Logistics trends in the sustainable development of the Eurasian region

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Abstract. The study considers the relevance of logistics trends in the sustainable development of the Eurasian region, because due to the changed geopolitical situation there is currently the formation of a new paradigm of transport and logistics ecosystem development. The paper uses methods of analysis, synthesis, as well as comparative-legal and formal-legal methods and others that allow us to study the problem of sustainable development of transport and logistics sphere from the perspective of modern science, taking into account socio-economic trends. The proposed integrated approach allows, based on the obtained data, to give recommendations for improving the efficiency of transport and logistics complex, taking into account the regionalization of international relations, including the formation of new approaches to ensure sustainable development of the Eurasian region.

1 Introduction

The axiology of modern international cooperation presupposes diversification of economic ties. However, taking into account the deglobalization processes in the world economy, the development of regional cooperation in the short and medium term seems to be the most effective. In the current geopolitical conditions, when many risks for the development of the logistics system have been realized, the implementation of infrastructure projects within the framework of regional organizations aimed at the convergence of transport and logistics systems within the EAEU, SCO and BRICS, as well as the interfacing of logistics services with the Chinese digital logistics platform LOGINK [6], which in the medium term will make it possible to offset the effect of restrictions imposed on Russia in the field of transport.

2 Materials and methods

The research used the method of analytical review of the state of the Russian market of logistics services, peculiarities of the development of the Russian transportation and...
3 Results and Discussion

The year 2022 saw tectonic changes in international relations, which led to the development of integration processes on a global scale, however, contributing to the strengthening of regional cooperation within the EAEU, the strengthening of Russia's ties with China [12], and the development of cooperation within the SCO and BRICS.

**Fig. 1.** Key challenges for the transportation and logistics ecosystem in 2022

- Volatility and economic slowdown
- Rising energy prices
- Growth of tariffs for transportation services and their insurance
- Disruption of sustainable logistics routes
- Increasing level of cybersecurity threats to intelligent transportation systems
The restrictions imposed on Russia in the transportation and logistics sector contributed to the fact that in 2022 the volume of Russia's trade with the EAEU countries increased by 22%, including 77% with Armenia. This created conditions for the growth of its GDP increase by 12.6% last year.

The increase in exports to Russia has increased demand for transportation routes along the western branch of the North-South corridor and for transit routes through Kazakhstan.

The main document regulating the implementation of a unified transport strategy within the EAEU is the EEAC Decision "On the Main Directions and Stages of the Coordinated Transport Policy Implementation". The document lays the foundation for the formation of national strategies for the development of transport and logistics ecosystems of the EAEU member states.

Fig. 2. Principles of coordinated transport policy within the EAEU

The main objective of the development of international legal regulation of the transport and logistics sector within the EAEU is to create a regulatory framework for sustainable convergence of national transport and logistics systems. The EEEC Decision No. 19 of 26.12.2016 provides for the elimination of all obstacles and restrictions in the implementation of transportation by all modes of transport within the EAEU until 2025, as well as to ensure the convergence of the EAEU transport and logistics systems to take into account the Main Directions of the Coordinated Transport Policy of the EAEU in the development of national and development plans of the transport and logistics industry.
The member states.

Tasks of the unified transport policy of the EAEU:
• creation of a common market for transportation services;
• taking concerted action to ensure shared benefits in transport and the implementation of best practices;
• integration of transport systems of member states into the world transport system;
• effective utilization of transit potential of Member States;
• improving the quality of transportation services;
• reducing the harmful impact of transportation on the environment and human health;
• transportation security.

Russia is currently implementing the Transport Strategy until 2030 [11]. The Strategy provides for the realization of the country’s transit potential through integration into global transport chains, including within the framework of the Eurasian Economic Union. The document was approved in November 2021, when the international sanctions providing for restrictions on cooperation in the logistics sector and resulting in the disruption of cargo delivery routes with Europe were not introduced. Given the current geopolitical situation, convergence of the EAEU transportation systems is a prerequisite for ensuring Russia’s connectivity with partner countries.

The Russian Transport Strategy notes that the most important trend in the development of the Russian transport and logistics sector is Eurasian economic integration and joint implementation of infrastructure projects in the Eurasian space, as well as the development of international transport corridors.

In 2023, in the global ranking of the Logistics Performance Index, Russia ranks 88th, Kazakhstan – 79th, Belarus – 79th, Armenia – 97th, Kyrgyzstan – 123rd. Compared to 2018, Russia dropped by 13 points, Kazakhstan – by 8, Kyrgyzstan – by 15, Armenia – by 5, Belarus rose by 24 points. Undoubtedly, the introduction of international sanctions has greatly affected the efficiency of Russia’s transport and logistics industry, making cargo transportation routes longer and creating the need to add additional links to the chain of cargo carriers. Major transportation projects implemented within the EAEU should be adjusted to the new socio-economic conditions.

Given the current geopolitical agenda and the international sanctions against Russia and other countries, the SCO institutional and organizational system can be a significant alternative to the closed routes of cargo flows from the EU and will become the basis for the creation of a modern and efficient transport and logistics infrastructure in Eurasia, including its information component. Thus, the volume of trade turnover between China and the SCO countries from January to August 2022 increased by 26% in annual terms and amounted to $246.45 billion. However, the realization of this prospect requires the adoption of regulatory and legal documents within the SCO that are not only declarative in nature, but contain both a common standard of electronic document flow in the field of logistics between the states, and the basics of a common transport legislation, creating a basis for the integration of transport systems of the member countries and the implementation of major infrastructure projects in the industry.

At the present stage of development, logistics has become a science with a wide range of activities, including planning, control and management of transportation, warehousing and other tangible and intangible operations performed in the process of bringing raw materials to the production enterprise [2-4,7-10].

The analysis of transportation and warehousing services is aimed at a comprehensive study of their markets within the framework of the economy they serve, competitiveness of companies specializing in logistics services, and pricing (tariff) policy. The study is based on the analysis of statistical data, current state and forecast of socio-economic development of the territory under study.
Logistics services are a set of tasks to organize the transportation of goods from one point to another. When solving such issues, measures are also taken to minimize costs and optimize cargo transportation.

Logistics services are categorized into:

- Transportation, related to the construction of transport routes, their types and the establishment of optimal timing of cargo movement;
- Warehousing related to determining the storage area for transported goods, including building size, temperature regime, availability of access roads.
- Related services related to supply management, transshipment, customs services, insurance.

Of these, transportation services are the most developed in Russia, warehousing services are underdeveloped and at the stage of development, and related services: logistics consulting, are at the stage of emergence and spread in the country.

The slowdown in economic growth caused by the 2014-2015 sanctions had a detrimental impact on the transportation and logistics services market in Russia. Reduced imports and domestic production led to a reduction in domestic deliveries. At the same time, the dollar exchange rate in Russia increased, the cost of loans also increased, thus increasing the costs of logistics companies and their customers related to transportation and foreign trade.

The Russian logistics services market consists of such elements as:

- Trucking;
- Forwarding services;
- Warehousing and Distribution;
- Managerial Logistics.

At the same time, freight transportation (transportation and logistics services) accounts for 88% of the entire Russian logistics market, which in turn accounts for 9% of freight forwarding services. Warehousing and distribution occupy only 2%, and management logistics - 1%.

At the moment, the warehousing market in Russia is experiencing difficulties. Logisticians need to look for new supply channels, and stocks of processed and stored products are being redistributed in warehouses.

Construction costs have risen and continue to rise. This affects the commissioning of new space. As a result, demand for existing warehouse space is increasing and rents are rising. Companies are now finalizing projects that have already started putting warehouses into operation; construction has not been halted. Of the projects announced by 2022, 16% have been frozen or postponed until next year.

It is expected that by the end of 2022 the amount of vacant warehouse space will grow by 5% in the Moscow region and by 6% in St. Petersburg and the Leningrad region.

The main tenants of warehouse space are commercial operators. Logistics companies show little interest in warehouses due to the availability of their own space (about 11%).

According to the results of the period from January to September 2022, the total volume of freight traffic in Russian transport amounted to about 5.83 billion tons. This is 1% less than in the same period last year.

Marketing analysis of the market implies a detailed study of the technical and operational characteristics of warehouses, their geographical location and facilities, including proximity to various transportation networks and commercial areas, as well as the economic attractiveness of warehouses, including tariffs and conditions for the services provided. The appropriate classification of warehouses is an indicator of their design parameters, technological equipment, quality of service provided and the rates for their use.

The main condition for the development of warehousing companies is considered to be...
an increase in management productivity and efficiency of processes built on ensuring cost reduction, service delivery and risk coverage.

Cost optimization is closely related to improving the efficiency of warehouse operations. This involves selecting an optimal storage scheme that ensures maximum occupancy of personnel during a shift, including aisles and routes for machinery and warehouse workers, reducing personnel to the required number, mechanization and automation of the most labor-intensive processes.

With automated warehouse operation, the company's competitiveness increases. Automated logistics processes simplify the processing of incoming information and the work of personnel, accelerate the implementation of the business plan and significantly reduce the cost of ensuring the operability of the enterprise due to special equipment and software.

Warehouse automation is a comprehensive implementation of hardware and software infrastructure that minimizes human involvement in various commodity accounting tasks (supply, receiving and distribution, sales and shipping).

Although the main purpose of a warehouse is to concentrate, store and ensure the smooth and rhythmic fulfillment of customer orders, more and more warehouse owners are offering an extended list of services. Warehouses perform more and more tasks and are convenient locations for other types of work. Warehouses are transforming from cost centers into a way to add value to a product. This is a current trend. Such services include, for example, pre-labeling of products (packaging, repacking, bundling, forming kits, applying product labels), assistance with loading, shipping and transportation, eliminating the need to find contractors for additional freight operations, documenting processes and renting office space.

Warehouses also compete with each other to improve cargo security, including warehouse insurance and security guarantees in warehouse packages.

In other words, marketers have to consider many factors when analyzing the warehousing services market.

Possible directions of development of the transportation and logistics market:

- Business process promotion. The main purpose of business process promotion is to reduce costs and increase labor productivity. Also the percentage of 3PL logistics services is increasing, it can increase the share of outsourcing. 3PL (3rd generation logistics) is a set of services that the supplier provides to the organization, this includes storage, transportation, packaging, labeling, etc.
- Increased realization of plans in the field of economy and market development of the Eurasian Union, primarily Kazakhstan. It is important to reduce logistics costs for deliveries due to reduced customs clearance.
- Implementing the Just-in-Time concept. The core concept of "Just-in-Time" helps to comprehensively manage logistics technologies.
- Network formation. Network formation directly affects the cost of goods and services, as well as the level of customer service.

As a result, there are many directions and proposals to improve logistics, as currently this industry in our country is not ideal. The implementation of all the above directions will help to improve the efficiency of both the market itself and the country's economy.
The key trends in the development of the transportation and logistics ecosystem are:

- developing regional cooperation;
- expanding the use of electronic services for paperless document management;
- creation and development of digital transportation and logistics services and platform solutions for Level 5 logistics providers;
- development of international multimodal transportation;
- online shaping of supply chains using Level 5 logistics provisioning;
- utilization of state support measures in conditions of sanctions pressure;
- capturing new niche markets in the Asia-Pacific region.

4 Conclusion

Currently, the urgent task of forming a transport and logistics ecosystem in the Eurasian region to implement the concept of sustainable development, including the transport sector, is to create a harmonious seamless regulation of convergence of the national transport systems of the member countries through a variety of tools to promote integration processes in the industry—joint infrastructure projects, information systems, training programs. At the same time, it is necessary to take into account the transformation of the system of cargo transportation routes associated with the introduction of sanctions restrictions, and the development of regional cooperation within the EAEU, SCO and BRICS. The process of digitalization of the economy, which has also affected the logistics industry, requires unification of the legal regime for the application of Industry 4.0 technologies. Thus, in the medium term, in order to ensure transport connectivity of the Eurasian region with such major partners as India, China, etc., it is necessary to develop a network of bilateral and multilateral agreements in the transport and logistics sector, including issues of joint implementation of large infrastructure projects, digitalization and cybersecurity with different depth and level of interaction.

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