

Managing Logistic System of an Enterprise in the Context of Conducting International Business Transactions

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Abstract – This paper substantiates that in terms of the international business, management regarding the logistics system within the enterprise requires an integrated approach and coordination of potential capabilities of the business entity, a clear balance and interconnection of logistics flows in the field of production, procurement, warehousing, transportation and marketing. The scientific novelty of the conducted research includes substantiate feasibility of creating a strategy for managing logistics processes within an enterprise- entity of foreign economic activity, which is based on its foreign trade orientation. Such logistic system will contribute to the formation of the economic potential of within the enterprise and, increase the capital profitability. Furthermore, it will be the source of its competitive advantages and a means of increasing market value and profitability.

Keywords - logistics system, Index of Logistics Efficiency, logistics management, logistics flows, international business operations.

1. Introduction

Development of globalization and internationalization, tangible structural changes in the global economy, computerization of a

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contemporary business require a comprehensive response from the management system in the scope of domestic enterprises, since the chief strategical task regarding managing a business entity that operates at the international level lies in the providing it with competitiveness at the world market.

Solution of this task lies in the optimal application of effective management methods and tools of business, production, and commercial activities. Logistics management holds a prominent place among them. Boosting cooperation among enterprises from different branches, seeks to improve relations among them, while, development of computerization provide logistic management at a micro-level and creates prerequisites for the application of up-to-date methods, which involve organization and maintenance of the movement processes and promotion of material, labor, financial and information flows.

Growing interest among scholars and practitioners in logistics is also explained by the necessity to develop economy and business not only at the national but also at the international levels.

2. Research background

The issues concerning improvement of logistic activity management have been widely researched by scientists. The issues concerning improvement of management of logistic activity management have been widely researched by scientists. In particular, the efficiency of logistic systems was studied by Oklander M.A. [8]. Logistics efficiency and globalization of logistic systems were the focus of studies, performed by Kryukova Yu.O. [7]. Domaskina M.A., and Kuz'mina D.V. [1] who studied the aspects of logistic approach of the enterprises, operating at the world market. However, the issues as to defining specific features regarding the functioning and improving logistics management of an enterprise as the subject of foreign economic activity still need further investigation. To provide long-term and stable competitive advantages, an enterprise should take into account the trends of globalization and a specific character of cooperation with the participants of domestic and foreign markets.

The stated problem determined the purpose of our research, namely: to define the suggestions as to the formation and improvement of logistics management of an enterprise as the subject of a foreign economic activity in order to provide international competitiveness and a long-term profitability of foreign economic business transactions.

3. Results and discussion.

Contemporary international business requires that Ukrainian subject of a foreign economic activity has to coordinate its promotion strategy to the foreign markets with the needs and interests of the enterprises and organizations of those countries, in which it plans to enter the markets and promote domestic goods and services. The strategy of logistic systems could be the basis of the cooperation relating interested foreign businesses-customers. Creation, development, functioning and management of logistic system of an enterprise should become the means that helps to minimize the costs of labor, financial, production and information resources. It also serves as an intermediary link to optimize the mechanisms of cooperation between a domestic enterprise and its foreign suppliers and customers, which promotes the formation and enhances competitive advantages at the international markets. Increase in the volumes of international trade results in a global and complex character of logistic activity.

Inefficient use of logistic management tools in managing an enterprise as a subject of foreign economic activity leads to the decrease in profitability of production and commercial activities; such companies will not have a potential to develop the volumes of foreign trade transactions. During the recent years in the world, there has been an increase in logistic operations within enterprises. Since the early 1990s, the frequency which comprises addressing businesses to suppliers of logistic services has increased in Europe by 94%, in North America by 78%, in the Asian Pacific by 92% [4].

The ability of Ukraine to carry out foreign trade operations throughout the world depends on its access to the global logistic system and freight traffic flow. In this case, the efficiency with regard to supplying chains (their cost, time, reliability) depends on the potential and peculiarities of the economy, and on the development level of the logistic system itself in particular [3]. Logistics performance index is an especially important parameter that helps to understand how to increase and intensify foreign

trade. It is one of the methods that help to analyze the country's rating and efficiency of its logistic activity among 155 countries in the world. Calculations are carried out on the basis of more than 5000 individual assessments of the representatives from some countries. Each respondent evaluates the efficiency of 6 key indicators of logistic system according to a five-point scale.

The analysis of the logistics performance index dynamics in Ukraine during the period of 2010 showed a positive trend. In 2014 according to the development level of logistic system, Ukraine occupied the 61st ranking among 160 countries in the world with logistics performance index at 2.98 scores (out of possible 5.0), whereas in 2012 the country held only the 66th ranking with a score of 2.85, in 2010 – 122^d ranking with a score of 2.57. Thus, during 4 years Ukraine improved its rating and moved up to the 41st position. The state improved the efficiency level of logistic system from 2.57 to 2.98 scores [9], [10]. However, the armed conflicts in the East of the country and unfavorable economic conditions have lowered the index considerably. According to the rating in 2016 Ukraine got 2.74 scores in a five-point system and turned out to be on the 80th place (the rating decreased by 19 points compared to 2014).

A detailed analysis of LPI indicators of our country in 2014 showed, that the index of timeliness of freight delivery showed the highest value (it was equal to 3.51 scores out of 5, 52^d place), and the index of the quality of trade and transport infrastructure had the lowest value (2.65 scores out of 5, 71st rating place) [9]. According to the rating in 2016 the index of timeliness of freight delivery showed the highest value again among LPI indicators of Ukraine (3.51 scores out 5, 54th place in the rating compared to 4.45 scores in a leading Germany) [10]. The worst indicator for Ukraine was the evaluation of customs freight processing (2.30 scores out of 5, 116th rating position compared to 4.12 in Germany). It should be mentioned that a rapid improvement of summary indicator LPI to 2014 was caused by the improvement of a small number of components regarding logistic system of the country. Among there are promotion of foreign trade, relations at the level of enterprises and development of trade and transport infrastructure of the country as well.

According to the research, carried out by The Economist Intelligence Unit [11], there will be a further globalization of production in the world until 2020. Therefore efficiency of logistics in all chains of supplies will become the main source of competitive advantages in the sphere of production. In addition, quality of goods (services) and price remain key criteria of competitiveness in the world.

So, Ukrainian enterprises as the subject of foreign economic activity have to compete with serious rivals. That is why, in order to increase the chances for success

in competition, it is reasonable to consider the change in the priorities in conjunction with qualities that are defined as important for the customers of the world market (Fig.1)

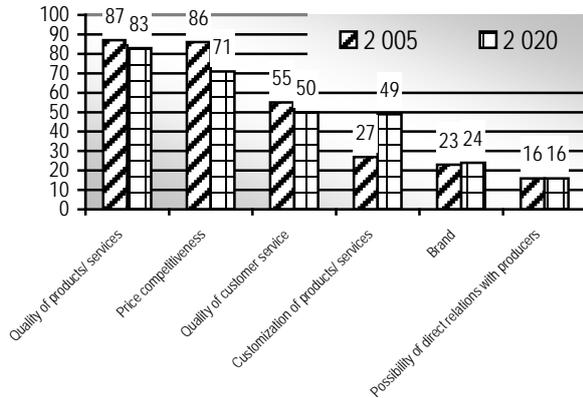


Figure 1. Changes in the importance of some factors that determine the competitiveness of an enterprise at the global market (developed according to the data [11])

Effective management of logistic processes within an enterprise, that operates in the international business environment, belongs to the system of key indicators, that characterise its competitiveness. Management of logistic system implies optimization and rationalization of the resources movement in order to increase the effectiveness and productivity of business functions and business processes of an enterprise. It is reasonable to consider logistics as the management system of the subject of international business that includes the management of its physical, financial and information flows throughout the whole chain of creating value. This system combines all operations that refer to supply and storage of resources, transport provision, production of goods or services, packaging, warehousing, selling in order to meet the needs of clients and to achieve a high profitability of an enterprise.

In the global business environment logistics operations are structurally integrated in the process of production. As a result, the effective operation of an enterprise is based on synergic cooperation of operational and financial management, marketing, warehouse logistics, transportation support, profitability of promotion and sales of products at domestic and foreign markets.

Thus, effective functioning of logistic system promotes optimization of management: the volumes of stock decreases by 50%, production cost goes down by 25%, expenses of commodity circulation - by 20%, and labor productivity increases by 25%. Therefore, logistic processes of domestic enterprises should be constantly

monitored in order to evaluate their effectiveness and find the ways for their improvement. Effective use of logistic management tools is illustrated by the data obtained by scientists in the survey of 1459 businessmen in Germany (Fig.2).

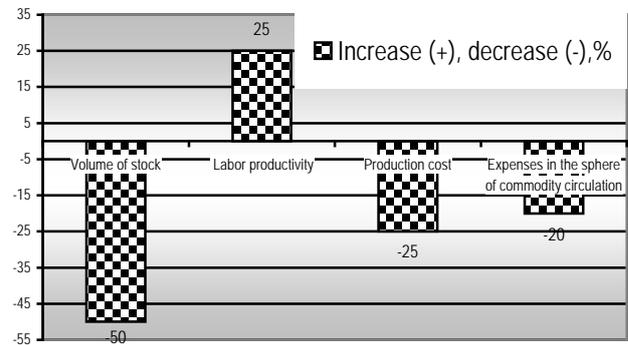


Figure 2. Economic effect of using logistics in the management system of an enterprise (built according to the data [5]).

In recent years business models and business processes have transformed considerably. There has been a consolidation of some branches and the pricing policy is changing. Under such conditions domestic enterprises should respond rapidly to the market changes. An effective logistic system with clear and rational structure provides the flexibility in the international business environment. This system should be distinguished by a quick adaptation of internal potential to the requirements of world markets due to the minimization of stock, removal of unproductive processes, optimization of the movement of material, financial, informational and production processes, reduction of production cycles and time for filling an order, etc.

An enterprise, operating in the external market, depends on the international business environment, and its possibilities of rapid respond to market conditions are quite limited. In order to rapidly adapt to the changing factors of external markets it is necessary to intensify logistic functions of management. Management of logistic system of an enterprise should be directed into the optimization of flows, minimization of unreasonable external and internal production movements of resources, provision of the high level of production integration and, increase of production capacity [6]. At that point, logistics will be the source of competitive advantages of an enterprise in the world market, the means for increasing market cost and profitability.

Formation of effective logistic system is a complicated and multi-aspect problem for an enterprise, and a subject of foreign economic activity. It is impossible to solve this task, taking occasional measures. It should be the complex of coordinated measures, taken within a certain model. Successful functioning of the logistic system is based on the cooperation with suppliers and customers, because

their capabilities and wants guarantee the prospects for further cooperation. Special attention should be paid to a rational management structure, effective system of corporate culture and personnel management, since highly qualified employees, that master up-to-date methods of collecting and providing information, trade mediation, and advertisement, allow us to use all advantages of international business.

The authors developed the conceptual model of managing logistic system of an enterprise as the subject of foreign economic activity, which implies creating the strategy for managing logistic processes on the basis of foreign trade orientation (fig.3).

production and commercial activities as well as stability of competitive position of an enterprise at domestic and international markets. It is the purchasing sub-system (delivery of import materials) that organizes the entering of material flow into the logistical system and determines a considerable part of logistic expenses.

For export oriented enterprises the logistic subsystem for sales has to take into consideration the analysis of the world market conditions of potential consumers of goods and services. The basis of logistic sub-system for sales lies in the rationalization of physical promotion of finished goods, services to a foreign customer and formation of effective logistic service. It is important to monitor regularly the requirements of normative legal documents of certain countries, which are involved into cooperation, local traditions and preferences for goods, needs and demands of potential customers; to pay attention to the pricing policy of competitors, range of products, applied strategies of market promotion, etc. In general, management of a logistic system of an enterprise as the participant of a foreign economic activity should have a complex character, and provide the coordination of its potential possibilities with peculiarities of the world market and balancing logistic flows in the sphere of production, purchase, warehousing, transportation and sales.

To provide maximum effective strategy it is necessary to build logistics management of an enterprise, considering the following principles: balancing, consistency and coordination of the administrative staff work in different logistic business processes; functionality of cooperation; orientation towards integral efficiency, that is coordinating the operation of separate parts of logistic system to increase its integral efficiency in general; achieving sinergetic effect due to bringing together components in a logistic system, and their action on a combined basis. Such logistic system will promote the formation of economic potential regarding the enterprise, improve the profitability of capital, and it will be the source of its competitive advantages under conditions of international business transactions and the means for increasing market cost and profitability.

Logistics is the process of the relation among enterprise with suppliers, customers and potential clients. This process should be developed at the system level. If these relations are functioning well, then the management of logistic system is relatively simple, for the reason that all interested parts aspire to minimize the expenses and create partnership relations among all participants of the production chain and sale of products (or services), which is the guarantee of the functionality of production, purchasing, warehouse, transport, and sales logistics. Complex and systemic approaches should be the basis in the management of logistic system of an enterprise, that will provide the combination of all elements of logistic system of foreign

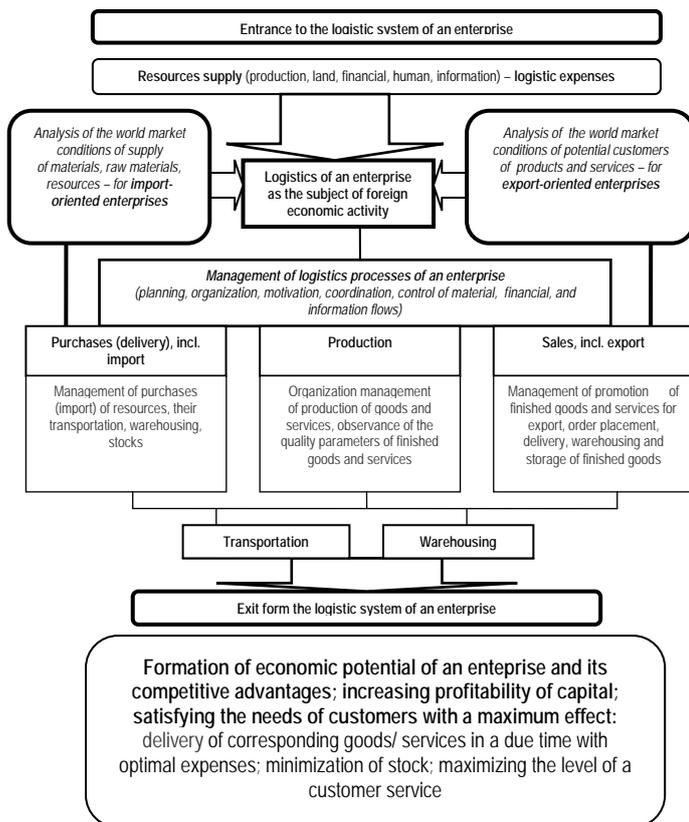


Figure 3. Conceptual scheme of managing logistical system of an enterprise as the participant of foreign economic activity (developed by the authors)

For import-oriented enterprises a regular analysis of the world market conditions of suppliers of materials, raw materials and resources is the basis of procurement logistics. It is important to control prices, product range, demand for and supply of the analogous materials, raw materials and resources, as well as strategies of potential competitors and partners to evaluate possible cooperation in the perspective, because supply process is incredibly important, as it determines flexibility, efficiency, mobility and rhythm of production business-processes. The supply process levels and compose expenses of

economic activity in a single complex of inter-related elements that coordinate in order to achieve the purpose of management – financial stability, profitability, and improving international compatibility [2].

As a rule, logistic approach at Ukrainian enterprises has a random and fragmentary character, and it can be traced only at the level of some sub-divisions or areas of work. This has a negative influence on the efficiency of strategic and tactic management of an enterprise and decreases the efficiency of decisions taken as to the management in all chains of export-import operations. To improve the management of logistic system of an enterprise as a subject of foreign economic activity it is reasonable to take into account specific features of logistics, because the technology of conducting export-import operations implies conducting different business processes of the supply chain.

We carry out the structuring of the main stages of foreign economic operations and logistic flows that accompany them, and this allowed us to single out business processes and corresponding material, information and financial flows, that require maximum attention at every stage of foreign economic transaction and efforts from the managing sub-system of the management apparatus (table 1).

Management strategy of logistic system of an enterprise as the subject of foreign economic activity should be oriented towards the effective information support at each stage of foreign trade agreement, as information flows determine the efficiency of business processes in all chains of export-import supplies in the system of logistics. Under current conditions information becomes a driving force of logistic system and provides its openness and adaptivity, ability to adjust to new production and market conditions.

Information flows accompany each stage of a foreign trade agreement, and they are crucial for providing a high efficiency of logistics at the stages of the search for a potential partner and establishing contacts with a foreign importing firm; development of a project of export contract; conducting negotiations to coordinate the main commercial, technical, financial terms of the contract; signing export contract; preparing the passport of export-import contract.

Table 1. Logistic flows of an enterprise as the subject of foreign economic activity according to the stages of foreign trade agreement (developed by the authors).

Stages of foreign trade agreement	Logistic flows		
	material	information	financial
Search for a contract partner		x	
Development of a contract		x	
Negotiations		x	
Signing a contract		x	
Obtaining permits, licenses and certificates		x	x
Preparation of goods for shipment	x	x	
Preparation of agreement passport		x	
Relations with intermediaries		x	x
Delivery of goods according to the contract	x	x	x
Documentation		x	
International calculations		x	x
Customs clearance and taxation		x	x
Claims settlement	x	x	x

Information flows together with financial flows that influence the efficiency of logistics at the stage of obtaining required documents (permits, licenses, certificates) to conduct export-import transactions; during regulation of financial relations with insurance companies, transport forwarding company and other mediators of foreign trade agreements; international payments for delivered goods according to payment terms and financial operations on selling currency and at the stage of customs processing and taxation of export-import operations [8].

Information and material logistic flows accompany the preparation of export- and import-oriented goods for shipping (packaging, cargo marking, document processing). Only two stages of foreign trade agreement require coordination and regulation of all logistic flows of an enterprise as the subject of foreign economic activity: material, information and financial. They are direct fulfillment regarding obligations of export and import contract (delivery of goods on certain terms, according to the requirements of Incoterms-2010, processing of payment documents) and handling contract claims.

Thus, implementation of each stage of foreign trade agreement results in arising material, accompanying information and financial flows as well. Balancing, agreement and coordination of mentioned logistic flows in the sphere of production, purchasing, warehousing, transportation and sales have practical value for an enterprise as the subject of foreign economic activity, because they promote the improvement of export-import operations, re-shapes a business on the basis of logistic approach, allows us to coordinate potential opportunities of an enterprise and peculiarities of the world market, improves international competitiveness, financial stability and profitability.

4. Conclusions

In global business the management of logistic system within an enterprise requires complex approach and coordination of potential opportunities of a business entity, a specific character of the world market, efficient balancing and inter-relation of logistic flows in the sphere of production, purchases, warehousing, transportations and sales.

It is reasonable to develop management strategy of logistic processes of an enterprise as the subject of foreign economic activity by taking into account orientation towards a foreign trade. Analysis of world market conditions of suppliers of materials, raw materials and resources, control of pricing policy, assortment, supply and demand, strategies of potential competitors and partners make up the basis of purchasing logistics for import-oriented enterprises. For export-oriented enterprises the logistics of sales should include the analysis of world market conditions of potential consumers of goods and services to increase the volumes of delivery, and optimization of product promotion strategies as well. Such logistic system promotes the formation of economic potential of an enterprise, increases the profitability of capital, and it becomes the source of competitive advantages and the means of increasing market value and profitability.

Structuring of the main stages of foreign trade operations and accompanying logistic flows suggested by the authors allowed to single out business processes and corresponding material, information and financial flows that require

maximum influence from the management apparatus at every stage. The results of the research prove that in the current logistic system information flows determine the efficiency of business processes in all chains of export-import supplies, and information is a driving force of the efficiency of logistic system, providing its openness and adaptability.

It is advisable to direct further research into the search and development of tools for coordination of logistic flows between national and foreign participants of the delivery chains, production and sale, because this will be the basis of optimization of production, purchasing, warehousing, transportation and sales logistics not only at micro-, but also at mezo- and macrolevels.

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