464.0
3	Profitability on net profit	line 2350 balance / line 2000 balance * 100	Increasing	47.2	44.6	42.2



Figure 2.14 - Dynamics of profitability ratios of company «FTP»

The calculated profitability of net profit shows that there is a decrease in the share of profit in sales, primarily this can be attributed to an increase in the share of costs in sales, but this figure is considerable and cannot cause concern.

We also use indicators of the company's financial stability to assess (see Table 2.8 and Fig. 2.15).

Table 2.8 - Indicators of financial stability of «FTP» for 2018-2020

№	Indicator	Formula	Normative value	Years		
				2018	2019	2020
1	2	3	4	5	6	7
1	The amount of working capital, thousand UAH	line 1495 of the balance sheet liability + line 1595 of the balance sheet liability - line 1095 of the balance sheet asset	Magnification	181.20	222.60	373,80
2	Ratio of current assets with own funds	Working capital / line 1195 asset balance	> 0.1	0.22	0.26	0.20
3	Maneuverability of own working capital	line 1165 of the asset balance / Working capital	Magnification	1.97	1.47	0.75
4	Coefficient of financial autonomy	line 1495 of the balance sheet liability / line 1900 of the balance sheet liability	> 0.5	0.39	0.41	0.29
5	Coefficient of financial dependence	line 1900 liabilities balance / line 1495 liabilities balance		2	2.59	2.46
6	Equity maneuverability ratio	Working capital / line 1900 liabilities balance		> 0.1	0.17	0.21
7	Coefficient of financial stability	Working capital / (line 1595 of balance sheet liabilities + line 1695 of balance sheet liabilities)		1	0.28	0.35
8	Coefficient of financial stability	(line 1495 balance sheet liabilities + line 1595 balance sheet liabilities) / line 1900 balance sheet liabilities		0.7-0.9	0.39	0.41

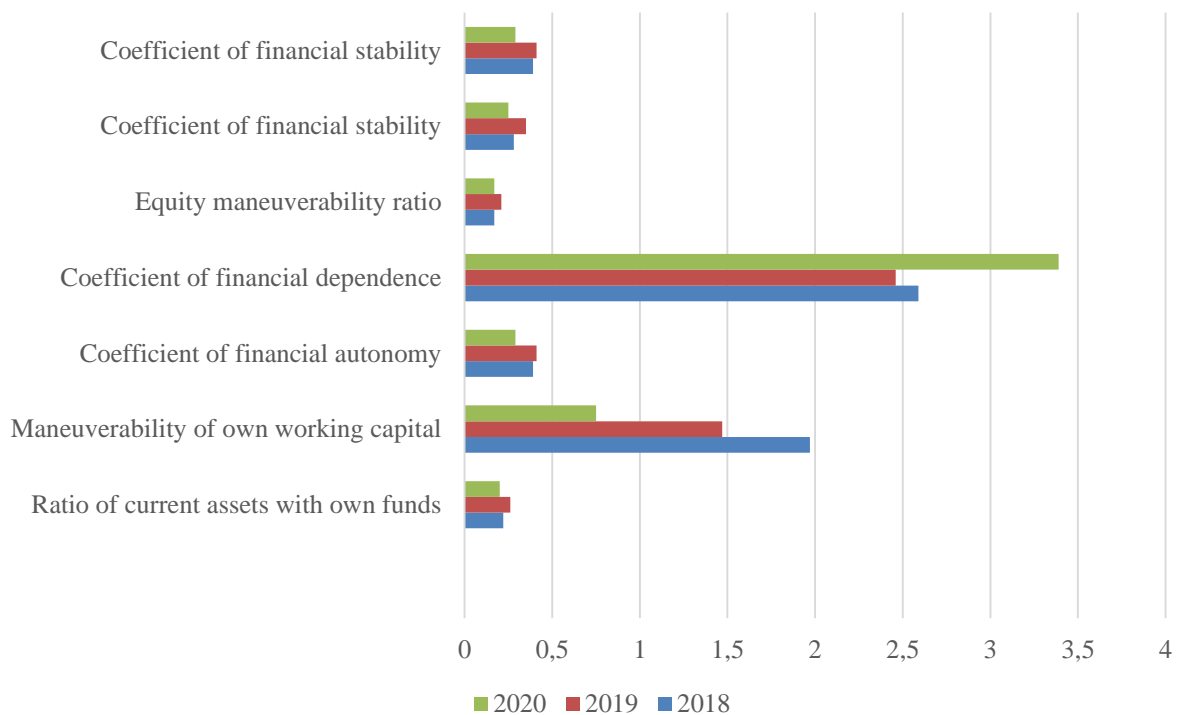


Figure 2.15 - Dynamics of financial stability indicators «FTP»

The ratio of current assets to own funds indicates that the existing current assets of the logistics company are covered by own sources, and its increase means the creation of surplus sources of current assets.

The value of the maneuverability indicator shows that it shows at least 17% of the logistics company's own funds are in mobile form, which allows relatively free maneuvering of these tools.

The normal minimum value of the coefficient of autonomy implies the provision of borrowed funds, ie, selling the property formed from its own sources, the logistics company will be able to repay the obligation, and although it does not reach the norm, for the existing company this figure is sufficient, but suggests its to normal in the future.

At the same time, the ratio of financial autonomy and stability is the same, which indicates the absence of long-term loans. The lack of long-term borrowed funds it is also evidenced by the financial stability ratio, as it shows that a smaller part of assets is financed from long-term sources of financing - equity and long-terming borrowed financial resources. On the one hand, this is good, but the lack of steady income can increase the risk of losing the solvency of the logistics company.

For the most part, it is possible to conclude about the relatively normal financial condition of the company, but some indicators, such as: financial autonomy and stability, it is desirable to lead to regulatory values to reduce the risk of insolvency.

In addition, we will conduct an analysis in the short term and determine liquidity ratios, used indicators: Current ratio, rapid liquidity ratio, Absolute liquidity ratio and others: (see Table 2.9 and Figure 2.16).

Table 2.9 - Liquidity ratios of «FTP» for 2018-2020

№	Indicator	Formula	Normative value	Years		
				2018	2019	2020
1	2	3	4	5	6	7
1	Current ratio	line 1195 of the balance sheet asset / line 1695 of the balance sheet liability	> 1	1.28	1.35	1.25
2	Rapid liquidity ratio	line difference 1195-1100 balance sheet assets / line 1695 balance sheet liabilities	0.5-1	1.27	1.34	1.23
3	Absolute liquidity ratio	the sum of rows (1160 + 1165) of the balance sheet asset / line 1695 of the balance sheet liability	> 0.1	0.55	0.51	0.19
4	Indicator of the ratio of receivables and payables	sum of lines (1120 + 1125 + 1135 + 1130 + 1140 + 1145 + 1155) balance sheet asset / sum of lines (1605 + 1615 + 1635 + 1620 + 1650 + 1630 + 1640 + 1645) balance sheet liabilities	1	0.73	0.82	1.37

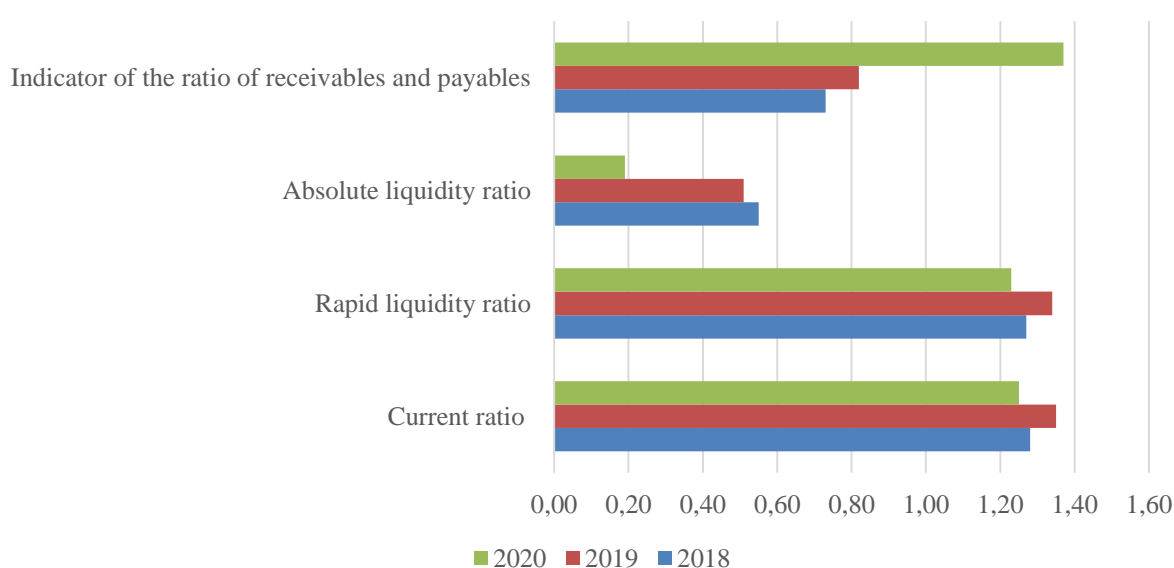


Figure 2.16 - Dynamics of liquidity ratios «FTP»

Almost all liquidity ratios are normal. Let's take a closer look, so the current liquidity ratio shows that all its current liabilities logistics company «FTP» is able to repay at the expense of working capital, while the quick liquidity ratio indicates the repayment of liabilities at the expense of the most liquid working capital - cash and their equivalents, financial investments and receivables, and also fully covers all existing liabilities.

While the quick liquidity ratio shows that during 2018 and 2019, «FTP» LLC could easily repay more than 50% of liabilities at the expense of cash alone, and in 2020 - almost 20%.

In general, the analysis of the financial situation did not reveal any critical financial problems in «FTP» LLC, as the dynamics of financial results is mostly positive, despite the general political and economic problems that have characterized Ukraine in recent years. Also, the positive dynamics of all profitability indicators and almost all liquidity indicators (the quick liquidity ratio decreased, but did not exceed the recommended value). It should also be noted that half of the indicators of financial stability also indicate a normal financial situation, however, given the political and economic risks in Ukraine, it is recommended to bring to the recommended values of financial stability indicators such as financial autonomy and stability to reduce insolvency risks.

2.5. Chapter 2 summary

In the second chapter of thesis was carried out analysis of «FTP» company, was performed the analysis of modern solutions used by company in the field of maritime transportation, analysis of main financial and economic performance indicators used within the company's activities. Also was performed the SWOT analysis of allows you to define the main weaknesses and strengths in the company and found an action plan. In addition, was analysed the transport market in Ukraine and activity of FTP company

on this market. In recent years, transport market indicators have shown market growth.

The object of study was the import-export activity of freight forwarding company FTP. This company was founded in 2011. The company offers its services in the field of sea, land and railway transport, customs brokerage service and stevedoring work in the ports.

Analysis of company financial state shows that the FTP company's financial flows during 2018-2020 were quite smooth. Analysis of financial flows over several years allows us to conclude that the FTP company is stably, without jumps on all markets where «FTP» company is operating. During the research, was analyzed the logistics situation nowadays concerned Ukraine and logistics company «FTP» which was researched.

Was analyzed the structure of road and maritime transport in the logistics company «FTP», including the parts of FCL and LCL transportation, was analyzed the increasing and decreasing of the main financial results of the logistics company «FTP», including dynamics of profitability ratios, dynamics of financial stability indicators, liquidity ratio, NPV, payback periods.

In order to analyze the financial activity of the enterprise and determine key strength and weaknesses sides, was performed the SWOT analysis, analyzed KPI (key performance indicator) in financial sector of import-export activity of logistics company, and, determined main problems:

1. The sea (maritime) transport takes a major part in logistics company activity, that means that company's clients wait their cargo for 45-55 days, and was decided to improve and develop directly supply chain performed by sea transport and reduced time required for transportation at all.

2. The major volume of transportation operated by sea sector of import-export activity, so it is essential to improve the information support at the part of custom clearance, vessel arriving and handling in seaports.

3. Sea (maritime) transportation require many paperworks, like: bill of lading, sea safe certificates, sea consosaments, etc. So, it's much more efficient to develop one system for cargo's clearances and for procession tracking of goods or all container.

CHAPTER 3

PROJECT PROPOSALS FOR IMPROVING THE MANAGEMENT OF EXPORT-IMPORT ACTIVITIES IN SUPPLY CHAINS

3.1. Theoretical foundation of proposal project as way of solution the lack of informational support and major delays in sea (maritime) transport supply chain

The status of problems faced the sea (maritime) transport is undoubtable global. With full confidence, it could be claimed that nowadays delays caused by pandemic COVID-19. And the overwhelming of different seaports, located at: Brazil, China, Italy, Netherlands, Panama, South Africa and United states was a reason for the massive ships delaying at all stages of maritime supply chain [102]. The figure in delaying by days before pandemic (in 2019 and 2018 year) and situation during pandemic is presented below on figure 3.1.

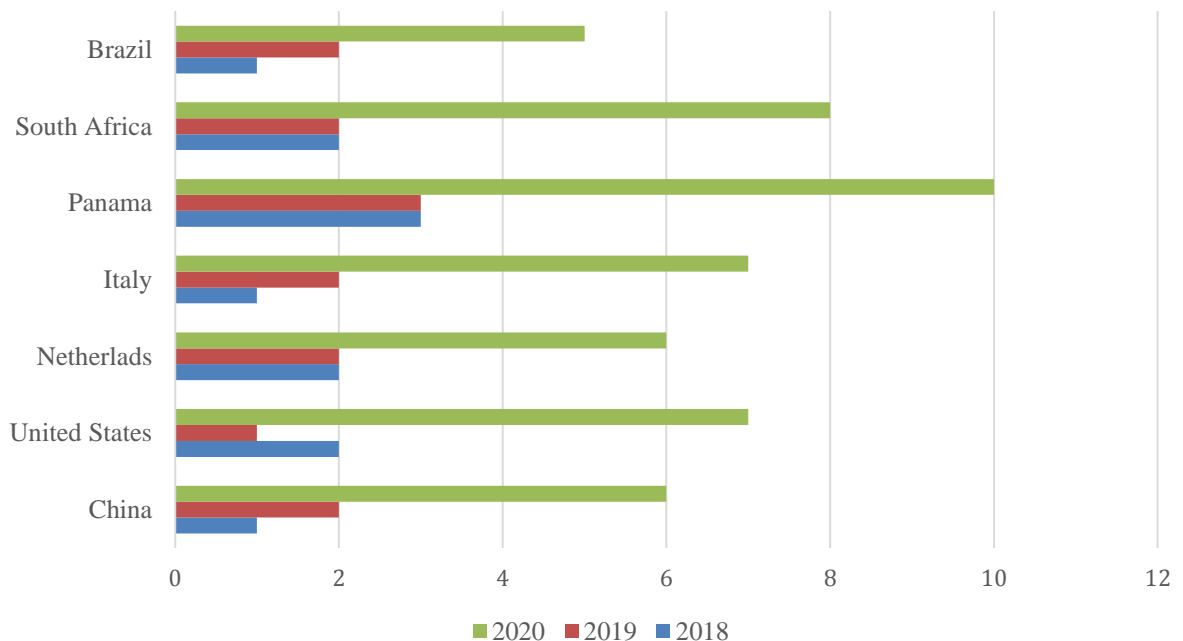


Figure 3.1 Delaying container ships in different ports numbered in days.

In many countries, companies involved in international trade are constantly required to prepare and submit a significant amount of information and documents to government authorities in order to comply with import, export and transit regulations. This information and documentation often needs to be routed through a variety of different agencies using their own specific (manual or automated) systems and paper templates. These broad requirements, together with the costs of complying with them, can pose a significant burden to governments and businesses, and also can, as a common crisis like cataclysm or pandemic, pose a significant barrier to international trade. One of the ways to handle with this problem is to create a "single window" mechanism, thanks to which trade information and / or documents can be submitted only once using a single bandwidth.

Single Window models vary greatly from country to country, depending on preparedness and priorities. These include systems such as e-Customs, e-Freight, Port Community systems and government Single Window systems that link agencies at the national and regional levels. Developing a national Single Window environment requires strong political will, participation and leadership of government agencies in managing the process of creating an enabling environment for the Single Window and stakeholder platforms, including policy development, legislation, standards, change management and engagement with existing systems.

Many developed countries have not implemented the national single window concept. On the contrary, varieties of single window networks have been developed, in particular port community systems and customs single windows, maritime, which are now being successfully used to keep the logistics sector operating efficiently. In developing countries and countries with economies in transition, the Single Window has a successful history. Many of these countries are implementing government one-stop shops that provide users with access to customs and other government agencies to facilitate export and import procedures.

This will improve the availability and processing of information, speed up and simplify information flows between traders and government agencies, and improve the coordination and exchange of relevant data between government systems, which will

provide tangible benefits to all parties involved in cross-border trade. Applying such a mechanism can result in improved efficiency and effectiveness of formal controls and reduced costs for both governments and traders through better use of resources. These companies include, among others, exporters and importers, shippers, forwarding agencies, customs brokers, transport operators, carriers and other parties directly involved in the circulation of goods.

Thus, a Single Window involves the practical application of a trade facilitation concept to reduce non-tariff barriers to trade and can bring immediate benefits to all members of the trading community.

In the context of this research, a Single Window is defined as a mechanism that allows parties involved in import-export operations and transportation to submit standardized information and documents using a single channel to meet all import, export and transit regulatory requirements. If the information is in electronic format, then the individual data items only need to be submitted once. In practical terms, the Single Window aims to speed up and simplify information flows between traders and government agencies and bring tangible benefits to all parties involved in cross-border trade. Single Window, as a rule, is managed centrally by the parent organization, which provides the relevant government agencies and institutions with the ability to access information or actually obtain information that is relevant to solving their problems. In addition, the authorities and institutions involved should coordinate their control measures. In some cases, a Single Window may provide conditions for the payment of related duties, taxes and fees.

A Single Window does not necessarily require the most advanced information and communication technology (ICT) to be deployed and be acquired, although if governments find and adopt appropriate ICT technologies for use in the Single Window, the effectiveness of facilitation can often be greatly improved. The implementation of a Single Window can bring tremendous benefits to both governments and trade. For governments, it can entail better risk management, increased security and increased revenues, while ensuring that traders are more rigorously met. Trade benefits from transparent and predictable interpretation and

application of rules, as well as better utilization of human and financial resources, leading to tangible increases in productivity and competitiveness. Since this mechanism pays special attention to the issues of preliminary analysis of information and risks, its value for government agencies and traders in the context of new security requirements increases.

The implementation of a Single Window often requires a feasibility study and needs assessment to determine its potential scope, the magnitude and nature of demand, data requirements and other information requirements, legal issues, implementation options (including possible implementation steps). In addition, essential availability of the potential and nature of pilot implementation measures, implementation costs under different scenarios, other resources required (human, technical, etc.), potential benefits and risks, timing, and implementation and management strategy. The most important preconditions for the successful use of a Single Window facility are the political will of the government and relevant government agencies and the full support and participation of the business community. A fundamental legal framework must also be put in place, including the adoption of secrecy laws and regulations to ensure the confidentiality and security of the exchange of information.

Usage of international standards: when implementing a Single Window, governments and trade are strongly encouraged to consider using existing recommendations, standards and tools developed by intergovernmental agencies and international organizations such as ICAO (International Civil Aviation Organization) and ICC (International Chamber of Commerce). The use of standards and available tools will help ensure that systems created to implement Single Window are compatible with similar developments in other countries, and will also facilitate the exchange of information between such mechanisms over time. The implementation of a Single Window often requires a feasibility study and needs assessment to determine its potential scope, the magnitude and nature of demand, data requirements and other information requirements, legal issues, implementation options (including possible implementation steps), the potential and nature of pilot implementation measures. Implementation costs under different scenarios, other resources required (human,

technical, etc.), potential benefits and risks, timing, and implementation and management strategy. The most important preconditions for the successful use of a Single Window facility are the political will of the government and relevant government agencies and the full support and participation of the business community. A fundamental legal framework must also be put in place, including the adoption of secrecy laws and regulations to ensure the confidentiality and security of the exchange of information.

The situation that the establishment of the Single Window facility, in this document and the accompanying guidelines will harmonize and facilitate the exchange of information between governments and trade organizations. Considering that this will bring real benefits to both governments and the trade community, recommends that governments and organizations involved in international trade and transport of goods:

Actively consider the possibility of introducing a Single Window mechanism in their country, allowing:

- parties involved in trade and transport operations to submit standardized information and documents using a single channel in order to comply with all regulatory requirements regarding import, export and transit. If the information is in electronic format, then the individual data items only need to be submitted once;

- exchange all information in relation to international trade transactions, which is supported by a regulatory framework that ensures the confidentiality and security of data exchange;

- make a single access channel to distribute the relevant information among the participating state bodies or authorized institutions or provide them with access to such information and, if necessary, coordinate the control measures of the various state bodies;

- create additional opportunities for the submission of official trade-related information and for the collection of duties and other charges.

- initiate the creation of a single window mechanism at the national level in cooperation with other relevant government bodies and business circles;

– take full account of the guidelines annexed to this Recommendation when establishing their Single Window facility.

In this context, our main difference from developed countries can be considered the fact that in our country the introduction of a “single window” is an impetus for more fundamental work - work on streamlining and standardizing procedures, while in the leading countries of the world this has already been achieved in an evolutionary way.

The influence of the state of the organizational, technical consistency of state institutions in the performance of control functions, the activities of entities participating in various technological processes of cargo handling in the seaports of Ukraine, the peculiarities and specifics of the port infrastructure is natural, due to objective factors inherent in international ports of different countries of the world. That means that the implemented Information System does not allow the exchange of information between a sea agent, a port operator, forwarder, carrier, etc.

The Single Window project in Ukraine is coordinated by the Interdepartmental Working Group, which included representatives of government and business. The purpose of project is to minimize paperwork when performing all operational procedures in the port. Often operations related to the handling of ships, cargo clearance, security control over the movement of goods and vehicles outside the port, acceleration and simplification of procedures control without prejudice to their shapes, sizes established by law, and quality.

The execution of processes is ensured, about procedures and formalities required for the handling of vehicles and cargo at international maritime border crossing points. Practical experience in paperwork confirms that business entities and state bodies, when using only one of the system modules - an electronic order, received a powerful mechanism for the consistent implementation of simplifications of transport operations. Also a control procedure operates same way at various technological stages of processing foreign economic goods in the port, which leads to relevance and necessity of its implementation in the ports of Ukraine, with the maximum extension to the processes of passing formalities.

Single Window is the simplification and harmonization of administrative procedures by streamlining the formalities for the provision of information and the transfer of information in electronic form during transportation using maritime transport facilities (sea segment of the supply chain). Changes in the national legislation in the field of electronic exchange of information and electronic document management, the existence of legal grounds for electronic digital signatures, electronic declaration of goods, the acquisition of practical experience in the passage of such formalities by subjects of foreign economic activity at one time objectively necessitated the introduction of an effective Information System of the port community, which is required for the ports of Ukraine. The port community systems are recognized as the most advanced method for sharing information within a single or national port community infrastructure. The project of Single Window aims to ensure one-off data provision, as well as the development of infrastructure and interconnection, activities in the areas of regulatory and legal framework, standardization and harmonization in international trade. The proposal mechanism provides a synergy of the port community with a tightly integrated system that includes export, import, transit, consolidation, dangerous goods and maritime statistical reporting.

Today somewhere there is a “single window” of ports. European history is different from Asian history. In Europe, port systems, “single windows” have evolved over the past 30 years. Single Windows firstly were not designed as a customs single window, but for port and supply chain management. Now is the time to integrate port community systems into a National Single Window, where these processes are not automated and not garmonized. And when available, integration can create optimal benefits for all stakeholders. Government spending will be minimal. Airports, seaports or inland waterways can be connected to the project “Single Window” and customs declarations for leaving the border crossing points can be processed. There are intersectional relations related to business, government and the customer in the state “single window”.

However, it is important not to forget about the need for a parthnership.

Government agencies cannot manage business-to-business processes and this will not be accepted by the private sector. Therefore, there is no full integration in the government Single Window, and the Single Window and a gateway to the government Single Window that manages the processes of government bodies.

3.2. Development of a proposal to digitalize the process of import-export activity

In the end of 2021, could be concluded that all type of transport, using for import and export, including maritime, rail, air and road transport. As a project proposal, was used the highest volume type of transport used by logistics companies - Figure 3.2 outlines the features of maritime logistics, at loading, unloading, at the seaport and customs terminal, contact with people is necessary, and if only these processes were optimized and digitalized, the epidemic would not have so much impact on the logistics processes.

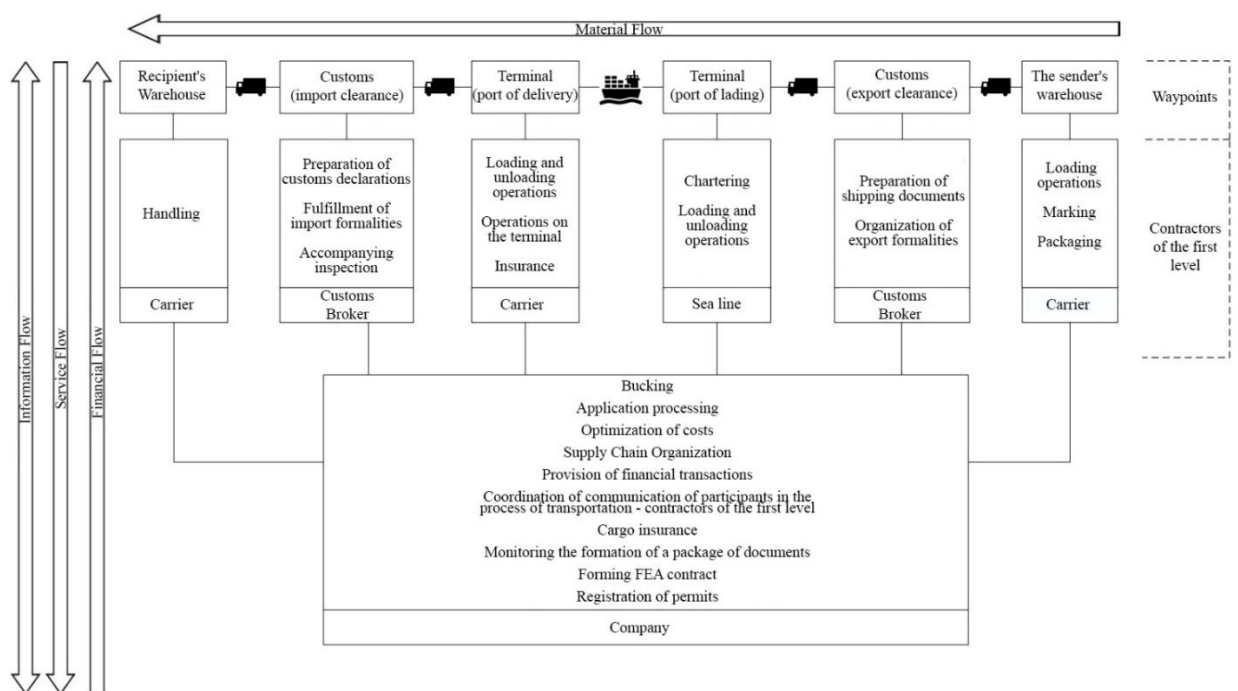


Figure 3.2 – Schematic representation of the supply chain of export-import goods by sea transport.

Therefore, the world's leading companies are trying to adapt their activities to quarantine measures, save jobs and minimize losses due to the recession. Because the pandemic has large-scale negative consequences for both the global and national economies, including Ukraine.

Anticipating the economic impact of the COVID-19 outbreak is challenging due to uncertainty and lack of reliable information. Experts believe that the COVID-19 pandemic is a global crisis that is a catalyst for deep processes and phenomena, but it is still too early to analyze them. According to scientists' calculations, in order to neutralize its negative consequences, the world economy needs an injection of 23-32% of world GDP, which is almost 28 trillion [42]. The massive measures have severed well-functioning global supply chains, which could lead to a transition from free foreign trade to a policy of protectionism. This fact was the main reason why this strategy for improving the performance was chosen for implementation and developing.

By the end of 2021, digital transformation is involved into all parties of the economy. Freight transportation is also included in those parties. In the field of maritime transport could be suggested the concept of a single window. The Ukrainian National Maritime Single Window is a software-hardware complex decision which created in order simplify and improve the duration of administrative procedures by streamlining the formalities for transferring information and electronic transmission of information while transportation occurring also involved facilities of maritime transport [10]. This complex is created and targeted to fulfill the obligations of the state of Ukraine to make easier import-export operations in the framework of the implementation of EU directives 2010-65 and 2002-59, as well as the agreement with the World Trade Organization on trade facilitation of December 7, 2013. Our system is based on technical solutions compatible with SafeSeaNet.

SafeSeaNet is a vessel traffic monitoring and information system, established in order to ensure [49]:

- maritime safety;
- seaports and sea transport security;

- sea environment protection;
- performance of maritime traffic transport.

The main information elements that are obtained in the system and made available to users are as follows:

- automatic Identification System (AIS) based near-real-time ship positions (i.e. one every 6 minutes);
- archived real historical ship locations (over several years);
- additional information from AIS-based ship reports (e.g. identification name/numbers, flag, responsible seaport, size, course, speed, dimensions, destination and ship type);
- estimated/scheduled times of arrival/departure;
- details of dangerous goods carried on board;
- information on safety-related incidents affecting ships;
- information on pollution-related incidents affecting ships;
- details of waste placed on board/to be offloaded (from June 2015);
- ship security-related information (from June 2015);
- information of positioning of remaining single hulled tankers;
- information of positioning of ships that have been banned from EU ports;
- digital map layers (containing information on depths, navigation aids, traffic separation schemes, anchorages, AIS station locations, etc.).

Since 2014, the port community information system (PCIS) has been operating in Ukrainian ports, the developer of which is “PPL 33-35” LLC.

The port community information system has been created on the initiative of the Odessa Commercial Sea Port Administration aimed to optimize and simplify the operations in seaports, namely, the transition of paper documents to electronic documents when making ship calls and subsequent cargo handling.

The company "Plasque" undertook to implement the concept, creating the organization "PPL 33-35", which became the developer of the system.

PCIS successfully passed test operation in the Odessa port, at the transshipment of containerized cargo. The system was put into commercial operation in January 2016.

Currently, 980 forwarding companies use it in Ukrainian seaports [19].

Let's discuss the implementation of information systems at the national level, then a single sea window should be part of the National single window (see Fig. 3.3).

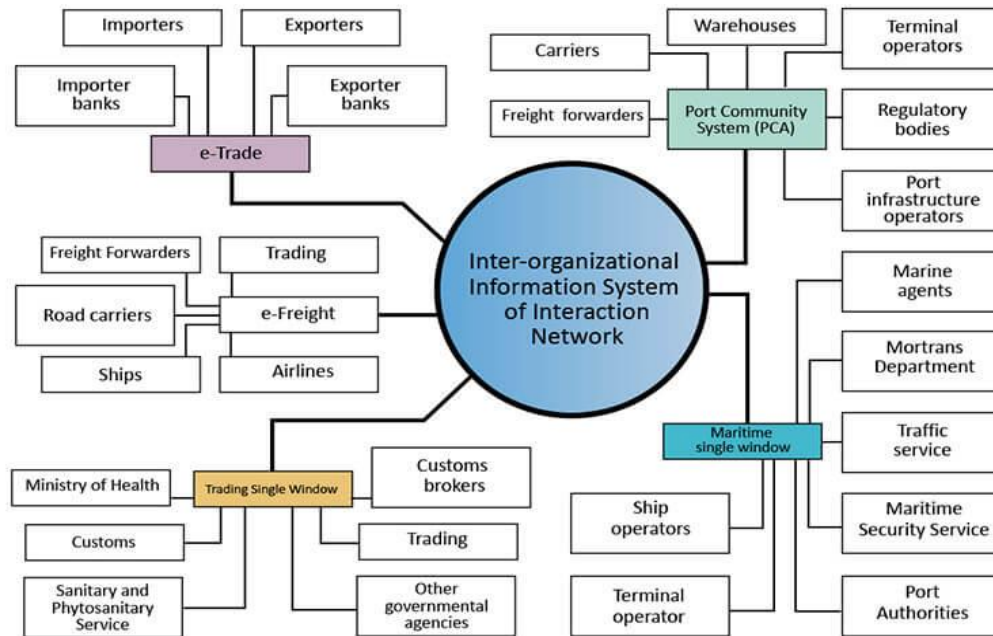


Figure 3.3 - Scheme of interaction of interorganizational information systems

There may be many “digital windows” in a scheme. But in order to unite them and allow them to fully interact, a state body must be created that implements this idea [16].

The presence of such information systems significantly optimizes the interaction of participants in the supply chain. Therefore, it is important to analyze which digital solutions can improve the company's results.

Containers have become the driving force behind multimodal transport and facilitated transport between different modes of transport. Transshipment of cargo in containers is the most economical and most dynamically developing type of cargo delivery due to the high speed of transshipment. The volume of containerized cargo handling has increased over the past two decades, which is reflected in the growth rate of container traffic (in industrialized countries, container cargo accounts for up to 98% of all cargo transported). It should be borne in mind that the volume of cargo transshipment in containers changes under the influence of various internal and

external factors.

The global container trade market in 2018 developed against the backdrop of some uncertainties, which include: the introduction of IMO environmental restrictions on the sulfur content in the fuel bunker in 2020; existing frictions in international trade between countries (for example, China - USA); present trends in the economy of China (for example, the cost of imports from China); troubles in consumer markets and adverse conditions for the development of the global economy and others. These factors have a negative impact on the development of container trade, so that slower growth rates can be observed than in 2019, for example. Overall, however, 20 proved successful for the global container market, with growth of 6% and global container trade growth of over 2.6% to 152 million TEU [43].

In 2020, the global container market continued to be affected by the trends discussed above, as well as [42]: the continued increase in oil prices; review by terminal and linear operators (Maersk, DP World, Cosco, Contship Italia) of the major development strategy (expanding its presence at domestic terminals, warehouses, customs and logistics complexes, etc.); association of carriers in large alliances; the use of digitalization (as a means of improving efficiency and creating greater value for global supply chains) and others, .

It should be noted that the container market reacts quickly to changing economic conditions. In this context, the participants in the container transport system must take measures to increase container traffic. There are various obstacles (e.g. infrastructure, customs clearance, inconsistencies in the legal framework, etc.), the removal of which takes some time. However, the current trend in the development of the transition to digitization may have a positive effect on the further development of container transportation, and the introduction of digital solutions into the activities of container transportation will open a number of opportunities.

The digitization of the container transport system is the main process of improving the container transport system through an integrated digitization system, including automation, computerization and informatization, with the aim of both developing container transport in general and increasing the competitiveness of containers in

individual market units. by increasing the exchange rate, which ensures the availability and security of information.

The use of digitization in the container transport system and automation enables: the simplification of internal business processes; to increase the efficiency of container transport; track the location and condition of the cargo; manage the tariff plan; reduce the time spent working with the cargo; optimize the work of employees; Reducing business risk through online payments; expand the possibilities of online marketing; Increasing the capacity of container terminals; quick response to circumstances of force majeure, etc.

Operators have many options to leverage digital technologies - not only to maintain direct customer relationships at an affordable price, but also to improve their operations and grow their business. Seven digital trends have become particularly well established in the shipping industry. (see Fig. 3.4).

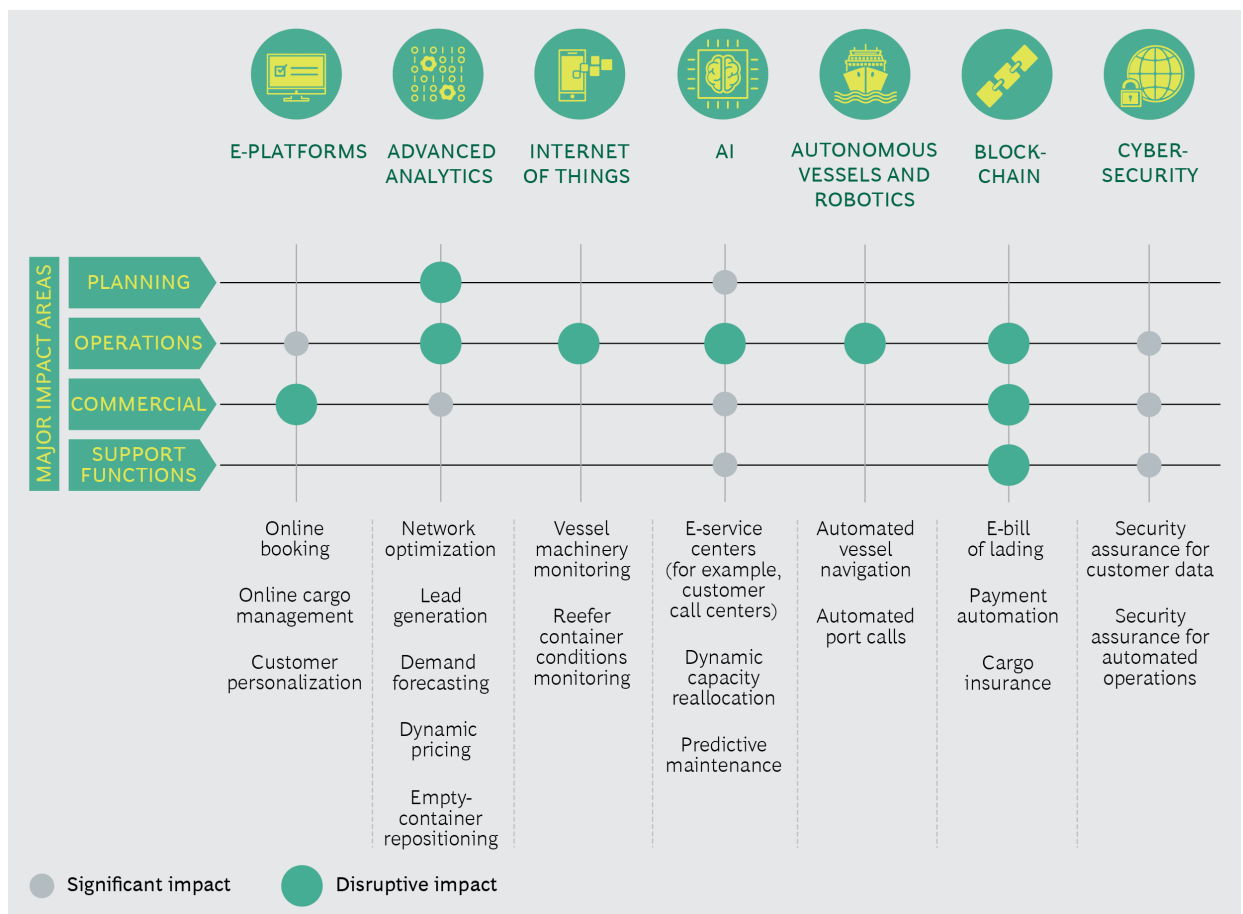


Figure 3.4 – Seven Digital Trends will transform container shipping [48]

One of the digital solution that can be suggested in order to achieve such goals: the company can be responsible for implementing digital forwarding organization. Digital Freight Forwarders encourage shippers to trust them with their goods, presenting arguments for accountability, guaranteed throughput, price stability, and invoice consolidation. They can offer customized and most suitable solutions and attract large clients and complex traffic flows through key human-driven actions, while actions such as brokerage, routing and pricing are digitized. This means small customers with sporadic, simple deliveries and no complicated customs management can be handled without any problems. [32]

In this way, digital freight forwarders can better coordinate the various parties that they already synchronize manually: customs, shippers, freight forwarders, drivers, ground handling agents, insurance companies, etc.

Traditional freight forwarders have already begun to “grow” their own digital talent and seem to continue to do so through their dedicated digital divisions, increased R&D collaborations and new hiring profiles.

To develop a software product for a digital forwarder, it was decided to contact an IT company. It is recommended that a peer review process be used to select a software developer. The algorithm of this method assumes the following:

- compiling a list of criteria according to which developer will be evaluated;
- assessment of each criterion by a group of experts on the significance of this criterion for the company from 1 to 10;
- calculation of the weight of the criterion;
- evaluation of each developer according to the selected criteria;
- multiplying the assessment by the weight of the criterion and derivation of a comprehensive assessment by summing the values for all criteria.

The weight of the criterion is calculated as follows:

$$P = \frac{x_{av}}{\sum x_{av}} * 100\%, \quad (3.1)$$

where x_{av} is the average value of the assessment of the criterion significance.

The developer's assessment taking into account the weight of the criterion is calculated as follows:

$$V = P * E, \quad (3.2)$$

where E is assessment provided to the developer by an expert from 1 to 10.

So, the director of the company, the supervisor of the transport department, the leading logistics managers and the head of the IT department performed a list of criteria that are most important when choosing suppliers and assessed their performance. The results of the calculations are summarized in table 3.1.

Table 3.1 – List of criteria for selecting developers and assessing their significance

№	Criterion	Experts					Average value	Weight of criterion, P, %
		1	2	3	4	5		
1	Software price	10	9	9	10	10	9,6	15,74
2	Observance of the terms established by the contract	9	8	10	9	7	8,6	14,10
3	Compliance of the software functionality with the technical task	10	10	10	9	10	9,8	16,07
4	Reputation in the software developers market	8	9	9	8	7	8,2	13,44
5	Cost of software support	10	9	9	10	9	9,4	15,41
6	Qualification and competence of programmers	8	7	7	9	8	7,8	12,79
7	Experience in developing similar software products	8	7	9	6	8	7,6	12,46
8	Total						61	

The next step is to evaluate the developers for each of the criteria. The rating information comes from the Internet based on feedback from existing customers. The following software developers were selected for further selection: EPAM, SoftServe, Infopulse, N-iX and Miratech.

The results of the evaluation are summarized in table 3.2.

Table 3.2 – Evaluation of potential developers by criteria

№	Criterion	Developers				
		EPAM	SoftServe	Infopulse	N-iX	Miratech
1	Software price	7	9	10	9	9
2	Observance of the terms established by the contract	10	9	7	8	7
3	Compliance of the software functionality with the technical task	10	9	9	8	7
4	Reputation in the software developers market	10	9	10	7	7
5	Cost of software support	6	8	8	9	9
6	Qualification and competence of programmers	10	9	9	8	8
7	Experience in developing similar software products	8	8	9	7	6

The next step is to calculate the developer's estimate based on the weight of the criterion. These calculations are given in table 3.3.

Table 3.3 – Evaluation of developers taking into account the weight of the criterion

№	Criterion	Developers				
		EPAM	SoftServe	Infopulse	N-iX	Miratech
1	2	3	4	5	6	7
1	Software price	1,10	1,42	1,57	1,42	1,42
2	Observance of the terms established by the contract	1,41	1,27	0,99	1,13	0,99
3	Compliance of the software functionality with the technical task	1,61	1,45	1,45	1,29	1,12
4	Reputation in the software developers market	1,34	1,21	1,34	0,94	0,94
5	Cost of software support	0,92	1,23	1,23	1,39	1,39
6	Qualification and competence of programmers	1,28	1,15	1,15	1,02	1,02
7	Experience in developing similar software products	1,00	1,00	1,12	0,87	0,75
8	Comprehensive assessment	8,66	8,72	<u>8,86</u>	8,05	7,63
9	Relative weight in total	20,66	20,81	<u>21,13</u>	19,21	18,19

Therefore, analysing the evaluation results to decide on the choice of software developer, we can recommend first of all the company Infopulse and as a backup SoftServe. Their comprehensive scores are the highest, 8,86 and 8,72 respectively.

3.3. Calculation of project performance indicators

The introduction of new solutions in the company must be accompanied by a business case for this decision. To justify this, can be used the criteria for the effectiveness of investment projects. The choice of a specific criterion for assessing the effectiveness of a project depends on certain factors - the available market forecast, the availability of resource constraints to finance the project, fluctuations in cash flows, and the ability to generate profits. Net Present Value (NPV) [71]. This is the most famous and most used criterion. It can also be called discounted net benefits.

The net present value is the difference between the future value of the expected benefit stream and the present value of the current and future costs of the project during its cycle. NPV is the present value of the project (the present value of the income or benefits of an asset).

To calculate the present value of a project, required to find the discount rate, use it to discount the cost and benefit stream, and sum the discounted benefits and costs (negative costs). In financial analysis, the discount rate is usually the company's cost of capital. In economic analysis, the discount rate is the basic cost of capital, that is, the profit that can be made by investing in the most profitable alternative projects.

If the net present value is positive, the project can be recommended for funding. If the present value is zero, then the proceeds from the project are only enough to restore the investment and the investment has been approved and the investment has been approved. If the NPV is less than zero, the project will not be accepted. The NPV is calculated using the following formula:

$$NPV = \sum_{t=1}^n \frac{I_t - O_t}{(1+r)^t} \quad (3.3)$$

where I_t , - income flows of the project in year t;

O_t , - outcome flows of the project in year t;

r - discount rate;

n - duration (life) of the project.

To calculate this indicator, you first need to find out the amount of investment in this project. Possible investments in the acquisition of software, necessary equipment, employee training and support of the consultants in the implementation and operation of the product were evaluated (Table 3.4).

Table 3.4 - Possible costs for the introduction of a digital freight forwarder at the company, USD

№	Cost item	1 year	2 year	3 year	4 year	5 year	Total
1	Consulting on the development of the technical task	10000	-	-	-	-	10000
2	Software development directly	32000	-	-	-	-	32000
3	Software integration into company activities	15000	-	-	-	-	15000
4	Cost of server hardware and databases	6000	-	-	-	-	6000
5	Additional network laying	1500	-	-	-	-	1500
6	Software technical support services	3000	3000	3000	3000	3000	15000
7	Training of system users	500	-	-	-	-	500
8	System administrator training	500	-	-	-	-	500
9	Upgrading of the system according to user reviews of the software product	-	7500	-	-	-	7500
10	Total	68500	10500	3000	3000	3000	88000

Calculations of the net present value of the project, benefits and costs will be presented in the form of Table. 3.5.

Table 3.5 - Calculations of project implementation efficiency, USD

№	Years	Incomes	Outcomes	Cash Flow	Discount coefficient r=15%	Discounted Cash Flow	Discount coefficient r=20%	Discounted Cash Flow
1	1	2	3	4	5	6	7	8
2	t	I _t	O _t	CF _t	1/(1+r) ^t		1/(1+r) ^t	
3	1	19000	68500	-49500	0,870	-43043	0,833	-41250
4	2	22300	10500	11800	0,756	8922,5	0,694	8194,44
5	3	26000	3000	23000	0,658	15122,9	0,579	13310,2
6	4	28000	3000	25000	0,572	14293,8	0,482	12056,3
7	5	32000	3000	29000	0,497	14418,1	0,402	11654,4
8					NPV	9713,85	NPV	3965,41

Thus, the difference between the present value of the future benefit stream and the present value of the future costs of project implementation is 9713,85 USD at a discount rate of 15% and 3965,41 USD at a discount rate 20%. From the moment the amount of discounted net worth is positive - the net present value is positive, the project will have a positive impact on the company and can be recommended for financing.

Another criterion for evaluating the effectiveness of the project is Internal Rate of Return (IRR).

The IRR of the project is equal to the discount rate at which the total discount benefits are equal to the total discounted costs, i.e. the IRR is the discount rate at which the NPV of the project is zero. The IRR is equal to the maximum interest on loans that can be paid for the use of the necessary resources, while remaining at a break-even level.

The calculation of IRR is performed by the method of successive approximations of the value of NPV to zero at different discount rates. Calculations are made according to the formula:

$$IRR = A + \frac{a(B - A)}{(a - b)} \quad (3.4)$$

where A is the value of the discount rate at which the NPV is positive;

B is the value of the discount rate at which the NPV is negative;

a is the value of the positive NPV, under discount rate A ;

b is the value of the negative NPV, under discount rate B.

At a discount rate of 25%, the NPV is negative. Substitute these values into the formula and determine the value of IRR.

$$IRR = 15\% + \left(\frac{9713,85 \cdot (25 - 15)}{9713,85 - (-529,28)} \right) \% = 24,48\%.$$

Also, the Internal Rate of Return can be found graphically. To do this, NPV values are calculated for discount rates in the selected range, for example from 5 to 30%. Based on these values, a graph of the NPV value depends on the discount rates. (Fig. 3.5)

You can see in the chart that before the 25% discount rate, the NPV values become positive and only after the 25% mark do they become negative. That is, at an interest rate of 25, the present value of all cash flows of the project is 0. This means that at such an interest rate, the investor will be able to recoup its initial investment.

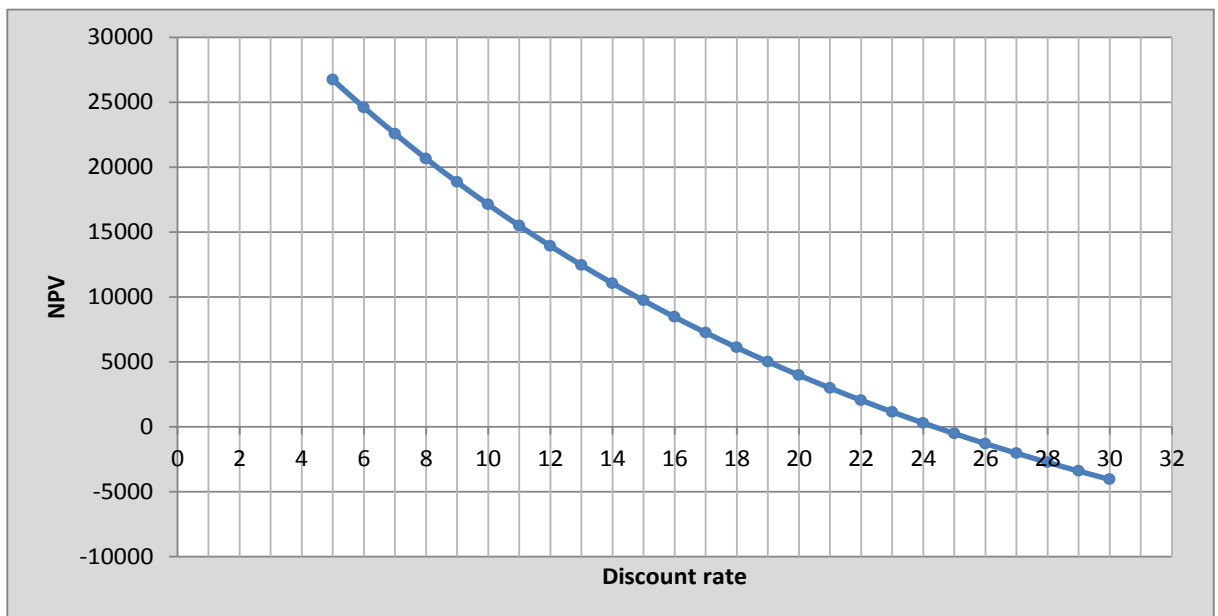


Figure 3.5 - Dependence of the NPV value on the discount rate

Another efficiency criterion is Payback Period (PP). The payback period refers to the amount of time needs to recover the cost of an investment. Simply put, the payback period is the length of time an investment reaches a break-even point [38].

The time value of money is not taken into account. Payback Period intuitively measures how long something takes to "pay for itself." All else being equal, shorter payback periods are preferable to longer payback periods. Payback period is popular due to its ease of use. [39]

The payback period is indicated by the formula:

$$PP = \min n \text{ under which } \sum_{i=1}^n CF_i > IC \quad (3.5)$$

where *IC* (Invest Capital) - the initial investment costs in the project,

CF_i (Cash Flow) - cash flow of the project in the *i* period of time, less current costs,

n is the number of time periods.

Calculate the payback period of investment in the project (Table 3.6).

Table 3.6 – Calculation of the project Payback Period

№	Time period (year), T	Initial investment costs, IC	Cash Flow, CF	Cash flow cumulative total
1	2	3	4	5
2	1	65500	16000	16000
3	2	65500	11800	27800
4	3	65500	23000	50800
5	4	65500	25000	75800
6	5	65500	29000	104800

Cash flow over time was defined as the difference between the expected benefits and current expenses, which expected 3000 USD in 1st year, 10500 USD in 2nd year, and 3000 USD in 3rd year, 4th year and in 5th year. Capital investments at the beginning of the project amounted to 65500 USD. Based on the calculations, we construct graphs to more conveniently reflect the moment of the beginning of the prevalence of cash flows over capital investments (Fig. 3.6).

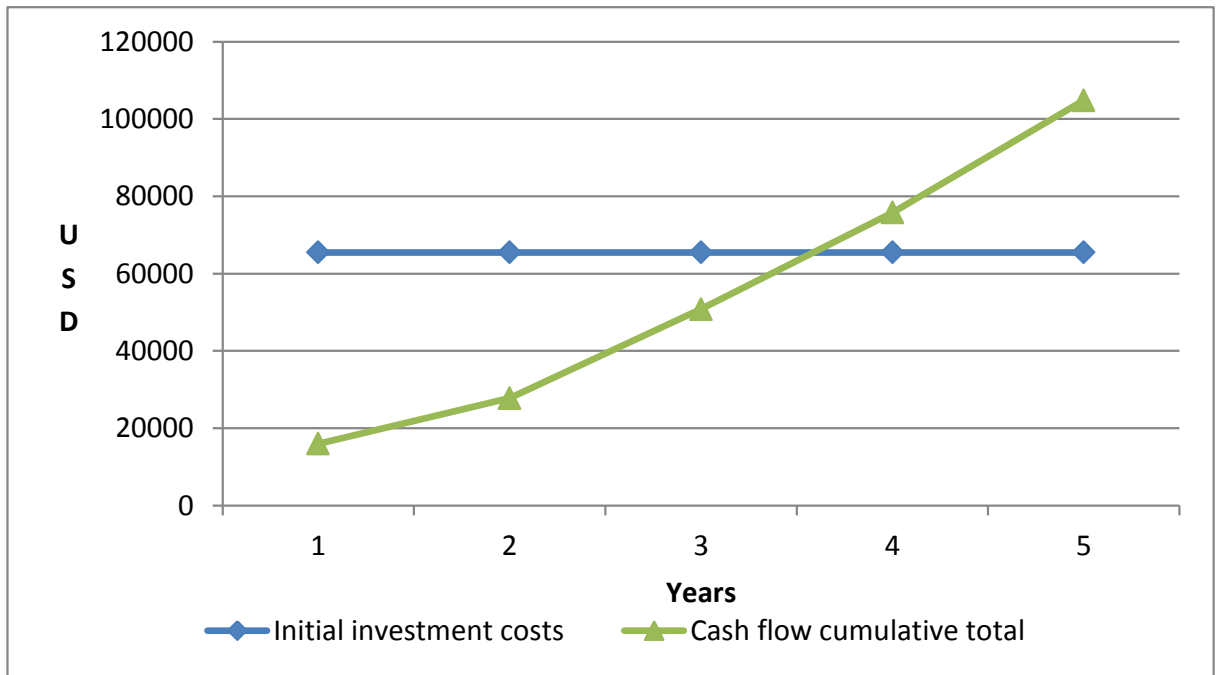


Figure 3.6 - Graphical display of the project PP

According to the calculations we can see that the Payback Period of the project comes after 3,5 years.

The discounted payback period (DPP) is the amount of time that it takes (in years) for the initial cost of a project to equal to discounted value of expected cash flows, or the time it takes to break even from an investment. It is the period in which the cumulative net present value of a project equals zero. [33] Discounted payback period helps businesses reject or accept projects by helping determine their profitability while taking into account the time-value of money

Calculated by the formula:

$$DPP = \min n \text{ under which } \sum_{t=1}^n \frac{CF_t}{(1+r)^t} > IC \quad (3.6)$$

where r is the discount rate.

Next step will be carry out of necessary calculations of discounted payback period and after calculations, we bring results to the table (Table 3.7).

Table 3.7 - Calculation of the project DPP

№	Time period (year), T	Initial investment costs, IC	Cash Flow, CF	Discounted CF, r=15%	Cash flow cumulative total	Discounted CF, r=20%	Cash flow cumulative total
1	2	3	4	5	6	7	8
1	1	97800	13850	12589,65	12589,7	11541,7	11541,7
2	2	97800	12000	9912	22501,7	8333,3	19875,0
3	3	97800	28750	21591,25	44092,9	16637,7	36512,7
4	4	97800	33650	22982,95	67075,9	16227,8	52740,5
5	5	97800	40250	24995,25	92071,1	16175,6	68916,1

Graphic interpretation of the discounted payback period calculation is given in the chart (Fig. 3.7).

The graph shows that discounted payback period under 15% discount rate comes after 4th year and after 5th year under 20% discount rate.

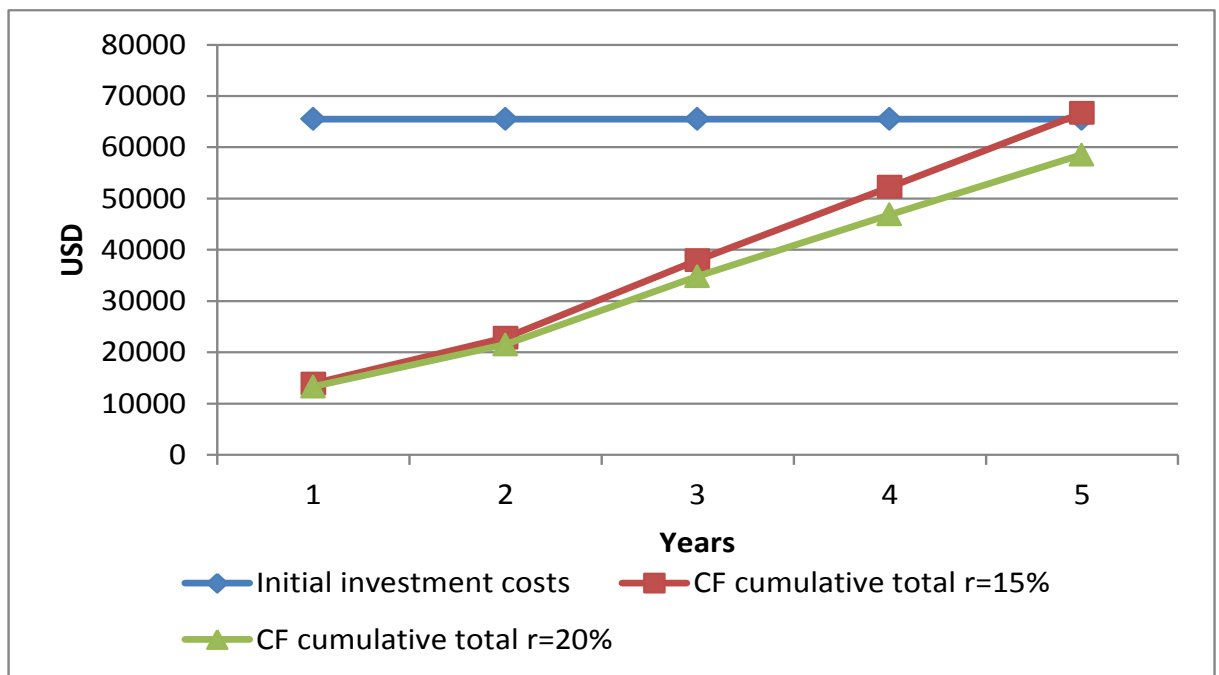


Figure 3.7 – DPP calculations

Therefore, the general conclusion after evaluating the effectiveness of the introduction of a digital freight forwarder is that the implementation of the software will have a positive effect on the activities of the whole company. The project

performance indicators are positive, which characterizes the project as one that is could be recommended and further chosen for implementation.

3.4. Chapter 3 summary

The third chapter of this thesis aimed on planning, implementation and recommendation of a project, which should solve the problem which face a logistics company operating activity. One of the activities in the field of import-export operations is a maritime type of transportation goods. Moreover, present day, during the worldwide pandemic, this field of transportation was impacted too. Affection of pandemic caused massive delays in major seaports. In order to increase stability in sea services offered by the company, it was decided to focus on the service LCL. In addition, it was decided to increase sales, preferably with modern digital solutions. In general, digitization is now a universal trend in all areas of human life. At the state level, directions of digitization in the spheres of the economy are specified. For example, the concept of a “single sea window” is being developed in the area of maritime transport. This is a set of software and hardware created to simplify and harmonize administrative procedures by simplifying the formalities for the provision of information and the electronic transmission of information during maritime transport.

The digitization of the container transport system is the process of improving the container transport system through an integrated digitization system, including automation, computerization and informatization, both to develop container transport in general and, in particular, to increase the competitiveness of companies operating in the container market by increasing the speed of exchanges, the availability and security of information.

One of the modern IT solutions is a digital shipping company. The use of digital technologies can lower unit costs, increase customer attractiveness and satisfaction,

and increase profitability. A draft proposal was developed for the implementation of a software product that combines marketplace and online shipping. Trading platforms are platforms on which market participants post their offers, and online freight forwarders are companies that provide logistics services on their own behalf and use their own IT platform.

To assess the effectiveness of the proposed project, various indicators were used: Net Present Value, Internal Rate of Return. All indicators were positive, in addition, figure 3.6 and 3.7 show that Payback Period and Discounted Payback Period were calculated and these figures represent a time required for make project profitable after investments, was calculated discountd payback perid and it's equal which suggests that the project can be recommended for implementation, considering fact of five-year determined profitability.

CONCLUSIONS AND RECOMMENDATIONS

Today, the countries are in a transitional stage: in the transport and logistics sector, there is an adaptation to the updated operating conditions and a gradual recovery from the crisis. However, there are still a number of risks that can lead to delays and additional costs. Modern world trade is characterized can show the dynamics of growth in the physical transportation volume, and also by a wide variety of commodity structure, directions and principles of product sales in foreign markets, as well as ways of formalizing foreign trade transactions that require participants in foreign economic activity to conduct appropriate operational and commercial work.

The export operations are a logistic activity aimed at selling goods to a foreign partner (buyer) with its export from the seller's country. Therefore, the export operations are a type of operations during foreign economic activity, when goods, finished products are moved outside the customs territory of the country, or services are rendered to a foreign customer. At the same time the import operation - represents activities related to the purchase of a foreign seller and the import of foreign goods, technologies and services into the buyer's country for subsequent sale on the domestic market. As world practice has shown, many business structures and national economies of individual countries were not ready to fully counteract the corresponding crisis phenomena, which actualizes the problems of exports and imports, the economy as a whole in a pandemic. Therefore, the world's leading companies are trying to adapt their activities to quarantine measures, save jobs and minimize losses due to the recession. Because the pandemic has large-scale negative consequences for both the global and national economies, including Ukraine.

Consequently, entering the foreign market, in addition to knowing the conditions of interstate and national regulation of export-import flows, is associated with the study of possible forms and methods of selling a specific type of product and the corresponding registration of foreign trade transactions. The form of interaction between manufacturers of products from different countries is foreign trade, serving

the sphere of commodity circulation (including services and intermediaries) through foreign trade operations that are of a commercial nature. Foreign trade operations are a complex of basic and auxiliary (supporting) types of commercial activities, that is, a set of techniques, the consistent application of which ensures the implementation of the purchase and sale agreement. Their main type is export-import operations, where: the import operations are a type of operations in foreign economic activity, when the customs territory of the state is moved goods, finished goods, or turn out services from foreign suppliers. Thus, export-import operations are operations for the movement of goods, raw materials, finished products in the world market because of their sale to foreign buyers.

All export-import transactions accompany settlements between counterparties, which creates system of international payments. Currently, the economic damage from the pandemic has yet to be assessed due to the further spread of the virus. Studies of the measures taken by the countries of the world to stimulate the economy in the context of the coronavirus have shown that most developed countries are trying to restore their economies through the mobilization of financial resources, the introduction of large-scale programs to support producers and tax breaks. However, some developing countries are introducing temporary foreign trade restrictions to avoid a shortage of products in the domestic market, and are using other economic incentives to mitigate the consequences of the pandemic. Economic measures to counter the pandemic and temporary trade restrictions introduced in Ukraine. Pandemic has effect on the export of goods, and in addition, together with other global trends. It has led to a decrease in critical imports. The presence of systemic and crisis gaps in Ukraine's trade policy requires the use of urgent measures in the field of trade and economic cooperation with the countries of the world.

1. Based on the research, the essence of the concept of "import-export operations" is clarified like the implementation of diagnostics and aimed at improving the level of business.

2. Based on research on technologies for diagnosing various types of business activities and economic processes, the technology of diagnostics of export-import

activities of logistics companies has been improved, which, in contrast to existing ones, takes into account diagnosis, goal setting, selection of optimal methods, identification of factors influencing the export-import activity of the company, selection of economic indicators that change under the influence of factors and analysis of their values, diagnosis based on diagnostic procedures, forecasting export parameters. import activity.

3. In order to optimize the procedure for determining methods diagnostics of export-import activity of companies is developed activity of logistics companies that allows based on a number of parameters (the scale of the study, type of input information, capable of independent to carry out diagnostics, the level of stability of the implementation environment export and import activities, the level of financial security) to choose objective and situationally appropriate methods of diagnosis. export-import activity of logistics company's taking into account

4. The results of research have made it possible to improve the method of integrated diagnosis of export-import activities of logistics companies. The basis of this method is the study of a number of indicators that will most significantly reflect the influence of determinants of action on export and import activities, and forecasting values based on them efficiency of export and import activities in future periods.

5. A review of the literature on the problem made it possible to determine that one of the most important economic indicators of the assessment of export and import activity of the company is the level of efficiency of such activities. The literature was analyzed and found the optimal method. Determining the level of export efficiency is a comparison of export earnings to the cost of products intended for export. There is a positive trend increase in this indicator. The level of efficiency of imports is appropriate calculated by dividing the difference between the value of purchased goods by domestic market and the value of a similar volume of goods purchased at foreign markets for the value of a similar volume of goods purchased in foreign markets.

6. The main economic indicators were identified, showing the differences of each detailed factor. In order to identify economic indicators of factor impact, the effect of which on the export and import activities of logistics companies is the most significant,

an expert survey was conducted with each indicator of the severity of the impact in percentage terms and selected those with the highest weight. For the studied mechanical engineering companies by applying the method of complex diagnostics of export-import activity correlation-regression dependences of indicators of interpretation of influence of factors (the list of which is formed as a result of interrogation of experts) on the resulting indicator are received export and import. The study was conducted separately for external and internal factors, reflecting the obtained models of the impact of external and internal factors on the level of efficiency of export and import activities of logistics companies.

The decision of a scientific problem concerning formation of theoretical-methodological and methodical-applied base of realization at logistics company of diagnostics of export-import activity is offered. The results of the study give will be able to draw the following conclusions:

1. Based on the study and analysis of literature sources developed classification of factors influencing the export-import activities of companies, which contains a number of proposed classification features: the degree of motivation for export (import) activities - incentive and inhibitory, the level of constructiveness - constructive, destructive, neutral; by the level of complexity of the object of influence - single impact and complex impact. The given classification is an important part of providing the executors of diagnostics with data on determining the factors influencing the export-import activity of a particular company.

2. Research of literature sources allowed to develop conceptual principles of diagnostics of export-import activity of logistics companies, which determine the structure of diagnostics system (subjects of diagnostics of export-import activity of companies, basic principles of main tasks, technology, methods and techniques, influencing factors, economic indicators, export-import activity of the company or its separate elements), formed within the functional load of diagnostics, the set of elements of which is the basis for clear, logical and reasonable implementation of diagnostics at companies, which will allow the management staff of the company and specialists of foreign economic departments to take on on the basis of the

implementation of diagnostics scientifically sound and economically feasible decisions to achieve certain prospects for export-import activities, as well as provide the necessary an array of information on the probable features of export-import activities.

3. The export-import activity of logistics company will provide an opportunity for the subjects of such diagnostics to obtain data on the information content of the stages of the information technologies which help to obtain a such massive problem faced to a company like container freight and customs clearance, the sequence of their implementation and ultimately ensure the development of the management staff of the company improving the export-import activities of the company and obtaining concrete economic results from the implemented solutions.

4. In order to save time, financial and human resources companys to search for and determine adequate to the specifics of a particular company methods of diagnostics of export-import activities of the and logistics of the company or external subjects of diagnostics proposed a model of multiparametric choice of methods of diagnostics the scale of the study, the type of input information, the availability of skilled workers who are able to independently implement the diagnosis, the level of stability of the environment of export-import activities, the amount of financial support) offers a list of adequate and logical methods of diagnosis: single-factor or multi-factor, general or partial, quantitative or qualitative, individual or team, express methods or complex, etc.

As way of assuming the all mentioned above: the method of complex diagnostics of export-import activity of logistics company, which interprets the sequence, has been improved a different company's ratio and have positive influence at logistics market share, where «FTP» company is operate. During the research, was analyzed the logistics situation nowadays concerned Ukraine and logistics company «FTP» which was researched.

The structure of road and maritime transport in the logistics company «FTP», including the parts of FCL and LCL transportation, the dynamics of the main financial results of the logistics company «FTP», including dynamics of profitability ratios,

dynamics of financial stability indicators, liquidity ratio has been analyzed in diploma work.

Major project directed to improve maritime activity about logistics company «FTP» was offered. The implementation of the key stages of the method of such import-export activity and the predominance of quality implementation provides a comprehensive array of information addressed to the management staff, specialists of foreign economic activity or external stakeholders on future prospects and threats of export-import trends. The resulting indicator of export-import activities based on the use of the obtained models of the dependence of the resulting indicator of external and internal factors of influence.

Usage of digital freight forwarder among the all maritime supply chain is essential in order to reduce the time, reduce the costs required for a handling and a potential demurrage, obtain the efficiency and boost the process, which is also necessary to ensure high-level service.

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Appendix A

Data from the financial statements of «FTP» LLC for 2018-2020

Table A.1 - Balance sheet data of «FTP» LLC, thousand UAH

№	Assets / Liabilities	Line code	At the end of the year		
			2018	2019	2020
1	2	3	4	5	6
1	Assets				
2	I. Non-current assets				
3	Incomplete capital investments	1005		2.3	4.1
4	Fixed assets:	1010	226.0	211.8	252.5
5	- initial value	1011	252.9	285.3	373.2
6	- wear	1012	-26.9	-73.4	-120.7
7	Long-term biological assets	1020			
8	Long-term financial investments	1030			
9	Other non-current assets	1090			
10	Total for section I	1095	226.0	214.1	256.6
11	II. Current assets				
12	Stocks:	1100	9.4	6.1	25.7
13	including finished products	1103	5.5	0.4	16.3
14	Current biological assets	1110			
15	Accounts receivable for goods, works, services	1125	410.5	399.1	831.3
16	Accounts receivable according to budget calculations	1135			3.4
17	including income tax	1136			
18	Other current receivables	1155	39.1	91.4	616.9
19	Current financial investments	1160			
20	Money and their equivalents	1165	357.7	327.2	280.8
21	Deferred expenses	1170	2.2	5.9	12.2
22	Other current assets	1190	8.5	30.9	112.0
23	Total for section II	1195	827.4	860.6	1882.3
24	III. Non-current assets held for sale and disposal groups	1200			
25	Balance	1300	1053.4	1074.7	2138.9
26	Liabilities				
27	I. Equity				
28	Registered (share) capital	1400	1.0	1.0	60.0
29	Additional capital	1410			
30	Reserve capital	1415			
31	Retained earnings (uncovered loss)	1420	84.0	406.2	376.7
32	Unpaid capital	1425			
33	Total for section I	1495	85.0	407.2	436.7
34	II. Long-term liabilities, targeted financing and provision	1595			
35	III. Current liabilities				
36	Short-term bank loans	1600			
37	Current accounts payable for:				
38	long-term liabilities	1610			
39	goods, works, services	1615	458.3	521.6	534.3
40	calculations with the budget	1620	44.7	97.2	61.2
41	including income tax	1621			39.8
42	insurance calculations	1625			
43	payroll calculations	1630			
44	Deferred income	1665			
45	Other current commitments	1690	12.9	27.4	42.5
46	Total for section III	1695	515.9	646.2	638.0
47	Balance	1900	600.9	1053.4	1074.7

Table A.2 - Data of reports on financial results of LLC «FTP», thousand UAH

№	Indicator	Line code	At the end of the year		
			2018	2019	2020
1	2	3	4	5	6
1	Net income from sales of products (goods, works, services)	2000	2250.5	3362.7	5863.8
2	Other operating income	2120	6.1	31.6	528.9
3	Other income	2240	0.8		0.1
4	Total income (2000 + 2120 + 2240)	2280	2257.4	3394.3	6392.8
5	Cost of goods sold (goods, works, services)	2050			
6	Other operating expenses	2180	-1117.2	-1856.0	-3874.6
7	Other expenses	2270			
8	Total costs (2050 + 2180 + 2270)	2285	-1117.2	-1856.0	-3874.6
9	Financial result before taxes (2280 - 2285)	2290	1140.2	1538.3	2518.2
10	Income tax	2300	-77.3	-39.8	-42.5
11	Net profit (loss) (2290 - 2300)	2350	1062.9	1498.5	2475.7