# THEORETICAL BASIS OF INCREASING THE ECONOMIC EFFICIENCY OF THE TRANSPORT-LOGISTICS SYSTEM

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## **Abstract**

In this article, the purpose, tasks and main directions that determine the development of the economic activity of the railway transport-logistics system, the main problems that hinder the effective development of the railway transport-logistics system, directions for the development of the transport-logistics system and the theoretical basis for increasing the economic efficiency of the transport-logistics system are proposed.

**Keywords:** organizational and economic basis of the transport-logistics system, logistics efficiency index, cargo delivery, logistics infrastructure, transport-logistics problems, railway transport infrastructure.

## Introduction

The stable development of international transport and economic relations is mainly determined by logistics activities. The length of transport routes in the world is 50 million. Stabilization is noted at the level of more than a kilometer. According to the world Bank, the amount of world transport services in GDP is 4.3 trillion. USD (6.9%) is 110 billion per year. tons of cargo and 1 trillion. more than 100 million passengers are transported, the number of employees employed in the transport infrastructure is 100 million. is organizing a person [1]. The development of these areas is carried out by the global transport and logistic system. Effective use of modern logistics technologies in the system of cargo delivery by rail transport allows to save the volume of material reserves from 30% to 60%, as well as to reduce the logistics costs of industrial enterprises using railway services by approximately 30-35% [1].

Wide-ranging scientific research is being conducted in the world to increase the economic efficiency of the logistics system. In particular, the systematic approach to the issues of economic development of the logistics system and the formation of economic approaches that ensure the effective development of the logistics system, positive effects of the development of the logistics network have been cited, however, a comprehensive opinion on the direction and scope of these effects has not been formed. Based on this, it shows the need to conduct additional research on improving the economic efficiency

of the railway logistics system. Special attention is being paid to rapid development of transport communications as an important branch of economy in our country. In this regard, in the development strategy of new Uzbekistan in 2022-2026, "development of the market and infrastructure of transport and logistics services, raising the level of electrification of railway infrastructure to 60% and rapid development of the highway network, "green corridors" for foreign trade in the field of transport and expansion of transit opportunities and priority tasks such as bringing the volume of transit cargo to 15 million tons" [2].

In his Address to the President of the Republic of Uzbekistan stated: "We need to develop the logistics sector in order to deliver our products to the domestic and foreign markets, to reduce their cost", [3]. This, in turn, represents the expediency of conducting scientific research on the effective use of the country's transport-transit potential and modern delivery technologies, as well as increasing the economic efficiency of the logistics system. The theoretical basis of increasing the economic efficiency of the logistics system is reflected in the scientific research of a number of local and foreign scientists. According to the economist R.Khalturin, logistics infrastructure means the process of planning, implementation and control of technological and efficient operations of collecting, storing, and transporting raw materials, semi-finished products and necessary information from the place of production to the place of consumption in order to fully satisfy consumer demand [4].

In Yu.N. Golskaya's research, the logistics system is understood as a set of consumers and service providers, as well as users of the management system for them, vehicles, facilities and other properties [5]. I.A. Semina and V.A. Kustov highlight the following tasks of transport infrastructure in regional systems. First, transport is an indicator of territorial characteristics and the main component of the socio-economic quality of the country. Secondly, transport connections are distributing and coordinating, as a result of which operational space limitation, in other words, "connecting regions", i.e. "creating a transport hub" has been given such tasks [6]. A.B.Maksimov in his scientific works shows the following main functions of the formation of transport logistics infrastructure: providing the country's economy with transport routes; meeting the needs of economic entities for logistics facilities; formation of the country's transport network; ensuring mutual cooperation between different types of transport; increase the level of socio-economic development of the country.

According to G.Samadov, A.Zoxidov, A.Gulamov and M.Ravshanov, among the scientists of our country, "the transport system is a complex of transport types and infrastructures that are interconnected in the process of delivering goods and passengers to their destination, that is, interdependent transport sectors, labor resources and the country management system of all types of transport is understood in order to effectively manage the economy" [8]. According to J. Fayzullaev, increasing the economic efficiency of the logistics system is the efficient use of functions and means of organization aimed at the rational use of vehicles in the process of ensuring the income of economic entities with transport [9].

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The results of the scientific research of national and foreign scientists, who were engaged in the analysis of the problems of increasing the economic efficiency of the logistics system, served as the theoretical and methodological basis of this study. In the preparation of the article, abstract and analytical observation, comparative and factor analysis, indicative, selective observation, comparison, economic-statistical and other methods were used. Economic reforms and programs that ensure the development of the transport network, as well as changes in the socio-economic environment, have fundamentally changed the ways of development of the sector. From this point of view, carrying out a systematic analysis of the state of economic efficiency of the logistics system, clearly defining the goals and tasks of increasing its efficiency, and developing directions for the development of the system are among the most urgent issues of today. We believe that it is necessary to systematically research the logistics system, taking into account the factors affecting its economic efficiency [10].

Today, transport logistics is a promising and rapidly developing direction in the field of logistics. The main feature of this system is that the movement of material flow cannot be imagined without means of transportation. The geographical location of the Republic of Uzbekistan determines its functioning as a transit country. This factor implies the task of forming the national logistics system as a priority direction in the state's general economic policy, and this, in turn, provides an opportunity to effectively use the country's economic potential and ensure its integration with the world economic system. Today, a new approach to the issue of transport, which is a component of a larger system, finds it appropriate to consider all aspects of the transportation process: from the sender to the receiver, covering the flow of information in the processing, packaging, storage, placement and delivery of the cargo. This requires the creation of logistics infrastructure and consideration as a component of the logistics system. The inclusion of the term "logistics" ensures that time and costs are kept to a minimum, unlike the transport system, which involves a comprehensive study of the types of transport related to and cooperating with the implementation of transport.

At the international level, six areas of the logistics sector are evaluated using six indicators that determine the results of the country's logistics efficiency index. In this, the logistics potential of 160 countries is studied, and each respondent evaluates eight foreign markets according to six main components of logistics efficiency. Another important criterion for evaluating the transport system is logistics indicators. The effectiveness of the logistics service depends on the quality of a number of aspects, such as the transport infrastructure, the regulation of trade and commercial activities, customs procedures and other similar inspections. Table 1 lists the criteria for evaluating the potential of the logistics system.

# Table 1 Criteria for assessing the potential of the logistics system

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Nº	Indicators	Units of measure		
1.	Establishment of logistics services (logistics centers, terminals)	every 1000 km/ha		
2.	Availability of infrastructure (gas stations, car repair shops, motels, eateries, etc.)	every 1000 km/ha		
3.	The time of the truck crossing the border point	on the hour		
4.	Average time taken for an export transaction	day		
5.	Average time taken for an import operation	day		
6.	Border crossing costs	In US dollars		
7•	Costs for using the corridor	In US dollars, for 20 tons of cargo every 500 km		
8.	The average speed of movement along the corridor is	km/h		
9.	Timely delivery of cargo to the destination	delay, in the hour		
10.	Load tracking and control costs	In US dollars		
11.	Establishment of activities of Multimodal logistics centers	At least 1 in each region's States		

**Source:** Zahidov A.A. Takkomilization of the mechanism of effective management of the Central Asian transport system. Doctor of Economic Sciences, Autoref. - T., 2018.

Uzbekistan's logistics efficiency index looks promising, as a result of which it is literally inflationary and may become relatively stable over time, but the cycle may be shortened, competitive logistics and the body indicator in 2020-2023 will have a higher scale of seasonal fluctuations. This indicator is used in countries with multiple logistics centralizations to monitor, export and import operations over a period of time, as well as to monitor and monitor precipitation caused by 160 States of Uzbekistan and 99 states of (tabl.2).

Logistics in logistics models such as EGA, global as the nature of calculations. The logistic expertise of each area is characterized only by quantity and quality, the sample size, and the organization of follow-up elements are different. Logistics can be used as a basis for the repair or modernization of transport and logistics. The main factors of aging and hold eliminating the complex, making decisions that require. Currently, this region is a state-owned legal and stylistic institution that helps Uzbekistan manage a regional logistics exchange that provides services to participants of the regional logistics exchange, each regional logistics exchange can really be effective.

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# Table 2 Results of the Logistics Efficiency Index (LPI) of Uzbekistan (2020-2023)

Years	LSI ratings	Customs	Infrastructure	International shipments	_	Tracking and competition	Delivery on time
2020	117	2.25	2.25	2.38	2.39	2.53	2.96
2021	129	1.80	2.01	2.23	2.37	2.87	3.08
2022	118	2.32	2.45	2.36	2.39	2.05	2.28
2023	99	2.10	2.57	2.42	2.59	2.71	3.09

Source: World Bank data.

At the same time, as in the case of other transport and logistics institutions, transport and logistics institutions are the main objects and subjects, the purpose and objectives of which are the development of institutions, the purpose and objectives of which are to improve the state order of the and education.

In the global transport market, modern logistics is based on a deep understanding of the Uzbek states and the elimination of the need for a south-west. There are several major railway stations in the area, including one that is located in the city center and another in the city center, and there are several railway stations that are located in the city center. Logistics is a logistics market analysis service, the main transportation of which accounts for 76% of the market for basic travel services. The bus fare is 4.5% of the train fare, the bus fare is 2.8%, the 3PL/4PL logistics integration is 1.8% of the fare [11].

Today, the development of the outsourcing logistics service market in our country is slow, the main reasons for this are the complexity of the logistics chains of client companies and of the demand for complex logistics services, the lack of development of high-quality logistics services in our country, including large providers, that is, 3PL and 4PL levels. Another drawback is that the share of outsourcing in the total structure of logistics costs in our country is about 12-15%, while this figure is 40-45% for countries with a developed logistics market. The problems related to the operation of the logistics system are systematized in the following figure [12].

The presence of excess links in today's logistics system has a negative effect on the cost of industrial products, which is mainly caused by the fragmentation of the logistics chain - the presence of excessive loading and unloading links from the supplier to the recipient. This, in turn, causes the manufacturer to spend more on transport and logistics services, contrary to world standards. It should be noted that the level of development of the transport-logistics system and related infrastructure lags behind world standards. Today, the main part of logistics operations operating in our country is only in 1PL and 2PL formats. There are not enough companies operating in the 3PL format [13].

Today, it is necessary to organize the activities of enterprises with large logistics operators covering all types of transport (automotive, railway, aviation, sea), that is,

there is a lack of large operators that establish effective cooperation between types of transport. This situation is causing problems with the shipping process.

# **Conclusions and Suggestions**

Thus, in order to prevent the above problems, it would be appropriate to define the following main conceptual directions:

- 1. The following measures should be implemented to reduce the rate of increase in the prices of logistics services:
- ♣ changing the principles of setting tariffs and gradually transitioning to a new tariff system, reducing the number of correction coefficients, reducing the types of financing of railway transportation from all sides;
- ♣ creation of a competitive environment in the field of railway cargo transportation by creating conditions for the establishment of private companies for the transportation of goods in railway transport, which have their own locomotives and wagons;
- ♣ increasing the speed and reliability of the transport and logistics system, increasing the share of electrified railways to 55% by 2030. For this, it is necessary to provide electric power to 168 km of railway every year, and the amount of investments is 5.34 billion. should be a dollar. 1.2 billion to upgrade locomotives and wagons until 2030. it is necessary to spend a dollar investment;
- ♣ In order to reduce the costs of transport of goods transported in containers by 10%, it is necessary to increase container transportation by 25-30%.
- 2. Expand the network of multimodal transport-logistics centers in the regions in order to increase the management efficiency of the logistics system through the following:
- ♣ harmonization of cargo transportation, intermodal and multimodal freight transportation regulatory and legal basis, technical and technological regulations and standards, logistics centers, forwarding activities in accordance with international standards;
- **♣** organization of an integrated information system to ensure the effectiveness of multimodal transportation;
- ♣ It is necessary to form a national network of customs logistics centers, and ensure that logistics operations in them are at least 3PL level.

Thus, increasing the economic efficiency of the integrated logistics system leads to the saving of the entire production and material resources, the acceleration of production, the reduction of cargo delivery costs, and the development of economic sectors.

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