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Development of Ukrainian logistics system in the conditions of the circular economy

On the basis of generalization of foreign experience, the influence of logistics as a separate sector of the economy on economic growth, competitiveness and efficiency of the economic system in the country is determined. It is proved that Ukraine's logistics strategy should be based on the paradigm of sustainable development, the concepts of circular and innovative logistics.

Theoretical principles of development of the strategy of sustainable development of the national logistics system

The development of the national logistics system should be permanent and reflect the multidisciplinarity of various areas of logistical activity at the micro, meso and macro levels of the national economy, as well as meet the requirements of the National Strategies for Social and Economic Development of Ukraine, the National Transport Strategy until 2030, and the Association Agreement The European Union. At the same time, we are deeply convinced that under conditions of economic transformation Ukraine should identify strategic priorities related to the production of high-tech products and services with high added value in those sectors of the economy, which will be demanded on the external and internal markets, and logistic the country's system should ensure their efficient movement and storage. We support the point of view of the well-known American economist S. Kuznets, a Nobel laureate who believed that economic growth is a long-term increase in the ability of the economic system to provide increasingly diverse needs of the population with the help of increasingly effective technologies and their corresponding institutional and ideological changes [5].

Summarizing different points of view about the essence of the logistics strategy and its components, as well as methodological approaches to the development of strategies at the macro level, we will understand the strategy as a generalized model of the future state of NLS and planned actions for its achievement, which establishes the main directions, goals and priorities of logistics activities, reveals critical resources for the necessary innovations, contains means for realizing priorities and indicators for achieving the planned result [7]. The subject of a logistics strategy is the state, the strategic goal of which is the provision of harmonious development and welfare of the society, and, accordingly, the logistics strategy should be related to economic policy and macroeconomic strategy.

Analysis of the literature on the nature and content of sustainable development showed the presence of theoretical and methodological problems associated with a large number of variants of translation of the English name of the category «sustainable development», including stable or steady, steady, steady, balanced, balanced, sustainable, noosphere development and so on [6]. In the domestic legal and regulatory sphere, the term "sustainable development" has been established. Authors [8, p. 35] consider sustainable development in a three-dimensional dimension: 1) as a process (harmonization of integrated components); 2) as a model (the desired state of

development of society on the basis of optimization of national economy with conditions and resource constraints of the environment); 3) as a managed strategic goal (paradigm of social growth).

Since the term "sustainable development" in the dictionary of the Ukrainian language are interpreted as "stable, unchangeable, sustainable" [9, p. 623], then we believe that it is more appropriate to use the term "balanced development" for the development of Ukraine's logistics strategy, since it best describes the idea of socio-economic development of society.

System analysis of the country's natural and ecological and socio-economic strategic potential proves that we can create a sufficiently powerful foundation for the future development of the newest "green economy" and provide a sustainable natural resource and economic development in general. The latter leads us to conclude that the national logistics strategy should reflect the concept of sustainable economic development as an effective approach to managing resource and energy flows in order to reduce the environmental and economic damage that may be caused to the environment, as well as the concept of green logistics as a system of measures, which involves the use of energy and resource-saving technologies and modern equipment in the supply chains to minimize the negative impact on the environment and increase of aggregate consumer value of products for consumers.

The experience of the leading logistical developed countries of the European Union shows that the new paradigm of economic development can be a model of a circular economy based on the principles of sustainable development, the main instruments of which are environmental innovations (eco-innovations) and "green" technologies, that is, environmentally friendly technologies, friendly with respect to environment. By definition, Ellen MacArthur Foundation, the circular economy is inherent in a renewable and closed nature [1]. The purpose of such an economy is to minimize the consumption of primary raw materials and the volume of processing resources, which is accompanied by a reduction of waste for disposal, with simultaneous reduction of land areas and unorganized garbage. The circular economy operates in accordance with the principles of 4R: Reduce, Reuse, Recycle, and Global Social Corporate Responsibility/

The basis of the phased transition to the circular economy is the transformation of the basic principle of the linear model "take, make, waste" into the principle of "take, make, reuse", which contributes to the formation of such technological and technological systems. In particular, the EU's G7 Circular Economy Package, published in 2014, contains a road map and recommendations for European countries to improve the use of natural resources, the formation of a green and competitive low carbon economy.

Authors [2, 4] believe that the basis of the circular economy are the closed supply chains, which ensure the maximization of added value during the life cycle of a product (product) with a dynamic recovery within relatively long time intervals with minimal waste Guide, Wassenhove. The economic benefits of enterprises in various industries, implementing circular business models associated with increased innovation and customer loyalty, creating new competitive advantages and increased integration relationships with partners in the consumer value chain. Accordingly, the logistics industry as a sphere of formation of added value in production and marketing supply chains can help transform waste streams from one sector to the flow of resources to

optimize the production of other industries, as well as help to reduce the value added by reducing energy consumption, optimizing routes commodity movement, the organization of flawless and intelligent transport networks using environmentally friendly transport modes and energy-efficient storage platforms.

Due to the introduction of efficient logistics technologies and logistics solutions at different levels of management, logistic systems can reduce the value added of goods and services, increase the consumer value of products at the expense of the usefulness of space and time, and also provide sustainable growth and protection of the environment.

Strategic priorities of the sustainable development of Ukraine's logistics system in the context of European integration

We believe that the main goal of the National Logistics Strategy should be to create a logistics industry that could help restore and increase the country's eco-nomicity, and, using a favorable geographic location, become a central transit hub between Europe and Asia. Improvements in logistic sector automatically lead to improvements in other sectors of the economy: industry, agriculture, trade and tourism. The strategy of balanced development NLS advisable interpreted as a system consisting of subsystems and ideas, principles, ideas that contribute to the purpose and conditions of functioning of logistical activity at various levels of management. The locally integrated and globally connected logistical system will promote national economic sovereignty and security, improve social well-being and quality of life of the Ukrainian population.

An important component of the proposed conceptual approach to building a logistics strategy is the definition of strategic imperatives as defining requirements for NLS. As part of our study, key economic growth is the growth of economic efficiency of logistics processes in the public and private sectors of the national economy, supply chain security and population mobility, human capital development, reduction of harmful emissions from logistics and saving of natural resources through recycling , effective public administration, technological dynamism and innovation [3].

Implementation of the Association Agreement with the EU envisages regulatory harmonization of the EU legislative acquis with the national legislation of Ukraine and the following tasks:

- implementation of international legal norms and rules in the national legislation regulating logistics activities;
- introduction into the national logistics system of the best world practices of controlling the movement of goods in supply chains;
- promoting the development of container transportation, cooperation of the activities of the operators of logistic services and international container carriers;
- development of methodology of indicators of efficiency of logistics activities and their accounting system;
- harmonization of the national legal framework in the field of logistics with the principles and recommendations of international organizations regulating the relations of participants in international economic activities (World Trade Organization, United Nations Economic Commission for Europe, European Union, Eurasian Economic Union, etc.);
- improvement of the level of qualification and service in accordance with international standards and practices.

The development of systems and standards of information interaction on the international and national markets of goods involves solving the following tasks:

- transition to electronic documents circulation systems through stable chains of commodity routing in the logistics system;
- formation of a unified digital platform of the logistics system of Ukraine on the basis of integration interaction with international information systems;
- adaptation of the digital infrastructure of transport corridors with international information systems;
- unification of the standards of information exchange between the participants of the logistics system;
- use of electronic forms of commodity-accompanying and commercial documents in international carriage of cargoes by different modes of transport;
- development of the system of electronic exchange trade in the field of providing logistics services.

The development of the infrastructure of the logistics system and the creation of a network of multimodal logistics centers involves solving the following tasks:

- development of the objects of the commodity network and logistics infrastructure (including multimodal logistics centers), taking into account economically justified their inclusion in the national and international supply chains;
- formation of logistic infrastructure taking into account the territorial development of transport objects (railway stations, river ports, airports, terminals), general schemes for the development of transport nodes and principles of intermodality;
- integration of infrastructure objects into existing and prospective international supply chains, transport corridors, global integration schemes of goods movement and development of logistics infrastructure capacity based on trends of the Ukrainian economy development till 2030;
- development of terminal-warehouse infrastructure for container processing with the growth of container transportation;
- ensuring the complexity of the development of objects of logistic infrastructure;
- renewal of transport resources and relevant innovative solutions that contributes to the advance of development and the realization of the United Nations goals and principles of sustainable development.

Conclusions

The strength of the research is the formulated methodological principles for the creation of a national logistics system based on theories of multilevel taxonomy and system stability of the economy, which allowed to build a hierarchy of logistic systems at the micro, meso and macro levels and to direct it to ensure economic growth and increase the competitiveness of the national the economy. The weak point is that the implementation of the proposed tetrad model requires a large amount of statistical information to build dependencies between the results of logistics activities at different levels of management and the parameters of flow processes that have inter-organizational, inter-functional, inter-sectoral, interregional character. Opportunities for further research are the specification of socio-economic relations at each level of the management hierarchy and the definition of the degree of mutual influence and coherence in the triad "resources (infrastructure) - results (efficiency) - competence

(quality)." The threats to the results of the research carried out is that the market for logistics services is constantly changing, new companies and new infrastructure appear, and requirements for sustainable development of the national economy are increasing, which necessitates changes in socio-economic institutions and forms and methods of state regulation of logistics activities.

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