

## EVALUATION OF ECONOMIC EFFICIENCY OF TRANSPORT-LOGISTICS SYSTEM

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### Introduction

The importance of transport infrastructures in the development of world communications is increasing more and more. 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<sup>1</sup>. As an important branch of the country's economy and an important factor of the integration of the national economy with the world economy, comprehensive and targeted program measures are being implemented in connection with the qualitative and rapid development of the transport and logistics sectors.

In this regard, "Increasing the level of competition among national transport logistics companies" in the Action Strategy for five priority areas of development of the Republic of Uzbekistan in 2017-2021<sup>2</sup> and "An offer was made to open a regional center for the development of transport and communication relations"<sup>3</sup>. The effective implementation of these proposals and tasks requires increasing the efficiency of the development of the transport system in our country.

### Analysis and results

The economic reforms implemented in the railway network, the process of restructuring the economic system, and changes in the socio-economic situation fundamentally changed management priorities and methods. Therefore, carrying out a systematic analysis of the transport-logistics situation, determining the directions of development and developing means of their development within the framework of the interests of the society are considered to be urgent issues of today. We believe that it is necessary to conduct a systematic research, taking into account the factors affecting the efficiency of the transport-logistics system.

The most promising and rapidly developing field of modern logistics is transport logistics. Its importance 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

<sup>1</sup>The World Bank: World Development Indicators. <http://data.worldbank.org/indicator>.

<sup>2</sup>Decree of the President of the Republic of Uzbekistan dated February 7, 2017 No. PF-4947 "On the Strategy of Actions for the Further Development of the Republic of Uzbekistan". // [www.lex.uz](http://www.lex.uz).

<sup>3</sup>Shavkat Mirziyoyev's speech at the UN General Assembly.

implies the task of forming the national transport-logistics system as a priority 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.

Transport-logistics system means consumers and service providers, as well as users of the management system for them, means of transport, information roads, facilities and other properties<sup>4</sup>. Integrated transport-logistics system is understood as a general management set of combined transport and logistics infrastructures, transport enterprises and vehicles.<sup>5</sup>. The transport-logistics system is a dynamically developing complex system that includes the following elements and performs transport-logistics operations in maximum proportion to customer demand with minimum time and cost:

- 1) various types of transport (car, railway, water, air, pipeline);
- 2) transport and logistics infrastructure entities (logistics operators and organizational structures related to logistics operations of all types of transport);
- 3) transport-logistics infrastructure objects (transport roads and all types of transport connections, railway stations; buildings and devices that can be used as warehouses and storage rooms); connecting elements of the logistics infrastructure (distribution centers, logistics service centers, transport warehouse facilities; information processing and distribution facilities);
- 4) logistic flows, starting material (financial and information) flows.

In our opinion, the term "transport-logistics system management" can be defined as follows: transport-logistics system management is the purposeful regulation of the system by means of economic, organizational-administrative, legal management methods and various levers by the management bodies of the transport company as an object and subject of management. is to put. Management of the transport-logistics system is a set of goal-oriented actions based on modern management principles aimed at ensuring the effective functioning of management systems in it.

The modern concept of management, which is considered a systemic approach, is a general set of interrelated elements, a generalization of objects operating in mutual cooperation, a combination of essence and relations, and also implies considering the object as a system. Therefore, the use of the concept of a systematic approach to management in the evaluation of the effectiveness of the management of the transport-logistics process helps to achieve a positive result.

Based on this reasoning, based on a systematic approach integrated In order to develop a methodology for evaluating the efficiency of the transport-logistics system, we considered it appropriate to specify the following steps separately. For a transport-logistics system that provides a wide range of services, there are a number of problems in terms of determining revenue and eliminating delays in issues that

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<sup>4</sup>Definition of authorship.

<sup>5</sup>Definition of authorship.

are part of a separate set of services. For this reason, in this methodology, it is recommended to separate transport (T) and logistics (L) services into groups for each type of transport (Table 1).

Table 1

**Correlation of assessment method and indicator system<sup>6</sup>**

Type of transport	Service types	Earnings	
Railway transport	Shipping	Revenue of railway transport from cargo transportation (t/y)	T
	Passengers, baggage, checked baggage, mail transportation	Revenue of railway transport from passenger transport (t/y)	
	Logistics services	Revenue from logistics services of railway transport (t/l)	L
Car transport	Shipping	Revenue from road transport (Dayu)	T
	Passenger transportation	Road transport revenue from passenger transport (Day)	
	Roadside services	Roadside Service Revenue (Dayx)	
	Logistics services	Revenue from the provision of logistics services for road transport (Dal)	L
Synergistic effect	Cost savings for warehouse construction by reducing inventory levels	Additional income from cost savings for the construction of warehouses (S1)	S
	Savings by reducing storage and inventory	Additional revenue from savings by reducing inventory (S2)	
	Efficiency gained from reducing the volume of loading and unloading operations	Additional income from reduced loading and unloading operations (S3)	
	Benefit from reduced time spent on transportation and storage of goods	Additional revenue from load loss reduction (S4)	
	Income from having additional volumes of transport due to increased speed of content in motion	Additional income from having additional volumes of transport (S5)	
	The benefit of eliminating additional retention of content in motion due to material flow tracking information	Additional revenue from backlogs (S6)	

Methodology for evaluating the efficiency of transport-logistics system management, transport system( $C_{TT}$ (1.5) and transport-logistics system( $C_{TJT}$ (1.6) predicts the calculation of the efficiency of the activity:

<sup>6</sup>Compiled by the author as a result of research.

$$C_{TT} = \sum_{t=1}^n T \quad (1)$$

$n$ - the amount of private indicators accepted for calculation,

$t$ - transport services,

$T$ - income received from the provision of transport services by means of all types of transport.

$$C_{TT} = \sum_{t=1}^n T + \sum_{l=1}^n L + \sum_{c=1}^n C \quad (2)$$

$n$ - the amount of private indicators accepted for calculation,

$t$ - transport services,

$T$ - income received from the provision of transport services by means of all types of transport,

1- according to the classifier, logistics service,

$L$ - income from logistics services,

$C$ - synergistic effect,

$C$  - the performance indicator of the transport-logistics system.

$$C = \frac{C_{TЛT} - C_{TT}}{C_{TT}} * 100\% \quad (3)$$

$C$  - the efficiency of the transport-logistics system,

$C_{TЛT}$ - the efficiency of the transport-logistics system,

$C_{TT}$ - the efficiency of the transport system.

The recommended evaluation methodology is based on the general basis of the analysis and calculation of private criteria (revenues from all types of transport and additional services in the provision of logistics services), which is an integrated transport and logistics system provides an opportunity to make an accurate analysis of, including integrated transport and logistics system evaluates the profitability of the activity. Transport and logistics Operational planning of transportation in its activities allows to significantly increase efficiency and reliability and to obtain additional efficiency. The evaluation methodology provides an opportunity to evaluate not only the provision of traditional transport services by all types of vehicles, but also the efficiency of logistics services. Also, this is a methodology transport and logistics system evaluates the synergistic effect of its activities.

Thus, a five-step algorithm for evaluating the efficiency of the transport-logistics system, a systematic methodology for evaluating the efficiency of the system and evaluating its efficiency coefficient was proposed. We believe that these approaches allow for a more accurate assessment of system performance.

### Conclusions and suggestions

In short, one of the main elements of the efficiency of the transport-logistics system in "Uzbekistan Railways" JSC is the minimization of logistics costs and the shortening of the terms of fulfillment of orders of consumers of services. Suggested methods and recommendations for increasing the efficiency of the transport system, developing short-term and long-term strategies for the effective development of the transport system, modernizing the system, effectively conducting activities on

coordination and integration with business partners, providing quality service to customers, increasing the competitiveness of logistics service providers, at the same time, it allows to increase the efficiency of the country's transport system.

### **List of used literature**

1. The World Bank: World Development Indicators. <http://data.worldbank.org/indicator>
2. Action strategy for five priority areas of development of the Republic of Uzbekistan in 2017-2021 - <http://strategy.regulation.gov.uz/uz/document/>.
3. Fayzullayev JS Evaluation of efficiency of transport - logistics system. // XLVII International correspondence scientific and practical conference "International scientific review of the problems and prospects of modern science and education" (Boston. USA. July 24-25, 2018). 62-65.
4. Fayzullayev JS Effective management methodology of integrated transport-logistics system // International Journal of Advance and Innovative Research. 2019. Volume 9, Issue 1 (I). Impact Factor (5) GIF – 0.676.
5. Fayzullayev JS Improvement of Economic Efficiency of Development of Railway. // Asian Journal of Technology & Management Research (AJTMR) ISSN: 2249 –0892 Vol9 Issue–2, Dec -2019.