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РОЗВИТОК ЛОГІСТИКИ: ЕВОЛЮЦІЯ ТА ПЕРСПЕКТИВИ

Актуальність. Актуальність даної наукової проблеми полягає у дослідженні еволюції розвитку логістики як економічної категорії з метою визначення тенденцій її розвитку, факторів, що впливають на цей розвиток, історичних змін, як фундаменту передбачення і прогнозу подальшого розвитку даного напрямку організації ринково-логістичного середовища. Отже, відома мудрість підказує те, що якщо ми знаємо минулого ми не можемо передбачити майбутнього. Тобто, без цього ми не можемо планувати економічні відносини та впливати на їх розвиток.

Мета та завдання. Метою статті є визначення: етапів розвитку логістики, у межах яких об'єднуються певні економічні процеси, що відбуваються на товарних ринках; визначаються функції та логістичні елементи, з яких складаються товарні ринки; подальших перспектив розвитку ринкової логістики.

Результати. Розвиток логістики відбувається під впливом змін в економічній та практичній сфері та трансформацією ринкових відносин, зокрема такі трансформаційні зміни, що впливали на логістичний розвиток можна характеризувати наступним: перевиробництво як результат розвитку індустріальної економіки; спеціалізація під тиском необхідності економії витрат на логістичних процесах; глобалізація як процес розвитку світової економіки та тиску розвинутих країн на інші; технологічний фактор який в останні роки розвивається більш прискореними темпами і набуває більш впливово значення).

Визначено чотири етапи розвитку логістики у історичному вимірі (1 етап характеризується фрагментацією виробничих процесів, що впливає на поступовий перехід економіки від ринку виробника до ринку покупця; на 2 етапі поширюється концепція маркетингу, яка зосереджена на посиленні стратегії формування запасів; 3 етап характеризується інтеграцією логістичних функцій виробничих та розподільчих суб'єктів ринку, що дозволяє досягти мінімізації логістичних витрат; 4 етап характеризує розвиток логістики за оптимізацією часових та просторових критеріїв, на цьому етапі виникає глобальні логістичні мережі), які формуються на основі змін у ринкових відносинах, а також в залежності від розвитку технологічних і технічних факторів характерних для того чи іншого етапу. Визначено, що на формування цих етапів впливає ступінь розвитку економічних ринкових інструментів, як-то: маркетингові, інтеграційні, стратегічного планування, форсайт-прогнозування).

Висновки. В результаті дослідження автори спробували надати прогноз подальшого розвитку логістики як наукового напрямку, з врахуванням наступних факторів: поглиблення конфлікту інтересів між корпораціями та урядами різних країн, що під впливом процесів деглобалізації призводить до трансформації логістики ринків у більш прості форми – ланцюги постачань зі збільшеними просторовими параметрами; трансформація споживчих ринків під впливом еволюції суспільних потреб, в яких починають домінувати індивідуалізація суспільного попиту і відповідно змінюється технологія індивідуального постачання через Інтернет-мережі; застосування форсайт-прогнозування як прогресивної форми визначення і задоволення суспільних потреб через вдосконалення логістичних послуг.

Ключові слова: ринкова логістика, ланцюги постачань, еволюція логістики, логістичні параметри, форсайт-прогнозування, часові та просторові параметри логістичних ланцюгів, логістична інтеграція.

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LOGISTICS DEVELOPMENT: EVOLUTION AND PROSPECTS

Topicality. The relevance of this scientific problem lies in the study of the evolution of the development of logistics as an economic category in order to determine the trends of its development, factors affecting this development, historical changes, as a basis for predicting and forecasting the further development of this direction of organization of market and logistics environment. Thus, known wisdom suggests that if we acknowledge the past, we cannot predict the future. That is, without this we cannot plan economic relations and influence their development.

Aim and tasks. The purpose of the article is to determine: stages of logistics development, within which certain economic processes occurring in commodity markets are combined; defines the functions and logistics elements that make up the commodity markets; further prospects for the development of market logistics.

Research results. The development of logistics is influenced by changes in the economic and practical sphere and the transformation of market relations, in particular, such transformational changes that influenced the logistics development can be characterized as follows: overproduction as a result of the development of the industrial economy; specialization under the pressure of cost savings in logistics processes; globalization as a process of development of the world economy and pressure of developed countries on others; a technological factor that has been developing at an accelerated pace in recent years and is becoming more influential).

Four stages of development of logistics in historical dimension are defined (stage 1 is characterized by fragmentation of production processes, which influences the gradual transition of the economy from producer to buyer market; stage 2 extends the marketing concept, which focuses on strengthening the strategy of inventory formation; stage 3 is characterized by integration of logistics functions production and distribution entities of the market, which allows to achieve minimization of logistics costs; stage 4 characterizes the development of logistics by optimizing the time and space criteria, at this stage there are global logistics networks), which are formed on the basis of changes in market relations, as well as depending on the development of technological and technical factors characteristic of this or that stage. It is determined that the formation of these stages is influenced by the degree of development of economic market instruments, such as: marketing, integration, strategic planning, foresight forecasting.

Conclusion. As a result of the study, the authors tried to predict the further development of logistics as a scientific field, taking into account the following factors: deepening conflict of interest between corporations and governments of different countries, which, under the influence of deglobalization, leads to the transformation of logistics of markets into simpler forms - supply chains with increased parameters of supply; transformation of consumer markets under the influence of the evolution of social needs, in which the individualization of public demand is beginning to dominate and the technology of individual supply through Internet networks is changing accordingly; the use of foresight forecasting as a progressive form of identifying and meeting public needs through the improvement of logistics services.

Keywords: market logistics, supply chains, evolution of logistics, logistics parameters, foresight forecasting, time and space parameters of logistics chains, logistics integration.

Problem statement and its connection with important scientific and practical tasks. In modern conditions of economic development of the world economy the efficiency of functioning of commodity markets depends on the rational organization of their logistics. Logistics processes are essential in the country's economy, the organization of which in the markets creates the conditions for the realization of

reproduction cycles, production, reproduction and use of added value in order to create conditions for further economic growth. However, we believe that it is necessary to investigate the sources of origin of the logistics direction and to investigate the evolution of its development.

Thus, many studies have been devoted to the study of the evolution of the emergence and development of logistics as a concept and economic category, which have been analyzing it since ancient Greece. In a way, it was tied to the socioeconomic system of those times, and more to the military.

That is, the provision of military supplies, military equipment, food and goods of troops in terms of their combat readiness. It was only around the twentieth century that it began to gain economic substance and be applied to ensuring the economic activity of businesses producing consumer products. Therefore, we consider it appropriate to start our analysis from the very moment when logistics as a discipline and an economic tool becomes of practical importance in the economy of enterprises and the country.

Analysis of recent publications of the problem. Modern authors who study logistics as an economic tool are the following: V. Gubenko, I. Smirnov, V. Livshits, O. Lyamzin, Y. Nefedova, M. Hara, L. Myrotin, V. Polishchuk, V. Dolya, A. Gadzhinsky, A. Kalchenko, F. Kotler, L. Gurch, V. Kruglov, V. Krikavsky, V. Melnichenko, M. Auckland, I. Savenko, I. Komarnitsky, I. Litovchenko, Y. Ponomareva, O. Nikishina, R. Sopilnyk, D. Bauersox, M. Christopher.

Allocation of previously unsolved parts of the general problem. Modern trends in the theory and practice of logistics emerged in the early twentieth century. At that time, knowledge of logistics as a science of organizing commodity movement in the market began to be filled with an awareness of its goals, essence, tasks and the possibility of application in practical activity. Such processes have taken place under the influence of transformational changes in the economies of the most developed countries and in the world as a whole.

Formulation of research objectives (problem statement). The purpose of the article is to determine: stages of logistics development, within which certain economic processes occurring in commodity markets are combined; defines the functions and logistics elements that make up the commodity markets; further prospects for the development of market logistics.

An outline of the main results and their justification. Transformational changes have had a significant impact on the evolution and development of logistics, from which, in the authors' view, four factors of influence should be distinguished, namely:

1. Overproduction - the development of the industrial economy in developed countries of the world was ahead of the development of its service infrastructure. And production and, accordingly, commodity supply in the markets outstripped demand due to slow supply. This forced attention to the development and improvement of existing systems of freight traffic, that is, logistics. Logistics as an economic tool for regulating the commodity movement is gaining market meaning.

2. Specialization - due to the need to improve the processes of goods movement (moving, storage, distribution), specialized enterprises emerge on the market, performing certain logistical functions more effectively due to the professionalism and application of advanced equipment. At this stage, an economic mechanism such as outsourcing begins to develop.

Outsourcing, as a modern form of organization of differentiation and specialization processes in the markets, involves the involvement of third-party professional organizations for conducting business processes. The development of logistics outsourcing was due to several factors, namely:

- the expansion of the activities of national companies and their entry into new markets, including international ones, has led to a complication of supply chains;
- the practice of implementing the concept of supply chain management compels enterprises to resort to specialized logistics companies (inventory management, transportation, warehousing);
- the need for constant monitoring of consumer demand for timely response to changes in demand of potential customers, additional services when fulfilling orders and supplying products.

3. Globalization, as a process of development of the world economy, has expanded the borders of markets in the world space, and also transformed them in terms of transfer of different market subjects (both production and logistic profile) to different corners of the planet in different countries and continents. This forced them to look for effective ways to connect these sprawling logistics units into a single logistics chain through the use of advanced modern organizational, managerial and technological mechanisms and tools.

4. The technological factor greatly contributed to the development of logistics, as it influenced the technological armament of logistics operations, and therefore the time and economic parameters of freight traffic. For example, a characteristic feature of the late 20th century was the "packaging and packaging"

revolution in the West, which resulted in the development of new types of packaging and packaging, transportation and warehousing, construction of automated warehouses, and the introduction of containerized cargo transportation.

Further analysis of the evolution of logistics development shows the following results. Consider them in stages.

Stage 1 (from the 1920s to the early 1950s) is characterized by fragmentation of production processes. At that time, logistics was not yet formulated as a tool to reduce overall costs in managing material flows, but the prerequisites were born for the emergence of logistics concepts (an attempt to reduce transport costs and inventories in goods distribution systems, the emergence and spread of marketing). In this period, there was a gradual transition of the world economy from the producer market to the buyer's market (that is, when the producer had to adapt to consumer needs), due to the advanced development of the industrial economy.

Stage 2 (circa 1950 - 1970s) is the period of logistics development. A widespread marketing concept has helped to improve the physical distribution of goods and reduce costs. During this period, the concept of shared costs was further developed, which became the basis for the development of a logistical decision-making methodology. Among the major economic and technological factors affecting the development of logistics should be identified changes in inventory strategies; back pressure on production costs; development of oligopoly markets (changes in patterns and attitudes of consumer demand); advances in computer technology [1].

During this period, the concept of business logistics was formed, under the slogan "Logistics is the management of all types of activities that facilitate the movement and coordination of supply and demand for goods at a specific place and time" [2]. The notion of logistics is defined as "... a wide range of activities related to the effective movement of end products from the end of the production line to the buyer, in some cases including the movement of raw materials from the source of supply to the beginning of the production line [3]. That is, the 1970s were characterized by increased competition due to a lack of quality raw materials.

Stage 3 (1980s to mid-1990s) - development of logistics and maximum integration of logistics functions of manufacturing companies with partners to form a complete logistics chain: "purchase of raw materials and components - production of goods - distribution of goods - sale" to achieve the ultimate goal with minimal cost. During this period, information technology and personal computers appeared.

Defining the content of functions and their composition of logistics is also being transformed, which is already understood by the processes: planning, management and control of the efficient (in terms of cost reduction) flow of stocks of raw materials, work in progress, finished goods, services and related information from the place of origin of this flow to its place of consumption (including imports, exports, domestic and external movements) for the purpose of fully satisfying consumer requests "[4].

The globalization of the market contributes to the development of the concept of general quality management as a managerial approach, which aims at improving the quality and participation in this process of all participants in the logistics chain - maintaining quality characteristics at all stages of production and promotion of products (services) in the market. This makes it possible to achieve long-term success by fully meeting the needs of consumers and the mutual benefit of each participant and society as a whole. There is a need to change the laws of different countries, since the free movement of goods, services and people between countries required the elimination of traditional national, transport, customs, trade and other barriers. Thus, logistics becomes a lever and strategic tool in the competition for consumer markets.

Stage 4 (beginning of 2000 - ...) - development of logistics in time and space dimension. Yes, when competition is intensified, time is a key factor in competitiveness. In a constantly changing environment, firms need to be responsive and adapt to changes in the environment in a timely manner. M. Porter, J. Stoke, and D. Lambert introduce the concept of "integrated supply chain management", which is based on the analysis of common costs, which can be defined as minimizing the cost of transportation, warehousing, inventory, order processing and information systems, as well as the cost of parties goods while achieving the desired level of customer service» [5]. J. Shapiro also shares this view, noting that "expanding the scale of total cost analysis is necessary to improve supply chain management in the future" [6]. Thus, it is possible to say that in the process of researching the evolution of logistics, some authors distinguish the stages of its development by organizational forms of managing material flows of goods with appropriate definitions of stages by periods such as: business logistics, industrial logistics, marketing logistics, etc. [1, 7]. Others consider the latest stage in the evolution of the logistics of the supply chain management system in the 2000s, whose mechanisms are: information technology, marketing, strategic planning, quality management [2].

But the authors of the article, believe that the last period of development of the theory of logistics can be characterized as an awareness of the allocation in its composition of a new direction - market logistics. The author's position differs from existing concepts in that:

- first: the concept of logistics development is based not so much on the fixation and description of the development of logistics in a particular historical period, but on the ability of logistics development processes to respond to the challenges of time and opportunities to adapt logistics to the conditions of economic and economic development in time and space dimension;

- secondly, the further development of the theory and practice of logistics goes beyond the logistics of the enterprise and is more closely linked to market processes and acquires the characteristics of managerial market logistics.

Based on the current challenges of the economy both in the world and in individual countries, changes in economic relations between corporations and governments, and the development of market logistics in the short term is characterized by the following features:

1. The widespread use of integrated logistics management of relevant markets with the transfer of function to specialized logistics structures.

2. Taking into account the state interests that stimulate the restructuring of logistics structures of the markets in terms of maximizing production and reproduction of value added, as a source of formation of state revenues.

3. Development of modern tools for managing logistics processes, in particular: Internet marketing, outsourcing, Smart-logistics, etc.).

Research into the evolution of logistics is not an end in itself. The authors look for further predictive directions and ways of logistics development both in theory and in practice. And considering the results of the study, the forecast trends of logistics development in the medium term can be formed under the influence of the following factors that arise in modern economic society, namely:

- tougher competition between corporations for markets;

- more active participation of states in support of their own national corporations on the one hand, and on the other, the formation of logistics chains with the participation of state bodies;

- active development of information and management technologies in terms of regulation of logistics chains;

- development of logistic networks with the basis for creation of specialized and universal logistic centers (LSPs, hubs).

Such factors, in our opinion, will influence in the near future (5-10 years) the development of logistics, as its theoretical provisions, institutional content, and in the formation of practical logistics chains of commodity markets.

Consideration should be given to the following considerations when considering longer-term logistics development forecasts.

1. Conflict of interest between corporations and governments forces the former to turn to labor-intensive manufacturing in other countries and to bring businesses close to the markets to their own countries and, accordingly, to jobs. This leads to the transformation of market logistics into simpler forms - "supply chains" with the change of spatial parameters in the direction of their increase. This is due to the reluctance of corporations to lose markets, but in turn, this leads to an increase in the time of passage of goods along the logistics chains to consumption.

Some authors even believe that the process of deglobalization in the world economy [8]. Obviously, this process leads not only to an increase in the spatial parameters of logistic chains of burrows (+ ΔL), but also to a temporal (+ ΔT) with existing transport, technological and organizational means. Accordingly, the share of these components in the structure of logistics costs will increase, as well as the communication between producers and consumers will decrease.

2. Transformation of consumer markets is under the influence of the evolution of social needs, which tend to dominate the tendency to deprive individualization in the general structure of public demand [9]. After all, in the face of communicative losses and evolutionary changes, the corporation's paradigm of needs is forced to find ways to offset additional losses and maintain its position in the markets.

Conclusions and prospects for further research. Because current forecasting methods do not allow the long-term perspective to make more or less reliable forecasts for the development of logistics of world markets through unpredictable economic processes that are influenced by political interventions. Therefore,

scientific society and, first of all, corporations are looking for more accurate forecasting methods, one of which is the foresight method [10].

Foresight methodology differs from traditional forecasting and strategic planning not only by preparing analytical forecasts, but also by exploring the most problematic areas, detailed scenarios and well-defined economic models. In addition, foresight is characterized by the desire to unite the efforts of the key players in the change process and create the conditions for consolidation and anticipation.

This process organization methodology is designed to create a shared vision for the future of the participants that they seek to support with their actions today.

Combining foresight and organization based on yog-based logistics of the future gives the authors the opportunity to form the category of foresight logistics.

Foresight logistics is a methodology for organizing future logistics chains of commodity markets based on the foresight of forecasting their space-time and economic logistics parameters.

The authors consider it necessary to introduce the tools of foresight logistics in strategic planning of economic development, which will allow the dominant structures in the market (corporations, states) to form effective logistics chains.

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