### **Kyiv National University of Trade and Economics International Management Department**

### FINAL QUALIFYING PAPER on the topic:

«Ensuring the competitive advantages of the enterprise in the world market of transport and logistics services» (based on data of «Braz logistics», Kyiv)

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### INTRODUCTION

The relevance of the research is that the formation of prerequisites for strengthening the competitive advantages of the enterprise in the global market of transport and logistics services determines its ability to be the first to respond to market changes, better than others to adapt to negative macro-environmental factors. From this point of view, the company gains a competitive advantage, which also allows to increase the efficiency of functioning in the foreign market. In modern conditions of internationalization of economic life, increasing the intensity of competition, the role of product competitiveness is growing significantly.

The level of research of the topic. A number of scientists have studied the formation of the competitive status of enterprises in the international market of services, including in the field of international transport and logistics operations, such as O. Arkhipova, T. Alekseeva, Bondar-Pidgurska, N. Demchuk, V. Solovey, V. Yasynsky, V. Dyachenko, A. Donskykh, Babiy, T. Melnyk, A. Mazaraki, N. Iksarova, etc.

The purpose of the work is to study the features of ensuring the competitive advantages of the enterprise-subject of foreign economic activity in the world market of transport and logistics services and justify the ways of their growth.

Based on the stated purpose of the study, the following tasks were identified:

- to analyze the indicators of financial and economic activity of Ukrspetstrans LLC;
  - to assess the peculiarities of foreign economic activity of the enterprise;
- to assess the effectiveness of foreign economic activity of Ukrspetstrans LLC, including the competitive efficiency of the enterprise in the global market of transport and logistics services;
- to substantiate the directions of increasing the competitive advantages of the enterprise in the world market of transport and logistics services;
- to develop a draft of measures to increase the competitive advantages of the enterprise in the global market of transport and logistics services;

- to make a forecast assessment of the effectiveness of the proposed measures.

The object of research is the process of formation of competitive advantages of the enterprise in the world market of transport and logistics services.

The subject of the study is the practical and methodological aspects of the competitive advantages of the Ukrspetstrans LLC in the global market of transport and logistics services.

**Information base of the research.** During the organization of the study, regulations, monographs, scientific periodicals and online publications were used. The empirical part of the study was performed on the basis of financial and management reporting of the studied enterprise - Ukrspetstrans LLC.

Approbation of research results. The results of the theoretical study of the competitiveness of products of the enterprise-subject of foreign economic activity were the basis of a scientific article on "Ensuring the competitive advantages of the enterprise-subject of foreign trade in the global market of transport and logistics services", published in the collection of scientific works of KNUTE students.

The practical significance of the work. The practical significance of the study is to develop recommendations for improving the competitive advantages of Ukrspetstrans LLC in the global market of transport and logistics services.

**Work structure.** The work structurally consists of an introduction, two sections, conclusions and suggestions, a list of sources used (of 10 items) and accessories. The total volume of the work is 53 pages of printed text.

#### **SECTION 1**

# PREREQUISITES RESEARCH FOR FORMATION OF COMPETITIVE ADVANTAGES OF UKRSPETSTRANS ENTERPRISE ON THE WORLD MARKET OF TRANSPORT AND LOGISTICS

### 1.1. Financial and economic activity analysis of Ukrspetstrans LLC

The researched enterprise Ukrspetstrans LLC specializes in providing transport services both on the territory of Ukraine and the organization of international cargo transportation.

The main activities of the studied enterprise are as follows:

- transportation of goods;
- warehousing of goods and their temporary storage;
- provision of freight forwarding services;
- provision of customs clearance services;
- provision of other related logistics services.

Within the limits of research in the given question it is necessary to specify the characteristic of indicators of realization of financial and economic activity of the enterprise. To do this, you must first take into account the indicators of formation of assets and capital of the enterprise. The calculations were performed in accordance with the annual financial statements (Accessory A). The dynamics of indicators of formation of property potential of Ukrspetstrans LLC by assets and liabilities, as well as their structure are given in table. B1 (Accessory B).

Based on the financial statements, as well as on the basis of table. B1 (Accessory B), we can see that the volume of assets of Ukrspetstrans LLC did not have a clear and stable dynamics. In 2017, compared to 2016, the company's assets increased by UAH 6,182 thousand. or 7%. In 2018, the company's assets increased by UAH 31,286 thousand, or 34%. In 2019, the company's assets began to decline, decreasing by 22,225 thousand UAH, or 18% compared to the previous year. In 2020, the assets of Ukrspetstrans LLC increased by UAH 7,556 thousand, or 8%.

The value of trends in changing the structure of assets of the enterprise is shown in Fig. 1.1.



Fig. 1.1. Indicators of the formation of the structure of assets of Ukrspetstrans LLC in 2016-2020,%

\* Source: calculated according to Accessory A

Based on the data shown in Fig. 1.1, we can see that the structure of assets of Ukrspetstrans LLC was dominated by the share of current assets, including receivables from customers and other current receivables.

There was also a significant share of non-current assets (in particular, fixed assets), which mainly include fixed assets (fleet, garages, workshops, warehouses). In 2020, fixed assets accounted for 45% of the total value of property.

Based on the data shown in Fig. 1.1, we can see that the structure of assets of LLC "Ukrspetstrans" was dominated by the share of current assets, including receivables from customers and other current receivables.

There was also a significant share of non-current assets (in particular, fixed assets), which mainly include fixed assets (fleet, garages, workshops, warehouses). In 2020, fixed assets accounted for 45% of the total value of property.

The process of forming sources of financing of Ukrspetstrans LLC was similar to the formation of assets (Accessory B). It should be noted that during the period 2016-2017, equity decreased due to a decrease in retained earnings of Ukrspetstrans LLC. During 2017-2018, the equity of Ukrspetstrans LLC increased by UAH 1977 thousand or by 5%. In 2018-2019, the volume of equity decreased again - in this period, this indicator decreased by 8%, and in 2019-2020 there was a decrease in the analyzed indicator by UAH 3636 thousand (-9%).

The value of the change in the capital structure of Ukrspetstrans LLC for 2016-2020 is shown in Fig. 1.2.

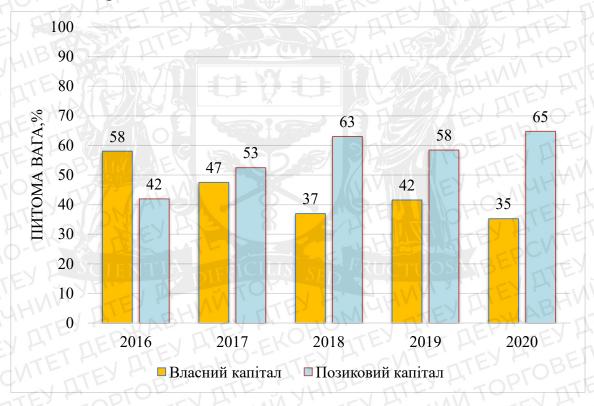


Fig. 1.2. Indicators of capital structure formation of Ukrspetstrans LLC in 2016-2020,%

\* Source: calculated according to Accessory A

According to the data shown in Fig. 1.2. during 2016, equity accounted for 58%. In 2017-2020, it was reversed – the share of borrowed financial resources prevailed in the capital structure. The reason for this situation is the reduction of debt financing. It should be added that the company actively used both long-term and short-term debt financial instruments – overdraft loans and loans to finance investment activities.

In 2019, 42% of financial resources were equity and 58% involved sources of asset financing. In 2020, equity accounted for 35% of financial resources, debt – 65%.

Indicators of income, expenses and financial results are given in Accessory B. During 2016-2020, the company's profit fluctuated constantly, but in general the general trend was to decrease. In 2016-2017, there was an increase in net income from the provision of freight services by the company Ukrspetstrans LLC by UAH 6498 thousand or by 3%, in 2017-2018 net income increased by UAH 29,385 thousand or by 13%, in 2018-2019 net income increased by UAH 12,391 thousand or 5%. In 2020, there was a decrease in net income by UAH 72,200 thousand or 27%.

Indicators of gross profit, operating activities financial result and net profit of Ukrspetstrans LLC for 2016-2020 are illustrated in Fig. 1.3



Fig. 1.3. Dynamics of gross profit, operating activities financial result and net profit of Ukrspetstrans LLC for 2016–2020, thousand of UAH

\* Source: calculated according to Accessory A

The decrease in the gross profit indicator during 2016-2017 amounted to UAH 5,074 thousand, which was lower than the value of the same indicator in 2016 by 24%. The main factor in the decrease in gross profit in this period was the increase in

the cost of services provided by UAH 11572 thousand. In 2017, Ukrspetstrans LLC received a net financial result (profit) in the amount of UAH 1,656 thousand. In 2017-2018, there was an increase in the net profit of the enterprise by UAH 2615 thousand. In 2019-2020, there was a reverse trend to reduce the company's net profit by UAH 7075 thousand.

The liquidity and solvency ratios of Ukrspetstrans LLC for 2016-2020 are illustrated in Fig. 1.4.



Fig. 1.4. Dynamics of liquidity and solvency ratios of the company
Ukrspetstrans LLC for 2016-2020

The dynamics of liquidity and solvency ratios of the company Ukrspetstrans LLC for 2016-2020 was uneven. The value of the total coverage ratio at the end of 2016 was 1.85 units. That is, the value of the current assets of the enterprise was sufficient to cover short-term debt by 185%. In 2017, this ratio decreased by 0.24 units. up to 1.62 units as of the end of 2017. In 2020, this ratio was 0.66 points. The minimum allowable value of the total solvency ratio is 1.5. Based on this, it can be said that Ukrspetstrans LLC did not have sufficient assets to repay its short-term liabilities.

<sup>\*</sup> Source: calculated according to Accessory A

The value of the intermediate coverage ratio at the end of 2016 was 1.63 units. That is, the value of the indicator of liquid current assets (receivables and funds on accounts) of the enterprise was sufficient to cover short-term debt by 163%. In 2017, this ratio decreased by 0.16 units. up to 1.47 units as of the end of 2017. In 2020, this ratio was 0.54 points. The minimum allowable value of the total solvency ratio is 1.0. Based on this, we can say that Ukrspetstrans LLC did not have a sufficient amount of fast-moving liquid assets needed to repay its short-term liabilities.

In 2018-2020, the balance of receivables decreased due to an increase in accounts payable to suppliers and receivables from customers.

It is also necessary to analyze the trends in the dynamics of financial stability ratios, which are illustrated in Fig. 1.5.

As we can see from the data shown in Fig. 1.5, the nature of changes in indicators of financial stability indicated an increase in the trend of imbalance of financial resources and a reduction in the level of financial equilibrium of the enterprise.

The self-financing ratio in 2016 was 0.58 points. In 2017, the value of this indicator decreased by 0.11 points. In 2018, this ratio continued to decline to 0.37 points. In 2018-2019, it was possible to observe an increase in the value of the analyzed coefficient by 0.05 points. In 2019-2020, this figure decreased by 0.6 points.

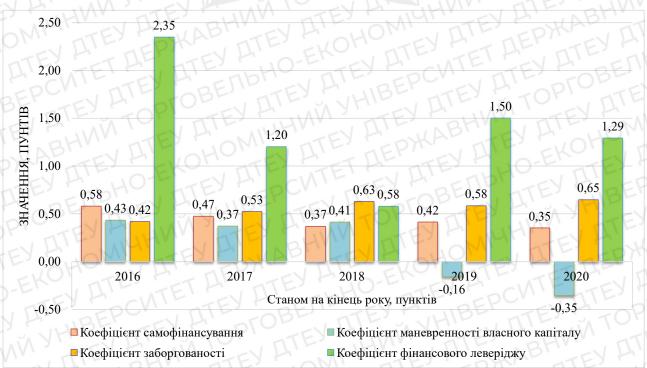


Fig. 1.5. Dynamics of the coefficients of financial stability of the Ukrspetstrans LLC for 2016-2020

\* Source: calculated according to Accessory A

The maneuverability ratio of equity in 2016 was 0.43 points. In 2017, the value of this indicator decreased by 0.06 points. In 2018, this ratio increased by 0.04 points and amounted to 0.41 points. In 2018-2019, it was possible to observe a decrease in the value of the analyzed coefficient by 0.57 points. In 2019-2020, this figure decreased by 0.19 points and amounted to -0.35 points. That is, the negative value of the indicator is due to the fact that the current assets of the enterprise were largely financed by borrowed funds.

The financial leverage ratio in 2016 was 2.35 points. In 2017, the value of this indicator decreased by 0.1.14 points. In 2018, this ratio decreased by 0.62 points and amounted to 1.20 points. In 2018-2019, it was possible to observe an increase in the value of the analyzed coefficient by 0.92 points. In 2019-2020, this figure decreased by 0.21 points and amounted to 1.29 points. Thus, the declining dynamics of the indicator is due to the fact that the company began to increase volumes.

An important area of analysis of the financial condition of the enterprise is to assess the level of key indicators of its profitability (Fig. 1.6).

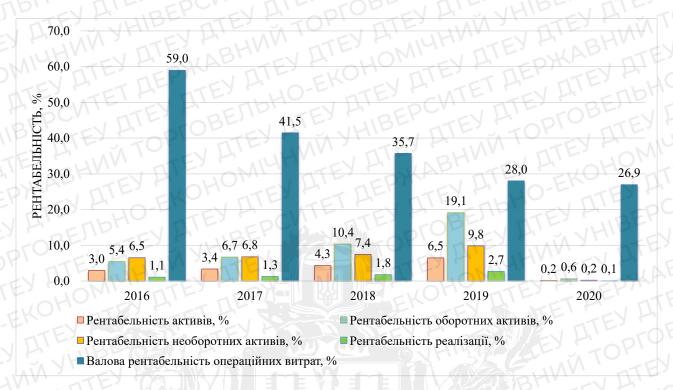


Fig. 1.6. Dynamics of the level of profitability of the Ukrspetstrans LLC for 2016-2020

\* Source: calculated according to Accessory A

Profitability of operating costs tended to decrease steadily. It ranged from 26 to 59%. In 2020, there was a sharp decline in this indicator due to fairly high volumes of fixed costs against the background of reduced traffic. The profitability of freight services remained low. In 2017, the value of this indicator was 1.1%, and in 2020 - 0.1%.

The return on funds invested in the material and technical base of the enterprise increased by 0.4% in 2017 compared to 2016, in 2017-2018 - increased by 1.0%, in 2018-2019 - increased by 2.2% and in 2019-2020 - decreased by 6.3%. The decrease in return on assets in 2018-2020 was caused by a decrease in return on both current and non-current assets, which allowed the company to increase profits from the use of the fleet. The decrease in the level of profitability in this period for all these indicators is due to the financial crisis caused by the restrictions of the COVID-19 pandemic, which led to a reduction in traffic.

To determine the characteristics of the use of available resources by the enterprise, it is necessary to consider the indicators of business activity by the level (speed) of turnover, as shown in table 1.1.

Table 1.1.

The level of turnover of resources of the Ukrspetstrans LLC dynamics indicators for 2016-2020, in times of turnover

ALENDA		Po	оки, раз	ів		Абсо	лютне від	цхилення,	разів
Актив	2016	2017	2018	2019	2020	2016– 2017	2017– 2018	2018– 2019	2019– 2020
Рівень оборотності активів	2,7	2,6	2,4	2,4	1,9	-0,2	-0,2	0,0	-0,5
Рівень оборотності дебіторської заборгованості	10,0	9,7	12,5	18,2	15,6	-0,3	2,8	5,7	-2,6
Рівень оборотності запасів, разів	41,9	48,6	54,5	53,4	43,5	6,6	6,0	BEILL LITEY	-9,9
Рівень оборотності кредиторської заборгованості	22,0	17,4	27,4	27,6	21,7	-4,6	10,0	0,2	-5,8

<sup>\*</sup> Source: calculated according to Accessory A

From the results of the calculations of the turnover of enterprise resources, listed in table. 1.1, we can see that the average turnover of assets of Ukrspetstrans LLC is at the level of 1.9-2.7 times per financial year. The value of the inventory turnover ratio ranged from 41 to 53 times per year. The level of turnover of accounts payable exceeded the turnover of receivables. The nature of turnover indicators shows that the company significantly reduced the level of business activity in 2020 due to reduced demand for transport services. This is due to the impact of the financial crisis.

Thus, the structure of assets of Ukrspetstrans LLC was dominated by the share of current assets, including receivables from customers and other current receivables. In 2017, Ukrspetstrans LLC received a net financial result (profit) in the amount of

UAH 1,656 thousand. In 2017-2018, there was an increase in the net profit of the enterprise by UAH 2615 thousand. In 2019-2020, there was a reverse trend to reduce the company's net profit by UAH 7075 thousand. The dynamics of liquidity and solvency ratios of the company Ukrspetstrans LLC for 2016-2020 was uneven. The value of the total coverage ratio at the end of 2016 was 1.85 units. That is, the value of the current assets of the enterprise was sufficient to cover short-term debt by 185%. In 2017, this ratio decreased by 0.24 units. up to 1.62 units as of the end of 2017. In 2020, this ratio was 0.66 points. The minimum allowable value of the total solvency ratio is 1.5. Based on this, it can be said that Ukrspetstrans LLC did not have sufficient assets to repay its short-term liabilities. Profitability of operating costs tended to decrease steadily. It ranged from 26 to 59%. In 2020, there was a sharp decline in this indicator due to fairly high volumes of fixed costs against the background of reduced traffic. The profitability of freight services remained low. In 2017, the value of this indicator was 1.1%, and in 2020 - 0.1%.

### 1.2. Estimation of indicators of foreign economic activity of Ukrspetstrans LLC

The main type of foreign economic activity of the company Ukrspetstrans LLC is the implementation of international transport of goods. It is necessary to determine the main features of the company's international transport and logistics services. To this end, it is necessary to provide an organizational and functional matrix of the business process of providing services for the international transportation of goods by the company LLC "Ukrspetstrans" (Table 1.2).

Table 1.2

Organizational and functional matrix of the business process of providing services for the international transport of goods by the Ukrspetstrans LLC

	Бізнес	Комерцій	ний відділ	Транспорт	но-логістичні	ий відділ	Y HI TOP
	процеси, що	Комерцій-	OPTOD	EVAIL	NIN YHIE	EVAIL	Фінансово-
1	входять до	ний	Менеджер	Керівник	Логіст	Митний	обліковий
N	процедури	BHI.	з продажу	відділу	JIOI ICI	брокер	відділ
1	надання	директор	H -KOF	TTEY	TET HE	TIEY	H 110-F1

					7/1/	
послуг	TIVIT	1 F NIN T	J' _ []	NVV	1 , 1	E, WW
Визначення потреби у наданні послуги з міжнародного перевезення	TEY TEY TO E	BHIN SELPHO	EKOTE IN THE INTERPRETATION OF THE INTERPRET	MUTEY P EPCNTE V LITEY	TE PY TEPY TOP	ABHULL OBENDER
Узгодження умов надання послуги з міжнародного перевезення	Y ATEY O-EKOH	OMIUHV OMIUHV JATEY F	TET DEP TET DEP	HABHV TEY P	TEY A IDHO-F	Y ATEY F
Затвердження заявки на здійснення відправки вантажу	HINNY	TEX.		TEY AN	TLEY !	T DEPK
Приймання заявки в роботу				) HIE	BHV	IN TOPIC

### continuation of the table. 1.2

Бізнес	Комерцій	ний відділ	Транспорти	но-логістичні	ий відділ	MAHMIN
процеси, що входять до процедури надання послуг	Комерцій- ний директор	Менеджер з продажу	Керівник відділу	Логіст FRUCTU	Митний брокер	Фінансово- обліковий відділ
Контроль здійснення клієнтом передплати	Y ATEY JEPWA AEPWA	BHUNTEY	世代の大	MIGHT	THE THE	XABHIN TEV II
Приймання товару в пункті розмитнення та розмитнення	TOPTOF TOPTOF TOPTOF	SENDA TEY ATE TOMIUH	NYTHE	EP HABI	MATO-	TEY ATE TEY ATE
Приймання товару на склад	TEX TY	YHIBEP C	TEY ATE	Probe	EYAL	A YHIBEN
Здійснення доплати за товар	EYATE	DEPHAR	Y ATEY	EKOHON	TEY T	ETTEPH

<sup>\*</sup> compiled on the basis of enterprise data

In fact, the formation of the process of providing international transport services at the studied enterprise is based on the interaction between the commercial department and the transport and logistics department. At the same time, the financial department additionally monitors the timely payments of customers for services rendered.

The following methods, forms and tools of control of logistics processes are used in the process of organizing the provision of international transport services at the enterprise of Ukrspetstrans LLC:

- 1) Forecasting the need for services for the relevant period;
- 2) Implementation of planning the need to provide the fleet with the necessary resources;
- 3) Methods of customs control and customs clearance in the warehouse of goods transported (in the case of customs clearance services by the customs broker of the enterprise);
- 4) Methods of accounting for logistics services provided, including the peculiarities of document flow;
- 5) Methods of organizing communication work with clients and agreeing on the terms of contracts for services.

The main tasks of the management system of international transport operations at the enterprise Ukrspetstrans LLC are the following:

- control of processes concerning loading / unloading of consignment of cargo;
- organization of logistics processes of the company;
- ensuring the provision of related additional services in the process of cargo transportation.

The objects of logistics operations of Ukrspetstrans LLC on the international market are the following:

- clients of the enterprise, direct customers of services for the benefit of which international transport services are provided;
  - intermediaries facilitate the search for new clients by Ukrspetstrans LLC;

- directly the company Ukrspetstrans LLC, which is a carrier and at the same time the owner of vehicles.

The process of organizing international transportation to Ukrspetstrans LLC consists of the following stages:

- 1. Organization of assessment of transport and logistics prerequisites for the provision of services, preparation of relevant documentation, construction of route plans;
  - 2. Formation of the organizational system of international transportation;
- 3. Economic justification of the feasibility of specific international cargo operations.

The organization of international transportation at Ukrspetstrans LLC ensures the regulation of interaction procedures between suppliers, transport companies and consignees. This process is formed by communication between the transport and logistics department of Ukrspetstrans LLC and customer representatives who are both shippers and consignees.

Further, based on the analysis of the organizational principles of international transport by the company LLC "Ukrspetstrans", it is necessary to provide a brief description of the environment in which it operates and carries out operations for the international transportation of goods. Table 1.3 shows the indicators that characterize the dynamics of the cost of international transportation in Ukraine.

Table 1.3

Dynamics of GDP, foreign trade turnover and foreign trade in transport services in Ukraine for 2016-2020

Показники	VIIT	EYH	Роки	Відхилення, 2016-2020		Відхилення, 2019-2020			
Показники	2016	2017	2018	2019	2020	абс.	відн., %	абс.	відн., %
Обсяг ВВП, млн.дол	91310	115617	135312	158349	157082	65773	72,0	- 1267	-0,8
Обсяги зовнішньо- торговельного обороту України,	75662	92865	104535	110855	103500	27838	36,8	7355	-6,6

млн.дол	PLI I	TEX	TOP	LIT	FYLLIN	NAI	DITE	7 1	NIN TO
Загальний обсяг зовнішньої торгівлі послугами, млн.дол	9868	10714	11638	15629	11521	1653	16,8	- 4108	-26,3
у т.ч. обсяг міжнародних транспортних послуг (усі види транспорту), млн.дол	5301	5861	5851	9110	4988	-312	-5,9	4121	-45,2
у т.ч. обсяг міжнародних автотранспортних послуг, млн.дол	238	274	304	339	340	102	42,8	EYF	0,3

<sup>\*</sup>складено за даними Державної служби статистики [8]

From the data given in table. 1.3, we can see that in 2016 the volume of international transport services provided in Ukraine in the framework of servicing foreign trade turnover amounted to 5301 million dollars, including 238 million dollars were road transport. In 201-2020, it was possible to observe an increase in foreign trade in services in Ukraine by 1653 million dollars or 16.8%. However, the value of the indicator of international transport services provided by all modes of transport decreased in 2016-2020 by 312 million dollars or 5.9%.

Also in 2016-2020, the volume of services provided in the field of international road transport increased by 102 million dollars or 42.8%. In particular, it should be noted that the main reason for the decline in foreign trade in services in 2020 were the effects of the economic crisis caused by the coronavirus pandemic [8]. At the same time, comparing the volume of GDP, the volume of foreign trade and the volume of international transport services, we note that the rate of decline in the market of international transport services exceeded the rate of economic decline in GDP by almost 7 times.

However, according to statistics, the market for international transport services in Ukraine has suffered the least, maintaining even a positive growth trend of 0.3%.

Thus, in 2016-2020 the volume of international road transport services increased by USD 102 million, and in 2020 - by USD 1 million.

In the future, it is necessary to characterize some relative indicators of the functioning of the market of international transport services and international road transport, in particular (Fig. 1.7).

According to the State Statistics Service, the average transport services in the structure of GDP in 2016-2020 ranged from 3.2% to 5.8%. It should be noted that in 2016-2019 the share of international transport services in relation to GDP was almost stable, ie economic growth in a uniform ratio was accompanied by the expansion of the market of international transport.

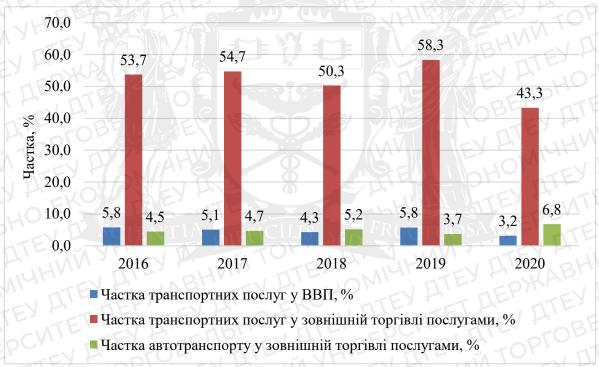


Fig. 1.7. Relative indicators of foreign trade in transport services in Ukraine in 2016-2020

However, due to the coronavirus crisis of the year there was a sharp decline in the share of transport services in foreign trade in services from 58.3% in 2019 to 43.3% in 2020, as well as the share of transport services in GDP from 5.8% in 2019 to the level of 3.2% in 2020.

<sup>\*</sup> compiled according to the State Statistics Service [8]

Let's analyze the dynamics of the volume of international freight services by the company under study. To this end, it is first necessary to characterize the scope and structure of services provided by their types (Table 1.4).

Table 1.4

Dynamics of the volume of logistics services provided for the international transportation of goods of Ukrspetstrans LLC in 2016-2020

DIETIPHO	YATE	LIBEP	Роки	BITES	Prop	Прир 2016-	1 11 1	Приріст 202	
Види послуг	2016	2017	2018	2019	2020	абс.	відн ., %	абс.	відн., %
Транспортуван- ня вантажів	144499	154317	163918	182750	128801	- 15697	10,9	- 53949	-29,5

continuation of the table. 1.4

NA Y		711	Роки		Приріст, 2016-2020		Приріст, 2019- 2020		
Види послуг	2016	2017	2018	2019	2020	абс.	відн ., %	абс.	відн., %
Транспортно- експедиційне обслуговування вантажів	14271	13173	18441	13211	12721	-1550	10,9	-490	-3,7
Тимчасове складське зберігання вантажів	5352	7528	6147 FICIL	4404 S SEL	6361	1009	18,8	1957	44,4
Послуги митного оформлення вантажів, інші супутні послуги	14271	13173	16392	19816	11131	-3141	22,0	-8685	-43,8
Усього	178394	188192	204898	220181	159014	- 19380	- 10,9	- 61167	-27,8

<sup>\*</sup> compiled according to the transportation department of Ukrspetstrans LLC

According to the data of the enterprise, given in table. 1.4, in 2020 the volume of international freight transport decreased compared to 2016 by UAH 19380 thousand, or 10.9%. In 2020, the volume of international freight transport decreased by UAH 61,167 thousand or 27.8% compared to 2019.

Characterizing the declining trends in international transport in 2019-2020, we note that the decrease in the volume of services provided was mainly due to a

decrease in the level of such services as "Cargo Transportation" by 29.5%. There was also a decrease in the volume of services such as "Customs clearance services, other related services" by 43.8%.

In fig. 1.8. the species structure of the provided services on the organization of international cargo transportation is given. It can be concluded that the share of such a service as "Cargo Transportation" prevailed - 81% in 2020. Also a significant share was occupied by freight forwarding services - 9%.



Fig. 1.8. The structure of the volume of logistics services provided for the international transportation of goods of Ukrspetstrans LLC in 2016-2020,%

\* compiled according to the transportation department of Ukrspetstrans LLC

We will analyze the indicators of the volume of international transport by geographical areas, information about which is reflected in the data of accompanying documents for goods transported by the company in the period 2016-2020 (Table 1.5).

Table 1.5

Dynamics of the volume of provided logistics services for the international transportation of goods of Ukrspetstrans LLC by geographical directions in

2016-2020

Географічні напрямки	DEP)	KABI.	Роки	EKOH	ONI	Приј 2016-	ріст, -2020	Приј 2019-	
надання послуг	2016	2017	2018	2019	2020	абс.	відн., %	абс.	відн., %
Молдова	43170	47236	53075	36278	16059	- 27112	-62,8	20219	-55,7
Польща	32289	35006	38723	38255	28466	-3823	-11,8	-9789	-25,6
Італія	19983	21459	22329	32542	24967	4983	24,9	-7575	-23,3

continuation of the table. 1.5

Географічні напрямки	HNM		Роки		Приј 2016-		Приріст, 2019-2020		
надання послуг	2016	2017	2018	2019	2020	абс.	відн., %	абс.	відн., %
Іспанія	22119	23529	24788	34301	25919	3800	17,2	-8382	-24,4
Німеччина	7492	8474	12908	15610	12402	4910	65,5	-3208	-20,6
Естонія	5881	6019	2875	5276	5088	-793	-13,5	-188	-3,6
Латвія	> 5712	6774	9017	10552	8271	2560	44,8	-2281	-21,6
Угорщина	10712	8652	7781	11437	8587	-2125	-19,8	-2850	-24,9
Білорусь	12661	11477	11684	15173	11449	-1212	-9,6	-3724	-24,5
Інші країни	18373	19566	21717	20449	17811	-562	-3,1	-2639	-12,9
Усього	178394	188192	204898	220181	159014	- 19380	-10,9	- 61167	-27,8

<sup>\*</sup> compiled according to the transportation department of Ukrspetstrans LLC

It should be noted that in 2019-2020 there was a decrease in freight traffic in all geographical areas. As we can see from table. 1.5, the largest decrease in international traffic in 2019-2020 was mainly due to an increase in traffic in the following areas:

- "Moldova" by UAH 20219 thousand or 55.7% in 2020 compared to 2019 and by UAH 27,112 thousand. or by 62.8% in 2020 compared to 2016;
- "Poland" by UAH 7575 thousand. or 23.3% in 2020 compared to 2019 and by UAH 3823 thousand. or by 11.8% in 2020 compared to 2016;
- "Hungary" by UAH 2850 thousand. or 24.9% in 2020 compared to 2019 and by UAH 2125 thousand. or by 19.8% in 2020 compared to 2016.

The table. 1.6 shows the regional structure of international transport operations

of Ukrspetstrans LLC. By the data given in table. 1.6 we can see that in 2016-2020 the structure of international transport of goods by the company was dominated by the share of countries such as Moldova, Poland, Italy, Spain. These geographical areas accounted for about 60% of the total volume of services provided by the company in 2020.

Table 1.6

The structure of the volume of logistics services provided for the international transportation of goods of Ukrspetstrans LLC by geographical areas in 2016-2020 (%)

Географічні напрямки	-18	Ст	руктур	a	DIE	Абсолютни	й приріст, %
надання послуг	2014	2015	2016	2017	2018	2016-2020	2019-2020
Молдова	24,2	25,1	25,9	16,5	10,1	-14,1	-6,4
Польща	18,1	18,6	18,9	17,4	17,9	-0,2	0,5
Італія	11,2	11,4	10,9	14,8	15,7	4,5	0,9
Іспанія	12,4	12,5	12,1	15,6	16,3	3,9	0,7
Німеччина	4,2	4,5	6,3	7,1	7,8	3,6	0,7
Естонія	3,3	3,2	1,4	2,4	3,2	-0,1	0,8
Латвія	3,2	3,6	4,4	4,8	5,2	2,0	0,4
Угорщина	6,0	4,6	3,8	5,2	5,4	-0,6	0,2
Білорусь	7,1	6,1	5,7	6,9	7,2	0,1	0,3
Інші країни	10,3	10,4	10,6	9,3	11,2	0,9	1,9
Усього	100	100	100	100	100	0,0	0,0

<sup>\*</sup> compiled according to the transportation department of Ukrspetstrans LLC

It should be noted that the share of Poland and Spain in the structure of services provided has been growing quite actively since 2017.

Thus, the formation of the process of providing international transport services at the studied enterprise is based on the interaction between the commercial department and the transport and logistics department. At the same time, the financial department additionally monitors the timely payments of customers for services rendered. In the process of organizing the provision of services for international transport at the company Ukrspetstrans LLC uses the following methods, forms and tools to control logistics processes: forecasting the need for services for the relevant

period; implementation of planning the need to provide the fleet with the necessary resources; methods of customs control and customs clearance in the warehouse of goods transported (in the case of customs clearance services by the customs broker of the enterprise); methods of accounting for logistics services provided, including the peculiarities of document flow; methods of organizing communication work with clients and agreeing on the terms of service contracts. In 2020, the volume of international freight transport decreased compared to 2016 by UAH 19,380,000, or 10.9%. In 2020, the volume of international freight transport decreased by UAH 61,167,000 or 27.8% compared to 2019. Characterizing the declining trends in international transport in 2019-2020, we note that the decrease in the volume of services provided was mainly due to a decrease in the level of such services as "Cargo Transportation" by 29.5%. There was also a decrease in the volume of services such as "Customs clearance services, other related services" by 43.8%. In 2016-2020, the share of such countries as Moldova, Poland, Italy and Spain dominated the structure of international cargo transportation by the company. These geographical areas accounted for about 60% of the total volume of services provided by the company in 2020.

## 1.3. Evaluation of efficiency and competitiveness of Ukrspetstrans LLC on the international market of logistics services

In the given question we will estimate efficiency of rendering of the international transportations of freights in the investigated enterprise. We will also assess the level of competitiveness of the researched enterprise in the international market of logistics services.

To assess the effectiveness of international transport, consider the dynamics of the effect of international transport through the company Ukrspetstrans LLC for 2016-2020 (Table 1.7).

From the table. 1.7 we can see that the profitability of international transportation of Ukrspetstrans LLC in 2016-2020 was positive, in each case 9.1-14.3%.

Table 1.7

Dynamics of the indicator of the formation of profit from the international transportation of goods by the Ukrspetstrans LLC for 2016-2020

Показники	POKU EY BOXABI						Відхилення, 2016-2020		Відхилення, 2019-2020	
	2016	2017	2018	2019	2020	абс.	відн. ,%	абс.	відн., %	
Дохід від надання послуг з міжнародних перевезень вантажів, тис.грн	178394	188192	204898	220181	159014	19380	-10,9	61167	-27,8	
Витрати на надання послуг з міжнародних перевезень вантажів, тис.грн	161482	175074	197353	218699	158122	-3360	-2,1	60577	-27,7	
у т.ч.:		TANK.			KWW	I IE	1	MYH	TE	
витрати на оплату праці, тис.грн	45215	47270	59206	67797	47437	2222	4,9	20360	-30,0	
пальне та паливно- мастильні матеріали, тис.грн	72667	77033	90782	100602	71155	-1512	-2,1	- 29447	-29,3	
технічне обслуговування автопарку, тис.грн	19378	22760	23682	21870	18975	-403	-2,1	-2895	-13,2	
накладні витрати, тис.грн	12919	12255	13815	13122	12650	-269	-2,1	-472	-3,6	
інші витрати, тис.грн	11304	15757	9868	15309	7906	-3398	-30,1	-7403	-48,4	
Прибуток від надання послуг з міжнародних перевезень вантажів, тис.грн	16912	13118	7544	1482	892	16020	-94,7	-590	-39,8	

<sup>\*</sup> compiled according to the transportation department of Ukrspetstrans LLC

In 2016-2020, there was a decrease in net income from the provision of services for the international transportation of goods by the company Ukrspetstrans LLC by UAH 19380 thousand. or by 10.9%, and in 2019-2020 net income from the provision of services for the international transportation of goods decreased by UAH 61167 thousand. or 27.8%.

As for costs, in 2016-2020 there was a decrease in costs from the provision of services for the international transportation of goods by the company Ukrspetstrans LLC by UAH 3360 thousand. or by 2.1%, and in 2019-2020 the costs of providing services for the international transportation of goods decreased by UAH 60577 thousand. or 27.7%.

During 2016-2020, the company's profit from the provision of services for the international transportation of goods fluctuated constantly, but in general the general trend was to decrease. In 2016-2020, there was a decrease in profits from the provision of services for the international transportation of goods by the company Ukrspetstrans LLC by UAH 16020 thousand. or by 94.7%, and in 2019-2020 the profit from the provision of services for the international transportation of goods decreased by UAH 590 thousand. or 39.8%.

The main factor that contributed to the positive effect of the organization of international transport was a fairly high profitability. The company's profits were sufficient to cover all current expenses, including international transportation.

The dynamics of the efficiency of international transport is shown in Fig. 1.9. This indicator is calculated as the ratio of revenues from services to costs. As we can see from the data shown in Fig. 1.9, in 2016 the level of efficiency of international transport by the company was 1.10 points. In 2017, the indicator decreased by 0.03 points to 1.07 points. In 2018, the efficiency of international transportation decreased by 0.03 points to 1.04 points.

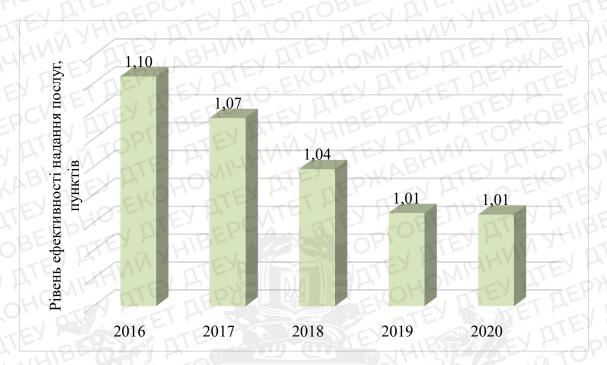


Fig. 1.9. The level of efficiency in the provision of international freight services of Ukrspetstrans LLC for 2016-2020

\* compiled according to the transportation department of Ukrspetstrans LLC

In 2019-2020, the level of efficiency of international transportation was 1.01 points.

To carry out the analysis of factors on indicators of efficiency of the international transportations of Ukrspetstrans LLC it is expedient to use a method of chain substitutions. It allows to identify the relationship between the efficiency of international transport and indicators of net income and total costs of international economic activity in the field of freight forwarding services. It should be noted that to build the model it is necessary to take into account the total amount of costs for servicing the process of international transport. The results of the calculations are given in table. 1.8.

According to the results of the calculations we can see that in 2017 compared to 2016 the efficiency of international transportation of goods by the company decreased by 0.03 points, including due to increased revenues from services increased the efficiency of international transportation increased by 0.06 points and by increasing the amount of costs for the organization of the process by 0.09 points.

# Factor analysis of the dependence of the efficiency of international transportation on the amount of income and expenses of Ukrspetstrans LLC for 2016-2020

Показник	Умовні позначення показника	Роки					
THE EKON		2016	2017	2018	2019	2020	
Дохід від надання послуг з міжнародних перевезень вантажів, тис.грн	BEP T	178394	188192	204898	220181	159014	
Витрати на надання послуг з міжнародних перевезень вантажів, тис.грн	В	161482	175074	197353	218699	158122	
Ефективність міжнародних транспортних витрат, пунктів	Ке = Д / В	1,10	1,07	1,04	1,01	1,01	
Розрахунок впливу фак	х	-x	x	$\boldsymbol{x}$	10x ET		
Загальна зміна коефіцієнта ефективності, тис.грн	$\operatorname{Kei}_n - \operatorname{Kei}_{n-1}$	X	-0,03	-0,04	-0,03	0,00	
В тому числі за рахунок:			KWW	NEY	H' NU	HMM	
- зміни доходів, тис.грн.	x	X	0,06	0,10	0,08	-0,28	
- зміни витрат, тис.грн х		X	-0,09	-0,13	-0,11	0,28	

<sup>\*</sup> compiled according to the transportation department of Ukrspetstrans LLC

In 2018, compared to 2017, the efficiency of international transport services decreased by 0.04 points, including: due to the growth of revenues from the provision of services, the level of efficiency of international transport increased by 0.10 points, and due to increased costs for organization of the process by 0.13 points.

During 2019, compared to 2018, the efficiency of international transportation of goods by the company decreased by 0.03 points, including: due to increased revenues from the provision of services, the level of efficiency of international transportation increased by 0.08 points, and due to increased costs for organization of the process by 0.11 points.

It can be seen that the level of efficiency of international transport has hardly changed in 2019-2020. Thus, due to the growth of revenues from the provision of services, the level of efficiency of international transport increased by 0.28 points,

and due to the increase in the amount of costs for the organization of the process by 0.28 points.

In the future it is necessary to consider the features of competitive efficiency of international transport transfers at the company Ukrspetstrans LLC. Competition in the provision of international transport services provides significant barriers to entry into the global transport market. To organize international transportation, the company must have appropriate experienced workers (drivers), including the necessary staff to manage logistics operations (logistics managers). Equally important is having your own fleet. Also, if the company provides services of breakbeam of cargo (re-assembly, rearrangement, re-assembly of batches, temporary storage in transit warehouse), it is necessary to have its own warehouses equipped for the transport process.

To assess the competitive efficiency of Ukrspetstrans LLC in the market of international transport, a survey of about 20 companies-consumers of transport services was conducted regarding their attitude to the level of service of carriers. The survey was conducted by the commercial department of Ukrspetstrans LLC, and the results of this survey were recorded in the annual management report of the company's commercial department. The survey was conducted by the manager of the commercial department in 2020 (December) in order to prepare the management for the annual reporting to the owners. The main competitors that were evaluated were the following companies: Rapid, Ukrtransagent, Transport Company SAT and Trans-Atlas.

The main parameters of assessing the level of service of Ukrspetstrans in comparison with competitors were: the level of timeliness of cargo delivery, customer satisfaction with the company's specialists, customer satisfaction with the quality of shipping documentation (when providing customs clearance services), reasonable prices for transport services. The results of the evaluation of competitive efficiency (Table 1.9)

Table 1.9

The results of the assessment of the competitive efficiency of Ukrspetstrans

LLC in the market of international transport (2020)

BEPULLY DIE	Конкуренти							
Оціночні критерії	ПрАТ «КВК «Paniд»	ТОВ «Укртрансаге нт»	ТОВ «Транспор тна компанія «САТ»	ПП «Транс- Атлас»	ТОВ «Укрспецт ранс»			
LOB-N TIL	2	3	4	5,4	6			
Рі створення	2006	2003	2009	2007	2003			
Асортимент послуг, од.	TE9 DE	12	27	15	10 17			
Кількість автомобілів, осіб.	24	28	27	34	20			
Пока	изники оцін	ки послуг клієнта	ми, балів (від І	l до 5 балів):	TEY HILL			
рівень своєчасності доставки вантажу	4	5	3 45 %	4=	DHG-EK			
задоволеність клієнта фахівцями компанії	4 =	505	5	5 AT	Y AIN			
якість документообороту	5	5	5	4	ATE 3 ET			
прийнятність цін на транспортні послуги	EN4TIA	DIFF 3CILIS	SED 5 RUC	TUOSA BE	DT5			
РАЗОМ, балів	17	18	19	17	17VV			

<sup>\*</sup> according to the commercial department of the company

Based on the results of the assessment of competitive efficiency of Ukrspetstrans LLC in the market of international transport, we can say that today the weaknesses of the company, compared to competitors, are customer satisfaction with the company's specialists and the quality of document management. This requires the company's management to take appropriate measures to improve the skills of the company's specialists, as well as consideration of possible areas for improving the pricing policy for transport services.

Thus, in 2016, the level of efficiency of international transport by the company was 1.10 points. In 2017, the indicator decreased by 0.03 points to 1.07 points. In

2018, the efficiency of international transportation decreased by 0.03 points to 1.04 points. During 2019, compared to 2018, the efficiency of international transport services decreased by 0.03 points, including: due to increased revenues from services, the efficiency of international transport increased by 0.08 points, and due to increased costs for organization of the process by 0.11 points. It can be seen that the level of efficiency of international transport has hardly changed in 2019-2020. Thus, due to the growth of revenues from the provision of services, the level of efficiency of international transport increased by 0.28 points, and due to the increase in the amount of costs for the organization of the process by 0.28 points. It is determined that the weaknesses of the company, compared to competitors, are customer satisfaction with the company's specialists and the level of price acceptability. This requires the company's management to take appropriate measures to improve the skills of the company's specialists, as well as consideration of possible areas for improving the pricing policy for transport services.

#### **Conclusions to section 1**

So, based on the analysis of the Ukrspetstrans LLC in the market of international transport services we can make the following conclusions:

- 1. In 2017, Ukrspetstrans LLC received a net financial result (profit) in the amount of UAH 1,656 thousand. In 2017-2018, there was an increase in the net profit of the enterprise by UAH 2615 thousand. In 2019-2020, there was a reverse trend to reduce the company's net profit by UAH 7075 thousand. In 2020, the volume of international freight transport decreased compared to 2016 by UAH 19,380 thousand, or 10.9%. In 2020, the volume of international freight transport decreased by UAH 61,167 thousand or 27.8% compared to 2019.
- 2. Characterizing the downward trend in international transport in 2019-2020, we note that the decrease in the volume of services provided was mainly due to a decrease in the level of such services as "Transportation of goods" by 29.5%. There was also a decrease in the volume of services such as "Customs clearance services, other related services" by 43.8%. In 2016-2020, the share of such countries as

Moldova, Poland, Italy and Spain dominated the structure of international cargo transportation by the company. These geographical areas accounted for about 60% of the total volume of services provided by the company in 2020.

3. It can be seen that the level of efficiency of international transport has not changed in 2019-2020. Thus, due to the growth of revenues from the provision of services, the level of efficiency of international transport increased by 0.28 points, and due to the increase in the amount of costs for the organization of the process by 0.28 points. It is determined that the weaknesses of the company, compared to competitors, are customer satisfaction with the company's specialists and the level of document quality. This requires the company's management to take appropriate measures to improve the skills of the company's specialists, as well as consideration of possible areas for improving the pricing policy for transport services.



#### **SECTION 2.**

# PROPOSALS FOR STRENGTHENING THE COMPETITIVE ADVANTAGES OF UKRSPETSTRANS LLC ON THE WORLD MARKET OF TRANSPORT AND LOGISTICS SERVICES

## 2.1. Directions for strengthening the competitive status of Ukrspetstrans LLC in the world market of transport and logistics services

Based on the results of the analysis of the activity of the enterprise Ukrspetstrans LLC in the market of international transport, the following problems were identified related to the formation of a stable competitive status of the enterprise:

- low efficiency (effectiveness) of activities in general, which is associated with both falling revenues in 2020 and increasing levels of operating costs for the maintenance of international transport and logistics operations;
  - low quality of document management system;
  - insufficient level of business culture of staff, the need to improve their skills.

Therefore, in the context of the COVID-19 pandemic, one of the biggest problems for the development of Ukrspetstrans LLC in the international transport market is to ensure the necessary efficiency of the human resources management and document management logistics system. Most services and online platforms for ordering freight services within Europe work in electronic document exchange. For example, one of the largest platforms is the EuroCargo platform (<a href="https://european-cargo.com/">https://european-cargo.com/</a>). The ability to work with this platform significantly expands the horizon for the growth of potential demand from new customers, which is an important prospect for revenue growth of the transport company.

At the same time, in order to enable Ukrspetstrans to use online platforms for accepting orders and quick clearance of goods, it is necessary to have an appropriate electronic platform for document exchange and personnel control, which are synchronized with the interfaces of the above electronic online platforms. This is due to the fact that within the online platform there is the ability to download and exchange documents through software interfaces (automatically). The exchange of documents in paper form is not provided.

In addition, it should be noted that today the company's employees now spend a lot of time on routine work related to the coordination and preparation of paper documents, manual translation of paper documents into electronic form. This significantly delays the execution of customer orders.

Currently, both at the enterprise and in the Ukrainian market, there are no universal solutions for establishing the process of electronic document exchange and communication with international customers, and electronic document management systems offered by foreign companies (vendors) are not adapted to international customs legislation.

Another problem of enterprises is the lack of mechanisms for tracking business processes and staff work. The company does not have electronic systems that could distribute tasks among employees and record their performance. This is especially true for managers and coordinators of the customer service department.

The SolutionVisionCanvas diagram was developed to systematize these proposals. It defines the main directions and values of the proposed project. The following diagram can be used to substantiate a business case in the framework of the implementation of an electronic platform for document exchange. Thus, SolutionVisionCanvas for the project of implementation of the electronic platform for the exchange of documents and control over the work of personnel at the Ukrspetstrans is shown in Figure 3.1.

THEY HA	BETTEY	TOPIC	THE PARTY	MAY.	LI. LEY H.	
РЕПОВLЕМЯ/ ОРРОЯТИЛІ ТІЕЯ Вниження кількості клієнтів*, відповідно і вниження доходів  Завеликі витрати часу на обробку документів в паперовій формі - незручність для клієнтів		GOALS Зростання продуктивн ості праці персоналу Зростання кількості клієнтів	SOLUTIONS Впровадження електронної платформи для обміну електронними документами (ЕДО) та контролю роботи логістичного відділу  FEATURES Робота з електронними документами Репозиторій для збереження ел.документів Інтеграція з іншими платформами ЕДО		ОВЈЕСТІVЕЅ (матеріальні, кількісно вимірювані): Через 1 рік після впровадження системи збільшити кількість клієнтів на 20% Скоротити час на створення та узгодження документів із клієнтом на 30-50%  ОВЈЕСТІVЕЅ (нематеріальні, невимірювані кількісно): зростання довіри клієнтів	
BUSINESS REQUIREMENTS  Можливість створення, редагування та термінування (анулювання) ел.документів Налаштування правил з управління документами (конструктор бізнес-					STAKEHOLDERS  Клієнти Партнери Посередники	
процесів зі створення, узгодження, візування, остаточного затвердження ел.документів, архівування) Наявність засобів управління правами користувачів Можливість обміну (інтеграція) документами через такі платформи ЕДО: Medoc, Flydoc, Doc.Online, Vchasno					Юрист Відділ взаємодії з клієнтами (Менеджери по роботі з клієнтами) Фінансовий департамент	

Fig. 3.1. SolutionVisionCanvas for the implementation of a project to implement an electronic platform for document exchange and control over the work of the logistics department at the Ukrspetstrans LLC

(бухгалтер)

Керівництво компанії

Накладення ЕЦП користувачів різних рівнів

документами: акти, рахунки)

акти - рахунки на оплату

Інтеграція з обліковою системою 1С (для обміну первинними

Збереження та перегляд історії роботи із документом

Документи мають зберігатися у репозитарії у відповідності до такої ієрархії: контрагент — ген.договір — додаткові договори — специфікації -

Наявність засобу захисту від несанкціонованого проникнення в систему



Fig. 3.2. Context diagram for the implementation of an electronic platform for document exchange and control over the work of the staff of the logistics department of Ukrspetstrans LLC

The given context diagram describes the main essences and connections between the components of the designed electronic platform for document exchange and control over the work of the logistics department staff. According to the diagram, the system should interact with a number of electronic platforms responsible for the exchange of messages between market participants in international transport within the EU.

Thus, in order to strengthen the competitive position of the studied company, the idea of implementing the proposed electronic platform was justified, which will allow exchanging electronic documents and messages with international clients, integrate with EU web platforms in the field of promotion and organization of

international freight services. The implementation of the proposed solution will increase both the number of customers and reduce operating costs for logistics services. Also, the proposed electronic platform will strengthen the quality control of tasks performed by employees of the logistics department. The software solution can be integrated into the internal systems of the enterprise. This solution can be used to monitor the work of logistics staff and to enable the exchange of electronic documents with web platforms for the organization of international freight within the EU. As proposals for the implementation of this solution, we consider it necessary to provide for the presence of the following components: CRM-system (you can consider any system that has the ability to customize the user's office); systems (platforms) for the exchange of electronic documents, which can be integrated with electronic platforms of foreign countries; integration module, which will be synchronized data flows between the above components of the EDI system and customs authorities, the tax service; business rules that will help optimize the work processes of staff and optimize their management by automating a number of processes. The system should interact with a number of electronic platforms responsible for the exchange of messages between market participants in international transport within the EU.

## 2.2. Substantiation of conditions for competitive potential growth of Ukrspetstrans LLC

In order to substantiate the conditions for increasing the competitive potential of Ukrspetstrans LLC in the international transport market, it is necessary to form business process models for the designed electronic platform for document exchange and control over the work of logistics staff using Bizagi Modeler software. BPMN 2.0 notations were used to build business process diagrams. The diagram of the business process of creating an electronic document is shown in Fig. 3.3.

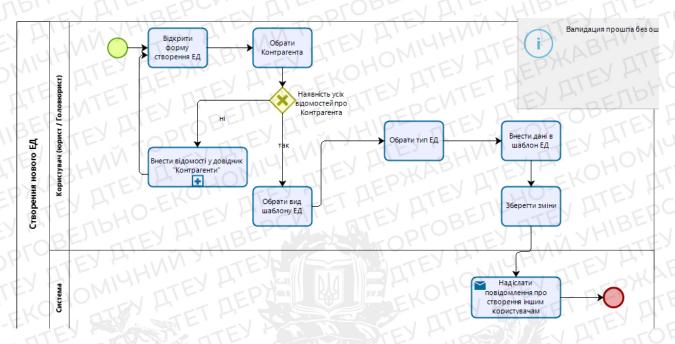


Fig. 3.3. Diagram of the business process of creating an electronic document for the implementation of the initiated project on electronic document management at the Ukrspetstrans LLC

Also in the figure you can see the result of validation of the diagram we built for errors. Bizagi Modeler reported that the validation of the chart passed without errors, which indicates the correctness of its construction.

A diagram of the business process for applying an electronic digital signature was also constructed (Fig. 3.4). For this procedure, in our opinion, it is advisable to use existing and ready-made cryptography tools that are contained on existing electronic document management platforms.

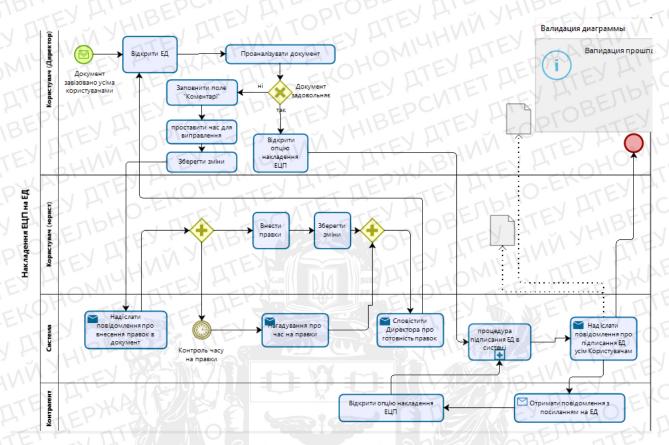


Fig. 3.4. Diagram of the business process of digital signature on an electronic document for the implementation of an initiated project at the enterprise Ukrspetstrans LLC

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The results of digital signature on documents are fully generated documents in electronic form, which can be sent to contractors.

After defining and modeling the structure of business processes for the initiated project, a RACI-matrix diagram was constructed (Table 3.1), which allows to define clear areas of responsibility of individual roles for the designed solution.

Building a RACI-matrix for the project is very important, because in the process of implementing an electronic platform for document exchange and personnel control, a business analyst and project manager will be able to more effectively establish the basic processes of communication with stakeholders.

Table 3.1

RACI-matrix for the project on implementation of the electronic platform for document exchange and control over the work of personnel at the enterprise

#### of Ukrspetstrans LLC

Work Functions (Функції системи)	Конт-	Юрист	Керівни к відділу взаємо- дії з клієнта ми	Менед- жер	Фінан -сист	Голов- бух	Директ ор
Створення нового документу	Y LIEP	R	A/R	KCHC	C	R	IEPX EV D
Редагування документу	LIFY	R	A/R	C	C	R	-0pr
Перегляд документу	R	R	A/R	R	R	R	R
Надсилання документу Контрагенту	O I	R		I/R	I	YATA	HOLE
Отримання документа від Контрагента	F	R	Diff	I/R	I	AEY	HYN
Термінування документу		I/C	R	SE	I/C	40I	EAL
Узгодження (накладення візи)	TIA	R.	A/R	FRUCT	I/C	BEP	INTE
Підписання документу	V Mi	V/V	I/C	I	I/C	TEY	A/R
Збереження документу в архів	KABHI	R	(CA <sup>O</sup> )	TEX	TETF	EPIX	ENI

- R − Responsible (виконує);
- A Accountable (несе відпоідальність);
- C Consult before doing (консультує для виконання);
- I Inform after doing (інформується після виконання).

Based on the above data, as well as taking into account the main business needs of project stakeholders, a specification of business processes was built, which allows to systematize the key functional characteristics of the implemented electronic platform for document exchange and control of staff at user level. A sample specification of business processes for the project of implementing an electronic

<sup>\*</sup> побудовано автором

platform for the exchange of documents and control over the work of personnel at the company "Ukrspetstrans" is shown in Figure 3.5.

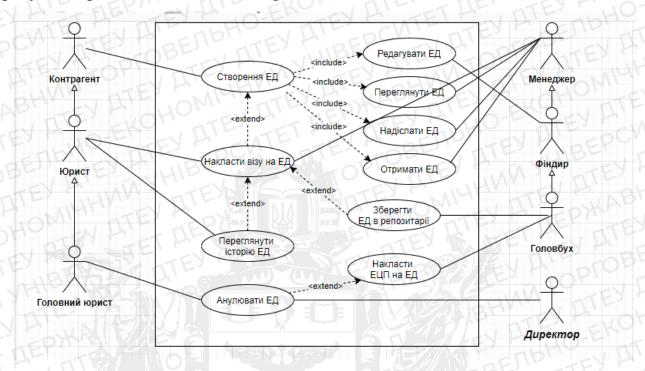


Fig. 3.5. Specification of business processes for the implementation of an electronic platform for the exchange of documents and control over the work of staff at the company Ukrspetstrans LLC

The next step is to draw up a project implementation plan and justify the main activities and tasks in accordance with the various stages of the project to implement the proposed solution. The decision implementation process should go from the project initiation phase to its completion. The main stages of the project of implementation of the electronic platform for the exchange of documents and control over the work of employees of the logistics department were identified as follows: 1) initiation of the project; 2) business analysis; 3) development of the necessary software; 4) staff training and software implementation; 5) completion of the project. The main stages and tasks of the project of introduction of the electronic platform of document exchange and control of work of the personnel at its various stages are resulted in table 3.2.

Table 3.2

# Phases and stages of the project of introduction of the electronic platform on exchange of documents and control over work of the personnel on its various phases at the enterprise of Ukrspetstrans LLC for 2022

<u>№</u> фази	Етапи впровадження	Основні завдання з впровадження	Термін виконання у 2022 році	
1	3E 2-EY	TUBE 3 OP TIES TO	4	
EXF	Організаційний етап	Обгрунтування ключових завдань для впровадження запропонованого рішення Визначення можливих шляхів вирішення поставленої проблеми Організація взаємодії із зацікавленими сторонами та	Лютий 2022 p.	
	впровадження	збір відповідної початкової інформації  Конкретизація учасників проекту та обґрунтування відповідальних за реалізацію проекту	TOPI	
TET	Проведення	Стратегічний аналіз компанії Формулювання та збір бізнес-вимог ключових гравців проекту	PHOFY	
2. XX	2. збору вимог та їх систематизації	їх системних вимог до електронної платформи		Березень 2022 р.
OM	Створення електронної платформи з обміну	Процес написання коду - створення програмного забезпечення Тестування якості програмного забезпечення, виправлення можливих помилок	(ABHINI	
3EP TEY PXA	документами та контролю за роботою персоналу (написання програми та її	Рефакторинг створеного рішення та підготовка його до інтеграції з іншими платформами та внутрішніми системами підприємства (1С, Медок, Бітркіс24, тощо) написання		
PLO	тестування) Налаштування інтеграції	Налаштування інтеграції створеної електронної платформи з внутрішніми системами (1С, Медок, Бітркіс24, тощо)	Травень	
D-EK	іншими платформами	натформи з Налаштування інтеграції створеної електронної платформи з зорнішніми системами (на початкорому		

продовження табл. 3.2

//// / ·		. 1 /1 1/ 1		4101.		
1	1 2 B	1011	ITE, LIC	3	JYKG	T-4

Навчання	LIVIV	Розробка документації для користувачів, навчання персоналу	BHMM
5 S	персоналу та завершення робіт	Підписання фінальних документів про завершення проекту, урегулювання спірних питань та закриття проекту	Травень 2022 р.

Thus, in order to justify the conditions for increasing the competitive potential of Ukrspetstrans LLC in the international transport market, business process models were built for the designed electronic platform for document exchange and control over the work of logistics staff. Business process models for the proposed solution were built, as well as a project implementation plan was drawn up and the main measures and tasks in accordance with the various stages of the electronic system implementation project were substantiated. The decision implementation process should go from the project initiation phase to its completion. The main stages of the project of implementation of the electronic platform for the exchange of documents and control over the work of employees of the logistics department were identified as follows: 1) initiation of the project; 2) business analysis; 3) development of the necessary software; 4) staff training and software implementation; 5) completion of the project.

#### 2.3. The proposed measures effectiveness evaluation

We justify the budget of costs for the implementation of the proposals listed in questions 3.1-3.2. Economic evaluation of measures to implement the program of project tasks can be carried out based on the schedule for the implementation of measures (Table 3.2). To estimate the budget, the possible costs of working time for each task were justified. The results of the budget evaluation for the implementation of the platform for the exchange of electronic documents and control over the work of logistics personnel of the enterprise are given in table. 3.3.

continuation of the table. 3.3

Table 3.3
Estimation of the working time fund for the implementation of measures

for the implementation of the electronic platform at the Ukrspetstrans LLC in \$2022\$

Завдання (етапи) впровадження електронної платформи з обміну документами та контролю за роботою персоналу	Загальна тривалість часу на виконання завдань, людино-годин	Вартість 1-ї години роботи, в залежності від завдання, грн/год	Бюджет проекту, тис.грн
THEY THANK I THEY	2	3 77	4,1
Обгрунтування ключових завдань для впровадження запропонованого рішення	40	350	14,0
Визначення можливих шляхів вирішення поставленої проблеми	20	350	7,0
Організація взаємодії із зацікавленими сторонами та збір відповідної початкової інформації	60	350	21,0
Конкретизація учасників проекту та обгрунтування відповідальних за реалізацію проекту	34	350	1,4
Стратегічний аналіз компанії	30	500	15,0
Формулювання та збір бізнес-вимог ключових гравців проекту	120	500	60,0
Створення та узгодження функціональних та системних вимог до електронної платформи документообміну та контролю роботи персоналу	SED FRUCTU	500	20,0
Розробка плану імплементації проекту, формулювання необхідного бюджету витрат	50 NT	500	25,0
Процес написання коду - створення програмного забезпечення	720	1180	849,6
Тестування якості програмного забезпечення, виправлення можливих помилок	240	1180	283,2
Рефакторинг створеного рішення та підготовка його до інтеграції з іншими платформами та внутрішніми системами підприємства (1С, Медок, Бітркіс24, тощо)	TEV BE	1180	70,8
Налаштування інтеграції створеної електронної платформи з внутрішніми системами (1С, Медок, Бітркіс24, тощо)	0 40	1180	47,2

Налаштування інтеграції створеної електронної платформи з зовнішніми системами (на початковому етапі – з платформою EuroCargo)	60	1180	70,8
Розробка документації для користувачів, навчання персоналу	40	350	14,0
Підписання фінальних документів про завершення проекту, урегулювання спірних питань та закриття проекту	10	350	3,5
Разом	1536	BHX	1506,5

Based on the above results of calculations, the total budget of the costs of financing activities to create a platform for the exchange of electronic documents and control of personnel will be UAH 1506.5 thousand. This amount is planned to be financed during February-May 2022.

Determining the extent of the effect of the proposed measures is characterized by a comparison of possible revenues and projected costs, taking into account the implementation of all these measures. Determining the economic effect of the implementation of all proposals provides a justification for the difference between the two options for forecasting the financial result from the provision of services by the enterprise:

$$Ee = \Phi P_{\text{perpo}} - \Phi P_{\text{персп}} \tag{3.1}$$

Where, Ee - the possible economic effect of the proposed measures,  $\Phi P_{perpo}$  - the volume of the forecast effect (financial result) from the provision of services, provided that the proposals will not be implemented and the company will develop in the current direction;  $\Phi P_{\pi epc\pi}$  - the amount of forecast effect (financial result) from the provision of services, provided that the proposals will be implemented and the company will receive additional revenue growth due to the implementation of these proposals.

To determine the possible financial result from the provision of international transport services without taking into account the implementation of proposals, the method of extrapolation of time series was used (Table 3.4). At the same time, the

average annual growth rate in 2016-2019 is taken as the rate of income growth, which is based on extrapolation, and 2020 should not be taken into account, as it is pandemic and should be excluded.

Table 3.4

Forecast of the possible financial result from the provision of international transport services without taking into account the implementation of the proposals of Ukrspetstrans LLC for 2021-2025

TEV HILLY YAIR	Фактичне		Прогн	юзні знач	Прогнозні значення						
Показники	значення на 2020 рік	2021	2022	2023	2024	2025					
Дохід від надання послуг з міжнародних перевезень вантажів, тис.грн	159014	170570	182965	196262	210524	225824					
Витрати на надання послуг з міжнародних перевезень вантажів, тис.грн	158122	169613	181939	195160	209343	224556					
ут.ч.:			9 112		BEI	MITE					
витрати на оплату праці, тис.грн	47437	50884	54582	58548	62803	67367					
пальне та паливно-мастильні матеріали, тис.грн	71155	76326	81872	87822	94204	101050					
технічне обслуговування автопарку, тис.грн	18975	20354	21833	23419	25121	26947					
накладні витрати, тис.грн	12650	13569	14555	15613	16747	17965					
інші витрати, тис.грн	7906	8481	9097	9758	10467	11228					
Фінансовий результат від надання послуг з міжнародних перевезень вантажів, тис.грн	892	957	1027	1101	1181	1267					

To forecast costs, the approach of estimating the average level of the corresponding item of expenditure in income was used. Thus, according to the calculations, in 2021-2025 there is no forecast of a significant increase in the financial result from the provision of services for international freight, if the company does not implement the proposed measures.

The introduction of an electronic platform for document exchange and staff control will increase the number of potential customers through the company's access to international transport platforms - as a result - we can predict a possible increase in

services by about 15% (according to expert judgment of the commercial director enterprises). At the same time, it will be possible to reduce the cost of servicing documentary operations due to the introduction of the platform, which will increase the productivity of logistics workers. As a result, overhead costs will be reduced by 20%.

Based on this, the volume of financial results was forecast taking into account the measures (Table 3.5).

Table 3.5

Forecast of the possible financial result from the provision of international transport services, taking into account the implementation of the proposals of Ukrspetstrans LLC for 2021-2025.

Horanum	Фактичне значення	Прогнозні значення					
Показники	на 2020 рік	2021	2022	2023	2024	2025	
Дохід від надання послуг з міжнародних перевезень вантажів, тис.грн	159014	170570	210410	259556	320181	394967	
Витрати на надання послуг з міжнародних перевезень вантажів, тис.грн	158122	169613	205882	253970	313291	386466	
у т.ч.:	NITE	Y HIN	GHVI	EV A	VAB	HVIV	
витрати на оплату праці, тис.грн	47437	50884	62769	77430	95515	117825	
пальне та паливно-мастильні матеріали, тис.грн	71155	76326	94153	116145	143273	176738	
технічне обслуговування автопарку, тис.грн	18975	20354	25108	30972	38206	47130	
накладні витрати, тис.грн	12650	13569	13391	16518	20377	25136	
інші витрати, тис.грн	7906	8481	10461	12905	15919	19638	
Інвестиції у заходи, тис.грн	- CINTE	1-1	1507	IPHO	-1/17	-00	
Витрати на підтримку електронної платформи (10% від суми інвестицій)	Y ATEY	TOP	151	151	151	151	

## continuation of the table. 3.5

Y HIBEPUTEY ATOP	Фактичне значення на 2020 рік	Прогнозні значення					
Показники		2021	2022	2023	2024	2025	

Фінансовий результат від		TITE:	LINY	31.7	TEY	1, M 7
надання послуг з міжнародних	892	957	2871	5435	6740	8350
перевезень вантажів, тис.грн		HOM	TEY H	TEP	Mr.	DI-

According to the data in table. 3.5, and to the calculations, we can say that in 2021-2025 there will be an increase in the financial result, provided the project is implemented (Fig. 3.6).

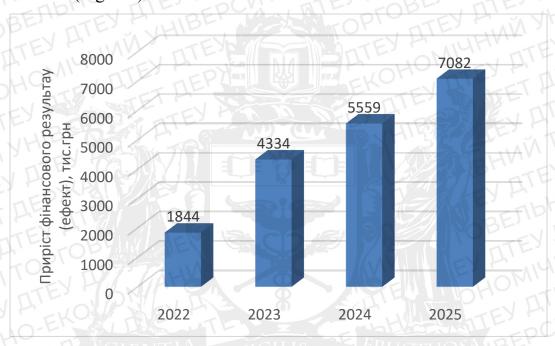


Fig. 3.6. Increase of the financial result from the provision of services for the international transportation of goods in 2022-2025

For 2020, the projected financial result from the provision of international freight services will not change compared to the previous version of the forecast, in 2022 the increase will be UAH 1844 thousand, in 2023 - UAH 4334 thousand, in 2024 - UAH 5559 thousand., in 2025 - UAH 7082 thousand.

#### **Conclusions to section 2**

Therefore, based on the analysis of the Ukrspetstrans LLC in the market of international transport services, we can make the following conclusions:

- 1. In order to strengthen the competitive position of the researched enterprise, the idea of introducing the proposed electronic platform was substantiated, which will allow exchanging electronic documents and messages with international clients, integrating with EU web platforms in the field of promotion and organization of international freight services. The implementation of the proposed solution will increase both the number of customers and reduce operating costs for logistics services. Also, the proposed electronic platform will strengthen the quality control of tasks performed by employees of the logistics department.
- 2. The software solution can be integrated into the internal systems of the enterprise. This solution can be used to monitor the work of logistics staff and to enable the exchange of electronic documents with web platforms for the organization of international freight within the EU. The system should interact with a number of electronic platforms responsible for the exchange of messages between market participants in international transport within the EU.
- 3. The total budget of expenditures to finance measures to create a platform for the exchange of electronic documents and control over personnel will be UAH 1506.5 thousand. This amount is planned to be financed during February-May 2022. For 2020, the projected financial result from the provision of international freight services will not change compared to the previous version of the forecast, in 2022 the increase will be UAH 1844 thousand, in 2023 UAH 4334 thousand, in 2024 UAH 5559 thousand., in 2025 UAH 7082 thousand.

## **CONCLUSIONS AND SUGGESTIONS**

Therefore, based on the study we can formulate the following conclusions and suggestions:

- 1. In 2017, Ukrspetstrans LLC received a net financial result (profit) in the amount of UAH 1,656 thousand. In 2017-2018, there was an increase in the net profit of the enterprise by UAH 2615 thousand. In 2019-2020, there was a reverse trend to reduce the company's net profit by UAH 7075 thousand. In 2020, the volume of international freight transport decreased compared to 2016 by UAH 19,380 thousand, or 10.9%. In 2020, the volume of international freight transport decreased by UAH 61,167 thousand or 27.8% compared to 2019.
- 2. Characterizing the declining trends in international transport in 2019-2020, we note that the decrease in the volume of services provided was mainly due to a decrease in the level of such services as "Cargo Transportation" by 29.5%. There was also a decrease in the volume of services such as "Customs clearance services, other related services" by 43.8%. In 2016-2020, the share of such countries as Moldova, Poland, Italy and Spain dominated the structure of international cargo transportation by the company. These geographical areas accounted for about 60% of the total volume of services provided by the company in 2020.
- 3. It can be seen that the level of efficiency of international transport has hardly changed in 2019-2020. Thus, due to the growth of revenues from the provision of services, the level of efficiency of international transport increased by 0.28 points, and due to the increase in the amount of costs for the organization of the process by 0.28 points. It is determined that the weaknesses of the company, compared to competitors, are customer satisfaction with the company's specialists and the level of document quality. This requires the company's management to take appropriate measures to improve the skills of the company's specialists, as well as consideration of possible areas for improving the pricing policy for transport services.
- 4. In order to strengthen the competitive position of the researched enterprise, the idea of introducing the proposed electronic platform was substantiated, which will

allow exchanging electronic documents and messages with international clients, integrating with EU web platforms in the field of promotion and organization of international freight services. The implementation of the proposed solution will increase both the number of customers and reduce operating costs for logistics services. Also, the proposed electronic platform will strengthen the quality control of tasks performed by employees of the logistics department. The software solution can be integrated into the internal systems of the enterprise. This solution can be used to monitor the work of logistics staff and to enable the exchange of electronic documents with web platforms for the organization of international freight within the EU. As proposals for the implementation of this solution, we consider it necessary to provide for the presence of the following components: CRM-system (you can consider any system that has the ability to customize the user's office); systems (platforms) for the exchange of electronic documents, which can be integrated with electronic platforms of foreign countries; integration module, which will be synchronized data flows between the above components of the EDI system and customs authorities, the tax service; business rules that will help optimize the work processes of staff and optimize their management by automating a number of processes. The system should interact with a number of electronic platforms responsible for the exchange of messages between market participants in international transport within the EU.

5. In order to substantiate the conditions for the growth of competitive potential of Ukrspetstrans LLC in the market of international transport, business process models were built for the designed electronic platform for document exchange and control over the work of logistics staff. Business process models for the proposed solution were built, as well as a project implementation plan was drawn up and the main measures and tasks in accordance with the various stages of the electronic system implementation project were substantiated. The decision implementation process should go from the project initiation phase to its completion. The main stages of the project of implementation of the electronic platform for the exchange of documents and control over the work of employees of the logistics department were

identified as follows: 1) initiation of the project; 2) business analysis; 3) development of the necessary software; 4) staff training and software implementation; 5) completion of the project.

6. The total budget of the costs of financing activities to create a platform for the exchange of electronic documents and control over personnel will be UAH 1506.5 thousand. This amount is planned to be financed during February-May 2022. The introduction of an electronic platform for document exchange and staff control will increase the number of potential customers through the company's access to international transport platforms - as a result - we can predict a possible increase in services by about 15% (according to expert judgment of the commercial director enterprises). At the same time, it will be possible to reduce the cost of servicing documentary operations due to the introduction of the platform, which will increase the productivity of logistics workers. As a result, overhead costs will be reduced by 20%. For 2020, the projected financial result from the provision of international freight services will not change compared to the previous version of the forecast, in 2022 the increase will be UAH 1844 thousand, in 2023 - UAH 4334 thousand, in UAH 2024 - 5559 thousand, in UAH 2025 - 7082 thousand.