Improving the national logistics model on an international scale in the context of the economic crisis

Elena Karanina¹, Ekaterina Selezeva¹ and Svetlana Chuchkalova¹

¹Vyatka State University, Moskovskaya str., 36, Kirov, 610000, Russia

E-mail: kafinance@yandex.ru

Abstract. Active international processes, the growth of the scale and number of transnational corporations have created the need for introducing global logistics chains and channels into the business system, primarily in the distribution of goods, and determined the formation of an independent logistics services market. But at the same time, during the period of the economic crisis, non-standard situations, such as a pandemic, border closures, the logistics business is one of the first to bear risks and losses both domestically and abroad. International practice shows that the effective development of transport and logistics systems at the national level stimulates the accelerated development of related industries and sectors of the economy. For the Russian Federation, located at the crossroads of international transport routes, the problem of matching global trends and strengthening its position in the market of transport and logistics services as an important logistics sector is becoming increasingly urgent. Logistics is becoming one of the quality elements for the implementation of the country's transit potential. The development of the information and logistics segment and the creation of multimodal transport and logistics centers in the transport infrastructure will increase the competitiveness of transport services. The aim of the study is to analyze and improve the national logistics model on an international scale in the conditions of the economic crisis. The objectives of the study are: 1. Consideration of logistics models in international transport. 2. To analyze the model of logistics in the Russian Federation. 3. Development and implementation of improvements to the logistics model by forming a multimodal logistics product for national companies.

1. Introduction

The development of the modern economy, the development of entrepreneurship in Russia and the expansion of foreign economic relations cause increased requirements for the introduction of innovative technologies in the organization of long-distance and international transport, and determine the transition to logistics principles of goods distribution. The development of a modern goods distribution system is impossible without the interaction of various methods of cargo delivery and the diverse configuration of transport and storage chains. The need for this interaction is especially acute in modern conditions of the risks of a decline in demand, foreign trade turnover and foreign economic activity of the Russian Federation, and export-import traffic.

2. The study of theoretical approaches to modeling national logistics activities

An analysis of the approaches to modeling logistics systems published in the scientific literature indicates a variety of models that take into account one or more parameters, which necessitates the creation and use of a comprehensive model of a logistics system from the standpoint of perception as...
an open complex system that interacts with the external environment and consists of a fairly large number of subsystems.

The scientific approach to decision making in the framework of the logistics activities of companies is based on models. In the most general sense, a model is a kind of representation. Researchers basically agree that a model is a conditional representation of reality, or a symbolic-informational display (image) of a real object reproduces the latter with a certain degree of accuracy and in a form different from the shape of the object itself [14].

The model differs from the original in some aspects, for example, such as scale, amount of detail, or degree of difficulty. At the same time, the model reflects the most important properties of the original. This is true for economic, "managerial" models, although, unlike aircraft models, they do not have a material form.

Modeling is carried out according to a special procedure, which consists of the following steps:

1) using observations, accepting possible simplifications and approximations, the most important factors are established that are involved in the behavior of the real world;

2) in order to obtain a model of the real world on the basis of the experiment, proposals are made on the relationship between factors;

3) together with the knowledge of mathematics, an abstract and symbolic representation is applied in order to translate the model of the real world into a system of mathematical equations and obtain a mathematical model;

4) a mathematical problem is solved and mathematical results are interpreted in terms of a real-world problem;

5) a comparison of conclusions about the behavior of the real world; if necessary, the procedure starts anew [11].

In relation to the logistics activities of organizations, the object of modeling is the logistics systems and processes that occur within the framework of the logistics systems, as well as logistics operations related to the movement of material flows. To study the latter, logistic models are built. A logistic model is understood to mean any image, abstract or material, of an operation, process, or logistic system as a whole, which is used as their so-called substitute.

Models and modeling is a powerful tool for understanding the real world. Logisticians can be used for:
- Calculations of logistics operations;
- Design of logistics systems and supply chains;
- Management of the processes of movement of material flows and logistics systems;
- Prediction of phenomena associated with the functioning of logistics systems in various market conditions, etc.

Thus, the model of the logistics system designed taking into account its specificity should provide the necessary state of all its subsystems and a fairly high predictability of the development of events, which will allow us to develop a flexible algorithm for the interaction of the links of the logistics system and quickly adapt the management of material, cash, information and other flows to external influences.

The modeling of logistics systems is greatly influenced by differences in the conditions of activity of enterprises and even similar units [12].

Also at the present stage, under the indicated conditions, intermodal transportations along international transport corridors passing through the country are of great economic importance. Distinctive features of intermodal transportation are that they are based on a combination of several modes of transport and on the functioning of a special organizational mechanism - a single operator that implements door-to-door cargo delivery technology with a single responsibility for the entire transportation process.
3. The study of national logistics models of different countries

In Russia, the relationship of transport organizations in the transportation of goods, passengers and baggage by different modes of transport according to a single document (direct mixed transport), as well as the procedure for organizing these transportsations are determined by agreements between organizations of the respective modes of transport concluded in accordance with the law on direct multimodal (combined) transport (Article 788 of the Civil Code of the Russian Federation) [15].

It should be noted that multimodal logistics is a technologically interconnected transportation of goods using more than two modes of “door to door” transport under a single transportation agreement and at a single end-to-end tariff.

The most effective type of multimodal transport of goods is direct multimodal transport, abroad they initially received the name "combined", or "multimodal".

One of the important areas of research of the principles and the mechanism of formation and functioning of the logistics system is a systematic study of the best practices of foreign countries that have achieved the best results in this area. Of greatest interest as a research base at the present stage of development of the global economy are the logistic models of the countries that are leaders in the LPI rating. The LPI (Logistics Performance Index) is by far the most objective indicator that determines the level of development of the country's transport and logistics complex based on an assessment of the development of national customs, infrastructure, the international transportation system, the regulatory system for logistics, transportation, uninterrupted operation and timeliness logistic services. The maximum possible score for each of these elements is 5 points. The average score for a set of parameters is subsequently ranked between countries, and the rating is published on the official website of the World Bank (Table 1) [9].

Table 1. Data on the assessment of the level of development of logistics in the countries of the world in the fourth quarter of 2019, in points (compiled according to [12]).

| Country         | LPI Rating | LPI value | Active customs | Development infrastructure | The organization international transportation | Applications legal base | Exercise transportation | Uninterrupted supply |
|-----------------|------------|-----------|----------------|----------------------------|-----------------------------------------------|------------------------|------------------------|----------------------|
| Germany         | 1          | 4.12      | 4.10           | 4.32                       | 3.74                                          | 4.12                   | 4.17                   | 4.36                 |
| Netherlands     | 2          | 4.05      | 3.96           | 4.23                       | 3.64                                          | 4.13                   | 4.07                   | 4.34                 |
| Belgium         | 3          | 4.04      | 3.80           | 4.10                       | 3.80                                          | 4.11                   | 4.11                   | 4.39                 |
| United Kingdom  | 4          | 4.01      | 3.94           | 4.16                       | 3.63                                          | 4.03                   | 4.08                   | 4.33                 |
| Singapore       | 5          | 4.00      | 4.01           | 4.28                       | 3.70                                          | 3.97                   | 3.90                   | 4.25                 |
| Sweden          | 6          | 3.96      | 3.75           | 4.09                       | 3.76                                          | 3.98                   | 3.97                   | 4.26                 |
| Norway          | 7          | 3.96      | 4.21           | 4.19                       | 3.42                                          | 4.19                   | 3.50                   | 4.36                 |
| Luxemmburg      | 8          | 3.95      | 3.82           | 3.91                       | 3.82                                          | 3.78                   | 3.68                   | 4.71                 |
| USA             | 9          | 3.92      | 3.73           | 4.18                       | 3.45                                          | 3.97                   | 4.14                   | 4.14                 |
| Japan           | 10         | 3.91      | 3.78           | 4.16                       | 3.52                                          | 3.93                   | 3.95                   | 4.24                 |
| Ireland         | 11         | 3.87      | 3.80           | 3.84                       | 3.44                                          | 3.94                   | 4.13                   | 4.13                 |
| Canada          | 12         | 3.86      | 3.61           | 4.05                       | 3.46                                          | 3.94                   | 3.97                   | 4.18                 |
| France          | 13         | 3.85      | 3.65           | 3.98                       | 3.68                                          | 3.75                   | 3.89                   | 4.17                 |
| Switzerland     | 14         | 3.84      | 3.92           | 4.04                       | 3.58                                          | 3.75                   | 3.79                   | 4.06                 |
| China           | 15         | 3.83      | 3.72           | 3.97                       | 3.58                                          | 3.81                   | 3.87                   | 4.06                 |
| RF              | 90         | 2.69      | 2.20           | 2.59                       | 2.64                                          | 2.74                   | 2.85                   | 3.14                 |
Currently, according to the LPI rating, the logistic models of the EU countries deserve the highest ratings. The highest among all the LPI elements in Germany is rated for the uninterrupted and timely delivery of services (4.36 points). A higher value of this indicator was recorded only in Luxembourg - 4.71 points, which occupies the 8th place in the overall LPI rating. At the same time, Germany also ranks first in the world in assessing the activities of customs, developing market infrastructure, organizing transport and logistics and related services. The Netherlands takes the second place in the LPI ranking, with an index value of 4.05 points. Belgium is in third place, its LPI is 4.04 points. The following are Great Britain (4.01), Singapore (4.00), Sweden (3.96), Norway (3.96), Luxembourg (3.95), USA (3.92), Japan's logistics system closes the top ten (3.91). Specialists separately noted Sweden, the leader in the areas of the quality of logistics services and the development of information tracking technologies. [8]

China has already taken the fifteenth place, having risen seven positions over the past year. Russia is in nineteenth place, with an LPI score of 2.69 points. At the same time, the strongest link in the existing logistics system of our country at the moment is the organization of uninterrupted supplies (score of 3.14 points), transportation and legal support for logistics activities. At the same time, the activity of the Russian customs is estimated extremely low - 2.20 points, which significantly slows down the development of domestic logistics.

From the point of view of studying the effective mechanisms for the formation of a national logistic model, the most attention is paid to the logistic systems of the EU countries and China neighboring Russia. Currently, the European Union is a developed, deeply integrated space with an intensively developing sector of logistics services [6]. At the present stage, the European logistics system is already sufficiently equipped with objects of transport and logistics infrastructure, and the acceleration of its development is ensured mainly through the introduction of innovations in the information system and technological schemes [14]. This applies in particular to the formation of databases and communication logistics systems, the introduction of new software products that allow remote control of material flows, warehouse information systems, the organization of a remote monitoring system and quality control of activities in various parts of the logistics chain [5]. The use of information technology in logistics allows us to solve a whole range of problems with minimal costs, which encourages European businessmen, researchers, programmers and designers to develop information products based on the most unexpected and original ideas. So Italian scientists have developed a program for managing logistics flows, which allows to minimize transportation costs by choosing the optimal (least costly and providing maximum support) routes, based on an idea borrowed from wildlife. The development principle was based on the principle of moving ants through the intricate labyrinths of anthills [12].

In the sphere of commodity circulation, European manufacturers have found significant resource reserves that compensate for the conditions of market competition in meeting the ever-growing demands of consumers. In this case, we are talking about reimbursing additional costs mainly due to the optimal location of warehouses, optimizing the size of production supply lots, streamlining transport routes, introducing new resource-saving technologies, including information technology, improving the system of cargo escort, warehousing and loading and unloading in the process logistics customer service [7]. Modern enterprises accompany traditional sales operations with additional services of warehouse processing, consolidation, calibration and transportation of finished products. Thus, European companies are expanding their range of goods and services due to additional logistic services. In addition to this, unlike Russia, Europe has a very well-developed system of providing single delivery services, logistics services (“door-to-door supply chains”), road, rail, air transportation, transportation of large and small lots of various types of goods. Service is carried out with minimal time loss [8].

The principles of development of the European logistics system are enshrined in the Logistics Action Plan of 2007, which defines a number of specific directions for improving the logistics system of the European Union. The main ones are the development of an electronic information system for freight transportation, the improvement of the system of specialist training, the simplification of
logistics processes, and the tightening of environmental requirements for freight transport used in urban and intercity freight transportation. The European action program defines the work of the European Commission on Logistics in the medium term [10]. Thus, according to the Program, the main tasks of the Commission include promoting the optimal functioning of EU traffic flows and monitoring individual transport units and their integration into logistics systems.

China's logistics system is inferior to the European in terms of organization, but significantly ahead of the Russian, which corresponds to 15th place in the LPI index rating. Moreover, in recent years, the pace of development of the Chinese logistics system has accelerated significantly. The increase in the total value of the volume of logistics services in 2019 relative to the indicator in 2018 amounted to 15%, and a similar growth trend has been observed throughout the past decade [8]. The rapid development of the logistics sector has contributed to the fact that at present, Chinese logistics is faced with a shortage of specialists in excess of 600 thousand people. Logisticians entered the list of the most scarce in terms of personnel professions in China.

The modern logistics market of China has attracted the close attention of foreign enterprises actively investing in its development. Recently, FedEx, UPS, TNT and other transcontinental corporations have been cooperating with large logistics enterprises in China. Today, 4 large logistics areas have already been formed in eastern China: the logistics ring around the Gulf of Bohai, in the center of which are Beijing; Logistic ring in the Yangtze River Delta, with a center in Shanghai; logistic ring in the Taiwan Strait area; Logistic ring in the Pearl River Delta, in the center of which are Guangzhou and Shenzhen. These large logistics rings stimulate the development of the central and western regions of the country in various ways.

It should be noted that the establishment of Chinese logistics is associated with a number of problems, the most important of which is the specialization of local operators in a narrow segment of logistics services, which weakens inter-farm consolidation and limits the development of the country's general logistics system. Largely for this reason, the state, as part of its accession to the WTO, welcomes foreign investment in the logistics sector. In China, the so-called "WFOE" are formed - Wholly Foreign-Owned Enterprises, which are wholly owned by foreign companies. Another series of problems in the logistics sector in China is directly related to past government policies: previously, logistics operators were under self-control, which entailed a fragmented service market.

A positive consequence of foreign integration into the Chinese market is the incentive for local operators to develop in order to increase competitiveness to the level of foreign companies. In particular, the development is due to the introduction of advanced information technologies in the logistics management process and the increase in the level of automation and informatization of logistics operations, the development of a range of new logistics information services, and the use of modern technology.

A specific feature of the functioning of the Chinese logistics system is that, unlike the EU and Russia, investment in logistics infrastructure is carried out exclusively by the private sector, and government actions are aimed at supporting increased integration, coordination and standardization.

In terms of the level of logistics development, Russia is currently significantly behind developed countries. However, in recent years there has been a positive development trend in terms of growth in government investment in the construction and rehabilitation of roads throughout the country, the modernization of the Russian Post logistics system, the development of regional logistics infrastructure through regional budgets and the private sector, etc. These events are systemic elements of building an all-Russian logistic model that is being formed, including taking into account advanced foreign ideas and the characteristics of our country, which occupies the largest territory compared to other countries of the world with a relatively low population density.

Based on this, the formation of the Russian logistics system, which at the moment does not yet meet high modern standards, can be significantly accelerated by using not only specific logistics models, but also the experience of their implementation and functioning in advanced foreign countries. A comprehensive analysis of the main advantages and disadvantages of existing systems implemented
and operated in specific regions, taking into account their specifics, will help to develop their own approach to the formation of an all-Russian logistics system focused on the development of external relations, both with neighboring countries and with far abroad countries, as well as formulate main directions of its improvement. [6]

The European Union is the largest trading partner of Russia [13], therefore, sanctions by the EU, of course, had a significant impact on international transport of the Russian Federation, and changed the priorities of transport directions.

Road carriers showed a more rapid reaction: they began work on reorienting to the EAEU countries and servicing the domestic market. In addition, one of the promising areas is the growth of cargo turnover with China.

Table 2. The global and Russian market of TLU (transport and logistics services) [12].

| Country/region | GDP, $ billion | Logistic Costs | The share of logistics costs in GDP, | Transport and Logistics Market | TLU market (logistic outsourcing) | Outsourcing share, % |
|----------------|----------------|----------------|------------------------------------|-------------------------------|---------------------------------|----------------------|
| USA            | 15,930.9       | 1,332          | 8.5%                               | 1,162.4                       | 945.0                           | 81.3%                |
| Europe         | 16,414.1       | 1,487.6        | 9.2%                               | 1,213.0                       | 783.6                           | 64.6%                |
| China          | 8,852.3        | 1,486.8        | 18.0%                              | 1,297.4                       | 635.7                           | 49.0%                |
| Russia         | 2,097.5        | 398,525        | 19.0%                              | 319.9                         | 121.6                           | 38.0%                |
| World total    | 73,786.5       | 8,578.1        | 11.6%                              | 7,521.4                       | 4,136.8                         | 55.0%                |

Features of the Russian TLU market in 2016-2019:
- high level of logistics costs - the inefficiency of organizing internal logistics of companies and the transport and logistics system of the country as a whole;
- the predominance of raw materials and semi-finished products in the structure of cargo flows;
- length of the territory and remoteness of the main export industries from ports;
- irrational distribution of production and archaic organization of the delivery of goods from producer to consumer;
- poor development of warehouse and transport infrastructure;
- the bulk of services in the field of transportation and storage of goods, and even more so the management of stocks and supply chains, is carried out by the own services of enterprises-producers, distributors or retailers;
- decrease in commercial transportation by 3.3%, growth in cargo turnover by 3.4% due to the range of transportation;
- increase in tariffs by an average of 1.4%, in maritime and inland water transport by 14.5% and 13.4%;
- road transport decreased by 4.4%, cargo turnover by 2.5% (in October-December - more than 10%);
- decrease in loading on railway transport by 0.8% (ore, construction and import cargo) with an increase in cargo turnover by 4.6%;
- Port cargo turnover grew by 5.7% (coal + 15.1%, containerized cargo + 5.3, grain 1.6 times, export 6.7%, import decreased 5.7%) [7].

The strategic direction is the development of the markets of the Eurasian Economic Union, the formation of new flows by simplifying the process of customs clearance and eliminating legislative barriers.

The formation of modern competencies in logistics as a priority for improving economic efficiency and sustainability in a crisis. It should also be noted that the division of international markets into megablocks will influence the logistics services market.
The development of transportation will be influenced by medium and long-term trends in the global economy:

- reorientation of capital from the markets of developing countries to the markets of major international players (in the industry and production of a new technological cycle);
- the formation of megablocks, pan-regions, changing the configuration of world trade and global supply chains, reducing the role of the WTO, perhaps even eliminating this organization as a regulator of international trade;
- changing the structure of investments in the Chinese economy: from material and labor-intensive industries to capital-intensive and high-tech;
- decrease in demand and prices for industrial raw materials, low growth rates of production and consumption in countries whose economies are largely dependent on export of commodities.

Emerging megablocks (pan-regions) account for 70% of global production, cross-border investment and global trade.

Specialists generally forecast reorientation of purchases to the countries of the Asian region. Companies betting on rapid growth were able to quickly expand their fleet and subsequently suffered from a fall in traffic. Those who were able to quickly optimize costs and reduce the financial burden were able to maintain some stability. [2]

There is reason to believe that efficient carriers and goods delivery services, which are distinguished by a well-thought-out management system, are not burdened by large loans, and operate on optimal logistics tactics, can overcome the crisis. They can take a break for the accumulation and redistribution of resources and expand in the future by opening distribution points in new territories.

As for the prospects for the development of the Russian market of transport and logistics services (TLU), then, according to experts, they are not brilliant. The stagnation of the TLU market began in 2013. After the peak of 2010 with a growth rate of 20.2%, the market moved downward, and the situation of 2014-2019 did not add optimism.

The forecast shows that the TLU market will continue to decline, but at the same time, high growth rates will remain in the segments of warehouse services and express delivery.

Import substitution in Russia is the main economic priority of Russia in the coming years for the development and growth of the economy. Until recently, import substitution was spontaneously and more or less successfully carried out in various sectors of the economy. But since 2014, steps taken by
the Russian government in this area have become the goal of developing sectors of the country's economy, namely, the defense industry, agriculture, textile industry, medicine, pharmaceuticals, etc. It is also assumed that as a result of import substitution, the patterns of internal cargo flows will increase and increase volumes of domestic freight. A new map has not been formed even approximately, geography will develop in the coming months, experts in the field of logistics say. [11]

The reduction in import traffic from the EU countries inevitably led to a reduction in international road transport in the European direction. As a result, the importance of the ports of both the North-West and the South has increased in the transshipment of goods to those countries that work with Russia in the new conditions. At the same time, domestic rail and road transport volumes increased as the import substitution program was implemented.

Both the reduction in foreign trade cargo flows, and the change in the geography of supplies, and the instability of the financial and economic situation, as well as a drop in investment, including infrastructure, are the conditions in which the transport and logistics services market will have to work in 2018 and beyond.

As A. A. Arsky correctly noted, the globalization of world commodity markets determines the dependence of the subjects of the system on the dynamics of development of each other. The dependence of the subjects is enhanced in the absence of alternative options for the implementation of the exchange process. Under the alternative implementation of the process of exchange is understood as finding new suppliers / consumers in the market to complete the entire trading cycle, the result of which is profit [4]

The introduced sanctions have a serious impact on the development of logistics in the Russian Federation:
- firstly, there are new flows of goods movement and related information, financial, energy flows, for example, within the country - to the Crimea, internationally - with the countries of Latin America;
- secondly, the intensity of certain flows changes, for example, the intensity of flows of goods from Malaysia and China may increase significantly;
- thirdly, logistics companies will be forced to pursue a more active business policy. In recent years and even decades, extensive trade has developed in Russia with Europe, which has a developed logistics system.

All expected changes are taking place against the background of the problems existing in the Russian logistics system. The main problems and their solutions were systematized in the Transport Strategy of the Russian Federation for the period until 2030, approved by order of the Government of the Russian Federation of November 22, 2008 No. 1734-r, the new version of which was adopted shortly before the imposition of sanctions (Order No. 1032-r from 06/11/2014) [13].

The main problems of the modern domestic transport and logistics system remain:
- the presence of territorial and structural imbalances in the development of transport infrastructure;
- insufficient quality of transport services, backlog of transport infrastructure, poor road condition;
- low level of export of transport services, including the use of transit potential;
- low level of technological and industrial-technical base, insufficient development of the industry for the production of packaging and containers
- insufficient level of ensuring transport safety and others.

These problems require a comprehensive solution. The changed political and economic situation requires further clarification of the Transport Strategy of the Russian Federation for the period until 2030. We suggest expanding it to the "Strategy for the development of the logistics complex of the Russian Federation", which will allow for more substantive management of the development of transport systems. In the process of developing a strategy, it is necessary to take into account modern foreign experience [6].

In addition, it is considered necessary to develop vocational training for logistics specialists based on a professional standard. Currently, Russia has adopted the standard of a transport logistics specialist [9], from July 1, 2016 they become mandatory for employers. We propose to develop not only logistics training programs in strict accordance with the professional logistic standard and best
foreign practices [8], but also retraining programs for specialists (additional professional education) so that specialists with non-core education and work experience in the specialty can meet professional standards in terms of knowledge and skills.

The decrease in business activity in external export-import operations is an additional opportunity to strengthen regional logistics. The task of creating regional logistics models is the large-scale integration of logistics infrastructure into global, federal, regional and local commodity flows, and further the development of logistics technologies that meet the requirements of all cargo owners, regardless of level. [5]

The Baltic Logistics Platform, which is aimed at developing competitive advantages in the transport segment, is considered as the main platform. The center of such a platform may be the only one of the Russian non-freezing ports in the Baltic, Kaliningrad. It is the geolocation of Kaliningrad as the westernmost port city in Russia that makes it the core of logistics from Asian countries and European countries. [6]

Today, experts, predicting trends in the development of the Russian economy in 2018-2020, suggest the following changes in the development of the TLU market:
- maintaining low demand for integrated logistics services;
- continued decline in international freight traffic (in particular with Europe) and the reorientation of carriers to the domestic market and countries of the Asia-Pacific region;
- maintaining a trend in the change of routes and the complexity of supply chains;
- increased competition, including among road carriers;
- increased risk of non-payment by customers and bankruptcy of predominantly small transport and logistics companies;
- an increase in the number of “shadow” carriers, as a result of unfair competition and a fall in overall economic indicators in the country's economy.

Given the unstable economic situation caused by the currency crisis and the collapse of the global economy into megablocks, the search for radical ways for Russia to emerge from the prolonged two-year recession is relevant. One of such ways is the construction of an efficient transport and logistics system (TLS) that meets global standards. The solution to this problem will accelerate integration into the global economic space and establish partnerships between European countries, strengthen already established relations with countries of the Asia-Pacific region, such as China and India, and create conditions for the Russian economy to overcome the crisis. [14]

Transport, possessing an enormous strategic resource, performs a basic function in stream processes, and today more than ever, the tasks of increasing traffic volumes, increasing the economic efficiency of numerous domestic freight and passenger carriers and forwarders are more relevant. And not only on domestic lines. Therefore, the use of the achievements of logistics in transport is the key to improving the efficiency of the domestic transport complex and enhancing its integration into the global transport system.

As foreign experience testifies, positive results in the transport sector can be achieved only through the use of new technologies to ensure transportation processes that meet modern requirements and high international standards, in particular, through the development and implementation of technology and logistics principles. Indeed, in its essence, transport logistics as a new approach to optimizing and organizing rational freight flows, processing them in specialized logistics centers allows us to increase the efficiency of such flows, reduce unproductive costs and costs, and transport workers to meet the demands of growing customer and market requirements, expand and develop the complex logistic services. Consumers of the services of logistics companies expect that a particular product of the appropriate quality, in the required quantity, at a pre-agreed price, will be delivered to the designated place at the exact time indicated. Therefore, for customers, when choosing a logistics service, it is important: price, quality and time. In this case, it is desirable to receive a product (service) not only in a timely manner and of appropriate quality, but also at a low price.
4. Conclusion

Thus, logistics as a management system can be an effective tool to stimulate the country's economic growth, allowing to bring the domestic economy out of recession. Moreover, the development potential of the transport and logistics system is enormous. Thus, according to the agency Boston Consulting Group, while reducing transport and logistics costs to 11% in the structure of GDP, the country will release about $ 180 billion of financial resources annually. That is why modern logistics companies face a number of numerous tasks for the development of their industry, which, in our opinion, is hardly feasible without state support.

Therefore, in order to achieve the maximum result, the state needs to take measures to improve the regulatory framework and maintain the formation of a barrier-free environment, create conditions for market consolidation and partnerships with private investment in the development of the country's infrastructure. In turn, the main task for transport and logistics companies is to unite the TLU market with the aim of improving the quality, safety and efficiency of services, developing an effective logistics infrastructure.

References

[1] Transport strategy of the Russian Federation for the period until 2030 https://www.mintrans.ru/documents/3/1009
[2] Johnson J, Wood D F, Wardloy D L, Murphy Jr P R 2019 Modern Logistics (M.: Williams) p 624
[3] Dolgov A 2018 Logistics today 05(41) 262
[4] Polyakova I 2020 Transport of Russia, http: //www.transportrussia.ru/transportnaya-politika/rossii-prirastat-dorogami- 2.html
[5] Simonova L N, Conference “Logistics in the conditions of an economic recession”, organized by RBC media holding, http://www.optimalog.ru/docs/103/optimalog_isimonovairbc.pdf
[6] Ermakov I, Petukhov D 2019 Logistics 11(96) 56
[7] Petukhov D 2018 Control 3(2) 37
[8] Federal Customs Service, archive of statistical data, http://www.fas.usda.gov/data/russia-bans-key-us-agricultural-exports
[9] Filimonova M 2017 Economics and management of innovative technologies 12 http://ekonomika.snauka.ru/2017/12/13170
[10] On the state of the business climate in Russia in 2019: Report of the Russian Union of Industrialists and Entrepreneurs, http://media.rspp.ru/document/1
[11] Information and statistical bulletin “Transport of Russia” January-December 2019: Ministry of Transport of the Russian Federation, http: //government.ru/
[12] Transport in January - December 2019, Federal State Statistics Service, http: //www.gks.ru/
[13] Starkova N 2018 Study of foreign experience in the formation of logistic systems: Polythematic network electronic scientific journal of the Kuban State Agrarian University 99
[14] Telnov Yu 2019 Engineering business and information processes: Sat scientific tr (M.: MESI) p 14
[15] Telnov Yu F 2019 Intelligent information systems in the economy: textbook (M.: SINTEG) p 306