Kyiv National University of Trade and Economics

Department of international economic relations

FINAL QUALIFYING PAPER
on the topic:
“The Management of export operations efficiency of the equipment enterprise”
(based on the data of PJSC "SMILA MACHINERY WORKS", Smila, Cherkasy Region)

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Кафедра міжнародних економічних відносин

ВИПУСКНА КВАЛІФІКАЦІЙНА РОБОТА

на тему:

«Управління ефективністю операцій з експорту устаткування»
(на матеріалах ПрАТ "Смілянський машинобудівний завод", м. Сміла, Черкаська область)

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SUMMARY
TO THE FINAL QUALIFYING PAPER
"The Management of export operations efficiency of the equipment enterprise"
(based on the data of PJSC "SMILA MACHINERY WORKS", Smila, Cherkasy Region)

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The Final Qualifying Paper: 95 pages, Illustrations - 9, Tables - 32, Formulas -3, Appendices - 2, References – 70.

The object of investigation is the process of effective export operation organization of PJSC "Smila Machinery Plant".

The subject of investigation is the methodological principles and practical aspects of improving the the export operations efficiency of PJSC "Smila Machinery Works".

The Final Qualifying Paper is based on the data of **PJSC "Smila Machinery Plant", Smila, Cherkasy Region.**

Purpose of the Final Qualifying Paper is to investigate and improve the practical aspect of forming the mechanism of export operations efficiency management of PJSC "Smila Machinery Works"" in order to increase the efficiency of foreign economic activity, profit making and creating strategic plans.

Task of the Final Qualifying Paper: to conduct a research of the theoretical basics of export operation efficiency of the enterprise: its role and essence; to research the content and mechanism of implementation of the management of equipment enterprises export operations efficiency; to investigate the methodological instruments of evaluating the export operations efficiency of the equipment enterprises; carry out the financial, economic and FEA analysis of the PJSC "Smila Machinery Works"; to estimate the export activity efficiency of the PJSC "Smila Machinery Works"; to verify the reserves for improving management of the export operations efficiency of the PJSC “Smila Machinery Works”; to formulate the directions and measures for increasing the export operations efficiency of the PJSC "Smila Machinery Works"; to evaluate the changes in the export activity of the PJSC "Smila Machinery Works"due to the suggested measures.

Methods of investigation. The various scientific research methods were used in the final qualifying paper - the method of comparison, analysis and synthesis, the method of generalization and formalization, classification and evaluation, grouping and systemic methods, method of analogy, forecasting, economic and mathematical method.

In the Introduction to the Paper the actuality and the practical value of the chosen topic are explained; the purpose and the urgency of its practical significance are formulated,

the research object, the subject of research and its tasks are represented. Also methodological and theoretical part of the study, methods that were used in the work are descried.

In the First Part of the Paper "The theoretical basics of researching export operations efficiency of the enterprise" a theoretical study of the main principles of the enterprise's export activity was conducted and the actual definition of the concept of "efficiency of export operations" was suggested. The main functions, functional model, basic elements of the EOE mechanism of the equipment enterprise were analyzed.

In the Second Part of the Paper "General analysis of export operations efficicency management of "PJSC "Smila Machinery Works", the financial and economic activity of "PJSC "Smila Machinery Works"is analyzed, the analysis of export operations activity of the company is provided. The diagnosis of Export Operations Efficiency of the company is assessed.

In the Third Part of the Paper "The improvement of the export operations efficiency management of "PJSC "Smila Machinery Works", with using the method of cognitive modeling, trend-econometric and regression analysis, the PJSC "Smila Machinery Plant" export activity was evaluated by the main types of trend dependencies and the selection of the priority trend was carried out. The econometric analysis allowed to determine the regressive dependencies between export volumes and net profit, and to develop an adequate dependence for the forecast of EOE as well as basic financial indicators.

Conclusion contains theoretical generalization and ascertain solutions to the given scientific problem, the essence of which is in the comprehensive study, assessment and effective management of export operation efficiency of PJSC "Smila Machinery Plant"

АНОТАЦІЯ

Антоненко Інна. Управління ефективністю операцій з експорту устаткування

Випускна кваліфікаційна робота на здобуття освітнього ступеня магістра за спеціальністю 073 “Менеджмент”, спеціалізація - “Менеджмент зовнішньоекономічної діяльності”. Київський національний торговельно-економічний університет, 2018.

У випускній кваліфікаційній роботі визначено сутність, принципи, механізм, інструменти управління ефективністю операцій з експорту устаткування, обґрунтовано механізм розвитку та вдосконалення системи управління ефективністю експорту на підприємстві. Представлено методологічні підходи до оцінювання ефективності управління та його вдосконалення.

Проаналізовано фінансово-господарську діяльність ПрАТ "Смілянський машинобудівний завод", проведено аналіз експортної діяльності досліджуваного підприємства. Виявлено та досліджено фактори, які безпосередньо впливають на ефективність операцій з експорту устаткування.

Обґрунтовано необхідність пошуку шляхів вдосконалення рівня ефективності експортних операцій. Запропоновано шляхи зростання рівня управління ефективністю операцій на досліджуванному підприємстві та проведено оцінку ефективності запропонованих заходів.

Ключові слова: управління ефективністю операцій з експорту устаткування, ефективність експорту, машинобудівне підприємство, управління екпортом, конкурентоспроможність, зовнішньоекономічна діяльність.

ABSTRACT

Antonenko Inna. The management of export operations efficience of the equipment enterprise.

The Final Qualifying Paper for obtaining Master's educational level of specialty 073 "Management", specialization - "Management of foreign economic activity". Kyiv National University of Trade and Economics, 2018.

In the Final Qualifying Paper the essence, principles, mechanism, tools of management of the export operations efficiency of equipment enterprise are determined, the mechanism of development and improvement of the system of management of the export operations efficiency of equipment enterprise is substantiated. Methodological approaches to the evaluation of management effectiveness and its improvement are presented.

The financial-economic and export operation activity of PJSC "Smila Machinery Works" was analyzed. The factors that directly influence the efficiency of export operations of equipment company are identified and investigated.

The necessity of finding ways to improve the level of efficiency of export operations is substantiated. The ways of increasing the level of management of the export operations efficiency of PJSC "Smila Machinery Works" are proposed and the efficiency of the proposed measures is evaluated.

Key words: management of the export operations efficiency, export efficiency, machinery enterprise, export management, competitiveness, foreign economic activity.

CONTENT

INTRODUCTION

Actuality of research. The foreign economic activity of the enterprise is an important and integral part of economic activity, which with a correct usage of the whole complex of modern forms and methods of management, can effectively and successfully influence the activity of production, its technical level and quality. Moreover, effective foreign economic activity of the company improves the export potential of the state, the competitiveness growth of the Ukrainian products in international markets, form a rational structure of import and export and attract foreign investments to domestic production.

In the conditions of globalization of the world economy increasing the role of the export operations efficiency is one of the most important task of foreign economic activity. The full functioning of the economy of any country can not occur without a developed system of export operations activity. Embodiment of the national economy into the system of world business processes positively affects the development of the country's economy, promotes an increase the technical level of production, the rational use of natural resources, the elimination of the shortage of goods, and, consequently, increasing the standard of living of the population.

The reform of export activity, especially of equipment enterprises, is one of the essential directions of the restructuring the country's economic life. It is characterized by decentralization of foreign economic activity and a gradual refusal of the state monopoly on the foreign trade. As a result, enterprises receive the right to independently enter the foreign market. At present, most companies do not use a comprehensive system approach to managing the company's export effectiveness, which aims to study the whole system of factors that affect the final outcome of the export operations.

Analysis of recent research and publications. The issue of efficient management of foreign economic activity of the enterprise is devoted to a considerable number of works of domestic and foreign scientists, among them P. Drucker, D. Deniels, L. Radeba, P. Bemish, A. Morrison, O. Kirichenko, A. Kredisov, V. Sidenko, G. Drozdov

and other ones. Moreover, the mechanism of implementation, enhancement of the efficiency of export operations, the question of improving the management of the enterprise and the factors affecting its export activity became the subject of scientific works of such scientists: A. Galchinsky, V. Geets, S. Matalka, O. Vukchyk, A. Mazaraki, T. Melnyk, O. Popova, O. Prokopenko, M. Domashenko.

However, despite a significant number of scientific works, the problems of research of theoretical and practical aspects of the foreign economic activity and export operation efficiency of enterprises are always relevant.

Purpose of research is to investigate and improve the practical aspect of forming the mechanism of export operations efficiency management of PJSC "Smila Machinery Works"" in order to increase the efficiency of foreign economic activity, profit making and creating strategic plans.

Tasks of the research:

- to conduct a research of the theoretical basics of export operation efficiency of the enterprise: its role and essence,
- to research the content and mechanism of implementation of the management of equipment enterprises export operations efficiency;
- to investigate the methodological instruments of evaluating the export operations efficiency of the equipment enterprises;
- carry out a general analysis of the economic activity of the PJSC "Smila Machinery Works";
- carry out the financial, economic and FEA analysis of the PJSC "Smila Machinery Works";
- to estimate the export activity efficiency of the PJSC "Smila Machinery Works";
- to verify the reserves for improving management of the export operations efficiency of the PJSC “Smila Machinery Works”;
- to formulate the directions and measures for increasing the export operations efficiency of the PJSC "Smila Machinery Works";
- to evaluate the changes in the export activity of the PJSC "Smila Machinery Works"due to the suggested measures.

Object of the research - the process of effective export operation organization of PJSC "Smila Machinery Plant".

Subject of the research – the methodological principles and practical aspects of improving the the export operations efficiency of PJSC "Smila Machinery Works".

Methods of research. The various scientific research methods were used in the final qualifying paper - the method of comparison, analysis and synthesis, the method of generalization and formalization, classification and evaluation, grouping and systemic methods, method of analogy, forecasting, economic and mathematical method.

Scientific innovation is the systematization of methodological approaches to assessing the export operations efficiency of the enterprise; developing a system of organizational and managerial measures aimed to increase the efficiency of export activity and their economic substantiation.

Informational base of the research is the scientific and analytical work of domestic and foreign scientists, periodicals, materials of international conferences, Internet resources, financial-economic and statistical reporting, analytical materials.

PART 1. THE THEORETICAL BASICS OF RESEARCHING EXPORT OPERATIONS EFFICIENCY OF THE ENTERPRISE

1.1 The essence and role of efficiency of export operations of enterprise structures

Market transformations in Ukraine have created the preconditions for its integration into the world economic space. Domestic enterprises became subjects of foreign economic activity, which allowed them to find new ways of implementing their products on the international market and created favorable conditions for export operations. The efficiency of enterprises is a prerequisite for their functioning on the market environment. The efficiency of export operations is the subject of particular importance which characterizes the adaptation of enterprises to the conditions of strict international competition. This is important for machinery enterprises that provide scientific and technological progress in all other sectors of the economy.

It is also worth noting that in an unstable economic environment, any entity of foreign economic activity can have an impact on the efficiency of export operations. In the current business environment, solving this problem is extremely important. Therefore, on the part of economic entities, there is a need for an analysis of factors influencing the efficiency of export operations activity. All factors can be divided into three groups: factors that distinguish exporters from non-exporters, external factors (for example, government incentive programs), and factors associated with firm behavior (e.g., firm's marketing orientation, management orientation, etc.) [65].

Nowadays it’s traditionally to divide the factors into external and internal ones. Internal factors are related to the activities of the company, its foreign economic marketing strategy, objective and psychological characteristics of management. External factors include industry, domestic and export markets. To describe the factors, it is also possible to use their division into controlled and non-controlled enterprises, which is more appropriate for practical management purposes. It should be noted that the controlled factor is not always identical to the internal factor, and the uncontrollable factor is not always identical to the external factor. Non-controlled enterprise factors

can be divided into controlled and not controlled by the state. The first group includes, for example, tariff and non-tariff barriers on the market, which can be influenced during international negotiations. The second group includes the speed of technical progress in the industry, climatic conditions that the state does not have influence on [65]. The more exceeded classification is presented below (Table 1.1).

Table 1.1.

The classification of factors which influence the export operations activity of the equipment enterprise

	Author	Classification
1.	Dubkov S., Dadalko S., Fomenko D.	The factors can also be evaluated on the basis of discreteness - continuity. This characteristic can be applied not to all factors, but only to those that can be reduced to one-dimensional measurable property or index, or the choice of one variant from several. Factors can be characterized by a time interval during which they operate permanently or temporarily. The first group include, for example, geographical location or climatic conditions, and other ones are the strategies of choosing a way to enter the market.
2.	Lipych L., Fatenok-Tkachuk A	The classification of factors influencing the development of foreign economic activity of the enterprise, obtained by systematization of them and the definition of criteria for classification, which allowed to distinguish external factors of influence of the country-producer and partner country at the levels of "state" and "market".
3.	Drozdova G.	The researcher also divides the factors of export operations activity into the internal and external ones, but they differ from the previous traditional clasification. The author includes to the internal factors group: the scope of foreign economic activity; costs; product complexity; experience; control. While to external factors should be included: economic freedom; competition presence in the state; risks.

Source: systemized by the author on the basis of [20; 21; 30].

Summarizing the different classifications of various authors regarding the factors influencing export operations activity, it is worth noting that each of the suggested classifications will be determined by the specific conditions of place and time of application. At the same time, the opinions of scientists differ in that they consider factors that affect the export operations at the state level and at the enterprise level. In this case, practically all scientists carry out the classification of factors into internal and external ones. We consider that the most significant factors on the development of export operations activity have the following factors: organization of enterprise

management; information support of foreign economic activity; planning of export production; accounting and analysis of export supplies; personnel management.

The category "efficiency of foreign economic operations" occupies a significant place among the economic categories that characterize the state and development of foreign trade of the enterprise. Efficiency in general and the efficiency of foreign economic activity in particular are considered in theory and practice in the context of state, region, industry, and the primary section of the national economy. But with the development of new strategies of economic and social policy of Ukraine, special attention should be paid to the tasks of improving especially export operations of certain economic entities. The source of the formation of the effectiveness of foreign economic activity of the state as a whole is the processes taking place at the enterprise. An important condition for the successful operation of an enterprise where exports are the main activity is the creation of a perfect system for evaluating the results of export operations, the level of which is characterized by the efficiency of its implementation [19].

The most common approach to determining the essence of foreign economic efficiency is an approach based on the consideration of efficiency as a performance. Such an interpretation of efficiency derived from the classical school is firmly established in economic theory. Examples of the formulation of definitions of the efficiency of activities with the application of the above approach are the following characteristics: "Under the economic efficiency of the functioning of economic systems is understood to be the effectiveness of their functioning"; "The effectiveness of the national economy is usually associated with its purpose and understood as effectiveness, completeness of the goal" [65].

Filatova G.O. defines that there are three main approaches to determining the effectiveness of foreign economic operations of enterprises. The first is based on the understanding of effectiveness as a performance, the second relates efficiency with the concept of "profitability," the third approach is based on the definition of efficiency as profitability. A detailed analysis of the set of approaches to determining the category of

"efficiency of foreign economic activity of enterprises" made it possible to conclude that this category is most often characterized as the efficiency of exports [62].

Nevertheless, Filatova G.O. admits that the efficiency of foreign economic activity of enterprises is defined as the degree of achievement of the maximum net profit from foreign trade operations by optimizing the existing aggregate expenditures on the domestic and foreign markets. Indicators of determining the effectiveness of foreign economic activity of enterprises are indicators of relative and absolute efficiency of exports.

Grynkevych S. S. confirms the statement described above. Thus, the category "effectiveness of foreign economic activity" in the economic literature is usually equated with the efficiency of exports. This approach is universal to determine the effectiveness of this activity at different levels of management. Based on the difference between the goals pursued by the enterprise and the state in the process of foreign economic activity, it is advisable to separate the concept of the effectiveness of foreign economic activity of the enterprise and the state. The effectiveness of foreign economic activity of an enterprise is characterized by obtaining the maximum possible size of profit from foreign economic operations by optimizing the existing aggregate expenditures on the domestic and foreign markets [19].

Moreover, the above mentioned definitions don’t include the export potential category determination. The interpretation of the export potential efficiency is under great attention of both national and foreign scientists. As the functional role of export potential consists in realization of the target directions of the foreign economic activity of the enterprise. The nature of these guides may be different. They are mostly formed on the principle of providing comparative advantages of products and services for the needs of foreign markets. The level of satisfaction of these needs by an individual enterprise can be determined by such indicators as export volume, quality of exported products, cost of production and sales of export products, the level of export diversification, which determine the result of export activity, and, in relation to its purpose, serve as a criterion for the effectiveness of the export potential of the enterprise.

Table 1.2

The definitions of export potential efficiency essence

	Authors	Definition
1.	Dudchenko M. A., Philipenko A. S., Burkin B. S.	Export potential of an enterprise is a dynamic element of its economic capacity, where managerial and technological structures are subordinated to the aims and objectives of the enterprise and depend on the external and internal environment. Such structure ensures a sustainable sales volume with the established level of efficiency in the export markets.
2.	Skornaykova T. V	Export potential is an ability of an economic unit to produce competitive output for the foreign market that can be sold in the market overcoming the existing export barriers. Therefore, export potential can be understood as the importance of finding competitive advantages to increase competitiveness which sets a limit on potential exporters.
3.	Gordeeva K. O.	Export potential as an ability to produce maximum amount of competitive output in the domestic market and sell it on the foreign market with definite technical and economic resources.
4.	Melnik T. M.	The export potential of any country consists of export potentials of individual sectors where the industry sector is the major manufacturer of finished goods. Thus, the export potential of an industry branch includes the export potential of individual enterprises; secondly export potential depends on competitive output that are sold on the foreign market.

Source: systemized by author on the basis of [22; 57; 61].

The conducted research on the scientific definition of the concept of "export potential of the country" (Table 1.2) made it possible to reveal the lack of unanimity regarding the definition of this category as a generalizing notion. At the same time existence of many definitions and approaches to the interpretation of this concept indicate the urgency of the issue. Given the existing theoretical developments, as well as highlighted the essential features and constituent parts of the country's expert potential, an improved definition of this category is proposed. In our opinion, the export potential of the enterprise especially the equipment one is the present and potential ability of the company to produce the maximum possible volume of competitive products for the purpose of its further realization with maximum profit on foreign markets, providing that both the own and borrowed resources are used efficiently.

In determining the EOE of the enterprise, in general, and individual foreign economic operations, in particular, there is a problem of finding an optimal system of indicators, that would provide comprehensive and complete information on the status, efficiency, developmental problems and prospects of foreign economic activity. The separate indicators of the estimation of the efficiency of export activity are disclosed in the works of A. M. Vichevych and O. V. Maksimets (currency efficiency of export, economic efficiency of foreign economic operations, indicators of the export effect, the efficiency of the purchase and use of imported equipment, the efficiency of trade in licenses); T.V. Miroliubova (absolute efficiency of exports, economic efficiency of the export of goods in the domestic market, the efficiency of the use of production and working capital in exports; P.Ya. Popovich (indicators of dynamics of volume and structure of export operations, growth rates for each year and average annual rate of growth for the whole period) [30]; IV Bagrovoy, NI Fedina, V.E. Vlasyuk, O.O. Hetman (indicators of the effect and effectiveness of foreign economic activity); T.V. Semenova (performance indicators for contracts, rational use of working capital during the implementation of foreign economic activity, financial results of foreign economic activity, indicators of efficiency of foreign economic activity) [63].

Moreover, it is worth noting that under market conditions an enterprise should not confine itself to the classical methods of valuation and analysis of the effectiveness of foreign economic activity, since they do not always allow to determine the real impact of the effectiveness of management of such activities on the financial position of the enterprise, the overall efficiency of its activities, as well as its solvency.

When making a well-founded selection of indicators for assessing the export activity of a production enterprise, it is advisable to be guided by certain requirements, namely:

- the calculation of indicators should be based on an accessible information base that will ensure the objectivity of the results;
- every indicator must be characterized by economic content, that is, its functional purpose must be clearly expressed; when calculating the indicators, it is necessary to take into account the interrelationship between them.

Taking into account the above requirements to the system of indicators for the assessment of export activity, it is advisable to include the following indicators (Table 1.3).

Table 1.3

The basic indicators for export operations activity assessment

	Indicator	Ratio
1.	Direct effect of export operations (EO_{DE}), which reflects in monetary terms the profit, financial performance of export activity. This indicator is the primary when determining the expediency of entering the external markets, its positive value indicates the growth of the company's well-being and the reproduction of its capital	$\mathbf{EO_{DE} = NP - TC}$, NP - net income from export of products, UAH/unit; TC - total costs associated with the production and sale of products abroad in accordance with the terms of delivery Incoterms-2010.
2.	Comparative effect of export activity (EO_{CE}), which reflects the absolute benefit of the enterprise, obtained through the sale of products for export, and not on domestic market.	$\mathbf{EO_{CE} = EO_{DE} - P}$, EO_{DE} - direct effect of export operations; P - profit received by the enterprise from the sale of a similar volume of production in the domestic market, UAH/unit;
3.	The profitability of sales of products for export reflects the profitability of the export operation (EO_P). This indicator characterizes how much net profit comes to 1 UAH. of net income from export of products.	$\mathbf{EO_P = \frac{EO_{DE}}{NP} * 100\%}$, EO_{DE} - direct effect of export operations; NP - net income from export of products, UAH/unit.
4.	The profitability of products intended for export reflects profitability of export-oriented products manufacturing.	$\mathbf{EO_P = \frac{EO_{DE}}{C} * 100\%}$, EO_{DE} - direct effect of export operations; C - expenses related to the manufacture and sale of export-oriented products, UAH/unit.

Source: systemized by author on the basis of [62].

The process of evaluating the effectiveness of EOE is quite substantial and complete, but it should take into account the specifics of each enterprise and the specifics of its export activity. It is worth noting that under market conditions it should not be used the only classical methods of assessment and analysis of the EOE, because they do not always allow to determine the real impact of the effectiveness of management of such activities on the financial position of the company, the overall efficiency of its activities, as well as its solvency. To eliminate such a deficiency of the

above-mentioned factors and to assess the effectiveness of EOE it is proposed to use indicators of economic security of the enterprise, because in foreign economic activity, in addition to the positive economic effect, the company operates a number of negative factors that may affect and actually its economic security.

To recapitulate it should be mentioned that development of EOE of enterprises in modern economic conditions is one of the priority directions. Thus, the development of EOE plays a strategic role in improving the activities of enterprises and becomes an instrument for enhancing the existing and potential competitive advantages of microeconomic entities. Analyzing the current existing definitions of export efficiency, we may notice that one universal definition fully explaining the its economic essence is absent. We'd like to suggest the following determination of export operations efficiency that it is the profitability of exports measured by the ratio of the cost of goods exported from the country in foreign trade prices to its value in the prices of the domestic which depends on competitive output that are sold on the foreign market and export potential of the specific industry.

Nevertheless, the enterprise should also take into account the economic utility of indicators selection for assessing the export activity of a production enterprise. In addition, a unified system of indicators should be used, the values of which will provide information of the effectiveness of the export operations and the expediency of entering the external markets. These indicators will serve as criteria for justifying the implementation of foreign economic activity, indicators that reflect the state and prospects for the development of foreign economic activity. The process of evaluating the effectiveness of EOE is quite substantial and complete, but it should take into account the specifics of each enterprise and the specifics of its export activity. As classical methods of assessment and analysis of the EOE do not always allow to determine the real impact of the effectiveness of FEA management on the financial position of the company. As for machinery enterprises there are next criteria: share of certified for compliance with international standards of product types of the enterprise, indicators of production certification, price comparison with competitors, level of science-intensive products, share of imported components in the output.

1.2. The content and mechanism of implementation of the management of equipment enterprises export operations efficiency

The problem of implementation mechanism of the management of equipment enterprises export operations efficiency is now becoming extremely relevant. The urgency of the current issue is since effective foreign economic activity contributes to restoration of the country's export potential, increase of competitiveness of Ukrainian goods on the world market, formation of rational structure of export and import, attraction of foreign investments on mutually beneficial conditions, and ensuring economic security of Ukraine. At present, most enterprises do not use an integrated system approach to manage the company's export operations effectiveness, which induced us to study the whole system of factors that affect the final outcome of foreign trade operations.

For realization of opportunities in the sphere of export operations activity, the certain conditions on the state side were created, such as: the enterprise chooses its organizational and legal status, the form and methods of its performance conducting, including foreign economic activity, independently forming the strategy of entrepreneurship, commodity, financial, price and other policies. But along with this, in our country there are also factors hindering the development of foreign economic activity of enterprises. The main ones are the lack of operational and flexible regulatory instruments on the state side in a situation of constant change of business conditions; undeveloped contractual and legal mechanism in the field of trade and economic relations with foreign partners; high percentage of non-fulfillment of previous obligations; innovative backwardness and low quality of production; trade restrictions on the part of other countries to protect their own businesses [10].

Increasing the efficiency of the equipment enterprises is closely linked to the planning of their export operations activity. The competitive positions of the equipment enterprise in the conditions of functioning of an open-ended economy are determined by the degree of use of the potential of foreign economic activity of the enterprise. The higher is the level of national development in the field of science, economics, business

infrastructure, creation of favorable conditions for entrepreneurship; hence the higher is the possibility of successful implementation of the potential of export operations activity.

We believe that the development of the mechanism of implementation of the equipment enterprises export operations efficiency management in parallel with the solution of the domestic problems of machinery enterprises is possible due to following steps:

- availability of export support at the level of the national strategy;
- the establishment of an export crediting and insurance system;
- guaranteeing information and analytical support for exporters;
- organization of business forums, national presentations, exhibitions;
- proper provision of legal protection of Ukrainian companies on the foreign market;
- introducing a simplified procedural regime for the export of machinery products;
- intensification of cooperation with international integration associations;
- establishment of international cooperation in the scientific and technological direction (joint research programs, international exchange);
- introduction of preferential system of taxation of enterprises-exporters of machinery products;
- organization of effective cooperation between state organizations and commercial enterprises.

The content of the above measures shouldn’t be contrary to the internationally recognized norms and rules. This is due to the accession of Ukraine to the WTO and the signing in the Association Agreement between Ukraine and the European Union, the requirements of which are harmonization of the national legislation with the relevant provisions of international agreements in this area. However, before developing and implementing any measures aimed at ensuring the real and successful management of export operations of any equipment enterprise, it is necessary to clearly understand the mechanism of the formation and implementation of export opportunities of an entity [64]. According to Shelest Ye., the meaning of the concept "mechanism" in the context

of the formation and implementation of export opportunities of the enterprise is quite similar to its interpretation in physics, namely: "The mechanism is a device for the transfer and transformation of motion, which is a system of bodies in which the movement of one or several bodies causes quite definite movements of other bodies of the system". Hence a mechanism is a dynamic system in which any changes in one component cause a certain reaction of other constituents [64].

We consider the foundation of the mechanism of implementation of the management of equipment enterprises EOE to be the development of a set of measures aimed at the consistent implementation of the priorities of export capabilities development of this enterprise, where the basis of building a high effective mechanism is a set of following principles (Figure 1.1)

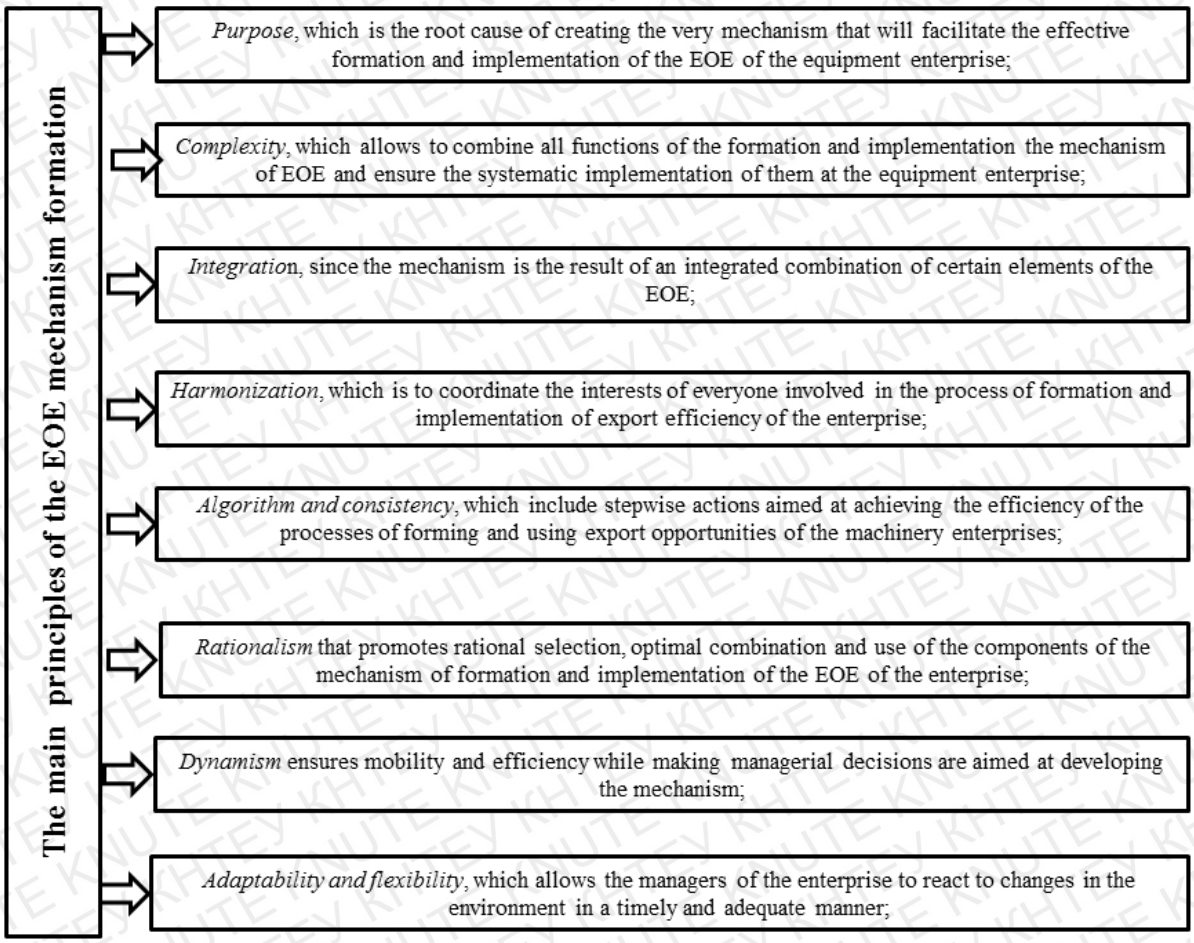

Figure 1.1 The basic elements of the EOE mechanism formation on the equipment enterprise.

Source: systemized by author based on [64].

In our opinion, this mechanism can rationalize the management of the formation process and usage of the equipment enterprise export potential. Moreover, it will promote the implementation of the basic functions of management as the following: planning, organization, motivation and control. The development of the mechanism through the detailing of processes, their algorithmization will quickly find "pain points", eliminate the disadvantages and promptly react to changes in the internal and external environment. The foundation of the equipment enterprise mechanism of formation and implementation of the export potential is the development of a set of measures aimed at the consistent implementation of the priorities of development of export opportunities of this enterprise, It should be highlighted that the basis of building a highly efficient mechanism is a set of relevant principles.

The main goal of EOE mechanism formation on the equipment enterprise is to ensure the intensive formation and efficient use of the export potential of equipment enterprises. Moreover the process of EOE mechanism formation on the equipment enterprise is held to imply following functions (Figure 1.2).

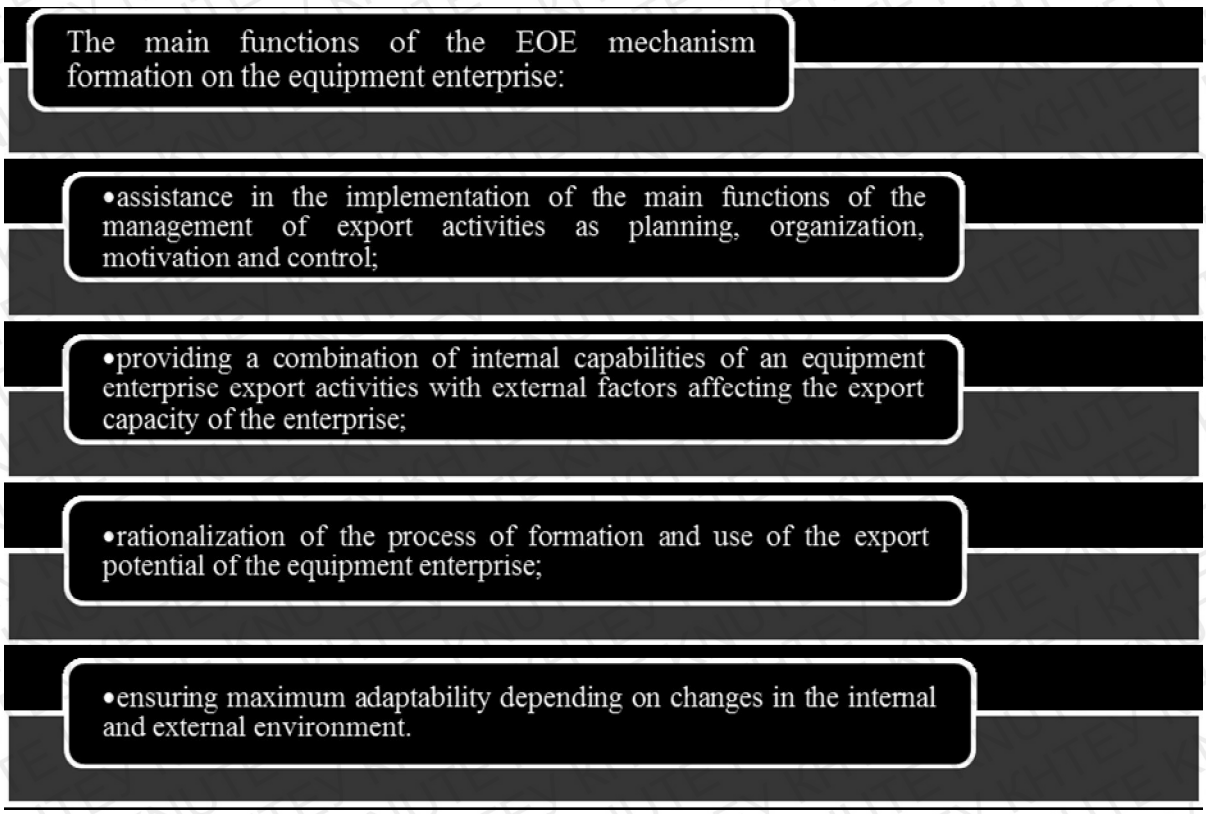

Figure.1.2. The main functions of the EOE mechanism on the equipment enterprise. Source: systemized by author based on [64].

The management of export operations activity at the enterprise level is carried out by means of the application of strategic, financial, organizational, infrastructure-logistics, information and marketing, and production instruments (Table 1.4).

Table 1.4

The types of instruments used for EOE management on the equipment enterprise level

	The type of instrument	Examples
1.	Strategic instruments	The choice of strategic profile of export activity; strategic planning of foreign economic activity; development of the basic strategy; development export strategies; strategic control.
2.	Financial instruments	The use of methods of international settlements; use of ways to finance foreign trade; use of risk management methods in international settlements; financial control.
3.	Organizational instruments	The changes in the organizational structure of foreign economic activity; delegation of authority, responsibility to employees; distribution of employees to the sectors of work; quality management system
4.	Infrastructure-logistics instruments	The use of service of marketing firms; use of dealer network; creation of service centers; work on stock and currency exchanges; improvement of infrastructure; creation of automated warehouse management systems.
5.	Information and marketing instruments	The international segmentation; price, advertising policy of the enterprise; participation in exhibitions and fairs; use of the Internet; automation of foreign economic activity, etc.
6.	Production instruments	The implementation of R&D; investment and innovation support; renewal of capital assets; quality management system.

Source: systemized by author based on [10]

The mechanism of management of export operations activity of the equipment enterprise as a complex of managerial, economic, organizational, legal and motivational methods of harmonizing the interests of the enterprise with the interests of the entities of the environment, with the help of which, taking into account the peculiarities of the enterprise's activities, it is ensured that profits are obtained from operations in foreign markets, the size of which is sufficient for ensuring the company's costs for its operation and development. Objectives of management become a starting point, since their achievement, later, becomes a criterion for determining the effectiveness of the

management mechanism. The generalized scheme of implementation of the mechanism of management of foreign economic activity has the following form (Figure 1.3).

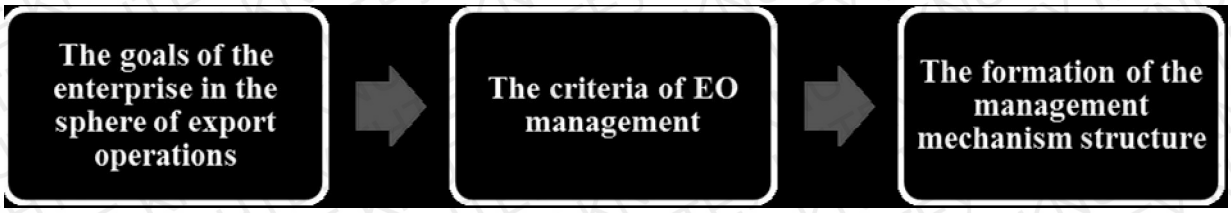

Figure 1.3 The generalized scheme of realization of the mechanism of management of export operations activity.

Source: systemized by author based on [10].

We consider that the mechanism of implementation of the management of equipment enterprises export operations efficiency permeates the entire management process and should therefore include the following set of measures:

- determination of the macroeconomic and microeconomic conditions for the implementation of export activity;
- development of the export strategy of the enterprise in the foreign market;
- evaluation of the foreign economic potential of the enterprise;
- implementation of selected export operations directions;
- assessment of the efficiency of export operations activity;
- regulation of the quality of realization of foreign economic directions;
- adoption of management decisions to eliminate negative deviations in order to increase the profitability of export operations activity.

It should be noted that the analysis of foreign economic activity at the enterprise is carried out with the aim of assessing own opportunities in the market, developing measures for increasing competitiveness and ensuring maximum profit.

The below mechanism is one of the examples designed to evaluate, monitor and regulate the indicators of the efficiency of foreign economic activity, continuous monitoring of processes in the foreign market, development of measures to eliminate the detected deviations (Figure 1.4).

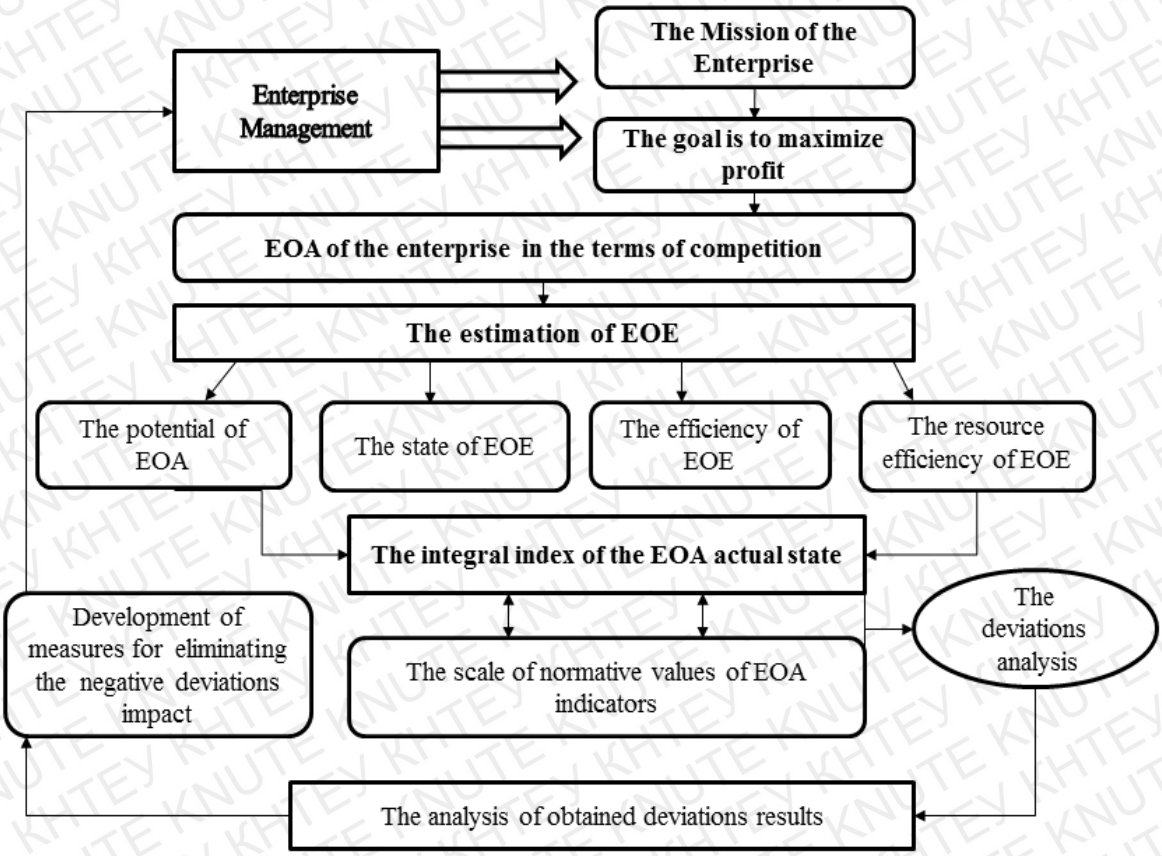

Figure. 1.4. The functional model of the mechanism of export operations management activity of the equipment enterprise.

Source: systemized by author based on [10].

Moreover, it should be noted that the functional model of the management mechanism of export operations includes the sequence of foreign economic activities and the following elements:

- definition of macroeconomic and microeconomic conditions for the implementation of foreign economic activity;
- development of the strategy of the company's exit to the foreign market;
- diagnostics of the potential of foreign economic activity of the enterprise;
- development of directions of foreign economic activity;
- realization of the selected vectors and directions of foreign economic activity carried out at the eanterprise level;
- assessment of the effectiveness of the indicators of foreign economic activity;
- regulation of the quality of implementation of foreign economic directions;

- adoption of managerial decisions on elimination of negative deviations to increase profitability of foreign economic activity of the enterprise.

In order to give a brief statement of the main points it should be mentioned that the concept of the effectiveness of the mechanism of management of EOE of the equipment enterprise includes a large complex of measures and should penetrate the whole process of management in the enterprise. In addition, it should perform such functions as logistics management, risk management, international marketing, supply and sales management, management accounting, control and analysis.

We believe that due to the launch of an effective mechanism for the increasing of EOE, it is possible to combine the internal capabilities of the enterprise with the export activity and the external factors influencing the export capacity of the enterprise. The development of such a mechanism with the highest coefficients of efficiency requires the selection of the optimal set of elements, technologies, tools, measures and stages, as well as the coherence of action between these components, which, of course, will contribute to the formation of mutually beneficial permanent and strong links between them and external elements, which may affect the success of the export potential.

In our opinion, such mechanism is capable of rationalizing the management of the process of forming and using the mechanism for managing the effectiveness of export operations and promoting the implementation of the basic functions of management, that is, proper planning, organization, motivation and control. , will allow the development of the mechanism through the detailing of processes, their algorithmization will, if necessary, quickly find "bottlenecks", eliminate the disadvantages, that is, in time, react to changes in the internal and external environment. Implementation of the developed mechanism, formation of its efficient fulfillment will ensure the successful business operations of the enterprise, stimulate its constant development, allow to quickly and adequately respond to the challenges of the market economy and ensure developingmeasures for increasing competitiveness and maximum profit. At the same time, we understand that not every, even large enterprise of the equipment industry has the appropriate set of resources and necessary capabilities to ensure the maximum effectiveness of actions for the formation of the EOE.

1.3 The methodological instruments of evaluating the export operations efficiency management of the equipment enterprises

In order to overcome the negative impact of competitive environmental factors that restrain the development of export activity, equipment enterprises face the need to choose effective management solutions. These decisions concern, in particular, the system of formation of managerial accounting, optimization of logistics costs, improvement of the monitoring system and other components of the export strategy of the enterprise. The complex nature of these processes, the significant risks of doing business abroad comparing to the domestic market, give rise to the need for an integrated approach to optimize the export business of the enterprise. The assessment of the company's activity allows establishing the relative parameters of its operation and development, to identify existing constraints and dependencies between various objects of economic life and to determine the reserves of productivity increase.

Thus, Abalkin L. emphasizes that efficiency is a reflection of the effectiveness of the economic system functioning, determined by the ratio of the resulting economic effect (result) and the cost of resources (factors) that led to achievement of such effect. It should, however, be noted that the described general approach corresponds to a largely unchanged (static) business conditions, which is determined by the stability and predictability of the main performance indicators of the enterprise [11].

According to the works of domestic and foreign scientists the main methods of EOE evaluation include static and dynamic ones. Analyzing the accelerated scientific and technological progress, the continuous emergence of new products and production technologies, increasing of consumer demands and the rapid growth of other social, economic and cultural social transformations are significantly complicated by the reliable prediction of trends and conditions of the market environment and the definition of the parameters of the operation of the enterprise it should be noted that the static approach of the assessment does not allow to fully take into account the complex changes that are currently occurring in the economic sphere.

In the context of expanding the capacity of alternative use of resources, the growth of the economic role and the importance of intangible (first of all, informational) resources, enhancement of the impact of conditions and quality of work life on performance results, etc. Difficulties that accompany the use of static indicators of estimation the activity of an enterprise has naturally led to the emergence of a large variety of dynamic approaches for establishing the specific content and composition of the results and costs that should be the basis for the definition of EOE. Yashin S., Puzov E. noted that the effectiveness of the enterprise in contemporary conditions is considered in the following main aspects:

- as a relative parameter of cost (productivity or product efficiency of use of resources) or of a target (efficiency of achievement of the external effect) type;
- as an absolute indicator, determined on the basis of the income method (cash flow, capitalization or cost, payback period, etc.);
- as a reflection of the relative estimates of the indicators obtained by the income method (returns, profitability, internal rate of return, etc.);
- as an individual complex of coordinated financial and non-financial parameters of the operation and development of the enterprise (balanced system of indicators) [11].

The main features of the dynamic approach for the assessment of efficiency should contain the consideration of alternatives (including - in the strategic aspect for long-term investments) functioning and development of the enterprise, as well as a significant expansion of the factors of financial results formation. For example, T. Bondareva insists on the need to formulate a strategic approach to evaluating the effectiveness, which should take into account the diversity of possible effects of the operation and development of the enterprise. The scientists suggest including in the structure of such effects:

- changes that have occurred (or should take place) in the state of the economic system;
- the measure of the correspondence of the result (or the process of its achievement) to a certain reference (maximally possible, ideal, planned) parameters;

- achieved level of functional diversity of the system;
- quantitative expression of the degree of satisfactory functioning of an object or system [11].

The logical reflection of the existing concepts of EOE assessment in the field of export operations became the emergence and spread of different approaches to determining the effectiveness of export activities, among which the following should be noted: cost, balance, comparative, indicator, balanced scores (Table 1.5).

Table 1.5

Characteristics of approaches of EOE estimation of the enterprise

	Name	Content	Efficiency indicators
1	2	3	4
1.	Cost method (T. Miroliubova)	The correlation of the equivalent (in national currency) of foreign exchange earnings from export operations and total expenditures of the enterprise for the output and marketing of exported products (including additional expenses on advertising, marketing, customs pro-insurance, etc.)	Absolute export efficiency; Efficiency of using operational and industrial assets; Profitability of export operations; Integral effect of foreign economic activity.
2.	Balance method (G. Pukhtajevich)	The correlation of economies of scale (national, entrepreneurial) to the production of export products (at a level of these costs below the world level) and savings from imports (at a level of import costs lower than the cost of own production of similar products (with consideration of the parameters of economic security, the system of critical constraints and resource needs.	Budget export efficiency; The correlation of indicators for assessing export opportunities and the need for import resources; Producibility ratio; Currency efficiency of export;
3.	Comparative method (O. Kuzmin, A. Bosak, R. Darmits)	The degree of increasing the enterprise's income in the implementation of export supplies, determined on the basis of comparison of the efficiency of certain export operations (the sale of a certain product to non-residents) with the corresponding parameters of the EOE of conducting similar (by quantity, quality and sales structure) operations in the domestic market.	The basic rate of export efficiency.

Table 1.5 (continued)

1	2	3	4
4.	Indicator method (O. Melnyk, Yu. Logvinenko)	Creating of a matrix model, in which a generalization of indicators of absolute character (quantitative measurements of properties, state, development of export activity) is carried out taking into account the established norms (characterizing resource costs under the conditions of the most rational reliever range of business activity) and norms (regulated definition of norms)	The system of local and integral indicators of EOE estimation, the composition of which is determined depending on the established diagnostic goals, based on the generalization of the matrix of various groups of indicators (manufacturing, technological, property, social, general economics time, etc.)
5.	Balanced Score method (M. Kizim, A. Pylypenko, V. Zinchenko)	It proceeds from the priority of the goals (desirable or ideal state) of export activity, which are described by a set of indicators that allow to evaluate efficiency as a measure of approximation during the performance of certain functions to the desired result	The system of indicators of operation and development of the enterprise, grouped according to the directions, reflecting the priorities of strategic and current planning of export activity

Source: made by author on the basis of [12; 25; 29; 35].

To determine the effectiveness of the export business of an enterprise it is necessary to know its currency efficiency. The indicator of currency efficiency of exports (CEE) primarily characterizes the purchasing power of the currency, its rate. It is calculated as the ratio of the sum of products of the currency price of the exported goods (CP_{EG}) and the volume of export of the goods (VEi) to the sum of the costs of the production and sale of the unit of the goods (SEi) and the volume of export of the goods (VEi) [12] (Formula 1.1).

(1.1)

$$CCE = \sum_{i=1} CPeg * VEi \Big/ \sum_{i=1} SEi * VEi$$

where CP_{EG} - products of the currency price of the exported goods;

VEi – the total volume of the exported goods;

SEi - sale of the unit of the goods.

To construct a method for determining the indicators of the export operation efficiency estimation, we used a methodology for calculating the rates of economic efficiency of export, suggested by the team of authors [12], who, in order to determine the economic efficiency of export activity at the enterprise level, proposed to calculate three indicators of economic efficiency.

The ratio (EEE_1) is determined by dividing the amount of te net proceeds in foreign currency for the goods sold by the company, converted into UAH at the official exchange rate on the day of the receipt of foreign exchange earnings (NCE), in the sum of total expenses of the enterprise for export of products (TEe). It shows the amount of UAH income from the sale of export goods distributed by the company, which falls on each company spent hryvnia. Moreover, this method helps to take into the account the exchange rate changes during the reviewed period as it has the significant impact on the economic marginality and efficiency of the export operations carried out by the enterprise. It's optimally when result is more than 1 [12] (Formula 1.2).

(1.2)

$$EEE_1 = {}^{NCE}/_{TEe}$$

where NCE - the amount of net proceeds in foreign currency for the goods sold, converted into UAH basing on the official exchange rate on the day of the receipt of foreign exchange earnings;

TEe – the total expenses of the enterprise for exporting products.

The ratio (EEE_2) indicates the profitability of sales of products in the domestic market and is defined as the ratio of the value of exports in the domestic prices (VE_{DP}) and the production cost of export goods (PC_{EG}). It's described in the formula 1.3 below [12].

(1.3)

$$EEE_1 = {}^{VE_{DP}}/_{PC_{EG}}$$

where VE_{DP} - the value of exports in the domestic prices;

PC_{EG} - the production cost of export goods.

Exports of the corresponding goods are profitable for the enterprise, when $EEE_1 > 1$, and also, when the profitability of export sales on the foreign market exceeds the profitability of the sale of the same products on the domestic market - $EEE_1 > EEE_2$.

In addition, for analyzing the EOE of equipment enterprise it is very important to take into account the indicators about contractual export and import obligations on the actual data of enterprises. Basing on such information the following coefficients and indices should be calculated: the ratio of implementation of value obligations, the ratio of fulfillment of physical volume obligations, the coefficient of fulfillment of price obligations, value index, physical volume index, price index, structure index, index number.

Also it is worth noting that under market conditions an enterprise should not restrict itself to only the classical methods of valuation and analysis of the effectiveness of export operation activity, because they do not always allow to determine the real impact of the effectiveness of management of such activities on the financial position of the company, the overall efficiency of its activities, as well as its solvency. To eliminate such a disadvantage of the above factors and to assess the efficiency of export operation activity it's reasonable to add using indicators of economic security of the enterprise, because in foreign economic activity, in addition to the positive economic effect, the company has a number of negative factors that may affect its own economic security.

Moreover, the diversity of views and opinions on methodological instrumentarium of evaluating EOE does not allow to fully cover the substantive scope of the assessment of export efficiency. In particular, the improving the quality of staff working life and obtaining a unique experience of management in the international market, as well as the probability of expanding the company's access to advanced technologies, organizational and management toolkit remain beyond the attention of researchers.

In addition, even the results of the integrated assessment of the EOE (based on the indicator approach or on the basis of the construction of a balanced system of indicators) have generalized character, which does not allow to formulate specific recommendations regarding the establishment of reserves for increasing the efficiency

of export operations for individual commodity positions and formation of the export portfolio of the enterprise altogether.

That's why there is a need for improvement of methodological basis for EOE estimation. We suggest using the complex integral indicator which would be based on following factors (Table 1.6).

Table 1.6

The directions and aggregated indicators of EOE estimation of enterprise

	Direction	Indicators
1.	Market profitability of exports	• growth rate of the company's share in the foreign market; • growth rate of the share of export products in the total volume of production line; • growth rates of sales volumes of the enterprise;
2.	Budget efficiency	• volume of customs payments to the state budget in the country where the exporter is a resident; • correlation of the size of the financial flows associated with servicing of the export and import operations of the enterprise.
3.	Production and technological efficiency	• rate of change in the rhythm of production; • rate of reduction of finished product stocks; • rate of change in return on assets.
4.	Social efficiency	• rate of growth of labor productivity of the personnel; • changes in the level of salary of staff.
5.	Efficiency of innovation and investment activity	• growth rate of investments in export operations; • changes in the deterioration level of fixed assets in connection with realization of corresponding capital investments; • rate of change in the share of innovative products intended for export supplies, in total production volumes.
6.	The efficiency of marketing and sales activities	• growth rates of sales costs; • growth rate of wages of the personnel involved in marketing and sales activities.
7.	Financial profitability	• changing in the level of costs per unit of commodity products; • correlation of the price level of sales in the international and national markets correspondently; • cost-effectiveness of export products production; • cost effectiveness of operating activities.

Source: systemized by author on the basis of [1].

Hence the use of the described approach allows not only to make a comparative assessment of the efficiency of export activity, but also to conduct a ranking of types of products in order to make sense of carrying out export operations with them.

The export activity is an important and integral part of the enterprise's business activity. Export operations are becoming a prerequisite for expanding markets, increasing production volumes and improving product quality, which also allow us to create a favorable basis for strengthening the competitive position of the company on the domestic market. For the national economy, the growth of export supplies of economic entities serves as the main instrument of maintaining a positive balance of foreign trade necessary to ensure the stability of the exchange rate, financing of import purchases, increasing the impact of domestic enterprises on global world processes.

Besides the efficiency is a reflection of the effectiveness of the functioning of the economic system, which is determined (the static aspect) of the ratio of the resulting economic effect (result) and the cost of resources (factors) that led to the achievement of such an effect, taking into account (dynamic aspect) the degree of achievement of the set goals, strategic priorities, functional diversity of the system, etc. An assessment of the EOE of an enterprise can be based on the following approaches: cost, balance, comparative, indicator, balanced estimation. The described approaches represent the various aspects of the process of formation and evaluation of export efficiency, but do not fully cover the specified subject area. In order to carry out a comparative assessment of the EOE and the conduct of rating ranking of products in the formation of an economic export portfolio of the enterprise, it was proposed to use a generalized indicator that can be calculated as a coefficient of development of multidimensional objects.

CONCLUSION TO PART I

1. A theoretical study of the main principles of the enterprise's export activity was conducted and the actual definition of the concept of "efficiency of export operations". We'd like to suggest the following determination of export operations efficiency that it is the profitability of exports measured by the ratio of the cost of goods exported from the country in foreign trade prices to its value in the prices of the domestic which depends on competitive output that are sold on the foreign market and export potential of the specific industry.

2. The main indicators for export operations activity assessment were analyzed. Moreover, it's very important to take into account specific indicators of a particular industry. As for machinery enterprises there are next criteria: share of certified for compliance with international standards of product types of the enterprise, indicators of production certification, price comparison with competitors, level of science-intensive products, share of imported components in the output.

3. The mechanism of EOE was investigated quite thoroughly and profoundly. We analyzed the main functions, functional model, basic elements of the EOE mechanism at the equipment enterprise and suggested ways for its improvement. In our opinion, this mechanism can rationalize the management of the formation process and usage of the equipment enterprise export potential. The development of the mechanism through the detailing of processes, their algorithmization will quickly find "pain points", eliminate the disadvantages and promptly react to changes in the internal and external environment.

4. The characteristics of approaches of the EOE estimation of the enterprise were analyzed. They're the following: cost, balance, comparative, indicator, balanced scores. Also the main economic formulas for integrated determination the EOE were mentioned in the paper. As the results of the integrated assessment of the EOE has a generalized character, which does not allow to formulate specific recommendations regarding the establishment of reserves for increasing the efficiency of export operations for individual commodity positions and formation of the export portfolio of the enterprise altogether. That's why we suggested and detailed using the complex integral indicator which allows not only to make a comparative assessment of the EOE, but also to conduct a rating ranking of types of products of the enterprise in order to make sense of carrying out export operations with them.

PART 2. GENERAL ANALYSIS OF EXPORT OPERATIONS EFFICIENCY OF PJSC “SMILA MACHINERY WORKS”

2.1. The analysis of financial and economic activity indicators of PJSC “Smila Machinery Works”

The private Joint-Stock Company " Smila Machinery Works " was estublished in accordance with the order of the State Property Fund of Ukraine of the 26th of September, 1994. №58-AT by means of transformation of state-run enterprise " Smila Machinery Works " in the process of privatization into an private joint-stock company, which is located in Smila, Cherkasy region [45].

The subject of the Company's activity is the manufacture of equipment and machinery for sugar, bakery and other processing industries of the agroindustrial complex, including the use of precious metals and tools of natural diamonds; for collective farms and farms, processing of agricultural raw materials; consumer goods, as well as other equipment, provision of services to enterprises, organizations, individuals-entrepreneurs, as well as to the population, including the organization of recreation; provision of property for rent; execution of works, including construction and repair, assembling and scientific and technical (design), manufacturing and conducting of defectoscopy of welds, construction and reconstruction of civil and industrial buildings, commercial and trading activities, establishment of joint ventures with other legal entities of Ukraine and foreign partners , research and development, production of design and technological documentation, processing of agricultural raw materials, production and sale of own products of public har provision of catering services, installation, technical inspection, diagnostics, adjustment of safety devices and related work, the production of technical documentation and the repair and diagnosis of lifting machines and devices, the provision of services for the transportation of goods both in Ukraine and abroad, and other, is not prohibited by current legislation [45].

The main goal of the joint-stock company is the implementation of effective economic activity aimed at maximizing consumer demand for products, works and

services and making profits in the interests of shareholders. The founder of the Society is the state represented by the State Property Fund of Ukraine [45].

In the conditions of increasing competition between enterprises, practical approaches to managing financial and economic activity of an enterprise become more and more important. In the modern economic conditions, the enterprise should increase the efficiency of production, the competitiveness of products on the basis of effective forms of management and production management, business activation. All this in general determines the importance of controlling the state of economic activity of enterprises, which is why determining the financial state of the enterprise and optimizing it is one of the main conditions for its successful development.

The main task of managing the financial activity of an enterprise is the optimization of financial flows, in order to increase the positive financial result. The analysis of the financial condition of the company involves the definition of evaluation features, the choice of methods for measuring them and the characteristics of these characteristics in accordance with the established principles, the evaluation of detected deviations from the standard, commonly accepted values.

The main purpose of the analysis of the financial state is its assessment and the identification of reserves for its stabilization and improvement. Means of implementation of this installation is the organization of sound financial and economic policy. It is extremely necessary systematically, in detail and dynamically to analyze the finances of the enterprise, since the economic prospect depends on the improvement of the financial state of the enterprise.

We propose a procedure for calculating the main valuation indicators, depending on the specific purpose of the analysis, it is possible to select the appropriate quantity and types according to the following features: the property status of the enterprise, its profitability; liquidity, solvency and creditability; financial stability and stability; profitability; business activity. The financial condition of the enterprise largely depends on the expediency and correctness of investing financial resources in the property. Increasing the role of financial analysis of the enterprise and its relevance are objectively due to the following reasons:

- changing the objectives of enterprises in the market conditions, which are: maximizing profits and increasing the value of business;
- the need to take into account the business conditions of Ukrainian enterprises in the period of market relations formation and interests of all market participants;
- depending on the received financial results due to the need to finance the processes of reproduction of its assets, which requires: establishing liaison with banks in order to receive loans; or issue of debt securities (bills, bonds, etc.); or acceleration of turnover of working capital, for example, through factoring (assignment of debt) or the provision of discounts “skonto”;
- expansion of integration processes, the active participant of which is domestic engineering;
- the need for an objective and transparent assessment of the financial position of joint-stock companies, financial companies and other non-state entities on the basis of public financial reporting;
- aggravation of the contradictions of the company with other market participants during the period of financial and economic crises [47].

The financial condition of a machinery enterprise is estimated by a set of indicators that reflect the availability, efficiency of placement and use of financial resources. The role of the financial analysis of the machinery enterprise is not only to establish and evaluate its financial situation, but also to continually carry out work in specific areas aimed at improving the financial state. This makes it possible to identify the weak (problem) positions in the financial state of the enterprise and their prompt resolution (Appendix A).

Analyzing the dynamics of assets of PJSC “Smila Machinery Plant” during the period of 2014-2018 it should be mentioned the negative tendency of decreasing the indicators. The highest indicator of negative absolute variation was in 2017 where the total amount dropped for 8391 ths. UAH, comparing to 2016. This fact indicates the absence of expansion of production and economic activity of the enterprise (Table 2.1).

Table 2.1

Dynamics of assets of PJSC "Smila Machinery Plant" based on 31.12.2013-31.12.2017, ths. UAH

Indicator	Basically on:					Structure, %					Absolute variation			
	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017	31.12.2014/ 31.12.2013	31.12.2015/ 31.12.2014	31.12.2016/ 31.12.2015	31.12.2017/ 31.12.2016
Long term assets	18073,00	17427,00	16830,00	16165,00	16873,00	64,50	60,40	63,30	61,53	60,93	-646,00	-597,00	-548,00	-499,00
Intangible assets:	75,00	58,00	58,00	56,00	45,00	0,41	0,33	0,34	0,35	0,27	-17,00	0,00	-2,00	-11,00
Fixed assets	17428,00	16460,00	15810,00	15616,00	15664,00	96,43	94,45	93,94	96,60	92,83	-968,00	-650,00	-194,00	48,00
Other fixied assets	0,00	366,00	413,00	0,00	0,00	0,00	2,10	2,45	1,00	0,00	366,00	47,00	-413,00	0,00
Long term Receivables	130,00	103,00	109,00	89,00	89,00	0,72	0,59	0,65	0,55	0,53	-27,00	6,00	-20,00	0,00
Deferred Tax Assets	439,00	439,00	439,00	403,00	324,00	2,43	2,52	2,61	2,49	1,92	0,00	0,00	-36,00	-79,00
Current assets	6084,00	7557,00	6628,00	5274,00	9765,00	21,70	26,20	24,90	27,47	29,07	1473,00	-929,00	-1354,00	4491,00
Inventories	4331,00	4584,00	4042,00	3236,00	6717,00	71,19	60,66	60,98	61,36	68,79	253,00	-542,00	-806,00	3481,00
Production stocks	580,00	672,00	551,00	645,00	1861,00	13,39	14,66	13,63	19,93	27,71	92,00	-121,00	94,00	1216,00
In-process inventory	777,00	1908,00	1699,00	1345,00	3179,00	12,77	25,25	25,63	25,50	32,56	1131,00	-209,00	-354,00	1834,00
Final goods	2972,00	2002,00	1790,00	1244,00	1675,00	48,85	26,49	27,01	23,59	17,15	-970,00	-212,00	-546,00	431,00
Goods	2,00	2,00	2,00	2,00	2,00	0,03	0,03	0,03	0,04	0,02	0,00	0,00	0,00	0,00
Accounts Receivable for goods and services	432,00	515,00	255,00	256,00	300,00	7,10	6,81	3,85	4,85	3,07	83,00	-260,00	1,00	44,00
Accounts Receivable in payments down payment made	76,00	163,00	230,00	263,00	545,00	1,25	2,16	3,47	4,99	5,58	87,00	67,00	33,00	282,00
Other current account receivables	78,00	104,00	90,00	84,00	473,00	1,28	1,38	1,36	1,59	4,84	26,00	-14,00	-6,00	389,00
Cash and cash equivalents	398,00	1314,00	1319,00	1136,00	1119,00	6,54	17,39	19,90	21,54	11,46	916,00	5,00	-183,00	-17,00
Cash in bank	398,00	1313,00	1319,00	1136,00	1119,00	6,54	17,37	19,90	21,54	11,46	915,00	6,00	-183,00	-17,00
Deferred charges	20,00	18,00	48,00	69,00	68,00	0,33	0,24	0,72	1,31	0,70	-2,00	30,00	21,00	-1,00
Other current assets	7,00	6,00	104,00	24,00	15,00	0,12	0,08	1,57	0,46	0,15	-1,00	98,00	-80,00	-9,00
Fixed assets for sales	3852,00	3850,00	3129,00	3080,00	3078,00	13,80	13,40	11,80	11,00	10,00	-2,00	-721,00	-49,00	-2,00
Balance	**28009,00**	**28834,00**	**26587,00**	**24519,00**	**29716,00**	**100,00**	**100,00**	**100,00**	**100,00**	**100,00**	**825,00**	**-2247,00**	**-5319,00**	**62,73**

Source: systemized by author on the basis [45]

Basing on the assets structure of PJSC Smila Machinery Plant during the research period it can be concluded that the largest share belonged to the non-current assets with an average value of 62.13% for the period 2013-2017. The volumes of non-current assets exhibit a stable negative downward dynamics. The leading part of non-current assets is fixed assets, which in 2014 occupied 94,45% of the overall structure, and in 2017 they show a decrease of 1.62%. The smallest constituent unit in the structure is intangible assets, which occupy less than 1%. During 2017 there was an increase in current assets of 4491K UAH. This can be considered a positive trend, as acceleration of calculations is an important factor in accelerating the turnover of current assets. The cost of inventories increased by 3481 thousand UAH, which indicates an increase in demand for enterprise products and an increase in the efficiency of the technological process and the willing of the enterprise to meet the requirements of the customers by stocking the goods as inventory (Table 2.1).

In the structure of liabilities of PJSC “Smila Machinery Plant” during the period of 2013-2017, owner's equity demonstrates the tendency of decreasing but still the average indicator is 85,45%. This indicates a high level of equity of the company and that own funds are the main source of the balance sheet assets formation. Meanwhile the dynamic growth of current liabilities indicates that over time the company operates mainly through borrowed funds, which might negatively affect the solvency and liquidity of PJSC “Smila Machinery Plant” in the future. Thus, PJSC “Smila Machinery Plant” provided its activity both at the expense of its own financial resources, and at the expense of borrowed funds. At the same time, the enterprise almost did not use long-term loans, which is explained by exchange rate instability (Table 2.2).

As for the analysis of Income Statement (Appendix B) of the enterprise, the net income from the sale of products in 2014 was droped, however, in 2015, the growth of the indicator is higher for 1063 thousand UAH, compared to 2014. Cost of sales and other operating expenses are negative. In general, the financial result of an enterprise's activity is a loss, that is, an excess of gross expenditures over gross income, which adversely affects the development and activity of the enterprise (Table 2.3).

Table 2.2

Dynamics of liabilities of PJSC "Smila Machinery Plant" based on 31.12.2013-31.12.2017, ths. UAH

Indicator	Basically on:					Structure, %					Absolute variation			
	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017	31.12.2015	31.12.2013	31.12.2014	31.12.2015	31.12.2013	31.12.2014/ 31.12.2013	31.12.2015/ 31.12.2014	31.12.2016/ 31.12.2015	31.12.2017/ 31.12.2016
Owner's Equity	25071,00	25035,00	23416,00	20468,00	23579,00	89,51	86,82	88,07	83,48	79,35	-36,00	-1619,00	-2948,00	3111,00
Shareholder's Equity	290,00	290,00	290,00	290,00	290,00	1,16	1,16	1,24	1,42	1,23	0,00	0,00	0,00	0,00
Capital surplus	22407,00	22155,00	20148,00	19600,00	19587,00	89,37	88,50	86,04	95,76	83,07	-252,00	-2007,00	-548,00	-13,00
Reserved capital	73,00	73,00	73,00	73,00	73,00	0,29	0,29	0,31	0,36	0,31	0,00	0,00	0,00	0,00
Retained earnings	2301,00	2517,00	2905,00	505,00	3629,00	9,18	10,05	12,41	2,47	15,39	216,00	388,00	-2400,00	3124,00
Long term liabilities	1527,00	1702,00	488,00	0,00	0,00	5,45	5,90	1,84	0,00	0,00	175,00	-1214,00	-488,00	0,00
Current liabilities:	1411,00	2097,00	2683,00	4051,00	6137,00	5,04	7,27	10,09	16,52	20,65	686,00	586,00	1368,00	2086,00
goods and services	79,00	141,00	236,00	427,00	1797,00	5,60	6,72	8,80	10,54	29,28	62,00	95,00	191,00	1370,00
in payments to budget	39,00	42,00	148,00	276,00	86,00	2,76	2,00	5,52	6,81	1,40	3,00	106,00	128,00	-190,00
in payment of ensurance	1,00	587,00	156,00	51,00	119,00	0,07	27,99	5,81	1,26	1,94	586,00	-431,00	-105,00	68,00
in payment of salary	1,00	219,00	407,00	293,00	334,00	0,07	10,44	15,17	7,23	5,44	218,00	188,00	-114,00	41,00
down payment received	737,00	558,00	1185,00	1022,00	1714,00	52,23	26,61	44,17	25,23	27,93	-179,00	627,00	-163,00	692,00
in payment of participants	535,00	530,00	529,00	329,00	328,00	37,92	25,27	19,72	8,12	5,34	-5,00	-1,00	-200,00	-1,00
Other short-term liabilities	19,00	20,00	22,00	33,00	64,00	1,35	0,95	0,82	0,81	1,04	1,00	2,00	11,00	31,00
Balance	**28009**	**28834**	**26587**	**24519**	**29716**	**100**	**100**	**100**	**100**	**100**	**825**	**-2247**	**-2068**	**5197**

Source: systemized by author on the basis [45]

Analysis of PJSC "Smila Machinery Plant" Income Statement in 201

	Basicaly on:					
	2013	2014	2015	2016	2017	20
Net revenue	32664,00	25220,00	26283,00	24601,00	41761,00	
Prime cost of sold goods	-17827,00	-13899,00	-18080,00	-17162,00	-25856,00	
Gross: profit	14837,00	11321,00	8203,00	7439,00	15905,00	
Other operational revenues	1819,00	1841,00	4708,00	2883,00	1664,00	
Administrative costs	-	-	-	-6751,00	-7524,00	
Costs for sales	-11587,00	-7109,00	-7336,00	-1593,00	-2161,00	
Other operational costs	-1807,00	-1394,00	-1763,00	-3456,00	-4068,00	
Costs of changes in the value of assets measured at fair value	-4177,00	-3707,00	-3726,00	-	-	
Financial results of operational activity: Profit	-	-	-	-	3816,00	
Financial results of operational activity: Losses	0,00	952,00	86,00	-1478,00	0,00	
Revenue from participation in capital	-915,00	-915,00	0,00	0,00	0,00	
Other financial revenues	-	-	-	12,00	-	
Other revenues	53,00	14,00	8,00	1219,00	51,00	
Income from charity	1140,00	791,00	282,00	-	-	
Financial expences	-	-	-	-1,00	-	
Other expences	-	-	-	-159,00	-52,00	
Profit (loss) from the influence of inflation on monetary items	-272,00	-333,00	-124,00	-	-	
Financial results before tax: profit	-	0,00	0,00	0,00	3815,00	
Financial results before tax: losses	6,00	1424,00	252,00	-407,00	-	
Losses out of income tax	-	-	-	-	-691,00	
Profit (loss) from discontinued operations after tax	-	359,00	58,00	-	-	
Revaluation (subtraction) of non-current assets	929,00	-252,00	194,00	103,00	0,00	
Other comprehensive income before tax	929,00	-252,00	194,00	103,00	0,00	
Other comprehensive after tax	929,00	-252,00	194,00	103,00	0,00	
Total revenue (amount of lines 2350, 2355 and 2460)	923,00	813,00	388,00	-304,00	3124,00	
Tangible costs	14635,00	12500,00	15969,00	11777,00	17201,00	
Salary costs	13743,00	7980,00	8560,00	9925,00	13384,00	
Benefits-related deduction	2842,00	2597,00	2238,00	2127,00	3274,00	
Depresiation	860,00	1017,00	966,00	726,00	698,00	
Other operating costs	1286,00	1641,00	1890,00	4407,00	5052,00	
Net financial result: profit	-	-	-	-	**3124,00**	-
Net financial result: losses	**6,00**	**1065,00**	**194,00**	**407,00**	**0,00**	**10**

Source: systemized by author on the basis [45]

After analyzing the solvency ratios of PJSC “Smila Machinery Plant” for 2013-2015, it can be concluded that the overall current e ratio, which characterizes the ability of an enterprise to cover current liabilities through liquid assets, significantly exceeds the recommended value of 2 for the period under review and shows negative dynamics for the analyzed period. During the period of 2016-2017 the current ratio demonstrates the positive tendency of decreasing which is also connected to general progress and improvement at the enterprise (Table 2.4).

Table 2.4

Analysis of the solvency ratios of PJSC “Smila Machinery Plant” during period of 2013-2017 years

№	Indicator	Basically on:					Absolute Variation			
		31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017	2014/ 2013	2015/ 2014	2016/ 2015	2017/ 2016
1.	Current Ratio	4,31	3,60	2,47	1,30	1,59	-0,71	-1,13	-1,17	0,29
2.	Intermediate Funded Ratio	1,30	2,38	1,31	0,72	0,73	1,09	-1,07	-0,59	0,01
3.	Cash Ratio	0,28	0,63	0,49	0,28	0,18	0,35	-0,14	-0,21	-0,10
4.	Share of working capital in stock coverage	1,62	1,66	1,63	1,33	1,00	0,04	-0,03	-0,30	-0,33
5.	Current assets to Equity ratio	0,28	0,30	0,28	0,21	0,28	0,02	-0,02	-0,07	0,074

Source: systemized by author on the basis [45]

The intermediate funded ratio, which characterizes the ability of an enterprise to settle its current liabilities through its highly liquid assets, shows a tendency to significantly exceed the recommended values of 0.7-0.8, however, during 2016-2017 year the indicators in within normal limits are observed. The cash ratio, which characterizes the company's ability to cover its current liabilities with the ready-made means of payment, also exceeds the recommended value of 0.2-0.3, which negatively affected the activities of the enterprise during 2013 – 2015 years but was stabilized in 2016 and 2017 (Table 2.4).

The share of own working capital in the coverage of stocks is characterized by the share of the stock of the company, financed by its own working capital, on average for the analyzed period is 1.45. The current assets to equity ratio, which characterizes the share of the company's equity capital used to finance its current assets is 0,27 in

average. The value of this indicator is not high enough to provide flexibility in using the company's own funds (Table 2.4).

Table 2.5

The analysis of financial sustainability indicators of PJSC "Smila Machinery Plant" during period of 2013-2017 years

№	Indicators	Basically on:					Absolute Variation			
		31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017	2014/ 2013	2015/ 2014	2016/ 2015	2017/ 2016
1.	Inventories, UAH, ths UAH	4331	4584	4042	3236	6717	253	-542	-806	3481
2.	Working Capital, ths UAH	6998	7608	6586	4303	6706	610	-1022	-2283	2403
3.	«Normal» sources of financing, ths UAH	79	141	236	427	1797	62	95	191	1370
3.1	Working Capital	6998	7608	6586	4303	6706	610	-1022	-2283	2403
4.	Equity Ratio	0,90	0,87	0,88	0,83	0,79	-0,03	0,01	-0,05	-0,04
5.	Debt Ratio	0,10	0,13	0,12	1,17	1,21	0,03	-0,01	1,05	0,04
6.	Long term equity ratio	0,95	0,93	0,90	0,83	0,79	-0,02	-0,03	-0,06	-0,04
7.	Financial Leverage Ratio	0,10	0,13	0,12	1,17	1,21	0,03	-0,01	1,05	0,04
8.	Loan Life Coverage Ratio	8,53	6,59	7,38	0,72	0,66	-1,94	0,79	-6,67	-0,06

Source: systemized by author on the basis [45].

The level of inventories of the company has been increased during the analyzed period. That is connected with the expansion of enterprise activity. The Debt Ratio characterizes the specific weight of the loan capital of the enterprise in the total capital and was normative less than 0,5 during 2013-2015. Moreover during 2016-2017 the indicators increased which is connected to the increasing of the level of current liabilities for the period under review. The long term equity ratio, which characterizes the proportions in which the debt capital and equity of the enterprise relate among themselves, is lower than 1, which is positively marked on the activity of the enterprise. Loan Life Coverage Ratio shows that the equity capital of an enterprise exceeds its borrowed capital by an average of 4,78 times. In addition, the Equity Ratio, which characterizes the share of equity of the enterprise in the total capital, shows a negative dynamics of the decline, but it is normative that the value of this indicator should be more than 0,5 (Table 2.5).

Table 2.6

The identification of financial sustainability type of PJSC "Smila Machinery Plant" during period of 2013-2017 years

Basicaly on:	Indicator, ths. UAH	Type of financial solvency
31.12.2013	6998	Absolute
31.12.2014	7608	Absolute
31.12.2015	6586	Absolute
31.12.2016	4303	Absolute
31.12.2017	6706	Absolute

Source: systemized by author on the basis [45].

Having evaluated the level and type of financial stability, we can conclude that the company is characterized by absolute financial stability (stocks < Own Working Capital). Such a situation means that the management of an enterprise does not want or cann't use external sources of financial resources for the main activity (Table 2.6).

Table 2.7

The analysis of turnover indicators of PJSC "Smila Machinery Plant" during period of 2013-2017 years

№	Indicators	2013	2014	2015	2016	2017	Absolute Variation			
							2014/ 2013	2015/ 2014	2016/ 2015	2017/ 2016
1.	Days Current Assets Outstanding	199,19	248,76	230,52	236,55	145,45	49,57	-18,24	6,03	-91,10
2.	Days Inventory Outstanding	-87,46	-118,73	-80,48	-67,88	-93,52	-31,27	38,25	12,60	-25,64
3.	Days Receivables Outstanding	19,83	29,26	19,57	11,84	15,91	9,44	-9,69	-7,73	4,07
4.	Days Payable Outstanding	15,34	29,65	36,45	35,09	39,29	14,31	6,80	-1,36	4,20
5.	Current Assets Turnover, times	5,37	3,34	3,97	4,66	4,28	-2,03	0,63	0,70	-0,39
6.	Inventory Turnover, times	-4,12	-3,03	-4,47	-5,30	-3,85	1,08	-1,44	-0,83	1,45
7.	Accounts Receivable Turnover, times	18,16	12,30	18,39	30,41	22,62	-5,85	6,09	12,02	-7,79
8.	Accounts Payable Turnover, times	23,47	12,14	9,88	10,26	9,16	-11,32	-2,27	0,38	-1,10
9.	Operating Cycle, days	-67,63	-89,47	-60,91	-56,04	-77,61	-21,84	28,56	4,87	-21,57
10	Financial Cycle, days	-82,97	-119,12	-97,36	-91,13	-116,90	-36,14	21,76	6,22	-25,77

Source: systemized by author on the basis [45].

Analyzing the turnover indicators during the mentioned period, we may make a conclusion that the company has quite positive tendency of the days current assets,

receivables and payable outstanding. The company should increase the level of inventory as it shows the negative dynamic. Moreover the negative indicators of the financial and operational cycle of the reviewed period means that the enterprise pay suppliers of goods and services with a delay. The current assets and receivables turnover demonstrates the positive stable growth, while accounts payable have decreased during 2013-2017 years (Table 2.7).

Table 2.8

The assessment of creditability of PJSC "Smila Machinery Plant" during period of 2013-2017 years

№	Indicator	2013	2014	.2015	2016	2017	Absolute Variation, 2013-2017
1.	EBIT	-6,00	-1424,00	-252,00	-408,00	3815,00	3821,00
2.	EBITDA	854,00	-407,00	714,00	318,00	4513,00	3659,00
3.	EBITDA margin., %	2,61	-1,61	2,72	1,29	10,81	8,20

Source: systemized by author on the basis [45].

The reference value of creditability is at least a positive EBIT value, that is, a negative indicator indicates that the financial result of the operation will be a loss. The negative EBITDA means that the company's operations are already unprofitable at an operating stage, before the using of borrowed capital, taxes, depreciation, which took place in 2014, but in 2013 and in 2015-2017 years, the company's operating activities were profitable. Analyzing the calculations, it can be concluded that the value of the coefficient is considerably higher than the permissible norm, that is, it suggests an excessive level of debt burden on the company and probable problems with repayment of its debts (Table 2.8).

During the period of 2014 – 2017 the net financial result of the enterprise was a loss, which means that the enterprise's expenses exceeded the profit received. In order to boost the current situation of a negative financial result the further management decisions, the technological process with the purpose of significant reduction of the level of variable costs per unit of output and analysis of the plan and the dynamics of profits from sales for certain types of products were improved. The above mentioned steps helped out to turn the loss-making activity into the profitable one. The highest level of profitability belongs to return on current assets (Table 2.9).

Table 2.9

The profitability analysis of PJSC "Smila Machinery Plant" in 2013-2017 years

		Basically on:					Absolute Variation		
	Indicators	2013	2014	2015	2016	2017	2014/ 2013	2015/ 2014	2016/ 2015
1	Loss Ratio	0,0184	4,2228	0,7381	1,6544		4,20	-3,48	0,92
1.1.	Return On Sales	-	-	-	-	7,4807	-	-	-
2	Loss on Assets	0,02	3,69	0,73	1,66	-	3,67	-2,96	0,93
2.1.	Return on Assets	-	-	-		10,51	-	-	-
3	Loss On Fixed Assets	0,03	8,17	1,50	-2,52		8,14	-6,67	-4,02
3.1.	Return on Fixed Assets	-	-	-	-	22,61	-	-	-
4	Loss On Current Assets	0,10	14,09	2,93	7,72	-	13,99	-11,17	4,79
4.1.	Return on Current Assets	-	-	-	-	31,99	-	-	-
5	Loss on Equity	0,02	4,25	0,83	1,99		4,23	-3,43	1,16
5.1.	Return on Equity	-	-	-	-	13,25	-	-	-

Source: systemized by author on the basis [45].

In general, the financial situation of PJSC "Smila Machinery Plant" during 2013-2016 indicates the instability of the company's operations and unprofitability. But there are the positive tendencies of the normative level of financial stability, solvency of the enterprise and profitable activity in 2017. The leading part of the balance sheet belongs to non-current assets. However, it is worthwhile to neglect the decrease in the value of assets, which indicates the absence of production expansion and economic activity of the enterprise. In the structure of liabilities of PJSC "Smila Machinery Plant" for 2013-2017, the equity is more than 86%, which indicates that, own funds are the main source of the formation of assets of the balance sheet.

The decline in equity and the dynamic growth of current liabilities indicate that over time the company operates mainly through borrowed funds, which in the future will negatively affect the solvency and liquidity of PJSC "Smila Machinery Plant". Analyzing the obtained indicators of the company's creditability, it should be noted that the negative indicator of EBIT's loss-making activity of the enterprise is evident. That is, it suggests too much debt burden on the company and probable problems with repayment of its debts. For companies with such a high coefficient, it is difficult to attract additional borrowed funds.

2.2 The analysis of foreign economic operations of PJSC “Smila Machinery Works”

The foreign economic activity of PJSC "Smila Mashinery Plant" is being implemented under the influence of administrative and legal and economic conditions. On the one hand, their formation was carried out purposefully by the state institutions of foreign economic activity. On the other hand, during the last decades decentralization of state management of the economy has intensified the processes of self-organization of export subjects.

Basically the foreign-economic activity of most machinery-building enterprises in Ukraine has spontaneous character; it is not marked by stability and logical ordering, which considerably weakens their competitive advantages on international markets. A key direction in eliminating the above-mentioned negatives should be the formation of a strategy for the development of foreign economic activity, which will enable machinery-building enterprises to respond adequately to fluctuations in market conditions and maximally effectively use existing reserves to expand their own niche in the market.

When developing a strategy for the development of foreign economic activity, it is necessary to take into account the level of influence of individual factors. Minimizing destabilizers and taking into account positive factors in the early phases of strategic planning will allow measures to be taken to improve the efficiency of foreign economic activity.

In the system-functional approach, the management of export activity of the of PJSC "Smila Machinery Plant" is a subsystem of the general management system of the enterprise, which is formed for the purpose of planning export flows, organizing the implementation of export operations, motivating the subjects of management to timely and complete implementation of the plans, control and regulation of their progress. Basically, the foreign economic activity of PJSC "Smila Machinery Plant" is represented by the distribution of machine and equipment to the manufacture of food

products, mainly for the CIS countries markets, but the company is always trying to entry new markets and to be presented in different countries.

However, it should be noted that during the analyzed period of 2014-2017, there is a negative trend in the decrease of export volumes of the enterprise, while the share of total sales of products on the domestic market is increasing during the period of 2014 – 2016 years (in 2014 - 12.51%, in 2015 - 19.63%, in 2016 - 23,91%, in 2017 – 15,12%). In 2017 year the level of export to Belarus and Georgia increased which caused the decline of the sale of the goods relative share within the territory of Ukraine and Russia (Figure 2.1).

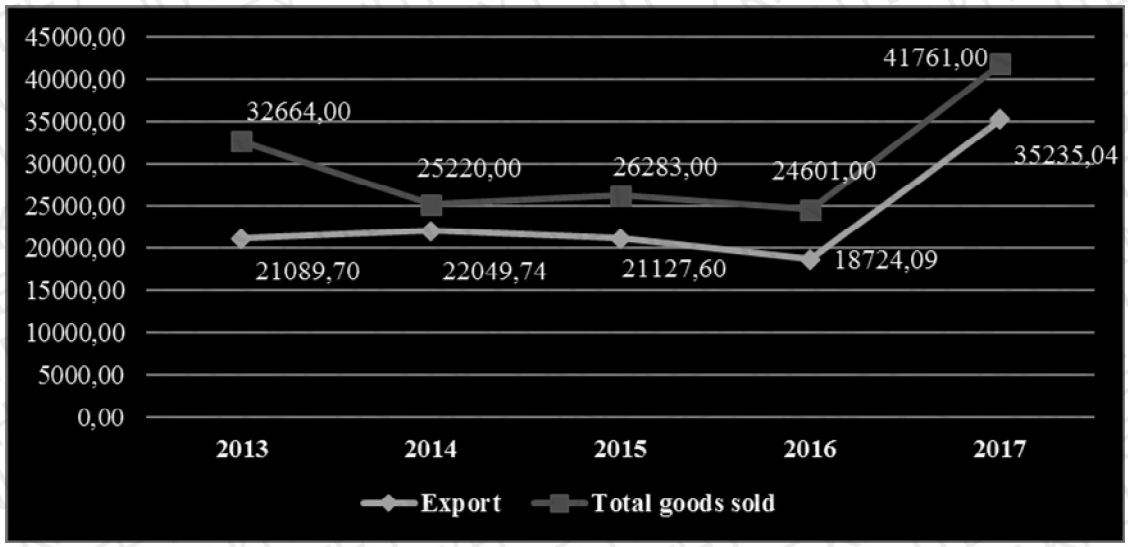

Figure. 2.1 The volumes of export of PJSC "Smila Mashinery Plant" during the period of 2013-2017 years, ths., UAH.

Source: systemized by author on the basis [45].

The total volume of sales of products in 2017 amounted to 41716, 00 ths. UAH comparing to the similar period in 2016 - 24601 ths. UAH, growth rate was 69,57%. Moreover, the total volume of sold products in 2015 – 26283,00 ths. UAH, growth rate in 2016 was 93.6%. In 2014 the total amount of sales for 12 months was 25220, 00 ths. UAH comparing to the same period of 2013 – 32664, 00 ths. UAH, growth rate was 77,3%. We may observe the quite stable growth of export volume during analyzed period of 2013-2017 years, despite the drop in 2016. Such growth of export operations rate has a positive impact on the company’s activity and net revenue in general

(Figure 2.1). Mostly this effect was reached due to modernization of the company's equipment and technical funds.

Table 2.10

The geographic structure of the exported products volume uring the period 2014-2017 years, ths. UAH

Country	2013	Relative Share, %	2014	Relative Share, %	2015	Relative Share, %	2016	Relative Share, %	2017	Relative Share, %
Russia	19852,3	94,13	20754,88	94,13	20069,86	94,99	18450,94	98,54	33127,12	94,02
Belarus	499,85	2,37	527,12	2,39	687,51	3,25	235,28	1,26	1829,73	5,19
Georgia	78,23	0,37	88,47	0,40	-	0,00	-	-	226,81	0,64
Kyrgyzstan	278,13	1,32	269,64	1,22	-	-	-	-	-	-
Moldova	257,21	1,22	313,23	1,42	347,49	1,64	37,87	0,20	-	-
Lithuania	26,87	0,13	15,51	0,07	22,74	0,11	-	-	-	-
Bulgaria	97,1	0,46	80,09	0,36	-	-	-	-	-	0,15
Total	**21089,7**	**100**	**22049,74**	**100**	**21127,6**	**100**	**18724,09**	**100**	**35235,04**	**100**

Source: systemized by author on the basis [45].

The main importer of the company's products under the reviewed period is Russia, which average share of export is 92% of total goods sold. In 2014, besides Russia, partners of PJSC " Smila Mashinery Plant " were also Belarus, Moldova, Kyrgyzstan, Lithuania, then in 2017 this circle has been decreased only to Russia, Belarus, Bulgaria and Georgia (table 2.10). The company produces equipment for the Bread and Baking Industry; the Sugar Industry; the Canned Food Industry; the Distillation Industry.

Table 2.11

The main industrial branches, the products sold were distributed during the period of 2013-2017 years

Industry	2013	Relative Share, %	2014	Relative Share, %	2015	Relative Share, %	2016	Relative Share, %	2017	Relative Share, %
Bread and Baking	17324,11	86,41	18324,11	72,7	20858,39	79,39	21643,57	88,01	29475,13	71,02
Sugar	4725,99	23,57	6735,99	26,72	4382,76	16,68	2626,54	10,68	10768,4	25,95
Canned Food	27,13	0,14	67,12	0,27	288,03	1,1	51,76	0,21	1202,63	2,9
Distillation	-	-	-	-	124,5	0,47	95	0,39	-	-
Bottoms	0	-	68,59	0,27	24	0,09	115,92	0,47	-	-
Single Orders	16,75	0,08	6,75	0,03	593,28	2,26	60,12	0,24	56,29	0,14
Total	**21089,7**	**100**	**22049,74**	**100**	**21127,6**	**100**	**18724,09**	**100**	**35235,04**	**100**

Source: systemized by author on the basis [45].

According to the Table 2.11 above we may conclude that the PJSC "Smila Mashinery Plant" basically focus its efforts on production equipment for the Bread and Baking Industry and Sugar Industry. The relative share of produced Bread and Baking Industry equipment dropped in the last These Foodstuff Industry branches are quite developed in Ukraine and CIS region countries – the main consumers of the company's goods. Indeed, there is a place for single order which comes from private entrepreneurs, small food enterprises and requires production of tailor made products.

Table 2.12

The commodity structure of the volume of exported products, for the period 2013-2017 years, units

Country	Product type	2013	2014	2015	2016	2017
Russia	Spindle dough mixer	691	611	699	757	889
	Mixer	46	42	58	79	127
	Mixer bowl	713	743	842	468	699
	Dough discharger	33	43	67	71	107
	Fusee	21	11	27	5	36
	Beet-slicing mashine	-	2	8	9	70
Belarus	Spindle dough mixer	58	28	39	23	74
	Mixer	20	10	31	30	85
	Mixer bowl	33	23	41	20	53
	Dough divider	10	13	33	12	37
	Bolt flour machine	-	-	-	-	39
Georgia	Dough divider	2	12	-	-	-
	Bolt flour machine	3	3	-	-	-
	Spindle dough mixer reducing gear	-	5	-	-	-
Kyrgyzstan	Bolt flour machine	9	9	-	-	-
	Spindle dough mixer reducing gear	5	9	-	-	-
	Mixer	2	5	-	-	-
Moldova	Spindle dough mixer	33	23	31	34	-
	Mixer	15	15	27	22	-
	Mixer bowl	20	20	14	10	-
	Measuring doser	15	11	20	30	-
Lithuania	Spindle dough mixer	14	14	29	-	-
	Mixer bowl	14	14	18	-	-
	Rendering tank	12	21	17	-	0
Bulgaria	Spindle dough mixer	19	20	-	-	31
	Mixer bowl	35	17	-	-	25
	Rendering tank	-	-	-	-	38
Total		**1790**	**1710**	**2001**	**1570**	**2310**

Source: systemized by author on the basis [45].

Analyzing the commodity structure of the export of the output during the analyzed period of 2013-2017, it should be noted that the largest share of spindle dough mixer, mixer bowls, mixers, dough dischargers are exported to Russia. As for Belarus, the greatest demand is observed on spindle dough mixer, dough dividers, bolt flour machines and mixers. In 2014, occasional deliveries of the bakery industry equipment were carried out to Kyrgyzstan and in during 2015-2017 the cooperation with contractors of these countries was terminated. There is a negative dynamics in the decrease of exports of dough machines, batchers and switchboards to Moldova. In 2016-2017, there wasn't any deliveries of products at all to Lithuania, when, in turn, in 2014-2015 there was a positive dynamics of demand for spindle dough mixers and mixer bowls. The rehabilitation process of exporting to Georgia was observed in 2017. (Table 2.12).

It should be mentioned that during the analyzed period of 2013-2017 there was a decrease in the number of export operations of the enterprise and the circles of countries with which cooperated the PJSC "Smila Mashinery Plant". The leading markets of products sales in 2017 belonged to Russia and Belarus. There is positive tendency of exporting goods to Georgia and Bulgaria. As for the commodity structure, the most demanded products are equipment for the production of the baking and sugar industry. The leading part in the export structure is the disposal of spindle dough mixer and mixer bowls (Table 2.12).

The organization of export of products at the enterprise is engaged in sales and marketing department of PJSC "Smila Machinery Plant" consisting of 6 workers, while two of them are constantly engaged in the organization of export operations of the enterprise. When selecting contractors for the marketing of manufactured products, the specialists of the department are guided by clearly defined criteria for their development, namely: marketing research, reputation in the market, terms and conditions of delivery, terms of payment of goods, type of transportation and conditions of "Incoterms-2010", additional components of customs clearance, reweaving of documents-characteristics of the goods. There is also the process of comparing the

competitive advantages of the target markets of exporting countries of similar types of products.

The foreign-economic contract in English/Russian and Ukrainian, preparation of a package of documents for export is developed by the sales and marketing department of PJSC "Smila Machinery Plant". If it is planned to sign a contract for a large sum of money, then the payment of a certain part of the product is initially made in advance to secure obligations of the parties. The initiator of the proposal to conclude a contract (offer) with the definition of the essential terms of the contract (contract), as a rule, is the Ukrainian enterprise. If all conditions are in accordance with the requirements of the counterparty, an acceptance is expected in response. After that, the parties sign their agreement in writing, concluding a foreign trade contract and place the order. The stages of the implementation of the foreign trade contract, the document circulation and the timing of implementation are noted below (Table 2.13).

Table 2.13

The procedure of implementing an export contract on PJSC "Smila Machinery Plant"

Stage		The documents that ensure the implementation of each stage
1.	Decision-making at the enterprise regarding a potential agreement with a foreign partner	-
2.	Searching for a foreign partner	Competitive analysis, competitive list.
3.	Negotiation with a selected foreign partner and agreeing on cooperation terms	Offer and acceptance.
4.	Conducting economic calculations regarding the price and type of products	Cost calculations, calculations of technical parameters, quantity and weight of products
5.	Signing a contract, agreeing terms of production, delivery and payment	Foreign trade contract, accounting documents
6.	Preparation of the goods for export and their shipping	Shipping documentation (invoice, consignment, CMR, etc.) documents of customs clearance (customs declaration, Quality certificate, expert conclusion, Phytosanitary certificate).
7.	Receiving payment for the goods and calculating the efficiency of the transaction.	In accordance with the conditions stipulated in the contract, payment receipt, accounting documents.

Source: systemized by author on the basis [45].

As we see, export operation activity of PJSC "Smila Machinery Plant" is not developed and diverse so far. The leading contractors are Russia, Belarus and Moldova. And in average 15% of goods sold are distributed within the territory of Ukraine.

However, there is positive tendency of increasing the level of exported goods to Georgia and Bulgaria. As for the commodity structure, the most demanded products are equipment for the production of the Bread and Baking and Sugar Industry. The leading part in the export structure is the disposal of spindle dough mixer and mixer bowls but also the company exports beet-slicing machines, dough dividers, mixers, measuring dosers, fusses, rendering tanks. Also there is there is a place for single order which comes from private entrepreneurs, small food enterprises and requires production of tailor made products. This niche could be quite attractive, profitable and lucrative for the PJSC "Smila Machinery Plant" taking into account that there is not much enterprises ready to cover individual orders.

It is worth be saying that finding alternative markets for products and especially re-focusing on EU markets will be quite positive and perspective for PJSC "Smila Machinery Plant". Upon the entry into force of the Deep and Comprehensive Free Trade Agreement (DCFTA) of Ukraine with the EU and Association Agreement between the European Union and the European Atomic Energy Community and their member states, of the one part, and Ukraine, of the other part open up new opportunities for the development of foreign economic activity of PJSC "Smila Machinery Plant", liberalize access to the market of goods, and reduce barriers in the course of trade operations. In addition, the sales and marketing department would be expedient to evaluate the effectiveness of export operations, both at the stage of contracting parties' search, and at the stage of their completion, which according to the enterprise is not carried out.

Moreover, for the productive functioning of the machinery enterprise in the foreign market, it is necessary to develop and supplement existing forms of foreign economic activity: to move from simple commodity exchange operations to joint business, international scientific and technical cooperation, international scientific-production cooperation and specialization, which really enhance the efficiency of the enterprise.

In this way, the stability and competitiveness of enterprises increases with the help of obtaining important specific experience, new technologies, equipment, equipment, additional investments, which allows to produce competitive products both

on the domestic and foreign markets. Indeed, the management of EOE should be considered as a comprehensive study and simulation of the internal environment of the enterprise in conjunction with the well-functioning interaction of all its units in order to achieve a certain profit in international business activities. Improvement of the conceptual apparatus of these categories creates a scientific basis for the in-depth development of scientific thought regarding the theory of foreign economic activity. In order to ensure a high level of competitiveness, an in-depth analysis, evaluation of all parameters and results of the company's activity on the external and internal markets, determination of their potential competitive advantages and their rational use is necessary.

2.3. The estimation of export operations efficiency of PJSC “Smila Machinery Works”

The efficiency of export activity is one of the economic categories, which serves as the basis for the reflection of the effectiveness of the operation, the selection and implementation of alternative options for economic development of the enterprise. Efficiency of foreign economic activity of an industrial enterprise is one of the key moments of its successful functioning in the market, thus proving the competitiveness of its products. In an economic crisis, such an approach should be a priority: it allows you to find new markets and segments of goods, provide currency inflows, create conditions for the purchase of imported raw materials and semi-finished products, save jobs, attract highly skilled personnel.

Analyzing the export of Ukraine's machinery products (the code 8419 according to HS6) to the World and EU as the main direction of development, we can note a decrease in total export volumes in 2014, 2015 and 2017. When in 2016 there was a significant leap in the level of exports. In average, the export of machinery products for the analyzed period of 2013-2017 years occupies 5.64% of the total export volumes (Figure 2.2).

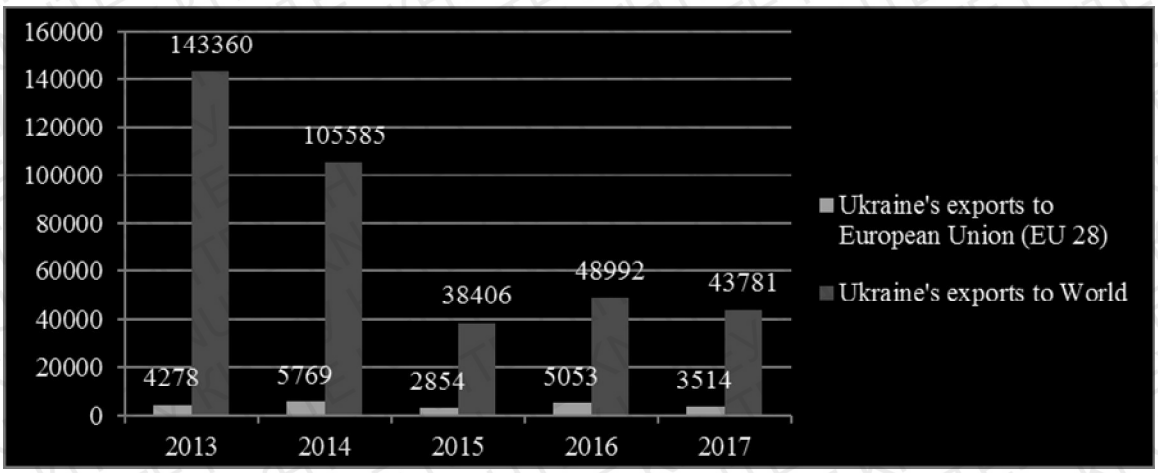

Figure 2.2 Dynamics of the machinery product exports (the code 8419 according to HS6) from Ukraine to the World and EU-28 during the period of 2013-2017, ths., USD.
Source: systemized by author on the basis of [71].

Basically, the efficiency of the export PJSC "Smila Machinery Plant" is one of the key points of its successful functioning in the market, thus proving the competitiveness of its products. In an economic crisis, such an approach should be a priority: it allows to find a new markets and segments of goods, provide currency inflows and the attraction of highly skilled personnel. After investigating the main competitors that make similar equipment PJSC "Smila Machinery Plant", it can be concluded that the company holds leading positions in the market for the manufacture of alcoholic equipment and bakery equipment in Ukraine (Table 2.14).

Table 2.14

The main export competitors of PJSC "Smila Machinery Plant"

Industry	Name
Sugar Industry	• Group of companies "Techinservice" (Mashzavod Hrebinki): vacuum machines, barometric condensers, heaters and heat exchangers, evaporators; • "Firm TMA" LLC, Kyiv ("Yagotinskiy mechanical factory": vacuum machines, sulfitators); • PE "Korund", Kyiv region: centrifugal beet slicers and spare parts for them; • "Kupyansky machzavod" LLC, Kharkov region. Elevator beets; • Smilasakhservis Ltd, Cherkasy region: beet pulp, sulfitators, spare parts of beet pulp.
Alcohol Industry	• LLC "Gerkon", Zaporizhzhya
Bread and Baking Industry	• Penzmash PJSC, Penza city • CJSC "Belogorie", city of Shebekino

Source: systemized by author on the basis [4].

Analyzing the efficiency of export operations of the enterprise, in particular, machinery enterprises, it has been repeatedly noted that certain factors of the

environment impede the further development of foreign economic activity, or conversely, their successful study and application contributes to the revitalization of foreign economic activity and the increase of the efficiency of export operations of the enterprise.

These factors are the following:

- external factors that have a negative impact: global crisis phenomena, deterioration of the market conditions, changes in world prices and correlation of exchange rates.
- political factors: aggravation of military disputes in the East of Ukraine with the Russian Federation, unstable political situation in Ukraine, and also imperfection of the legal legislation in the field of foreign economic activity.
- socio-economic factors: deterioration of trade relations with Russia, and the loss of Crimea, which led to a general reduction of GDP and worsening of other economic indicators [47].

However, it should be noted that the management of PJSC "Smila Machinery Plant" is not able to influence above mentioned factors, but using an effective system of control over these factors and correctly making the necessary conclusions, the management of the company will be able to take into account the influence of these factors on the efficiency of the export activity and make forecastsof the impact of these factors in the future. Indeed, it is not possible to calculate and predict all of these factors, but the main ones, enterprises can take into account when planning effective export business management at their enterprises. In our opinion, the key indicator of the activity of the PJSC "Smila Machinery Plant" in the foreign market is the efficiency of export operations. In turn, for better management and evaluation of the state and prospects of export activity, the following factors should be taken into account:

- production factors that can be summarized by the producer price index (PPI) - the average change in wholesale prices for raw materials, intermediate consumption materials sold by national producers;
- financial factors, generalization of which can be carried out with the average level of USD to UAH;

- consumer factors representing the inflation index (CPI) is an indicator that characterizes changes in the overall level of prices for goods and services purchased by the population for non-productive consumption.

Since the level of competitiveness of enterprise production is a subjective indicator and is determined mainly for the purpose of determining the market segment for the purpose of forming the volumes of export of production by the enterprise, and the producer price index is a generalized indicator and provides for a constant monitoring process, the key factor is the producer price index itself is taken regarding the financial factors , then USD exchange rate is taken as the main factor and used in future calculations, since it takes into account the influence of the accounting rate of NBU, and the rates of export activity may vary depending on the volumes of production. The key consumer factor is the inflation index, which is constantly monitored by the statistical authorities and covers the general trend of the consumption market for any type of product

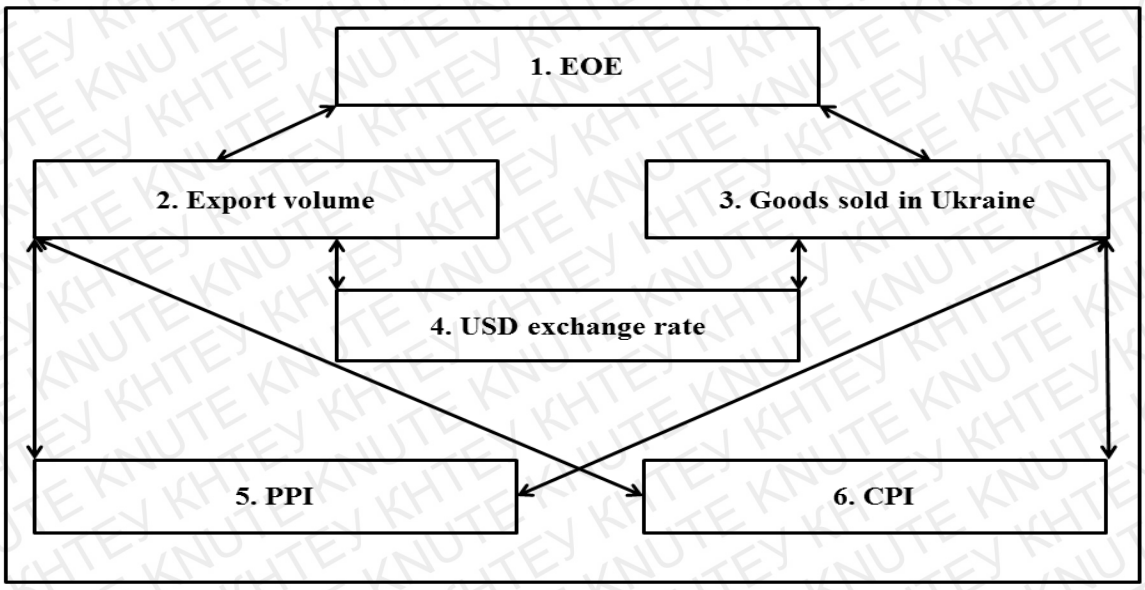

Figure. 2.2 The connection between elements of the EOE management mode on PJSC "Smila Machinery Plant".

Source: systemized by author on the basis [47].

Hence, it should be mentioned that for the formation of a cognitive model, the following elements will be used:

- "1" - Export Operation Efficiency (EOE);

- «2» - Export volume;
- «3» - Goods sold in Ukraine;
- "4" - Producer Price Index (PPI);
- "5" - Inflation Index (CPI);
- «6» - USD exchange rate (Figure 2.2).

The target peak is the peak"1", the direct effect on is executed by the peak "2" and "3", and the other peaks indirectly affect the peak "1", by affecting the volumes of exports [45]. Moreover, these peaks serve as control factors for the enterprise, which should be used taking into account the USD exchange rate, inflation indices and producer prices. This in turn directly affects the management factors (peaks "2" and "3") and indirectly the peak "1". In addition, the elements "4" and "5" act as factors of external influence. The links in the model have such an economical meaning [45].

Table 2.15

The economic content of the cognitive model connections of PJSC "Smila Machinery Plant"

Connection	Sign	Content
1-2	-	Increasing the overall volume of export reduces the overall level of EOE of PJSC "Smila Machinery Plant";
2-1	+	Increasing the volume of export of the enterprise increases the overall level of export efficiency;
1-3	-	Increasing the total volume of export reduces the products sold in Ukraine;
3-1	-	Increasing the volume of sales in Ukraine reduces the overall level of export efficiency;
6-2	+	The growth of the USD exchange rate increases the volume of export of the enterprise;
2-6	-	An increase in the volume of export of the company reduces the USD exchange;
6-3	-	The growth of the USD exchange reduces products sold in Ukraine;
3-6	-	The products sold in Ukraine does not increase the USD exchange;
4-2	+	The increase in the PPI increases the need for export activity.
4-3	-	Increasing PPI reduces sales volumes in Ukraine;
5-2	+	The growth of the CPI increases export volumes in order to expand the consumer market
5-3	-	The growth of the CPI reduces sales volumes in Ukraine due to the decline in purchasing power.

Source: systemized by author on the basis of [47].

The efficiency of export of goods is determined by economic statistical methods. We consider the method of comparing revenue-net to the full costs of the enterprise for

export, which include the cost of production and sales, to be the most suitable one. It is influenced by factors such as export price, volumes of products sold, the level of overhead, unit cost of goods. It is commonly known, that the obligatory condition for making a decision on conducting export operation activity is its efficiency. At the stage of planning the entering external markets, analyzing the level of efficiency determines the degree of the enterprise's interest of approaching specific markets for goods disposal. At the stage of actual export activity, the indicators of its efficiency make it possible to identify negative trends that serve as an indicator for making certain managerial decisions on the need to eliminate negative factors, and in case of impossibility to eliminate them, to refuse such activity (Table 2.15).

Table 2.16

The analysis of EOE of PJSC "Smila Machinery Plant" during the period of 2013 – 2017 years

Indicators		2013	2014	2015	2016	2017
1.	Quantity, units	1790	1710	2001	1570	2310
2.	Price AVG per unit, USD	1570	1587,30	1585	1540	1621
3.	Exchange Rate, USD/UAH	8,10	8,29	16,53	25,70	27,20
4.	Total Additional Expenditures*, AVG, ths, USD	71,60	68,40	80,43	50,81	92,42
5.	Total Costs of Production, AVG, ths., USD	1757,601	1679,049	1973,619	1247,013	2268,189
6.	**Export Operations Efficiency**	**1,536**	**1,553**	**1,551**	**1,507**	**1,586**

**Total Additional Expenditures* – total export spendings in terms of delivery FCA, Smila.

Source: estimated by author on the basis [45].

The efficiency of export operation activity of the enterprise is one of the key moments of its successful functioning on the market and increasing the level competitiveness of goods sold. The efficiency of export of goods is determined by economic statistical methods. The most suitable of them seem to be methods of checking the export volumes to the sum of production costs and full costs of the enterprise for export.

Analyzing the results gained, it should be noted that the effect of the transaction on foreign markets is positive and profitable for the PJSC "Smila Machinery Plant". As

the EOE coefficients are higher than 1, which indicates a rather high level of performance of the operation on the foreign markets. Moreover, the higher coefficient of efficiency of sales of products on the foreign market confirms that the sale of products abroad is much more profitable for the enterprise than the sale of goods on the domestic market. Also we should indicate the positive stable tendency of increasing the level of EOE during the analyzed period, despite the general drop of financial indicators, while there was a drop in 2016. Comparing to 2013 year there was a 3,255% growth of the indicator in 2017 (Table 2.16).

For more thorough analysis it's important to calculate the influence of factors on the efficiency of exports with using the factor analysis. The factor analysis is used for a comprehensive analysis of economic activity, the search and classification of factors affecting economic phenomena and processes, with the identification of causal relationships that affect the change in specific indicators of economic activity. Without deep in-depth study of the factors, it is impossible to draw substantiated conclusions about the results of the enterprise's activities, to identify reserves, to substantiate plans and management decisions. Under factor analysis, the method of integrated and systematic study and measurement of the influence of factors on the magnitude of effective indicators is understood. The influence of all components on the efficiency indicator is determined by the use of "chain substitutions". In order to determine the degree of dependence of export efficiency on all factors in a year, it is necessary to carry out a consistent substitution of all indicators of the year in the calculation of export efficiency for the previous year [63].

The main factors that have the impact on the EOE are the following: the change in the sales volume, average price level, USD exchange rate and change of additional expenditures (Table 2.17). As we see according to the Table 2.17 above, the main impact on the EOE are done by the changes of USD exchange rate and costs of production, especially it was observed in 2015 due to breaking change in the rate. Moreover during 2015 all components had a negative level of influence on mentioned indicators, besides quantity.

Table 2.17

The impact of the main economic factors on the EOE of the PJSC "Smila Machinery Plant"

Factor	Indicator of EOE	The level of influence
2014		
1. Quantity	1,467	-0,085
2. Price	1,553	-
3. Exchange Rate	1,572	0,0191868
4. Additional expenditures	1,539	-0,0142
5. Costs of Production	1,605	0,052
2015		
1. Quantity	1,825	0,274
2. Price	1,551	0,014
3. USD exchange rate	1,553	0,016
4. Additional expenditures	1,542	0,006
5. Costs of Production	1,329	-0,221
2016		
1. Quantity	1,211	-0,295
2. Price	1,506	-
3. USD exchange rate	1,551	0,044
4. Additional expenditures	1,564	0,057
5. Costs of Production	1,964	0,457
2017		
1. Quantity	2,217	0,631
2. Price	1,586	-
3. USD exchange rate	1,506	-0,079
4. Additional expenditures	1,479	-0,106
5. Costs of Production	1,037	-0,549

Source: estimated by author on the basis [45].

Summing up, we may say that the EOE of the PJSC "Smila Machinery Plant" is depended on production, consumer and financial factors. The EOE during the analyzed period of 2013-2017 years the EOE coefficients are higher than 1, which indicates a rather high level of performance of the operation on the foreign markets. Also, we should indicate the positive stable tendency of increasing the level of EOE during the analyzed period, despite the general drop of financial indicators.

Based on the factor analysis of all components of the export performance indicator enterprises in 2013-2017 we can conclude that the main impact on the export

activity is done by the quantity, USD exchange rates, costs of production, additional export expenditures. But mostly all indicators remain quite stable during the analyzed period. For higher growth of the sales efficiency of the products it's better to increase the number of goods produced and sold in the short term, at present the sales volumes are quite small, however, taking into account the promise of this direction, in the future it should be expected to grow. The negative factor is also a tendency of increasing additional expenditures. The effect of this factor will increase with a decrease in sales, so it's better to debug steady and tireless production.

CONCLUSION TO THE PART 2

1. Analyzing the financial situation of PJSC "Smila Machinery Plant" during 2014-2018 we may indicate the instability of the company's operations and unprofitability. But there are positive tendencies of the normative level of financial stability, solvency of the enterprise and profitable activity in 2018. In the structure of liabilities of PJSC "Smila Machinery Plant" for 2014-2018, the equity is more than 86%, which indicates that, own funds are the main source of the formation of assets of the balance sheet. The decline in equity and the dynamic growth of current liabilities indicate that over time the company operates mainly through borrowed funds, which in the future will negatively affect the solvency and liquidity of PJSC "Smila Machinery Plant".

2. Analyzing the obtained indicators of the company's creditability (EBIT, EBITDA, EBITDA margin), it should be noted that the negative indicator of EBIT's loss-making activity of the enterprise is evident. The obtained EBITDA margin ratios indicate a rather low level of profitability of the enterprise. That is, it suggests too much debt burden on the company and probable problems with repayment of its debts. For companies with such a high coefficient, it is difficult to attract additional borrowed funds.

3. The export activity of PJSC "Smila Machinery Plant" is not developed and diverse so far. The leading contractors are Russia, Belarus and Moldova. And in

average 15% of goods sold are distributed within the territory of Ukraine. However, there is positive tendency of increasing the level of exported goods to Georgia and Bulgaria. As for the commodity structure, the most demanded products are equipment for the production of the Bread and Baking and Sugar Industry. The leading part in the export structure is the disposal of spindle dough mixer and mixer bowls but also the company exports beet-slicing machines, dough dividers, mixers, measuring dosers, fusses, rendering tanks. Also there is there is a place for single order which comes from private entrepreneurs, small food enterprises and requires production of tailor made products.

4. We may say that the EOE of the PJSC "Smila Machinery Plant" is depended on production, consumer and financial factors. The EOE during the analyzed period of 2013-2017 years the EOE coefficients are higher than 1, which indicates a rather high level of performance of the operation on the foreign markets. Also, we should indicate the positive stable tendency of increasing the level of EOE during the analyzed period, despite the general drop of financial indicators.

5. Ultimately, we can conclude that the main impact on the export activity is done by the quantity, USD exchange rates, costs of production, additional export expenditures. But mostly all indicators remain quite stable during the analyzed period. For higher growth of the sales efficiency of the products it’s better to increase the number of finished goods produced and sold in the short term, at present the sales volumes are quite small, however, taking into account the promise of this direction, in the future it should be expected to grow. The negative factor is also a tendency of increasing additional expenditures. The effect of this factor will increase with a decrease in sales, so it’s better to debug steady and tireless production.

PART 3. THE IMPROVEMENT OF THE EXPORT OPERATIONS EFFICIENCY OF PJSC "SMILA MACHINERY WORKS"

3.1. The verification of reserves for improving management of the export operations efficiency of PJSC "Smila Machinery Works"

The effective functioning of the machinery industry is of great importance for the strengthening of the Ukrainian economy and the emergence of it as an independent, highly developed state. Machinery industry is one of the leading components of base industry. By creating the most active part of the main productive assets (tools), the machinery industry significantly influences the pace and trends of scientific and technological progress in various sectors of the national economy, the growth of labor productivity, and other economic indicators that determine the efficiency of the development of social production [47].

This is explained by the fact that for most industry enterprises, state subsidies and subsidies are intrinsic, which makes them actually dependent on the administrative system. In addition, at the state level, promising foreign investment programs for this industry are often not justified reasonably forbidden. All this increases the loss of competitiveness of Ukrainian products in world markets, as there is no access to financial, technical and information resources [63].

In this regard, the implementation of the proeuropean vector is extremely important for the development of machinery exports. European integration will be contributive for further:

- increasing the productivity of the economy;
- pace of technological modernization under the influence of competition in the European market;
- ensuring free access to the latest technologies, capital, information;
- raising the skills of the labor force in the conditions of their free movement within the single market;
- creating a more favorable investment environment;

- significant increase in trade volumes on the EU market;
- creation of preconditions for accelerated growth of exchange in industries with a higher level of science [47].

Expected accession of Ukraine to the EU is an effective stimulus for reforms in the machinery and other sectors of the economy, and market competition will always contribute to an increase in the overall efficiency of the economy and the improvement of the quality of goods and services. Most of the research is aimed at substantiating the further development of our state after gaining equal membership in the EU. However, even in the long-term period (10-15 years) it is expedient to investigate the problems of accession to the Community and directions for their solution. But at this stage, European integration ideas are gradually becoming factors not only of the external, but also domestic policy of Ukraine, which is implemented through state strategies and programs aimed at shaping the directions of development of individual industries, including machinery industry as well.

The conducted researches allow to assert, that under the current conditions of development and functioning of the machinery enterprise, the created effective mechanism of management of export operation activity becomes an objective necessity. As in the competition on the world market wins the one who timely assesses the situation, and the results of the dynamic analysis give the machine-building enterprise a timely opportunity, react to events by correcting the strategy of gaining new markets. The use of the set of considered goals, tasks, and stages of the mechanism of management of export operation activities will ensure its efficient functioning in achieving the short-and long-term goals of foreign economic activity of the enterprise.

As Ukraine seeks to join the European Union (EU), it must ensure the appropriate level of development of one of its priority industrial sectors, which is the basis for the functioning of all other fields of activity. Before the enterprises of the machine-building complex there are problems of increasing the competitiveness of products. Foreign buyers are buying Ukrainian products, because they are relatively cheap, but in quality better than they produced at the same price. Accordingly, after purchasing Ukrainian products, foreign producers can follow the steps described in the Figure 3.1.

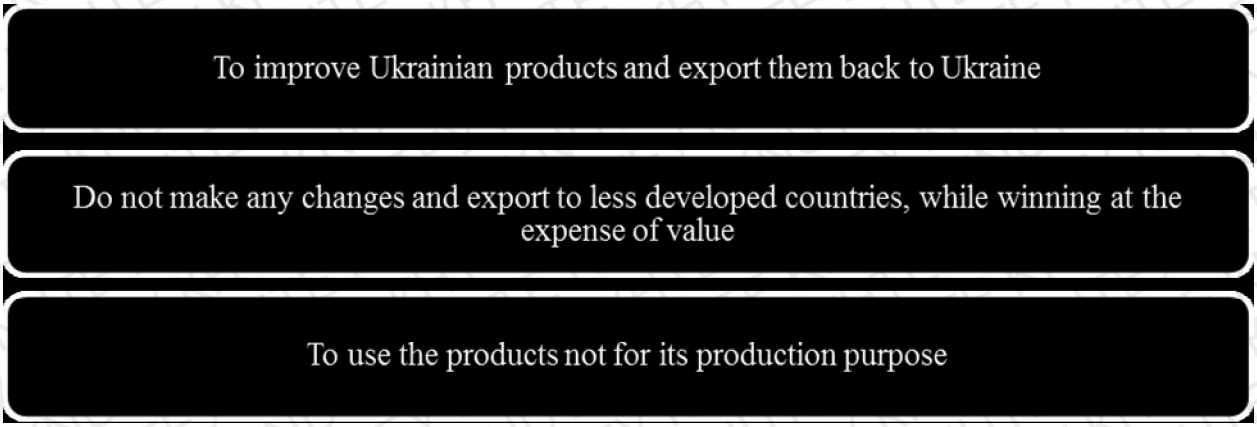

Figure. 3.1 The possible option for importers of machinery product exports (the code 8419 according to HS6).

Source: systemized by author based on [47].

In any case, the foreign countries, not Ukrainian enterprises or even Ukraine as a state, receive benefits from that. That is why domestic enterprises have to improve their image on the national market, to increase the number of consumers. This will result in improved product quality and, consequently, an increase in demand. As for the price, then the foreign prices are practically the same as domestic ones, therefore, having solved the quality question, the enterprises will be able to manipulate them, and accordingly, further development [52].

Foreign buyers are buying Ukrainian products, because they are relatively cheap, but in quality better than they produced at the same price. Accordingly, after purchasing Ukrainian products, foreign producers can:

- to improve the quality of the products made in Ukraine and export back to Ukraine;
- to make no changes and to export to less developed countries, while winning at the expense of value;
- to use products not for its industrial purpose.

Next, we should note that the machinery complex of Ukraine is export-oriented, and provides significant revenues to the state budget from the sale of products. The level of diversification of exports, as well as the volume of products that will be sold in foreign markets each subsequent year, depends on each individual enterprise of the machine-building complex of the Ukrainian economy. In turn, the volume of exports of

machinery enterprises depends on rational and efficient management of export operations at the enterprise [54].

The mechanism of management of the export activity of the PJSC "Smila Machinery Plant" should be directed on the effective use of organizational measures for the management of the analytical, production, marketing, foreign trade activities of the enterprise. It is provided by a balanced system of goals, objectives, management functions, approaches and methods, factors and criteria for assessing the effectiveness of management. All elements of the mechanism of management of foreign economic activity are interconnected and ensure its full functioning at all stages of development. As a result, conditions are created for the continuous improvement and optimization of measures aimed at strengthening the company's stable positions in foreign markets, timely identification and taking into account the signals of the internal and external environment of the operation of the enterprise.

The modern global economy is characterized by an increase in the degree of instability of the parameters of the environment. Therefore, the goal of enterprises is to ensure long-term sustainability, and not only to maximize profits. In these conditions, the key to development is the ability of an entrepreneurial structure to influence the external environment of business to achieve its goals through appropriate adaptation mechanisms [56].

It follows that the viability of the business structure is largely due not only to the actual availability of the relevant resource potential, but also to the ability to produce and expand the unique resources that are absent in the system of market turnover, which in the complex forms the resource potential of business sustainability. The question of improving the efficiency of the PJSC "Smila Machinery Plant" through optimization of resource potential is considered highly insufficient. Existing methods of the cost estimation and optimization of the resource potential are inadequate to established statistical and economic accounting systems. Therefore, there is a need to develop and improve adaptive approaches to ensure reproduction of the resource potential of sustainability, taking into account the dynamics of not only the internal but also the

external environment of the PJSC "Smila Machinery Plant" business structures (Table 3.1).

Table 3.1

The parameters of a qualitative assessment of the components of the resource potential of the PJSC "Smila Machinery Plant"

Resources	Evaluation components
Technical	the production facilities and the rational use of equipment
Technological	level of equipment upgrading and reconstruction
Location	the potential of technology in ensuring the stability of product quality; equipment with advanced technological resources
Managerial	availability of competitive ideas for the development of technological resources
Information	territory compliance with strategic objectives; communication capabilities
Staff	state of management in the external environment of the enterprise

Source: systemized by author on the basis of [47].

The process of forming a strategy for ensuring the competitiveness of the PJSC " Smila Machinery Plant" involves identifying a certain proportion of the components of the resource potential, based on the direction of strategic development and the required level of competitiveness of the enterprise, these elements and components of the mechanism of strategic management of the enterprise, aimed at ensuring its competitiveness and strategic development.

A positive trend towards the development of the proeuropean vector of the machinery industry would be the adoption of a draft Law of Ukraine "On Amendments to Chapter 4 of Section XX" Transitional Provisions "of the Tax Code of Ukraine (concerning the size of the corporate profit tax for enterprises of the machinery industry)". This project was suggested for passing but it’s not happened yet. Due to the peculiarities of the functioning of the machine building industry large volume of assets, long production cycles and payback of capital investments, a large number of counteragents), the latter in the current economic crisis can not exist and develop without an effective government support, which primarily is to provide engineering subjects certain privileges. It should be noted that at present, the Tax Code of Ukraine does not stipulate exemptions for corporate profit tax for enterprises of the national

machine building industry, except for machine building enterprises for the agro-industrial complex [52].

This system would have had a positive impact on the export of the company's activities, as the above examples of the establishment by the state of certain privileges for enterprises of certain industries and the further functioning of these economic entities allows us to confirm the appropriateness and economic feasibility of the introduction of state support measures that are currently in need and domestic machine building of Ukraine. The implementation of such law will allow the domestic machinery industry to break the crisis, to continue to increase the volumes of production of machinery for export, and to increase the volume of sales of machinery for export [52].

The use of exempted by the given draft law for exemptions for the payment of income tax on financial resources will allow enterprises in the field of machinery industry to take appropriate measures to intensify technical equipment, introduce breakthrough technologies and modern innovative technologies and materials, increase the share of science-intensive products, reduce material and energy costs for the production of products for export, which will increase its competitiveness.

Summing up, it should be noted that a competitive machinery industry is a guarantee of an efficient economy of any state. It is the machine-building complex that provides technical equipment, mechanization, automation of production, and therefore greatly affects the industrial potential of the country, its competitiveness in foreign markets. Machinery industry is one of the leading components of base industry. By creating the most active part of the main productive assets (tools), the machinery industry significantly influences the pace and trends of scientific and technological progress in various sectors of the national economy, the growth of labor productivity, and other economic indicators that determine the efficiency of the development of social production.

In the context of changing the external vector of Ukraine, the policy of diversification of markets for domestic products and the transition of the state to the latest standards of foreign economic activity is relevant to PJSC "Smila Machinery Plant" focus on proeuropean political and economic activities of the state. Moreover

creating a favorable tax climate for machinery enterprises would have had the positive impact on its activity.

Considerable attention is needed to such issues as the creation of a stable legal framework, a favorable investment climate, an effective system for managing export efficiency at an enterprise level, and improving the quality of export products. Moreover, one of the priority tasks of the company should be the deepening of trade relations with foreign partners. Depending on this task, all forms of organization of export business management of an enterprise should be focused on the following functions:

- increase of export volumes, improvement of its commodity and regional structure;
- increasing the competitiveness of products abroad, promoting its quality through the collection and analysis of complaints and customer reviews, bringing relevant information directly to developers and processors;
- studying and realizing the world market conditions for products; developing proposals for improving the efficiency of export operations;
- systematic study of the activities of significant domestic and foreign competitors, analysis of their strengths and weaknesses;
- establishment of a scientific-technical, production-investment community with foreign firms;
- organization after sales service abroad;
- participation in foreign trade pricing, development of target strategy and enterprise policy;
- control over fulfillment of obligations under signed contracts;
- analysis of the efficiency of all export operations;
- preparation of proposals for participation in international exhibitions, conferences and fairs.

It should be concluded that in modern conditions the issue of the verification of reserves for improving management of the export operations efficiency of PJSC “Smila Machinery Works”, which determine the goals of the enterprise in the development of

export activity, and also enable the organization to associate strategic, tactical and operational management of export activity in the foreign market, becomes of great importance. Full comprehensive analysis of all possible risks will allow to objectively assess the situation on the market and choose the most effective strategy for improving management of the export operations efficiency. Taking into account risks will help to timely select the optimal option for possible further alternatives to business development.

Besides, only under the conditions of a well-balanced and systemic industrial policy and implementation of the above-mentioned actions it will be possible for PJSC "Smila Machinery Plant" to increase the competitiveness of machinery products in world markets, improve quality and reduce its cost, attract foreign investment, output products to new foreign markets.

In today's conditions increasing competitiveness, the activation of innovation activity becomes extremely important, as without that, it is impossible to carry out progressive changes in the industry, to substantially upgrade the machinery industry and, in general, to ensure sustainable socio-economic development of Ukraine. Moreover, a systematic assessment of the export operation efficiency activity contributes to its optimization and the provision of highly profitable work of the enterprise. Increasing the efficiency of export operation activity, is closely related to the improvement of its overall management system. Especially it is highly signifact for the machinery complex that provides technical equipment, mechanization, automation of production, and therefore greatly affects the industrial potential of the country, its competitiveness in foreign markets. The basis of foreign economic activity of the machinery enterprise lies not only in export-import operations. For the productive functioning of the machinery enterprise in the foreign market, it is necessary to develop and supplement existing forms of foreign economic activity. In this way, the stability and competitiveness of enterprises increases with the help of obtaining important specific experience, new technologies, equipment, equipment, additional investments, which allows to produce competitive products both on the domestic and foreign markets.

3.2. The measures of increasing the export operations efficiency of PJSC “Smila Machinery Works”

In the context of changing the external vector of Ukraine, the policy of diversification of markets for domestic products and the transition of the state to the latest standards of foreign economic activity, it is relevant to the enterprise to search alternative markets for products. Due to the above mentioned information and the general orientation on European market, we consider that refocusing the export activity of the PJSC "Smila Machinery Plant" on the markets of countries-members of EU can be very long range, profitable and efficient for the company in general. Moreover, in connection with the proeuropean political and economic direction of the state's activities and the deterioration of relations with Russia as leading trading partner, the focus should now be on the EU markets. The entry into force of the Agreement on the Free Trade Area of Ukraine with the EU and the Association Agreement between Ukraine and the EU open up new opportunities for the development of foreign economic activity of PJSC "Smila Machinery Plant ", liberalize access to the market of goods, and reduce barriers in the course of trade operations. To substantiate the choice of the target market in the implementation of export activity let’s use the Table 3.2.

Table 3.2

The substantiation of the target market choice during export process at the PJSC "Smila Machinery Plant"

Market determination factors	Germany	Poland	Romania
High sales potential	+	+	+
Liberal trade policy	+	+	+
A small geographic distance	-	+	+
A dynamically developing economy	+	+	-
Availability of technical conformity of products to the requirements of the importing country	+	+	+
Insignificant differences in socio-cultural environment	-	+	-
High political risk	-	-	+

Source: systemized by author on the basis of [40; 41; 44; 46; 70].

In addition to market analysis and the search for reliable counterparties, it is necessary to carry out a deep analysis of the legislation of the country to which it is

planned export, as it may contain a number of special requirements for an export product. Without proper information preparation, the exporter risks, at least, to face losses in the form of a lack of profit, and as a maximum - to get a commitment to pay fines or even to incur criminal liability. Correctly conducted work on the analysis of these factors will help minimize potential risks.

The EU has a common trade policy based on the WTO's unified principles, especially with regard to the change in tariff rates; conclusion of trade and tariff agreements concerning trade in goods and services; trade aspects of intellectual property; foreign direct investment; export policies and trade defense measures, including those to be adopted in case of dumping and subsidies. The main indicators used by the WTO when determining the level of protection of the domestic market in international trade are the related duty rate and the rate of the most-favored nation regime. A linked rate is the marginal rate above which the country undertakes not to raise the rate of duty for the relevant goods. It should be noted that in the EU its level is much lower (5,0), from Ukraine (5,8). The most favored-nation treatment rate applies to WTO member countries. This guarantees non-discriminatory, usual conditions for the implementation of bilateral trade. While in certain cases preferential or restrictive regimes may be applied [66]. Concerning the final bound customs tariffs in the field of machine building, the EU figures are lower than the average rates in Ukraine. That is, it is worth noting that the machine-building industry is not very protected by the customs tariffs in the EU, which is an attractive fact for the growth of the level of sales of the company to the EU markets (Table 3.3).

Table 3.3

Final bound duties applied to non-electrical machinery in the context of the main commodity groups HS in 2018

Countries		Final bound duties
EU	AVG, %	1,7
	Duty free, %	26.5
	Max, %	10
Ukraine	AVG, %	4,1
	Duty free, %	38,4
	Max, %	12

Source: systemized by the author on the basis of [44, 66].

The requirements for product quality in the EU are quite high. The system of technical regulation of industrial products should be identical to the European ones, which means the necessity to bring the whole legal and regulatory framework in line with the EU norms and to adopt identical mandatory technical regulations for the selected product categories and, in the future, to maintain regulatory identity through the adoption of all changes, which will be legally introduced in the EU [66].

With regard to the geographical distance, the closest to the company are Romania and Poland, with which there is a very convenient rail link. The economy of the above-mentioned countries is developed, especially in Germany. With regard to the country's share in world GDP and GDP per capita, the share of GDP for the analyzed period varies within the range of 0.04-0.05%, and GDP per capita shows dynamics to decline with a slight increase in 2014. The rate of GDP growth, GDP per capita in Poland over the period under review shows a negative dynamics of the decline, but real GDP figures increased by 3.7% in 2017. Romania also has a negative GDP growth rate, per capita GDP, but also a real GDP growth of 3% [39; 46].

The similar socio-cultural, linguistic environment, the stability of the economic and political climate makes the Polish market extremely attractive for the sale of products of PJSC Smila Machinery Plant. Consequently, the market of Poland will be the key direction in the development of exports. The contractor is a network of bakery companies - Piekarnia Oskroba S.A, which are presented in many cities in Poland as large bakeries operating three production facilities. The bakery produces: daily bread, long-life bread, cakes & biscuits, celebration cakes, deep frozen cakes [43].

At the same time, it is recommended to implement direct contracts. Since the disposal of a fairly large product and components for it, then the direct method of foreign trade operations is the most appropriate one. This is due to the need to take into account the requirements of the buyer, from the design stage of products to the introduction of its operation and a fairly high technical level and complexity of products that are sold. Direct links are purposeful as they are based on the system of preliminary orders and are characterized by the stability and duration of the buyer-buyer relationship with the exporter.

It is advisable to carry out export operation with a solid offer. A solid offer is made by a seller (PJSC "Smila Machinery Plant") for a particular consignment of goods to only one buyer (Piekarnia Oskroba S.A), indicating the period within which the buyer must accept the offer. This means that, upon unconditional acceptance of all conditions of the offer by the buyer, the offeror is obliged to ship the goods on the terms offered by them. Otherwise the exporter may be liable for possible losses of the buyer. The failure of the buyer at least with one condition is equivalent to his refusal. The urgency of a solid offer in our case is that this type of offer is most often used during selling rather expensive equipment.

As it has been already mentioned, the company has its own system of foreign economic activity. This policy is justified as the share of export of products is quite large and export operations are carried out regularly. Moreover, the PJSC "Smila Machinery Plant" does not require additional costs for adapting its products to foreign markets in the presence of foreign specialists in the enterprise, applying the export strategy prepares its goods in its own country, offering them for export in a modified or unmodified form. Basically PJSC "Smila Machinery Plant" uses direct exports, as it already has a well-established system of communications and operations.

The implementation of an alternative foreign trade transaction should be carried out under the conditions of FCA "Incoterms-2010". The advantage of this basic delivery condition for the exporter is that it is easier for the seller, but resource-consuming t and more complex for the buyer. The exchange of risks is carried out at the moment of transfer of goods to the buyer in the seller's warehouse. In addition, the seller is responsible for the costs of loading and export-customs formalities that for the sale of machinery and equipment for the manufacture of food products should be following: Custom Declaration, the Certificate of Conformity, Expert judgment, costs for the presence of cargo in the customs zone during the customs clearness and registration, Phytosanitary Certificate. The exporter also provides the following documents: invoice, certificate of origin (ST-1 form), international consignment note (CMR), copy of export customs declaration, passport in Ukrainian and English, copy of certificates of conformity with wet seal [40, 41]. Import customs formalities are the responsibility of

the buyer. This term can be used during transportation by any mode of transport, including mixed transportation, which is undoubtedly an advantage. Regarding the currency of payment, it is advisable to carry out an operation in EUR, the rate of which to the national currency is calculated on the date of signing in the contract. For the most part, the company operates in the form of full advance payment. This form is extremely beneficial for the exporter, since the seller is protected from the risk that the importer will refuse or will not be able to pay for the product that has already been produced for him, especially as this is the technological equipment that needs to be agreed with the buyer. In addition, the exporter receives at his disposal the free funds that he can use for the production of products and is exempted from the need to use a bank loan with payment of interest and other expenses for its use.

The evaluation of economic efficiency is carried out by comparing the achieved economic result (effect) with the cost of resources to obtain this effect. At the enterprise level, the economic efficiency of foreign trade operations is understood as the level of increase in revenue from these operations. The criterion for economic efficiency is profit as the main measure of effectiveness. It is planned to deliver 32 units of products, namely spindle dough mixer L4-HTV under FCA, Smila according to "Incoterms-2010", it is worth noting that the customer, in this case, takes the product himself, but the seller bears the expenses for the customs clearance (Table 3.4).

Table 3.4

The analysis of EOE of PJSC "Smila Mashinery Plant" forecasted export operation to Poland in the 1st Quarter 2019

Indicators		2019
1.	Quantity, units	32
2.	Price AVG per unit, EUR	1678
3.	Exchange Rate*, EUR/UAH	32,31
4.	Total Additional Expenditures**, EUR	1550,60
5.	Total Costs of Production, EUR	31874,21
6.	**Export Operations Efficiency**	**1,606**

**Exchange Rate* – forecasted exchange rate EUR/UAH for the 1st Quarter of 2019 [67].

***Additional Expenditures* – exporter's spendings in terms of delivery FCA, Smila.

Source: estimated by author on the basis [45].

Analyzing the results obtained, it should be noted that the effect of the implementation of an alternative transaction to Poland is positive and efficient. That is, the realization of this foreign trade operation is profitable for the enterprise, since each spent euro bring for 1,606 euros of profit. Moreover, this export operation will bring the company 20271,181 EUR of profit. In order to organize an effective export operation of an enterprise, it is necessary to develop a certain algorithm (scheme) of actions, which involves a number of stages. We will develop a scheme for the implementation of this export operation of Ukraine to Poland under FCA, Smila (form of payment - 100% advance payment), as it is mentioned in the Table 3.5.

Table 3.5

The algorithm of actions taken by parties for delivering spindle dough mixer L4-HTV under FCA, Smila

	PJSC "Smila Machinery Plant"	"Piekarnia Oskroba S.A"
1.	PJSC "Smila Machinery Plant" sends an offer to the Company "Piekarnia Oskroba S.A" with a commercial offer to sell a spindle dough mixer L4 HTV with the quantity of 32 units.	The "Piekarnia Oskroba S.A" accepts the offer.
2.	PJSC "Smila Machinery Plant" concludes a preliminary contract in Ukrainian and English on the terms of FCA with a form of payment of 100% advance payment and sends a copy of the company "Piekarnia Oskroba 1S.A.".	After the agreement negotiation the company "Piekarnia Oskroba S.A" accepts and returns the signed in contract.
3.	The company "Piekarnia Oskroba S.A" places the order in the written form to the PJSC "Smila Machinery Plant" in accordance with the schedule of deliveries indicating the quantity of goods and terms of delivery.	The company "Piekarnia Oskroba S.A" makes a 100% advance payment for the products.
4.	Receipt of payment from the importer and the beginning of the production of ordered products.	-
5.	PJSC "Smila Machinery Plant" informs the Company "Piekarnia Oskroba S.A" about the readiness to ship the goods in accordance with the basic terms of delivery of FCA.	The company "Piekarnia Oskroba S.A." informs PJSC "Smila Machinery Plant" about the readiness to take the goods.
6.	PJSC "Smila Machinery Plant" gives an order to the freight forwarding company to carry out shipment of goods.	-
7.	PJSC "Smila Machinery Plant" prepares the EAD, in particular, transport registration documents, invoice, customs clearance documents (cargo customs declaration, registration Certificate of Confirmation, Expert Conclusion, Phytosanitary Certificate and obtaining an export permit.	-
8.	The company "Piekarnia Oskroba S.A" sends a letter indicating the date, time, the carrier who should take the goods.	-
9.	PJSC "Smila Machinery Plant" loads goods for transport of Carrier.	-
10.	PJSC "Smila Machinery Plant"carries out the customs clearing of the goods for export and sends a transport document stating that the goods were given to the carrier	-

Source: systemized by the author.

To sum up it should be noted that for PJSC "Smila Machinery Plant" it's very promising to develop export to EU countries due to dynamic changes of recent years and months, including economic ones, such as integration processes, as well as political and military ones, such as the current conflict between Russia and Ukraine. That's why for improving and increasing the level of EOE, we suggest to PJSC "Smila Machinery Plant" to expand market of goods disposal by exporting products to Poland. The similar socio-cultural, linguistic environment, the stability of the economic and political climate makes the Polish market extremely attractive for the sale of products of PJSC Smila Machinery Plant. The export operation of 32 spindle dough mixers L4-HTV to Polish company Piekarnia Oskroba S.A will be carried out on the basis of FCA, Smila with 100% upfront payment. Analyzing the results obtained, it should be noted that the effect of the implementation of an alternative transaction to Poland is positive and efficient. That is, the realization of this foreign trade operation is profitable for the enterprise, since each spent euro bring for 1,606 euros of profit. Moreover, this export operation will bring the company 20271,181 EUR of profit.

3.3. Forecasted changes in the export activity of PJSC "Smila Machinery Works" on the basis of suggested measures

The machinery industry continues to be one of a few branches of domestic industry, which has modern knowledge-intensive technologies and competitive products on the external market. This determines its extremely important role as the basis for bringing the country's economy to the level of advanced industrialized countries. In addition, the export potential of the machinery industry makes it possible to successfully solve other problems, in particular, to eliminate the imbalance in the structure of Ukrainian exports between deliveries of raw materials and finished products, as well as provision of employment of the population, stimulation of highly skilled labor. All this confirms the necessity of qualitative transformation of scientific research, production and technological and organizational and economic structures of mechanical

engineering, which would ensure its stable development in modern and predicted economic conditions.

To carry out the forecast of the activity of the PJSC "Smila Machinery Works" and determine the influence of the proposed ways to increase the efficiency of export operations at the enterprise, we use the method of correlation-regression analysis and plotting of trend lines. After all, a large number of factor variables necessitates the use of precisely the methods of multiple correlation-regression analysis, which allows to distinguish the most statistically significant factors and evaluate the relationship between them and the resultant feature, which is presented as a certain numerical expression. Thus, only one indicator of the effectiveness of export activity is already a significant statistical aggregate that without the use of appropriate economic and mathematical methods and software complexes will lead to the probability of obtaining not only false results, but also an inadequate mathematical model.

To determine the validation of the changes in the export activity of PJSC "Smila Machinery Works" on the basis of the proposed measures let's use the following algorithm in the Figure 3.5.

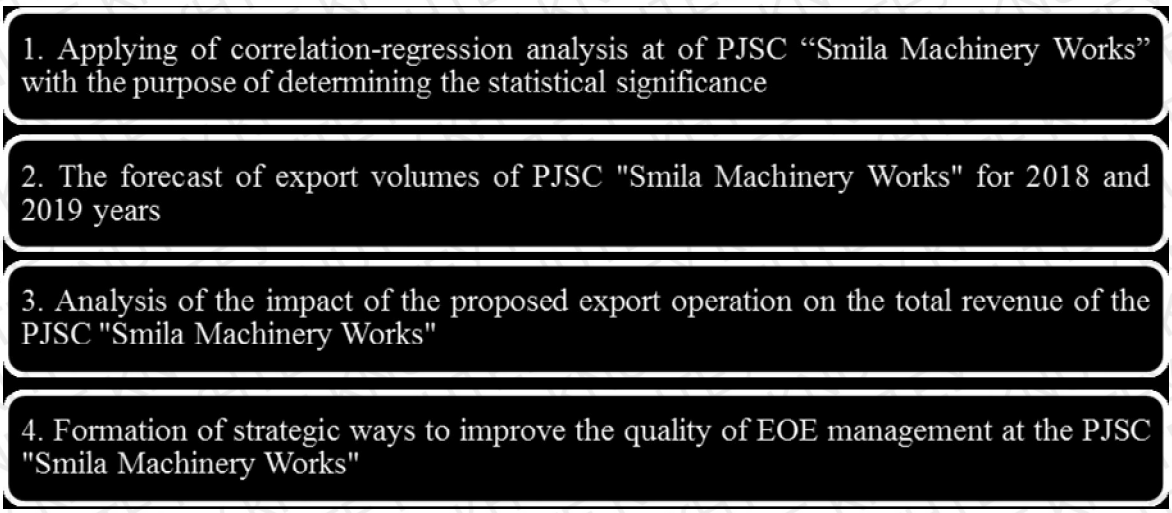

Figure. 3.5 The algorithm of analysis of the changes in the export activity of PJSC "Smila Machinery Works" on the basis of the proposed measures.

Source: systemized by the author.

Thus, there is an objective need for conducting correlation-regression analysis as one of the most effective economic and statistical methods for revealing the influence of the most significant factors on the resultant sign and constructing an adequate

mathematical model. In order to study the qualitative and quantitative assessment of the internal and external relationships between the outcome and the selected factors, it is appropriate to use the correlation-regression analysis, the main task of which is to analyze the available statistical data between the investigated features and subsequent determination of the density of the relationship with the help of calculated coefficients of correlation.

The result of the regression analysis is formed by constructing a regression equation with the determination of the influence of independent variables on the change in the level of the investigated or predicted level of the stool variable factor. The regression analysis involves the solution of tasks related to the estimation of the level of influence of factors and the stochastic indicator, presented in absolute units of measurement. This is done by developing a substantiated equation that characterizes the relationship between model factors, taking into account the tendencies to change the analytical probabilistic dependence between the investigated factors of influence. Depending on this, two types of regression analysis are distinguished: pair regression analysis and regression analysis based on multiple regression [47].

In our paper, we will examine the impact of export volumes on net income of the enterprise. To determine the nature of the dependence and, accordingly, the construction of the equation, it is advisable to apply a graphical method for comparing data series (Table 3.5).

Table 3.5

The types of the trend dependencies received

Type	The equation of trend dependency	R Square
Linear Trendline	$y = 0,6773x + 13384$	0,7808
Polynomial Trendline	$y = 4E\text{-}05x^2 - 1,7501x + 46442$	0,8008
Power Trendline	$y = 77,966x^{0,5895}$	0,7149
Logarithmic Trendline	$y = 19707\ln(x) - 168288$	0,7644
Exponential Trendline	$y = 17877e^{2E\text{-}05x}$	0,7296

Source: estimated by the author.

As we see, the polynomial trend dependence in the best way and with a maximum approximation to real data, shows the dependence of net income from EOE for the

period 2013-2017 years at PJSC "Smila Machinery Works. R Square has the highest indicator exactly with the polynomial trendline plotting and it tends to +1. As the coefficient is close to 1, then the conditional dispersion of the model is quite low and it is very likely that the model describes the data quite well (Fig. 3.6).

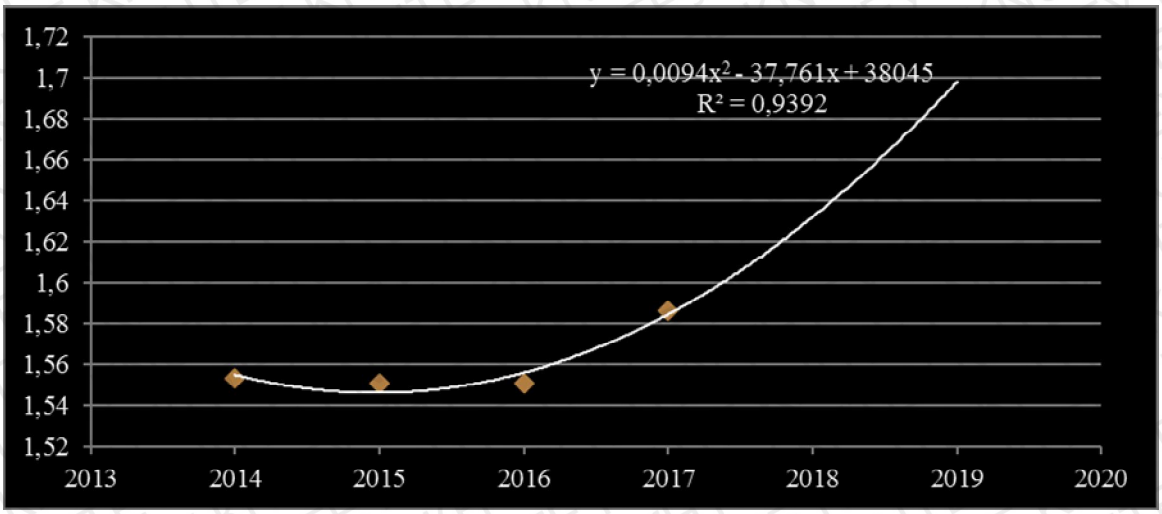

Figure. 3.6 The polynomial trendline dependence between EOE and net revenue of PJSC "Smila Machinery Works".

Source: estimated by the author.

The multiple R is equal 0,9392 and indicates a very tight correlation between the performance indicator and the factor values. It also means that there is a direct full correlation and an increase in one of the two parameters causes an increase in the others (Table 3.6).

Table 3.6

The analysis of regression statistics of dependence between export volumes and net revenue of PJSC "Smila Machinery Works"

Multiple R	0,8736
R Square	0,9392
Adjusted R Square	0,5267
Standard Error	1,0877
Observations	5

Source: estimated by the author.

Regarding the determination coefficient R Square of the obtained correlation regression model R Square is equal 0,9392. Hence the dependence of the products sold volume is due to the selected factor values on 93,92%. The remaining 6.08% is due to

other factors that affect net income but are not included in the regression model (Table 3.6).

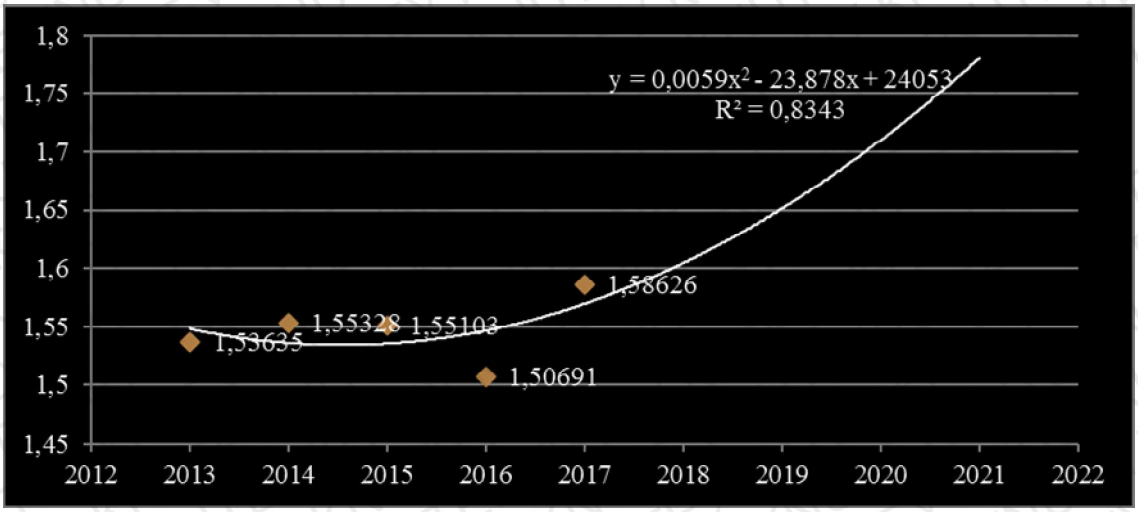

Figure 3.7. The polynomial trendline forecast of EOE of PJSC "Smila Machinery Works" for 2018 - 2021 years.

Source: estimated by the author.

Having made a forecast for the next four years, namely 2018 - 2021 years, it can be claimed that the positive dynamics of export transactions is observed in the projected years. Observance of these indicators of economic activity of PJSC "Smila Machinery Works has the potential for growth, even in the conditions of crisis economic phenomena on the domestic market (Figure 3.7).

Since we have proved a tight correlation between export volumes EOE and net income, we can confirm that the growth of export efficiency will positively affect the profitability of the of PJSC "Smila Machinery Works". That is, the effective implementation of the proposed operation for export of products to Poland will have a positive impact on the financial and economic activity of the company and will increase the level of income received from the sale of goods.

Moreover, we can assume that cooperation with Polish company will be continued and in 2019 the quantity of exported products will be increased by 5%. In connection with the increase in the number of units sold, it is proposed to provide a counterparty with a discount of the price per unit. The growth of the EUR to UAH is also projected. Together with an increase in the volumes of sales, there will be an increase in additional costs associated with sales of goods. The forecast export operation

is effective and will bring the PJSC "Smila Machinery Works 80479 EUR of revenue in average (Table 3.7).

Table 3.7

The analysis of EOE of PJSC "Smila Machinery Plant" forecasted export operation to Poland during 2019 – 2021years

Indicators		2019	2020	2021
1.	Quantity, units	113	119	128
2.	Price AVG per unit, EUR	1644.44	1641	1639.2
4.	Total Additional Expenditures**, EUR	4400	4480	5020
5.	Total Costs of Production, EUR	107580	110320	125952
6.	**Export Operations Efficiency**	**1,659**	**1,701**	**1,721**

Total Additional Expenditures, EUR - exporter's spendings in terms of delivery FCA, Smila.

Source: estimated by author on the basis [45].

In practice it is very difficult to predict the direction in which further development will take place: the state of the system will become chaotic or it will move to a more streamlined level. After one of the many paths of self-organization is selected, evolutionary laws of development begin to operate again. And so to the next point of the bifurcation. Specific conditions of the Ukrainian economy evoke an objective need to introduce into the methodology of strategic management of the mechanism for the development of various strategies.

The strategy of improving the level of the EOE at PJSC "Smila Machinery Works" in a crisis situation encompasses all planned, organized and controlled changes in the field of existing strategy, production processes, structure and culture of any socioeconomic system, including enterprises. An enterprise succeeds only if it is in a state of consistent and steady development. Therefore, a full-fledged development strategy for a company in a crisis is a strategy for the creation, capture and maintenance of a particular market niche, a strategy of competitive advantage in the long run. Machinery is the strategic industry of Ukraine, which is on the verge of large-scale modernization of production. The main tasks of the enterprises of the machinery industry are:

- production of product quality, technical re-equipment of production, its reconstruction and modernization of equipment;
- development of new markets for products, establishing partnerships;
- expanding cooperation and specialization.

During the implementation of business activities the enterprise receives a whole bunch of information data. In order for it to be used efficiently and correctly by the management to make certain decisions, it is necessary to use enterprise software for data processing and automation of production processes. The current market of information systems is characterized by a significant level of development and provides a high quality automation of management processes in the enterprise. Hence we suggest the following measures for the increasing the level of EOE of PJSC "Smila Machinery Works":

- prepare for decision-makers of the enterprise analytical reports concerning the state and development of the foreign economic activity of the enterprise, collection and generalization of information concerning factors of enterprise development, which can be obtained from external sources (threats and opportunities of the environment), and from subdivisions enterprises (advantages and disadvantages of the internal environment). It is recommended that these measures be implemented with using BI tools, which will help users obtain reliable analytics in a convenient format, which can be used to make effective decisions for managing business processes of a company;
- implementation of modular equipment (CAD, CAM), which is the optimal way of improving the level of unification of technological equipment, which ensures a reduction in the timing and cost of its design and manufacturing, enhances the improvement and increase the flexibility of technological preparation of production and increases its competitiveness in the world market, respectively will positively affect the export of equipment.

The calculations of the software products purchasing for the usage at for PJSC "Smila Machinery Works" are described above in the Table 3.8.

Table 3.8

The calculation of software products purchase for PJSC "Smila Machinery Works”

Product Name		Quantity	Price, UAH
CAM Solution	SOLIDWORKS Standard Perpetual License	1	78579,22
	SOLIDWORKS Standard Service Initial for 1 Year	1	9179,82
BI Solution	Tableau Creator - License, 1 year (On premise)	1	24570,00
Total Amount		**3**	**112329,04**

Source: estimated by author on the basis [64].

Delivery is electronic, the keys and distributes will be sent via email to the recipient. As CAM solution we suggest SOLIDWORKS Standard Perpetual License and SOLIDWORKS Standard Service Initial for 1 Year. SOLIDWORKS Standard delivers 3D design capabilities, performance, and ease-of-use. This solution helps to create fully detailed parts, assemblies and production-level drawings and access all the tools required to generate complex surfaces, sheet metal flat patterns, and structural welded assemblies SOLIDWORKS Standard Service Initial includes support and maintenance for 1 Year [64]. Besides, we advise the management of PJSC "Smila Machinery Works” to procure subscription for Tableau Creator License, which gives full analytics capabilities to analysts and power users. Creator includes Tableau Desktop, which enables users to connect to virtually any data anywhere and give the ability to analyze data promptly [64]. The total cost for licenses will cost 112329,04 UAH.

The principle of alternatives to strategic development and ways to achieve goals is another feature that distinguishes strategic management from the previous practice of long-term extrapolation management. The most common way of researching alternatives is to consider the three previous scenarios of the future development of the environment: the most favorable (optimistic), the most unfavorable (pessimistic) and most likely. However, because of the practical impossibility of achieving a complete match between actual and actual developments, even with this approach, the strategic management methodology emphasizes the increase of the potential of enterprises' adaptability to rapidly changing external conditions. Despite the progressive nature of

this approach, it should be noted that the analysis of only three basic scenarios of development can no longer fully meet the needs of enterprises in the conditions of extreme instability of the behavior of the environment. A more flexible diagnosis of the intermediate options of the expected state is required. Therefore, the problem of anticipating the development of possible future events, estimating the expected consequences, creating conditions for adapting the enterprise to changes in the external environment, which can be fully realized only in the systems of management of the entrepreneurial type, comes to the fore. At the same time, they should ensure that the most important features of the current events in the development of the economy are taken into account: the uncertainty of the behavior of the environment and the alternatives to possible actions of the enterprise in response to this uncertainty [47].

Table 3.9

Changes of main financial indexes of PJSC "Smila Machinery Works" in 2018-2021 years due to the usage of suggested measures

Indicator	2018 (expected)	2019	2020	2021
Net revenue, ths., UAH	42001	43517,23	44891,20	45689,22
Financial results of operational activity: Profit, ths., UAH	3911,25	4001,23	4151,89	4359,2
Net financial result: profit, ths., UAH	3221,01	3374,23	3824,00	3973,10
Revenue from entering a new EU market, ths. USD	-	91,89	93,54	96,21
Export Volumes, ths., UAH	37265,1	39871,5	41253,23	42587,42
Export Operation Efficiency	1,592	1,631	1,681	1,701
Revenue from export opeartions, ths., USD	1398,87	1401,32	1408,20	1410,21

Source: estimated by author

As we see the suggested measures have a beneficial impact on financial and foreign economic indicators. The main financial indexes show the tendency of stable smooth development in general and increasing EOE rate in particular (Table 3.9).

To sum up, it should be noted that in order to carry out the forecast of the activity of the enterprise and to determine the influence of the proposed ways to increase the efficiency of export operations at the enterprise, the method of correlation-regression analysis and plotting trend lines was used. According to the forecast of export dynamics during 2018 and 2019, it can be claimed that the positive trend of the growth of indicators in 2017 will continue during the forecasted period. Since we have proved a

tight correlation between export volumes and net income, we may confirm that the growth of export volumes will positively affect the profitability of the PJSC "Smila Machinery Works". That is, the effective implementation of the proposed operation for export of products to Poland will have a positive impact on the financial and economic activity of the enterprise, increase the level of competitiveness of the company and bring the company profit received from the sale of goods.

Moreover, in order to increase the efficiency of export operations at PJSC "Smila Machinery Works" and increase the total volume of sales, the company has to diversify the product structure and sales areas. Unfortunately, the largest share of exported products falls on Russia, while in Ukraine there are preferable conditions for reorientation of sales of goods to the European consumer. The export share of the company in the EU is too small, so the foreign trade and marketing department must take part in international conferences, fairs, closer communication with potential clients and partners in the EU, will help to enter new markets and consolidate the volumes of exported products. Besides, the offered method of management of export activity of PJSC "Smila Machinery Works", provided in its program implementation on computer means, allows to carry out continuous monitoring of foreign economic activity and to monitor the efficiency of the decisions taken regarding the quality and volume of the export activity of the enterprise. This in turn reduces the time and cost of operational management of the enterprise in terms of forecasting, planning, implementation and control of export operations in the context of strategic management of foreign economic activity of the PJSC "Smila Machinery Works".

CONCLUSION TO PART 3

1. Summing up, it should be noted that a competitive machinery industry is a guarantee of an efficient economy of any state. Machinery industry is one of the leading components of base industry. By creating the most active part of the main productive assets (tools), the machinery industry significantly influences the pace and trends of scientific and technological progress in various sectors of the national economy, the

growth of labor productivity, and other economic indicators that determine the efficiency of the development of social production.

2. It should be highlighted that for PJSC "Smila Machinery Plant" it's very promising to develop export to EU countries due to dynamic changes of recent years and months, including economic ones, such as integration processes, as well as political and military ones, such as the current conflict between Russia and Ukraine. That's why for improving and increasing the level of EOE, we suggest to PJSC "Smila Machinery Plant" to expand market of goods disposal by exporting products to Poland.

3. In order to carry out the forecast of the activity of the enterprise and to determine the influence of the proposed ways to increase the efficiency of export operations at the enterprise, the method of correlation-regression analysis and plotting trend lines was used. According to the forecast of EOE dynamics during 2018-2021 years, it can be claimed that the positive trend of the growth of indicators in 2017 will continue during the forecasted period. Since we have proved a tight correlation between export volumes and net income, we may confirm that the growth of export volumes will positively affect the profitability of the PJSC "Smila Machinery Works". That is, the effective implementation of the proposed operation for export of products to Poland will have a positive impact on the financial and economic activity of the enterprise and will increase the level of income of the company.

4. Moreover, in order to increase the efficiency of export operations at PJSC "Smila Machinery Works" and increase the total volume of sales, the company has to diversify the product structure and sales areas. The best way is orienting on European market. Besides, the offered method of management of export activity of PJSC "Smila Machinery Works", provided in its program implementation on computer means, allows to carry out continuous monitoring of foreign economic activity and to monitor the efficiency of the decisions taken regarding the quality and volume of the export activity of the enterprise.

CONCLUSIONS

In the final paper work the theoretical generalization and a new abstract of the actual scientific problem concerning modern methods of management of the efficiency of export operations of the machinery enterprises on the basis of PJSC "Smila Machinery Plant" are given. The results of the study formulated the following main findings and recommendations:

1. A theoretical study of the main principles of the enterprise's export activity was conducted and the actual definition of the concept of "efficiency of export operations" was presented. We'd like to suggest the following determination of export operations efficiency that it is the profitability of exports measured by the ratio of the cost of goods exported from the country in foreign trade prices to its value in the prices of the domestic which depends on competitive output that are sold on the foreign market and export potential of the specific industry.

2. The main indicators for export operations activity assessment were theoreticaly analyzed. Moreover, it's very important to take into account specific indicators of a particular industry. As for machinery enterprises there are next criteria: share of certified for compliance with international standards of product types of the enterprise, indicators of production certification, price comparison with competitors, level of science-intensive products, share of imported components in the output.

3. The mechanism, main functions, functional model, basic elements of the EOE mechanism at the equipment enterprise were analyzed and investigated in a profound and detailed way.

4. There was analyzed the basic financial and economic indicators of PJSC "Smila Machinery Plant" business activity. Analyzing the financial situation of PJSC "Smila Machinery Plant" during 2013-2017 we may indicate the instability of the company's operations and unprofitability. But there is the positive tendency of the normative level of financial stability, solvency of the enterprise and profitable activity in 2017. In the structure of liabilities of PJSC "Smila Machinery Plant" for 2013-2017, the equity is more than 86%, which indicates that, own funds are the main source of the

formation of assets of the balance sheet. The decline in equity and the dynamic growth of current liabilities indicate that over time the company operates mainly through borrowed funds, which in the future will negatively affect the solvency and liquidity of PJSC “Smila Machinery Plant”. Analyzing the obtained indicators of the company's creditability (EBIT, EBITDA, EBITDA margin), it should be noted that the negative indicator of EBIT's loss-making activity of the enterprise is evident. For companies with such coefficients, it is difficult to attract additional borrowed funds.

5. The export activity of PJSC "Smila Machinery Plant" is not developed and diverse so far. The leading contractors are Russia, Belarus and Moldova. And in average 15% of goods sold are distributed within the territory of Ukraine. However, there is positive tendency of increasing the level of exported goods to Georgia and Bulgaria. As for the commodity structure, the most demanded products are equipment for the production of the Bread and Baking and Sugar Industry. The leading part in the export structure is the disposal of spindle dough mixer and mixer bowls but also the company exports beet-slicing machines, dough dividers, mixers, measuring dosers, fusses, rendering tanks. Also there is there is a place for single order which comes from private entrepreneurs, small food enterprises and requires production of tailor made products.

6. Analyzing the results of EOE, it should be noted that the effect of the transaction on foreign markets is positive and profitable for the PJSC "Smila Machinery Plant". As the EOE coefficients are higher than 1, which indicates a rather high level of performance of the operation on the foreign markets. Also we should indicate the positive stable tendency of increasing the level of EOE during the analyzed period, despite the general drop of financial indicators.

7. We suggested and proved that refocusing the export activity of the PJSC "Smila Machinery Plant" on the markets of countries-members of EU can be very long-range, profitable and efficient for the company in general. Moreover, in connection with the proeuropean political and economic direction of the state's activities and the deterioration of relations with Russia as leading trading partner, the focus should now

be on the EU markets. Consequently, the market of Poland will be the key direction in the development of exports.

8. Using the method of cognitive modeling, trend-econometric and regression analysis, the PJSC "Smila Machinery Plant" export activity was evaluated by the main types of trend dependencies and the selection of the priority trend was carried out. The econometric analysis allowed to determine the regressive dependencies between export volumes and net profit, and to develop an adequate dependence for the forecast of EOE as well as basic financial indicators for 2019-2021 years.

9. We have proved that the effective implementation of the proposed operation for export of products to Poland will have a positive impact on the financial and economic activity of the company and will increase the level of income received from the sale of goods. Moreover, we suggest PJSC "Smila Machinery Works" to explore the possibility of improving the data intelligence of the company by implementing BI, CRM, ERP systems and modular equipment (CAD, CAM) and continue to diversify product line and sales area.

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APPENDIX A

Table 1

Balance Sheet of PJSC "Smila Machinery Works" based on 31.12.2013 – 31.12.2017, ths., UAH

Assets	Line code	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017
1	2	3	4	5		
I. Long term assets						
Intangible assets:	1000	75	58	58	56	45
Purchase value	1001	317	321	341	343	342
Accumulated Depresiation	1002	242	263	283	287	297
Construction in Progress	1005	-	-	-	-	750
Fixed Assets	1010	17428	16460	15810	15616	15664
Purchase value	1011	40932	40102	39788	39864	40674
Accumulated Depresiation	1012	23504	23642	23978	24248	25010
Other financial investments	1035	1	1	1	1	1
Long term Receivables	1040	130	103	109	89	89
Deferred Tax Assets	1045	439	439	439	403	324
Goodwill	1050	-	-	-	-	-
Deferrable acquisition costs	1060	-	-	-	-	-
Remaining funds in centralized insurance reserve funds	1065	-	-	-	-	-
Other fixed assets	1090	-	366	413		-
Total part I	1095	18073	17427	16830	16165	16873
II. Current assets						
Inventories	1100	4331	4584	4042	3236	6717
Production stocks	1101	580	672	551	645	1861
In-process inventory	1102	777	1908	1699	1345	3179
Final goods	1103	2972	2002	1790	1244	1675
Goods	1104	2	2	2	2	2
Curreent biology assets	1110	-	-	-	-	
Accounts Receivable for goods and services	1125	432	515	255	256	300
Accounts Receivable in payments:	1130	76	163	230	263	545

down payment made						
to budget	1135	742	853	540	206	528
including income tax	1136	471	415	314	-	-
Other current account receivables	1155	78	104	90	84	473
Current financial investments	1160	-	-	-	-	-
Cash and cash equivalents	1165	398	1314	1319	1136	1119
Cash	1166	-	1	-	-	-
Cash in bank	1167	398	1313	1319	1136	1119
Deferred charges	1170	20	18	48	69	68
Other current assets	1190	7	6	104	24	15
Total part II	1195	6084	7557	6628	5274	9765
III. Fixed assets for sales	1200	3852	3850	3129	3080	3078
Balance	1300	28009	28834	26587	24519	29716
Liabilities						
I. Owner's Equity						
Shareholder's Equity	1400	290	290	290	290	290
Capital surplus	1405	22407	22155	20148	19600	19587
Reserved capital	1415	73	73	73	73	73
Retained earnings	1420	2301	2517	2905	505	3629
Total part I	1495	25071	25035	23416	20468	23579

APPENDIX A

Table 1 Cont'd

II. Long term liabilities		-	-	605,2	-	-
Long term liabilities	1520	1527	1702	488	-	-
Long term liabilities of staff expences	1521	1527	1391	488	-	-
Total part II	1595	1527	1702	488	-	-
III. Short term liabilities						
Current payables for long term liabilities: goods and services	1615	79	141	236	427	1797
in payments to budget	1620	39	42	148	276	86
including tax on profit	1621	-	-	-	-	180

in payment of ensurance	1625	1	587	156	51	119
in payment of salary	1630	1	219	407	293	334
down payment received	1635	737	558	1185	1022	1714
in payment of participants	1640	535	530	529	329	328
Current reserves	1660	-	-	-	1755	1505
Other short-term liabilities	1690	19	20	22	33	64
Total part III	1695	1411	2097	2683	4051	6137
IV. Liabilities related to long term assets for sale	1700	-	-	-	24519	29716
V. Net asset value of non-state pension fund	1800	-	-	-	24519	29716
Balance	1900	28009	28834	26587	24519	29716

Source: systemized by the author on the basis of [45].

Balance Sheet of PJSC "Smila Machinery Works" based on 31.12.2013 – 31.12.2017, ths., UAH (in Ukrainian)

Table 2

Актив	Код рядка	31.12.2013	31.12.2014	31.12.2015	31.12.2016	31.12.2017
1	2	3	4	5		
I. Необоротні активи						
Нематеріальні активи:	1000	75	58	58	56	45
первісна вартість	1001	317	321	341	343	342
накопичена амортизація	1002	242	263	283	287	297
Незавершені капітальні інвестиції	1005	-	-	-	-	750
Основні засоби:	1010	17428	16460	15810	15616	15664
первісна вартість	1011	40932	40102	39788	39864	40674
знос	1012	23504	23642	23978	24248	25010
Довгострокові фінансові інвестиції: які обліковуються за методом участі в капіталі інших підприємств	1030	-	-	-	-	-
інші фінансові інвестиції	1035	1	1	1	1	1
Довгострокова дебіторська заборгованість	1040	130	103	109	89	89

Відстрочені податкові активи	1045	439	439	439	403	324
Інші необоротні активи	1090	0	366	413	0	0
Усього за розділом I	1095	18073	17427	16830	16165	16873
II. Оборотні активи						
Запаси	1100	4331	4584	4042	3236	6717
Виробничі запаси	1101	580	672	551	645	1861
Незавершене виробництво	1102	777	1908	1699	1345	3179
Готова продукція	1103	2972	2002	1790	1244	1675
Товари	1104	2	2	2	2	2

APPENDIX A

Table 2 Cont'd

Дебіторська заборгованість за продукцію, товари, роботи, послуги	1125	432	515	255	256	300
Дебіторська заборгованість за розрахунками: за виданими авансами	1130	76	163	230	263	545
з бюджетом	1135	742	853	540	206	528
у тому числі з податку на прибуток	1136	471	415	314		
Інша поточна дебіторська заборгованість	1155	78	104	90	84	473
Гроші та їх еквіваленти	1165	398	1314	1319	1136	1119
Готівка	1166	0	1	0		
Рахунки в банках	1167	398	1313	1319	1136	1119
Витрати майбутніх періодів	1170	20	18	48	69	68
Інші оборотні активи	1190	7	6	104	24	15
Усього за розділом II	1195	6084	7557	6628	5274	9765
III. Необоротні активи, утримувані для продажу, та групи вибуття	1200	3852	3850	3129	3080	3078
Баланс	1300	28009	28834	26587	24519	29716
Пасив	**Код рядка**	**31.12.2013**	**31.12.2014**	**31.12.2015**	**31.12.2016**	**31.12.2017**
I. Власний капітал						
Зареєстрований (пайовий) капітал	1400	290	290	290	290	290
Внески до незареєстрованого статутного капіталу	1401	0	0	0		

Капітал у дооцінках	1405	22407	22155	20148	19600	19587
Резервний капітал	1415	73	73	73	73	73
Нерозподілений прибуток (непокритий збиток)	1420	2301	2517	2905	505	3629
Усього за розділом I	1495	25071	25035	23416	20468	23579
II. Довгострокові зобов'язання і забезпечення		0	0	605,2		
Довгострокові забезпечення	1520	1527	1702	488		
Довгострокові забезпечення витрат персоналу	1521	1527	1391	488		
Усього за розділом II	1595	1527	1702	488	-	-
III. Поточні зобов'язання і забезпечення						
Поточна кредиторська заборгованість: за довгостроковими зобов'язаннями	1610	-	-	0-	-	0-
за товари, роботи, послуги	1615	79	141	236	427	1797
за розрахунками з бюджетом	1620	39	42	148	276	86
за у тому числі з податку на прибуток	1621	-	-	-	-	180
за розрахунками зі страхування	1625	1	587	156	51	119
за розрахунками з оплати праці	1630	1	219	407	293	334
за одержаними авансами	1635	737	558	1185	1022	1714
за розрахунками з учасниками	1640	535	530	529	329	328
Поточні забезпечення	1660	-	-	-	1755	1505
Інші поточні зобов'язання	1690	19	20	22	33	64
Усього за розділом III	1695	1411	2097	2683	4051	6137
IV. Зобов'язання, пов'язані з необоротними активами, утримуваними для продажу, та групами вибуття	1700	-	-	-	24519	29716
V. Чиста вартість активів недержавного пенсійного фонду	1800	-	-	0-	24519	29716
Баланс	1900	28009	28834	26587	24519	29716

Source: systemized by the author on the basis of [45].

APPENDIX B

Table 1

Income Statement of PJSC "Smila Machinery Works" based on 2013 – 2017 years, ths., UAH

Indicator	Line code	2013	2014	2015	2016	2017
Net revenue	2000	32664,00	25220,00	26283,00	24601,00	41761,00
Prime cost of sold goods	2050	-17827,00	-13899,00	-18080,00	-17162,00	-25856,00
Gross: profit	2090	14837,00	11321,00	8203,00	7439,00	15905,00
Other operational revenues	2120	1819,00	1841,00	4708,00	2883,00	1664,00
Administrative costs	2130	-	-	-	-6751,00	-7524,00
Costs for sales	2150	-11587,00	-7109,00	-7336,00	-1593,00	-2161,00
Other operational costs	2180	-1807,00	-1394,00	-1763,00	-3456,00	-4068,00
Costs of changes in the value of assets that are measured at fair value	2181	-4177,00	-3707,00	-3726,00	-	-
Financial results of operational activity: Profit	2190	-	-	-	-	3816,00
Financial results of operational activity: Losses	2195	0,00	952,00	86,00	-1478,00	-
Revenue from participation in capital	2200	-915,00	-915,00	-	-	-
Other financial revenues	2220	0,00	0,00	-	12,00	-
Other revenues	2240	53,00	14,00	8,00	1219,00	51,00
Income from charity	2241	1140,00	791,00	282,00	-	-
Financial expences	2250	-	-	-	-1,00	-
Other expences	2270	0,00	0,00	0,00	-159,00	-52,00
Profit (loss) from the influence of inflation on monetary items	2275	-272,00	-333,00	-124,00	-	-
Financial results before tax: profit	2290	0,00	0,00	0,00	0,00	3815,00
Financial results before tax: losses	2295	6,00	1424,00	252,00	-407,00	-
Losses out of income tax	2300	-	0,00	0,00	0,00	-691,00
Profit (loss) from discontinued operations after tax	2305	-	359,00	58,00	-	-
Net financial result: profit	2350	-	-	-	-	3124,00
Net financial result: losses	2355	6,00	1065,00	194,00	407,00	-

Source: systemized by the author on the basis of [45].

Table 2

Income Statement of PJSC "Smila Machinery Works" based on 2013 – 2017 years, ths., UAH (in Ukrainian)

Стаття	Код рядка	2013	2014	2015	2016	2017
Чистий дохід від реалізації продукції (товарів, робіт, послуг)	2000	32664,00	25220,00	26283,00	24601,00	41761,00
Собівартість реалізованої продукції (товарів, робіт, послуг)	2050	-17827,00	-13899,00	-18080,00	-17162,00	-25856,00
Валовий: прибуток	2090	14837,00	11321,00	8203,00	7439,00	15905,00
Інші операційні доходи	2120	1819,00	1841,00	4708,00	2883,00	1664,00
Адміністративні витрати	2130	0,00	0,00	0,00	-6751,00	-7524,00
Витрати на збут	2150	-11587,00	-7109,00	-7336,00	-1593,00	-2161,00
Інші операційні витрати	2180	-1807,00	-1394,00	-1763,00	-3456,00	-4068,00
Витрат від зміни вартості активів, які оцінюються за справедливою вартістю	2181	-4177,00	-3707,00	-3726,00	-	-
Фінансовий результат від операційної діяльності: прибуток	2190	-	-	-	-	3816,00
Фінансовий результат від операційної діяльності: збиток	2195	-	952,00	86,00	-1478,00	-
Дохід від участі в капіталі	2200	-915,00	-915,00	-	-	-
Інші фінансові доходи	2220	-	-	-	12,00	-
Інші доходи	2240	53,00	14,00	8,00	1219,00	51,00
Дохід від благодійної допомоги	2241	1140,00	791,00	282,00	-	-
	2250					
Інші витрати	2270	-	-	-	-159,00	-52,00
Прибуток (збиток) від впливу інфляції на монетарні статті	2275	-272,00	-333,00	-124,00	0,00	0,00
Фінансовий результат до оподаткування: прибуток	2290	-	-	-	-	3815,00
Фінансовий результат до оподаткування: збиток	2295	6,00	1424,00	252,00	-407,00	-
Витрати (дохід) з податку на прибуток	2300	-	-	-	-	-691,00

Прибуток (збиток) від припиненої діяльності після оподаткування	2305	-	359,00	58,00	-	-
Чистий фінансовий результат: прибуток	2350	-	-	-	-	3124,00
Чистий фінансовий результат: збиток	2355	6,00	1065,00	194,00	-407,00	-

Source: systemized by the author on the basis of [45].