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THE PROCESSES OF ORGANIZING THE MAIN FACTORS FOR THE DEVELOPMENT OF INTEGRATED LOGISTICS IN THE DIGITAL ECONOMY

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ABSTRACT

In the Modern World, Logistics is one of the main factors in the economic growth and competitiveness of enterprises. Characterized by the development of Information Technology, the digital economy is changing approaches to the organization of logistics processes. In this regard, the need arises to combine traditional and digital logistics methods to ensure the efficiency of the activities of enterprises and optimize their costs.

KEYWORDS

Digital economy, artificial intelligence, Internet of things, logistics, integration, automation, optimization.

INTRODUCTION

One of the key aspects of the digital economy is the integration of logistics, which makes it possible to optimize processes, increase the efficiency and competitiveness of companies. Integrated logistics is an approach to managing the flow of goods, services and information that allows organizations to optimally use resources and achieve their strategic goals. In the digital economy, logistics integration is becoming even more relevant, since it allows you to maximize the use

of information technology capabilities to manage processes and improve the quality of services.

The main factors of the development of integrated logistics are the main factors of the development of Integrated Logistics:

- Globalization of economic activity: the growth of international trade and the expansion of production networks require the optimization of logistics processes internationally.

- Changing consumer behavior: consumers are increasingly demanding and expect fast delivery of goods, as well as high-quality service.
- Development of Information Technology: digital technologies make it possible to optimize logistics processes by providing transparency and control at all stages of the supply chain.
- Strengthening competition: the successful development of enterprises in the digital economy depends on the effectiveness of their logistics system, which encourages the search for new solutions and the integration of different approaches.
- Environmental component: logistics processes must be environmentally friendly and reduce the negative impact on the environment.
- Increase in the volume of goods and services: an increase in the volume of goods and services requires optimization of transport, storage and distribution processes.
- Combining different types of transport: the development of intermodal transport allows you to reduce the cost and time of delivery of goods.
- Innovation implementation: the use of new technologies and innovations in logistics improves the quality of Service and reduces costs.

- Training and development of personnel: improving the skills of employees and introducing new methods of work make it possible to increase the efficiency of logistics processes and improve the interaction between different units of the enterprise.

The theoretical and methodological foundations of logistics using artificial intelligence (SI) technologies in digital economics imply the study and development of theoretical and methodological approaches to logistics processes, taking into account new technologies and innovations. One of the key aspects of logistics theory is the use of SI technologies to optimize and automate logistics processes. Artificial intelligence technologies make it possible to automate the collection, processing and analysis of information about the movement of goods and cargo, as well as optimize demand forecasting and supply chains. At the same time, for the successful application of SI technologies in logistics, it will be necessary to take into account a number of factors, for example, the characteristics of the object, the uncertainty and variability of the external environment, risk and uncertainty, as well as the legal aspects of the use of ethical and ethical SI technologies. Logistics is closely linked to many sectors of the economy and includes all business processes from marketing to after-sales customer service. Integrated supply chain design-covers demand management processes, production and warehouse processes, transport logistics processes, information

logistics, etc. and serves to form a unified management environment for the entire supply chain. [2]

One way to increase the efficiency of employees in a dynamically changing business environment is to avoid an increase in the burden on them and limit the area of responsibility possible through the use of a specialized information system. The more clearly an employee understands his area of responsibility, the more income from it, since in this case he does not take on the tasks that he is not able to cope with. To more accurately define the tasks of employees, it is possible to use a special information system that restricts employees to use only those functions in which the employee has sufficient powers and competencies. [4]

An in-depth analysis of the activities of providers, supply chain participants makes it possible to identify the most important factors that significantly affect the development of the supply chain in the conditions of the formation of the country's digital economy, namely:

- digitization of business processes in supply chains;
- Intellectual Information Systems;
- Transport;
- Barn;
- electronic document management (including tax and accounting);
- unmanned vehicles;
- Smart roads (smart road;

- Communication between vehicles (Vehicle-to-Vehicle) and vehicles with infrastructure (Vehicle-to-infrastructure);
- Digital platforms with guaranteed integrity of transaction data (blockchain-based);
- application of analytical tools for predictive analysis;
- Application of digital display cases;
- Apply distributed registers;
- IoT (Internet of Things);
- Online Supply Chain Planning;
- Application of 5PL to provide a full spectrum of logistics services based on cloud technologies and digital platforms [3].

Modern information technology and global Internet capabilities are widely used not only among business structures, but also in the daily activities of a wide range of individuals. With the help of information technology, you can significantly reduce the cost of finding the necessary information, evaluating it and checking it. If twenty years ago the search for the necessary scientific, technical or other information required additional costs, in the context of digitization, the necessary information can be searched in a short time from almost any user device (smartphone, tablet or desktop computer).

For the development of integrated logistics, it is necessary to take advantage of the latest achievements of block chain, artificial intelligence, the

Internet of items and Information Technology. As a result of their effective application, logistics business processes receive the most powerful information technology support, thereby ensuring the digital transformation of logistics by forming a single information space that unites all participants in logistics relations. The use of "smart" technologies makes it possible to implement many previously unavailable capabilities for managing logistics flows [1].

The use of information technology is an important factor in the development of supply chain management, allowing the economic growth of the enterprise. But their rapid development contributes to uniformly rapid obsolescence, which forces logistics companies to constantly monitor changes in the IT market and constantly invest in new technological solutions: information systems, platforms and even ecosystems.

The quality of the supply chain directly affects the economic benefit of the organization, therefore, it is necessary to pay special attention to this issue, since well-established supply chains can reduce the costs of the company, optimize not only its working capital, but also its financial resources. After all, the more correct the planning of the supply chain, the higher the profitability of investments. [5]

One way to improve the efficiency of supply chains is to put the concept of JiT (Just-in-time) into practice, but this is due to a number of difficulties, since most

companies are not ready to take such a rigorous approach that is, to organize their business processes precisely because of the dependence on counterparties. High risks will be due to the fact that the dependence on the counterparty is limited not only to one counterparty, but also to a third person - his counterparty.

One of the most important goals of Integrated Logistics is to reduce logistics costs. Specialized logistics information systems are used to optimize business processes, improve forecasting accuracy and plan resources more accurately, the main feature of which is to increase the efficiency of the enterprise. Information technology is a necessary condition for the existence of an enterprise and has long been considered a virtual infrastructure, and not a competitive advantage. a "circulatory system" in which information flows circulate [4].

Almost any type of activity of a modern enterprise is based on the use of Information Technology, for example, communication over the Internet and the use of mobile technologies. The use of the internet is almost inseparable from logistics business processes. Not a single global route can be designed without the use of network technologies, modern trading uses Internet Communications very tightly. Statistics on the use of the Internet for ordering goods (services) indicate a stable annual growth.

The integration of logistics and the digital economy involves the use of modern ICT to optimize supply

chain management processes. This makes it possible to increase the transparency, efficiency and reliability of logistics systems, reduce costs and risks. The main areas of integration of logistics and the digital economy are:

- Process Automation: the use of automated systems for managing inventory, warehouses, vehicles, etc.

- Using IOT (IOT): integrating various devices and sensors into logistics processes allows them to be quickly controlled and controlled.

- Application of cloud technologies: the use of cloud services for the storage, processing and analysis of logistics process data.

- Introduction of artificial intelligence and machine learning: application of algorithms and applications to optimize planning, prediction and decision making based on large-scale data analysis.

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The processes of organizing the main factors for the development of integrated logistics in the digital economy are of key importance for the successful functioning and development of various sectors of the economy. Thanks to the use of artificial intelligence and other modern technologies, logistics becomes more efficient, flexible and optimized, which reduces costs, time and effort to complete tasks. In general, the integration of logistics and digitalization contributes to the creation of more sustainable and competitive business models.

The processes of organizing the main factors for the development of integrated logistics in the digital economy are an important aspect for the successful functioning and growth of various industries. The use of artificial intelligence and other modern technologies makes it possible to make the logistics system more efficient, adaptive and rational, which in turn reduces costs, time and effort to solve problems. Together, the integration of logistics and digital transformation contributes to the formation of more stable and competitive business models.

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